



Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 1  
Change Effective Date : 1/31/2018

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2019

**Commodity Specialist:** Tom Schwartz

**Telephone:** 717-346-3828

**Email:** [thschwartz@pa.gov](mailto:thschwartz@pa.gov)

**CHANGE SUMMARY:**

The revised price list for EF Johnson Company has been attached to the contract through this change notice.

Please contact the EF Johnson Company, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

**KENWOOD**



## **P25 Subscriber Price Guide**



***Effective Date: 10.19.17***



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# KENWOOD

P25 Mission Critical

## VIKING VP6000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2

New KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



### FEATURES

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels (2048 option)
- Public safety ergonomics: flare grip for total control, large glove friendly knobs, large emergency button
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-In GPS receiver/antenna for enhanced awareness
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*1
- Man Down<sup>1</sup>
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

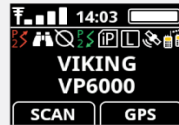
<sup>1</sup>Future availability

### USER SELECTABLE COLOR THEMES

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event indication (ex. emergency turns display orange)
- Day & night user selectable display options (7 themes available)



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.efjohnson.com/products/accessories.](http://www.efjohnson.com/products/accessories)

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$2,260
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$2,260
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$2,260
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$2,260
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$2,510
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$2,510
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$2,510
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$2,510
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$2,460
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$2,460
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$2,460
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$2,460
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$2,710
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$2,710
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$2,710
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$2,710
	<b>Model Options</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 99.00
	<b>Antenna</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 115.00
KSC-32	Rapid rate single unit charger	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 33.75

KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 119.00
<b>Carrying Accessories</b>		<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 14.70
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 368.00
	<b>Protocol</b>	<b>List</b>
	Analog FM	\$0.00
	P25 CAI AMBE+2	\$0.00
	<b>System Options</b>	<b>List</b>
1	Analog Conventional	\$0.00
2	P25 Conventional	\$350.00
3	P25 Phase 1 Trunking (Must also have option 2)	\$125.00
4	P25 Phase 2 TDMA (Must also have option 3)	\$ 400.00
5	SmartNet® II/SmartZone®	\$ 375.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$0.00
	2048Channels/Talkgroups (standard)	\$300.00
	<b>Encryption</b>	
	DES-OFB (multi-key)	\$0.00
	AES FIPS 140-2 (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$0.00
	<b>Programming &amp; Data</b>	
	TrueVoice™ Noise Cancellation	\$0.00
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00

	P25 Authentication	\$100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00

KENWOOD

P25 Mission Critical

**VIKING VP5000**

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



At just under 5.5 inches tall, these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.

**FEATURES**

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-In GPS receiver/antenna for enhanced awareness
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth®<sup>1</sup>
- Man Down<sup>1</sup>
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Future availability

**USER SELECTABLE COLOR THEMES**

- Multi-line text
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (7 themes available)



Day - High Contrast



Night - High Contrast

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



**Perpetual Software Licensing**

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



**Armada® Fleet Management**

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



**TrueVoice™ Noise Cancellation**

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

	Radio - Base Model	List
VP5430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,555.00
VP5430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,605.00
VP5330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330BKF3	UHF, 450-520 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5330BKF6	UHF, 380-470 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5230BKF3	VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,605.00
	Model Options	List
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 99.00
	Antenna	List
KRA-32K	700/800 MHz Whip Antenna	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 34.25
	Batteries & Chargers	List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 119.00
Carrying Accessories		List Price

KBH-11	Spring action belt clip (2.5")	\$ 14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 36.75
KLH-200K3	Heavy duty leather carrying case (for both K2 & K3 models)	\$ 44.25
KLH-201K3	Nylon carrying case (for both keypad models)	\$ 26.30
<b>Special Color Housing</b>		<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit (Standard Key Model Only) Order <b>L-5024</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	\$ 40.00
KWD-OH-5000	Orange Housing Kit (Standard Key Model Only) Order <b>L-5025</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 368.00
<b>Protocol</b>		<b>List</b>
	Analog FM	\$0.00
	P25 CAI AMBE+2	\$0.00
<b>System Options</b>		<b>List</b>
1	Analog Conventional	\$0.00
2	P25 Conventional	\$0.00
3	P25 Phase 1 Trunking	\$0.00



4	P25 Phase 2 TDMA	\$400.00
5	SmartNet® II/SmartZone®	\$ 375.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$0.00
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	DES-OFB (multi-key)	\$ 195.00
	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 750.00
	ARC4 (ADP compatible)	\$0.00
	<b>Programming &amp; Data</b>	
	TrueVoice™ Noise Cancellation	\$0.00
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00
	P25 Authentication (Must also have AES FIPS 140-2)	\$100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00

# KENWOOD

**VIKING**

P25 Mission Critical

## VIKING VP900

VHF/700-800 MHz • UHF (470-520)/700-800 MHz • SN/SZ • P25 PHASE 1 & 2



The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.

### FEATURES

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 2048 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas.

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### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



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2425AAAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,575.00
2425AADA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 2,775.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,775.00
2425AAEA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,975.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,975.00
2425AAFA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 3,175.00
2425ABAC53XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 1 (no keypad)	\$ 2,575.00
2425ABDC93XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 1 (no keypad; Hazardous Location - FM)	\$ 2,775.00
2425ABBC53XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 2 (limited keypad)	\$ 2,775.00
2425ABEC93XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,975.00
2425ABCC53XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 3 (full keypad)	\$ 2,975.00
2425ABFC93XXX	700/800 MHz + UHF Hi (470 - 520 MHz), Model 3 (full keypad; Hazardous Location - FM)	\$ 3,175.00
	<b>Antenna</b>	<b>List</b>
	Multiband 700/800 + VHF Standard	\$ -
	Multiband 700/800 + VHF Flexible	\$ -
	Multiband 700/800 + UHF Hi (470 - 520 MHz) Standard	\$ -
	<b>Battery</b>	<b>List</b>
	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$ -
	<b>Housing</b>	<b>List</b>
	Black Housing	\$ -
	High Visibility Housing	\$ 200.00
	<b>Protocol</b>	<b>List</b>
1	Analog FM (included in base radio)	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 200.00
	<b>System Option</b>	<b>List</b>
1	Conventional System	\$ 350.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 625.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 725.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>	
4	Project 25 Conventional System	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 875.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 850.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,250.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	2048 Channels/Talkgroups (standard)	\$ -

	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 150.00
	DES-OFB (multi-key)	\$ 550.00
	AES (multi-key)	\$ 475.00
	DES-OFB + AES (Multi-Key)	\$ 750.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 50.00
	Rebanding (requires 700/800 MHz)	\$ 110.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 350.00
	GPS	\$ 100.00
	Third Party Interface	\$ 150.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
	Project 25 Data Conventional	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 750.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>	
	Project 25 Authentication	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
	EVRS	\$ 100.00

KENWOOD

VIKING

P25 Mission Critical

**VIKING VP600**

700/800 MHz • VHF • UHF • SN/SZ • P25 PHASE 1 & 2



With a top display and best in the industry audio performance, the VP600 single band portable offers smarter visual and audio features that make first responder communications effortless.

**FEATURES**

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS (700/800 MHz only)
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

Complete line of accessories including microphones, speakers & antennas.  
 Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



**Perpetual Software Licensing**

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



**Armada® Fleet Management**

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



**TrueVoice™ Noise Cancellation**

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

Radio - Base Model

List

242577AX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 1,760.00
242577DX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,960.00
242577BX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 1,910.00
242577EX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,110.00
242577CX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,160.00
242577FX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,360.00
242571A653XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad)	\$ 1,760.00
242571D693XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,960.00
242571B653XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad)	\$ 1,910.00
242571E693XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,110.00
242571C653XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad)	\$ 2,160.00
242571F693XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,360.00
242572A453XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad)	\$ 1,760.00
242572D493XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,960.00
242572B453XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad)	\$ 1,910.00
242572E493XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,110.00
242572C453XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad)	\$ 2,160.00
242572F493XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,360.00
	<b>Antenna</b>	<b>List</b>
	No Antenna (credit)	\$ (15.00)
	700/800 MHz, 1/2 Wave	\$ -
	800 MHz, 1/2 Wave	\$ -
	VHF, 136-174 MHz Dipole, red core (VHF Wideband)	\$ 15.00
	VHF, 136-151 MHz Helical, yellow core (Federal)	\$ -
	VHF, 151-162 MHz Helical, black core (Public Safety)	\$ -
	VHF, 162-174 MHz Helical, blue core (Business & Industrial)	\$ -
	UHF, 380-520 MHz, 1/4 Wave, white core	\$ -
	<b>Battery</b>	<b>List</b>
	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$ -
	<b>Housing</b>	<b>List</b>
	Black Housing	\$ -
	High Visibility Housing	\$ 200.00
	<b>Protocol</b>	<b>List</b>

1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 200.00
<b>System Options</b>		<b>List</b>
1	Conventional System	\$ 350.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 625.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 725.00
<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>		
4	Project 25 Conventional System	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 875.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 850.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,250.00
<b>Optional Features</b>		<b>List</b>
<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -
<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 150.00
	DES-OFB (multi-key)	\$ 550.00
	AES (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$ -
<b>Programming &amp; Data</b>		
	MDC1200/GE-Star Signaling	\$ 50.00
	Rebanding (requires 700/800 MHz)	\$ 110.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 350.00
	GPS (requires 700/800 MHz)	\$ 100.00
	Third Party Interface	\$ 150.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>		
	Project 25 Data Conventional	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 750.00
	OTAP (Over-the-Air Programming)	\$ 200.00
<b>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</b>		
	Project 25 Authentication	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
	EVRS	\$ 100.00

# KENWOOD

P25 Mission Critical

## VIKING VP400

700/800 MHz • VHF • UHF • SN/SZ • P25 PHASE 1 & 2



With a top display and best in the industry audio performance, the VP400 single band portable offers smarter visual and audio features that make first responder communications effortless.

### FEATURES

#### Choose operation in either:

Motorola SmartNet®/SmartZone® protocol --- OR ---  
P25 Phase 1 trunked/conventional & P25 Phase 2 trunked

- 1024 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

Radio - Base Model

List



2425X7AX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 1,325.00
2425X7DX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,525.00
2425X7BX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 1,450.00
2425X7EX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,650.00
2425X7CX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 1,625.00
2425X7FX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,825.00
2425X1A653XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad)	\$ 1,325.00
2425X1D693XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,525.00
2425X1B653XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad)	\$ 1,450.00
2425X1E693XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,650.00
2425X1C653XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad)	\$ 1,625.00
2425X1F693XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,825.00
2425X2A453XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad)	\$ 1,325.00
2425X2D493XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,525.00
2425X2B453XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad)	\$ 1,450.00
2425X2E493XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,650.00
2425X2C453XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad)	\$ 1,625.00
2425X2F493XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,825.00
	<b>Antenna</b>	<b>List</b>
	No Antenna (credit)	\$ (15.00)
	700/800 MHz, 1/2 Wave	\$ -
	800 MHz, 1/2 Wave	\$ -
	VHF, 136-174 MHz Dipole, red core (VHF Wideband)	\$ 15.00
	VHF, 136-151 MHz Helical, yellow core (Federal)	\$ -
	VHF, 151-162 MHz Helical, black core (Public Safety)	\$ -
	VHF, 162-174 MHz Helical, blue core (Business & Industrial)	\$ -
	UHF, 380-520 MHz, 1/4 Wave, white core	\$ -
	<b>Battery</b>	<b>List</b>
	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$ -
	<b>Housing</b>	<b>List</b>
	Black Housing	\$ -
	High Visibility Housing	\$ 200.00
	<b>Protocol</b>	<b>List</b>
1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 150.00

	System Options	List
	<b><i>The following selections require Protocol Option 1 (Analog FM):</i></b>	
1	SMARTNET® II Trunking	\$ 475.00
2	SmartZone® Trunking	\$ 550.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
3	Project 25 Conventional System	\$ 275.00
4	Project 25 Phase 1 Trunking Only (includes system option 3)	\$ 360.00
5	Project 25 Phase 2 TDMA (includes system option 3 & 4)	\$ 660.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$ -
	<b><i>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</i></b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 120.00
	DES-OFB (multi-key)	\$ 420.00
	AES (multi-key)	\$ 360.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 50.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command	\$ 350.00
	<b><i>The following selection requires System Option 4 or 5):</i></b>	
	Project 25 Authentication	\$ 75.00
	<b><i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
	OTAP (Over-the-Air Programming)	\$ 200.00

# KENWOOD

P25 Mission Critical

**TK-5230/5330/5430**

VHF • UHF • 700/800 MHz • P25 PHASE 1 & 2 • LTR

Compact P25 Phase 1/Phase 2 radio with large transreflective color display, built-in GPS & Bluetooth® is a great fit for public works or public safety agencies looking for a smaller feature rich radio.



### FEATURES

- Digital operation in P25 Phase 1 & Phase 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog & LTR Operation allows migration in mixed sites
- Large, color 1.74" (240 x 180 pixels) Transreflective TFT Display for better use in direct sunlight & with use of polarized sunglasses
- Easy to follow GUI for at-a-glance operational status checking & multi-line text
- 4-way Directional-pad (D-pad) & 2-Position Lever Switch for intuitive control
- Built-In GPS Receiver/Antenna for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Renowned audio quality with Active Noise Cancelling that utilizes built-in DSP with two microphones for suppression of ambient noise (dual-mic)
- Built-in 56-bit DES Encryption (4-key DES standard)
- Optional 256-bit AES Encryption
- Built-in motion sensor for life-critical man down detection
- microSD/microSDHC Memory Card Slot for increased voice & data memory capacity
- IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- 1 W loud speaker audio

### DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- Over-the-Air Programming<sup>1</sup>

### FM MODES - GENERAL

- Conventional & LTR Zones
- NPSPAC (USA only) Channels (±4.0 Modulation)
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT / DQT & Two-Tone
- Built-in Voice Inversion Scrambler

### INTELLIGENT BATTERY SYSTEM (OPTION)

- System consists of optional high-capacity Li-Ion Battery Series (KNB-L1/L2/L3), Rapid Charger (KSC-Y32), & Battery Reader (KAS-12) software
- Up to 30 rapid chargers can be chain-connected to PC installed with KAS-12
- Battery conditions displayed in color illuminated indicators on the charger & also displayed on connected PC with same color scheme
- Up to 1,000 batteries can be managed at a time (requires additional option)

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).*



<sup>1</sup>Requires OTAP management software.

Radio - Base Model

List Price

TK-5430F2	700 / 800 MHz, 3.0 Watts Analog/P25 Conventional/P25 Phase I Trunking - Standard Key Model	\$ 1,450.00
TK-5430F3	700 / 800 MHz, 3.0 Watts Analog/P25 Conventional/P25 Phase I Trunking - Full Key Model	\$ 1,500.00
<b>Licensing System</b>		<b>List Price</b>
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>		
KPT-300LMC	License Management Client	\$ -
L-5000	KPT-300LMC License Key	\$ -
<b>Software Licensing Options</b>		<b>List Price</b>
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>		
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 155.00
<b>P25 Trunked Programming Capability (licensed by either 1 or 2 below):</b>		
	<b>1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK</b>	
	<b>2. Software Key Type: System Key File (SKF)- See L-5005</b>	
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	
<b>Radio Feature License Options</b>		<b>List Price</b>
<b>PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.</b> <b>Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.</b>		
<b>General Radio Features</b>		
KWD-5000CH	License Key for 4000 Channel Expansion	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 105.00

<b>P25 Radio Features</b>		
KWD-5100CV	License Key for P25 Conventional	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 180.00
<b>Antennas</b>		<b>List Price</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 25.00
<b>Batteries &amp; Chargers</b>		<b>List Price</b>
KNB-L1M	Li-ion 2000mAh (Compact Slim)	\$ 115.00
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 175.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 115.00
KAS-12K	License Key for KAS-12 <b>(Authentication required)</b> Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 119.00
<b>Carrying Accessories</b>		<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 36.75
KLH-200K3	Heavy duty leather carrying case for TK-5x30-series (for both K2 & K3 models)	\$ 44.25
KLH-201K3	Nylon carrying case for TK-5430-series (for both keypad models)	\$ 26.30
<b>Special Color Housing</b>		<b>List Price</b>

KWD-YH-5000	Yellow Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order <b>L-5024</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> <i>If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</i>	\$ 40.00
KWD-OH-5000	Orange Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order <b>L-5025</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> <i>If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</i>	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 368.00
<b>Encryption Modules</b>		<b>List Price</b>
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 525.00

KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 368.00
<b>Service Related Accessories</b>		<b>List Price</b>
KPG-36XM	Full Speed USB Programming interface cable	\$ 158.50
KPG-93	KVL-3000 Plus/4000 Interface Cable for P25 Portables	\$ 262.50
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 208.00
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - <b>Restricted Purchase Requirements</b> - <b>Notes:</b> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 500.00
<b>Installation/Tuning Charges</b>		<b>List Price</b>
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	\$ -
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately	\$ 120.00
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	\$ 37.50
L-5003	Install KWD-AE30K in TK-5x30 series Portable (Must purchase module separately)	\$ 75.00
L-5004	Install KWD-AE31K in TK-5x30 series Portable (Must purchase module separately)	\$ 75.00

L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with TK-5x30 series Portable	\$ 27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with TK-5x30 series Portable	\$ 27.00
<b>-- IMPORTANT NOTES --</b>		
<p><i>Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry &amp; Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See <a href="http://www.bis.gov">www.bis.gov</a> for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.</i></p>		
<p><b>The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:</b></p>		
<p><b>a) Initial Destination:</b> Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative)</p>		
<p>* Business/Agency Name:</p>		
<p>* Address:</p>		
<p>* Contact Person Name:</p>		
<p>* Contact Phone:</p>		
<p><b>b) Ultimate Destination :</b> Final delivery point(s); deployment/distribution</p>		
<p>* Business/Agency Name:</p>		
<p>* Address:</p>		
<p>* Contact Person Name:</p>		
<p>* Contact Phone:</p>		
<p>-----</p>		



***KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping***

*A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.*

# KENWOOD

P25 Mission Critical

**TK-5230/5330/5430**

VHF • UHF • 700/800 MHz • P25 PHASE 1 & 2 • LTR

Compact P25 Phase 1/Phase 2 radio with large transfective color display, built-in GPS & Bluetooth® is a great fit for public works or public safety agencies looking for a smaller feature rich radio.



### FEATURES

- Digital operation in P25 Phase 1 & Phase 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog & LTR Operation allows migration in mixed sites
- Large, color 1.74" (240 x 180 pixels) Transfective TFT Display for better use in direct sunlight & with use of polarized sunglasses
- Easy to follow GUI for at-a-glance operational status checking & multi-line text
- 4-way Directional-pad (D-pad) & 2-Position Lever Switch for intuitive control
- Built-In GPS Receiver/Antenna for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Renowned audio quality with Active Noise Cancelling that utilizes built-in DSP with two microphones for suppression of ambient noise (dual-mic)
- Built-in 56-bit DES Encryption (4-key DES standard)
- Optional 256-bit AES Encryption
- Built-in motion sensor for life-critical man down detection
- microSD/microSDHC Memory Card Slot for increased voice & data memory capacity
- IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- 1 W loud speaker audio

### DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- Over-the-Air Programming<sup>1</sup>

### FM MODES - GENERAL

- Conventional & LTR Zones
- NPSAC (USA only) Channels (±4.0 Modulation)
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT / DQT & Two-Tone
- Built-in Voice Inversion Scrambler

### INTELLIGENT BATTERY SYSTEM (OPTION)

- System consists of optional high-capacity Li-Ion Battery Series (KNB-L1/L2/L3), Rapid Charger (KSC-Y32), & Battery Reader (KAS-12) software
- Up to 30 rapid chargers can be chain-connected to PC installed with KAS-12
- Battery conditions displayed in color illuminated indicators on the charger & also displayed on connected PC with same color scheme
- Up to 1,000 batteries can be managed at a time (requires additional option)

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).*



<sup>1</sup>Requires OTAP management software.

Radio - Base Model	List Price
Standard Key Models	

TK-5230F2	VHF(136-174MHz),6.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,450.00
TK-5330F2	UHF (450-520MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,450.00
TK-5330F5	UHF (380-470MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,450.00
<b>Full Key Models</b>		
TK-5230F3	VHF (136-174MHz),6.0 Watts ,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,500.00
TK-5330F3	UHF (450-520MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,500.00
TK-5330F6	UHF (380-470MHz), 5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,500.00
<b>Licensing System</b>		<b>List Price</b>
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>		
KPT-300LMC	License Management Client	\$ -
L-5000	KPT-300LMC License Key	\$ -
<b>Software Licensing Options</b>		<b>List Price</b>
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>		
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 155.00
<b>P25 Trunked Programming Capability (licensed by either 1 or 2 below):</b>		
<b>1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK</b>		
<b>2. Software Key Type: System Key File (SKF)- See L-5005</b>		
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	
<b>Radio Feature License Options</b>		<b>List Price</b>

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

#### General Radio Features

KWD-5000CH	License Key for 4000 Channel Expansion	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 105.00

#### P25 Radio Features

KWD-5100CV	License Key for P25 Conventional	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 180.00

#### Antennas

		List Price
KRA-26M	VHF helical antenna 146-162 MHz	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 14.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 13.70
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 13.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	\$ 34.25

#### Batteries & Chargers

		List Price
KNB-L1M	Li-ion 2000mAh (Compact Slim)	\$ 115.00
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 175.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 33.75

KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 119.00
<b>Carrying Accessories</b>		<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 36.75
KLH-200K3	Heavy duty leather carrying case for TK-5x30-series (for both K2 & K3 models)	\$ 44.25
<b>Special Color Housing</b>		<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order <b>L-5024</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> <i>If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</i>	\$ 40.00
KWD-OH-5000	Orange Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order <b>L-5025</b> for Factory Install. (Eligible for warranty of IP67/68 immersion) <b>Note:</b> <i>If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</i>	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 368.00

Encryption Modules		List Price
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 368.00
Service Related Accessories		List Price
KPG-36XM	Full Speed USB Programming interface cable	\$ 158.50
KPG-93	KVL-3000 Plus/4000 Interface Cable for P25 Portables	\$ 262.50
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 208.00
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - <b>Restricted Purchase Requirements</b> - <b>Notes:</b> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 500.00
Installation/Tuning Charges		List Price
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately	\$ 120.00

L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	\$ 37.50
L-5003	Install KWD-AE30K in TK-5x30 series Portable (Must purchase module separately)	\$ 75.00
L-5004	Install KWD-AE31K in TK-5x30 series Portable (Must purchase module separately)	\$ 75.00
L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with TK-5x30 series Portable	\$ 27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with TK-5x30 series Portable	\$ 27.00
<p><b>-- IMPORTANT NOTES --</b></p>		

**Encryption modules, key loaders and radios containing encryption are export controlled** by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See [www.bis.gov](http://www.bis.gov) for more information regarding export regulations. **DO NOT SHIP** encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

**The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:**

**a) Initial Destination:** Initial delivery point if different from Ultimate Destination  
(customer distribution center, headquarters, dealership, manufacturer's representative)

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

**b) Ultimate Destination :** Final delivery point(s); deployment/distribution

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

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**KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**

A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.



# KENWOOD

P25 Mission Critical

## VIKING VM7000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



With the **VM7000 All-Band Multi-Deck Mobile**, you can simultaneously receive and display up to four bands so you never miss a call. The “select” and “unselect” speakers give you the option for audio control similar to a dispatch console. The **KENWOOD Viking®** is the industry’s only mobile platform providing **TrueVoice™** noise cancellation.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Single or Dual Remote Mount configuration
- External speaker
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

### FULL-FEATURED CONTROL HEAD

- Larger display - 2.75" (36 x 60 mm)
- Resolution of 400 x 240 pixels
- Viewing angle of 140°
- Multi-color LCD + TX/RX (green/red) LEDs
- Illumination sensor for auto brightness<sup>1</sup>
- D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs
- Replaceable A/B/C button labels
- Built-in Bluetooth®
- User selectable themes (7 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

<sup>1</sup>Future availability

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EftJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.efjohnson.com/products/accessories.](http://www.efjohnson.com/products/accessories)

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

### Master Radio - (First Deck, Choose one)

### List

VM7730BF-M | VM7000 136-174 MHz Master

\$ 2,400.00

VM7830BF-M	VM7000 450-520 MHZ Master	\$ 2,400.00
VM7830BF2-M	VM7000 380-470 MHZ Master	\$ 2,400.00
VM7930BF-M	VM7000 700/800 MHZ Master	\$ 2,400.00
<b>Slave Radio - (2nd-4th Deck, Choose up to 3)</b>		<b>List</b>
VM7730BF-S	VM 7000 136-174 MHZ Slave	\$ 1,100.00
VM7830BF-S	VM 7000 450-520 MHZ Slave	\$ 1,100.00
VM7830BF2-S	VM 7000 380-470 MHZ Slave	\$ 1,100.00
VM7930BF-S	VM 7000 700/800 MHZ Slave	\$ 1,100.00
<b>Mounting Accessories</b>		<b>List</b>
KMB-33M	Mounting Bracket	\$ 14.00
KCT-46	Ignition Sense Cable	\$ 13.70
KRK-17BF	Remote Kit	\$ 400.00
<b>Control head</b>		<b>List</b>
KCH-29RV	KCH-20 Enhanced control head	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 80.00
L-5020	Custom Remote Cable (Up to 50')	\$ 300.00
L-5021	Custom Remote Cable (Up to 100')	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 52.50
KMC-36	12 Keypad Mic	\$ 42.01
KCT-71M4	Control Cable	\$ 135.00
<b>Speaker</b>		<b>List</b>
KCT-72M	External Accessory Connection Cable for KCH-20R	\$ 36.70
KAP-2	HA / PA Relay	\$ 63.00
KES-5	40W External Speaker	\$ 61.25
<b>Software Options</b>		<b>List</b>
	Analog FM	\$ -
	P25 CAI AMBE+2	\$ -
	Analog Conventional	\$ -
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	SmartNet II / SmartZone	\$ 375.00
	1024 Ch	\$ -
	2048 Ch	\$ 300.00
	DES-OFB multi-key	\$ -
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$ -
	Conventional Voting Scan	\$ -
	TrueVoice Noise Cancellation	\$ -
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00

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OTAP (Over-the-Air Programming)	\$ 200.00
GPS	\$ 100.00
GPS Antenna	\$ 42.00
<i><b>Automatically selected when GPS option is selected in CeVo</b></i>	

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# KENWOOD

**VIKING**



P25 Mission Critical

## VIKING VM6000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

### VIKING CONTROL HEAD

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°
- User selectable themes (7 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™

### Radio - Base Model

VM6730BF

VM 6000 136-174 MHZ

### List

\$ 2,150.00

VM6830BF	VM 6000 450-520 MHZ	\$ 2,150.00
VM6830BF2	VM 6000 380-470 MHZ	\$ 2,150.00
VM6930BF	VM 6000 700/800 MHZ	\$ 2,150.00
<b>Mounting Accessories</b>		<b>List</b>
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 13.70
<b>Control head</b>		<b>List</b>
835VM6000VCH	Viking Control Head (VCH) <i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i>	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 34.75
597535777502	6 Ft remote cable	\$ 100.00
597535777502	17 Ft remote cable	\$ 160.00
597535777503	50 Ft remote cable	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 140.00
589001202303	VCH Desktop Mic	\$ 650.00
<b>Speaker</b>		<b>List</b>
2500151006	5in. 15W Speaker, Crimp Leads	\$ 75.00
KES-3S	Low Profile Ext. Speaker	\$ 75.00
KAP-2	HA / PA Relay	\$ 63.00
KES-5	40W External Speaker	\$ 61.25
<b>Software Options</b>		<b>List</b>
	Analog FM	\$ -
	P25 CAI AMBE+2	\$ -
	Analog Conventional	\$ -
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	SmartNet II / SmartZone	\$ 375.00
	1024 Ch	\$ -
	2048 Ch	\$ 300.00
	DES-OFB multi-key	\$ -
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$ -
	Conventional Voting Scan	\$ -
	TrueVoice Noise Cancellation	\$ -
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna	\$ 42.00
	<i>Automatically selected when GPS option is selected in CeVo</i>	

# KENWOOD



P25 Mission Critical

## VIKING VM5000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.

### FEATURES

- Mixed protocol operation ( P25 Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (built in GPS)
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Dash mount (KCH-19 only)
- Remote mount<sup>1</sup>
- Dual control heads<sup>1</sup> (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

<sup>1</sup>Future availability

### BASIC CONTROL HEAD

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (7 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection and Over-the-Air Programming (OTAP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



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VM5730BF	VM 5000 136-174 MHZ	\$ 2,150.00
VM5830BF	VM 5000 450-520 MHZ	\$ 2,150.00
VM5830BF2	VM 5000 380-470 MHZ	\$ 2,150.00
VM5930BF	VM 5000 700/800 MHZ	\$ 2,150.00
<b>Mounting Accessories</b>		<b>List</b>
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 13.70
<b>Control head</b>		<b>List</b>
KCH-19VM	Dash - KCH-19	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 31.50
KCT-23M3	DC Cable-Remote	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 80.00
L-5020	Custom Remote Cable (Up to 50')	\$ 300.00
L-5021	Custom Remote Cable (Up to 100')	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 52.50
KMC-36	12 Keypad Mic	\$ 42.01
KMC-9C	Desktop Mic	\$ 86.00
<b>Speaker</b>		<b>List</b>
KES-3S	Low Profile Ext. Speaker	\$ 75.00
KAP-2	HA / PA Relay	\$ 63.00
KES-5	40W External Speaker	\$ 61.25
<b>Software Options</b>		<b>List</b>
	Analog FM	\$ -
	P25 CAI AMBE+2	\$ -
	Analog Conventional	\$ -
	P25 Conventional	\$ -
	P25 Phase 1 Trunking	\$ -
	P25 Phase 2 TDMA	\$ 400.00
	SmartNet II / SmartZone	\$ 375.00
	1024 Ch	\$ -
	DES-OFB multi-key	\$ 195.00
	AES FIPS-140-2 multi-key (DES-OFB included)	\$ 750.00
	ARC4 (ADP Compatible)	\$ -
	Conventional Voting Scan	\$ -
	TrueVoice Noise Cancellation	\$ -
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna	\$ 42.00
	<i>Automatically selected when GPS option is selected in CeVo</i>	





KENWOOD

VIKING

P25 Mission Critical

**VIKING VM900**

VHF/700-800 MHz • SmartNet®/SmartZone® • P25 PHASE 1 & 2



Dual-Band and multi-system radio equipped with industry leading audio, color display, public safety ergonomics, and advanced features including Over-the-Intranet (OTIP) programming.

**FEATURES**

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- 2048 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (requires external GPS receiver)
- MDC-1200 & GE-Star signaling
- Conventional vote scan
- Dash mount
- Remote mount
- Dash mount with remote control head
- Dual control heads (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

**VIKING CONTROL HEAD (Option)**

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & nighttime viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

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**Armada® Fleet Management**

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



**TrueVoice™ Noise Cancellation**

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™

Radio - Base Model	List
700/800 MHz, 762-870 MHz + VHF, 30/35W Dash Mount	\$ 2,675.00

	700/800 MHz, 762-870 MHz + VHF, 30/35W Remote Mount	\$ 2,675.00
	700/800 MHz, 762-870 MHz + VHF, 30/35W Control Station (includes Power supply & cabinet)	\$ 2,970.00
	700/800 MHz, 762-870 MHz, 30/35W Dash Mount (Single Band)	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Remote Mount (Single Band)	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 2,190.00
	VHF, 30/35W Dash Mount (Single Band)	\$ 1,760.00
	VHF, 30/35W Remote Mount (Single Band)	\$ 1,760.00
	VHF, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 2,190.00
	<b>Control Head Type</b>	<b>List</b>
	<b><i>Dash Mount Options</i></b>	
	<b><i>Standard LCD Control Head</i></b>	
	Dash-Mount Control Head (includes standard palm mic)	\$ 80.00
	Dash-Mount Control Head with no mic	\$ -
	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 750.00
	<b><i>Viking Control Head</i></b>	
	Dash-Mount Control Head (includes standard palm mic & external speaker)	\$ 860.00
	Dash-Mount Control Head with no mic (includes external speaker)	\$ 780.00
	Dash-Mount Control with Remote Control Head (includes one remote control head, additional mic & remote control head)	\$ 2,190.00
	<b><i>Remote Mount Options</i></b>	
	<b><i>Standard LCD Control Head</i></b>	
	Remote Control Head (includes standard palm mic)	\$ 550.00
	Remote Control Head with no mic	\$ 470.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 1,200.00
	Dual Control Head with no mics	\$ 1,040.00
	<b><i>Remote Mount Options</i></b>	
	<b><i>Viking Control Head</i></b>	
	Remote Control Head (includes standard palm mic & external speaker)	\$ 1,320.00
	Remote Control Head with no mic (includes external speaker)	\$ 1,240.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, two mounting brackets, and two external speakers)	\$ 2,740.00
	Dual Control Head with no mics (includes two external speakers)	\$ 2,580.00

	<b>Accessory Cable</b>	<b>List</b>
	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 155.00
	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 180.00
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 120.00
	<b>Protocol</b>	<b>List</b>
1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 350.00
	<b>System Option</b>	<b>List</b>
1	Conventional System	\$ 550.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 600.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 750.00
<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
4	Project 25 Conventional System	\$ 550.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 775.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 1,175.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 975.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,375.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 150.00
	DES-OFB (multi-key)	\$ 550.00
	AES (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 50.00
	Rebanding	\$ 110.00
<b><i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
	Project 25 Data Conventional	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 750.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	OTIP (Over-the-Intranet Programming)	\$ 200.00

	<i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i>	
	Project 25 Authentication	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
	GPS	\$ 200.00
	EVRS	\$ 100.00

**KENWOOD**

**VIKING**

P25 Mission Critical

**VIKING VM600**

700-800 MHz • SmartNet®/SmartZone® • P25 PHASE 1 & 2



Multi-system P25 Phase 2 single band radio equipped with industry leading audio, color display and advanced features including Over-the-Intranet (OTIP) programming.

**FEATURES**

- Mixed protocol operation (Phase 1 & 2, SmartNet®/SmartZone®, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (requires external GPS receiver)
- MDC-1200 & GE-Star signaling
- Conventional vote scan
- Dash mount
- Remote mount
- Dash mount with remote control head
- Dual control heads (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

**VIKING CONTROL HEAD (Option)**

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & nighttime viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

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**Armada® Fleet Management**  
Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



**TrueVoice™ Noise Cancellation**  
Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



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	Radio - Base Model	List
242567GXXXXAA28	700/800 MHz, 30/35W, 762-870 MHz Dash Mount	\$ 1,760.00

242567HXXXXAA28	700/800 MHz, 30/35W, 762-870 MHz Remote Mount	\$ 1,760.00
242567GXXXBAA28	700/800 MHz, 30/35W, 762-870 MHz Control Station (includes Power supply & cabinet)	\$ 2,055.00
	<b>Control Head Type</b>	<b>List</b>
	<b><i>Dash Mount Options</i></b>	
	<b><i>Standard LCD Control Head</i></b>	
	Dash-Mount Control Head (includes standard palm mic)	\$ 80.00
	Dash-Mount Control Head with no mic	\$ -
	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 750.00
	<b><i>Viking Control Head</i></b>	
	Dash-Mount Control Head (includes standard palm mic & external speaker)	\$ 860.00
	Dash-Mount Control Head with no mic (includes external speaker)	\$ 780.00
	Dash-Mount Control with Remote Control Head (includes one remote control head, additional mic & remote control head)	\$ 2,190.00
	<b><i>Remote Mount Options</i></b>	
	<b><i>Standard LCD Control Head</i></b>	
	Remote Control Head (includes standard palm mic)	\$ 550.00
	Remote Control Head with no mic	\$ 470.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 1,200.00
	Dual Control Head with no mics	\$ 1,040.00
	<b><i>Remote Mount Options</i></b>	
	<b><i>Viking Control Head</i></b>	
	Remote Control Head (includes standard palm mic & external speaker)	\$ 1,320.00
	Remote Control Head with no mic (includes external speaker)	\$ 1,240.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, two mounting brackets, and two external speakers)	\$ 2,740.00
	Dual Control Head with no mics (includes two external speakers)	\$ 2,580.00
	<b>Accessory Cable</b>	<b>List</b>
	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 155.00
	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 180.00

	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 120.00
	<b>Protocol</b>	<b>List</b>
1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 350.00
	<b>System Option</b>	<b>List</b>
1	Conventional System	\$ 550.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 600.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 750.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
4	Project 25 Conventional System	\$ 550.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 775.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 1,175.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 975.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,375.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 150.00
	DES-OFB (multi-key)	\$ 550.00
	AES (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 50.00
	Rebanding	\$ 110.00
	<b><i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
	Project 25 Data Conventional	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 750.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	OTIP (Over-the-Intranet Programming)	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>	
	Project 25 Authentication	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
	GPS	\$ 200.00
	Enhanced VRS	\$ 100.00

KENWOOD

VIKING



P25 Mission Critical

**VIKING VM400**

700-800 MHz • SmartNet®/SmartZone® • P25 PHASE 1 & 2



High performance public safety radio without the extra features required by larger departments. Equipped with industry leading audio, display & advanced capabilities such as Over-the-Intranet programming (OTIP).

**FEATURES**

Choose operation in either:

Motorola SmartNet®/SmartZone® protocol --- OR ---  
P25 Phase 1 trunked/conventional & P25 Phase 2 trunked

- 1024 channels
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- MDC-1200 & GE-Star signaling
- Conventional vote scan
- Dash mount
- Remote mount
- Dash mount with remote control head
- Dual control heads (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - P25/TIA defined: AES-256
  - DFS-OFB
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EJohnson ATIAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



**Perpetual Software Licensing**

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



**Armada® Fleet Management**

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



**TrueVoice™ Noise Cancellation**

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

	<b>Radio - Base Model</b>	<b>List</b>
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2425W7GXXXXXA28	700/800 MHz, 30/35W, 762-870 MHz Dash Mount	\$ 1,325.00
2425W7HXXXXXA28	700/800 MHz, 30/35W, 762-870 MHz Remote Mount	\$ 1,325.00
2425W7GXXXBXA28	700/800 MHz, 30/35W, 762-870 MHz Control Station (includes Power supply & cabinet)	\$ 1,620.00
	<b>Control Head Type</b>	<b>List</b>
	<b>Dash Mount Options</b>	
	<b>Standard LCD Control Head</b>	
	Dash-Mount Control Head (includes standard palm mic)	\$ 60.00
	Dash-Mount Control Head with no mic	\$ -
	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 575.00
	<b>Remote Mount Options</b>	
	<b>Standard LCD Control Head</b>	
	Remote Control Head (includes standard palm mic)	\$ 425.00
	Remote Control Head with no mic	\$ 350.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 900.00
	Dual Control Head with no mics	\$ 780.00
	<b>Accessory Cable</b>	<b>List</b>
	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 155.00
	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 180.00
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 120.00
	<b>Protocol</b>	<b>List</b>
1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 250.00
	<b>System Options</b>	<b>List</b>
	<b>The following selections require Protocol Option 1 (Analog FM):</b>	
1	Conventional System/SMARTNET® II Trunking	\$ 450.00
2	Conventional System/SMARTNET® II Trunking/SmartZone® Trunking	\$ 550.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>	
3	Project 25 Conventional System	\$ 425.00
4	Project 25 Phase 1 Trunking Only (includes system option 3)	\$ 575.00
5	Project 25 Phase 2 TDMA (includes system option 3 & 4)	\$ 975.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	

	1024 Channels/Talkgroups (standard)	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 120.00
	DES-OFB (multi-key)	\$ 420.00
	AES (multi-key)	\$ 360.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 50.00
	<i>The following selection requires System Option 4 or 5:</i>	
	Project 25 Authentication	\$ 75.00
	<i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i>	
	OTAP (Over-the-Air Programming)	\$ 200.00
	OTIP (Over-the-Intranet Programming)	\$ 200.00

# KENWOOD

P25 Mission Critical

**TK-5730/5830/5930**

VHF • UHF • 700/800 MHz • P25 PHASE 1 & 2 • FM ANALOG

Round-the-clock public safety operations can be extremely demanding for both personnel and equipment. The reliable TK-5x30 mobile radios offer clear mission critical communications for police, fire and EMS.



Control Head – Dash/Remote



Full Featured Control Head – Remote



## FEATURES

- Digital operation in P25 Phase 1 & 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog Operation allows intelligent migration in mixed sites & with digital radios in other sites
- Large, color LCD display: Full Featured - 2.75" (400 x 240 pixels); Basic - 2.55" (422 x 154 pixels)
- Easy to follow GUI & Multi-line Text
- Dual Remote Control Head Option & Multi RF Deck Options
- Built-In GPS Receiver for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Active Noise Cancelling utilizes built-in DSP with 2 microphones for suppression of ambient noise (dual-mic)
- IP54/55 and MIL-STD-810 C/D/E/F/G
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- DB-25 Accessory Connector

## FM MODES - GENERAL

- Conventional & LTR Zones
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT/DQT & Two Tone

## DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- P25 Over-the-Air-Rekeying
- Over-the-Air Programming<sup>1</sup>

## MULTIPLE CONFIGURATIONS (OPTION)

The TK-5x30 series allows users to create a variety of configurations to suit different requirements by combining different options.

- **Single Remote Control Head/Single RF Deck:**  
Mobile is controlled by a remote control head.
- **Single Remote Control Head/Multi RF Decks:**  
Operate multiple (up to 3) radio decks from single control head.
- **Dual Remote Control Heads/Single RF Deck:**  
One controller can be mounted on the dashboard with the other control head remotely mounted (such as the back of an ambulance or fire apparatus).
- **Dual Remote Control Heads/Multi RF Decks:**  
This adds the convenience of a dual control head to the above configuration so 2 operators can control up to 3 radios from separate control heads.

## ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.ejohnson.com/products/accessories.](http://www.ejohnson.com/products/accessories)



<sup>1</sup>Requires OTAP management software.

TK-5730BF	VHF (136-174MHz), 50 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,345.00
TK-5830BF	UHF (450-520MHz), 45 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,345.00
TK-5830BF2	UHF (380-470MHz), 45 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,345.00
TK-5930BF	7/800, 45 Watts, Analog, P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,445.00
<b>Licensing System</b>		<b>List</b>
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>		
KPT-300LMC	License Management Client	\$ -
L-5000	KPT-300LMC License Key	\$ -
<b>Software Licensing Options</b>		<b>List</b>
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>		
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 155.00
<b>P25 Trunked Programming Capability (licensed by either 1 or 2 below):</b>		
<b>1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK</b>		
<b>2. Software Key Type: System Key File (SKF)- See L-5005</b>		
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	
<b>Radio Feature License Options</b>		<b>List</b>

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.  
**Note:** Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transfered radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.

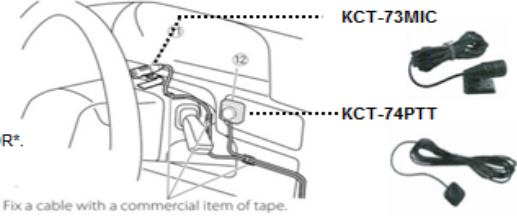
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	\$ -
<b>General Radio Features</b>		
KWD-5000CH	License Key for 4000 Channel Expansion	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 105.00
<b>P25 Radio Features</b>		
KWD-5100CV	License Key for P25 Conventional	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 180.00
<b>Dash or Remote Configuration (Firmware Release 1.5 or Later required)</b>		<b>List</b>
TK-5730BF	TK-5730F (50W, 136-174 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,345.00
TK-5830BF	TK-5380F (45W, 450-520 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,345.00
TK-5830BF2	TK-5380F2 (45W, 380-470 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,345.00
TK-5930BF	7/800, 45 Watts, Analog, P25 Conventional, P25 Phase I Trunking - <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,445.00
KCH-19M	Basic Control Panel	\$ 180.00
KCH-20RM	Full Featured Remote Control Panel <b>Note:</b> Remote configuration only. No Internal Speaker included. KES-5/3 is required.	\$ 600.00
KRK-14HM	Control Head Interface Kit for KCH-19M	\$ 159.00
KRK-15BM	Control Head Remote Kit for a RF Deck	\$ 50.00
KCT-71M2	Remote Control Cable (17 feet)	\$ 70.00
KCT-71M3	Remote Control Cable (25 feet)	\$ 80.00
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	\$ 52.50

KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	\$ 94.50
KMB-33M	Standard Mounting Bracket (same as supplied)	\$ 14.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	\$ 44.25
KES-5	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) or KCT-72M (connection cable) installed.	\$ 61.25
KAP-2	Horn Alert/P.A. Relay Option	\$ 63.00
KCT-72M	Accessory Connection Cable for KCH-20RM	\$ 36.70
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	\$ 34.75

**Single Remote Control Configuration**



Mobile Installation Accessories		List
KAP-2	Horn Alert/P.A. Relay Option	\$ 63.00
KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	\$ 31.50
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	\$ 34.75
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)	\$ 13.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	\$ 42.00
KMB-10	Key lock adapter	\$ 26.30
KMB-33M	Standard Mounting Bracket (same as supplied)	\$ 14.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 173.00
KRA-40GM	GPS Antenna	\$ 42.00
Microphones & Speakers		List
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	\$ 52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	\$ 94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note:</b> NOT compatible in a TDMA operation	\$ 86.00
KES-3	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	\$ 44.25

KES-5	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) installed	\$ 61.25
KCT-73MIC	External Microphone kit w/ 9.8 ft. cord for Safer Driving	\$ 27.00
KCT-74PTT	External PTT Switch kit w/ 9.8 ft cord for Safer Driving	\$ 23.00
<p><b>Hands-free operation</b></p> <p>To promote driver safety and meet hands-free regulations in certain regions, TK--5x30 series mobile offers external microphone and PTT as options.</p> <p><b>NOTE:</b> Connecting to the radio via DB25 terminal on backside of RF Deck or via optional KCT-72 "Connection Cable" on backside of KCH-19M and KCH-20R*. KCT-73MIC is not compatible with other NX/TK-mobile radios.</p> <p>*Available in 2015 3Q</p> 		
<b>Encryption Modules</b>		<b>List</b>
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 368.00
<b>Service Related Accessories</b>		<b>List</b>
KPG-46XM	Full Speed USB Programming interface cable	\$ 158.50
KPG-115	Key Loader Interface Cable for Motorola KVL-3000/3000 Plus	\$ 262.50
KPG-115AUT	KVL-4000 Radio Authentication Cable	<b>TBD</b>
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 208.00

KWD-ASK-MK	<p>Master Key for activating KWD-ASK-AK Access Keys</p> <p><b>- Restricted Purchase Requirements -</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 500.00
<b>Installation/Tuning Charges</b>		<b>List</b>
L-5006	TK-5730/5830 Programming (with basic TX/RX check)	\$ 37.50
L-5007	Install KWD-AE30K in TK-5x30 series Mobile (Must purchase module separately)	\$ 75.00
L-5008	Install KWD-AE31K in TK-5x30 series Mobile (Must purchase module separately)	\$ 75.00
L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 132.00
L-5015	Install KAP-2 (Default) HR1/Internal Sp./PA	\$ 25.00
L-5016	Assemble TK-5x30 Mobile for Single Remote Head Control	\$ 42.00
L-5020	<p>KCT-71 Extended Control Head Cable (up to 50 ft. max.)</p> <p><b>Note:</b> Please specify exact length at 1ft. increments when ordering.</p> <p><b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.</p>	\$ 190.00
L-5021	<p>KCT-71 Extended Control Head Cable (up to 100 ft. max.)</p> <p><b>Note:</b> Please specify exact length at 1ft. increments when ordering.</p> <p><b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.</p>	\$ 245.00
<b>-- IMPORTANT NOTES --</b>		



**Encryption modules, key loaders and radios containing encryption are export controlled** by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See [www.bis.gov](http://www.bis.gov) for more information regarding export regulations. **DO NOT SHIP** encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

**The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:**

**a) Initial Destination:** Initial delivery point if different from Ultimate Destination  
(customer distribution center, headquarters, dealership, manufacturer's representative)

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

**b) Ultimate Destination :** Final delivery point(s); deployment/distribution

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

**c) Intended Use of Radios :** Law enforcement, security, operations, etc.

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**KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**

A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.



# ATLAS 1200

		List Price
	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b>	
336-1212-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 13,500.00
	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b>	
336-1224-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 13,500.00
	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b>	
336-1241-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 15,250.00
	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b>	
336-1224-102	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 16,475.00
	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b>	
336-1200-082	Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,650.00
	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b>	
336-1200-000	Includes programming software and cable.	\$ 295.00
	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b>	
336-1200-091	Includes single power supply, rack mount kit and power cable.	\$ 900.00
	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b>	
336-1200-092	Includes single power supply, rack mount kit and power cable.	\$ 1,550.00

## REVISIONS

Date	Product	Item
11/06/15	VM600	Corrected OTIP option from no charge to \$200
11/06/15	VM400	Added OTIP option to VM400 (previously omitted inadvertently)
12/03/15	Accessories	Removed OTTO Speaker Microphones for Viking
12/03/15	Accessories	Added Viking Basic and Premium Speaker Microphones
12/04/15	VM900	Added Viking VM900 Mobile
12/04/15	VM600	Replaced Lightning Control Head options with Viking Control Head
01/15/16	TK10&20 Series	Removed
03/11/16	TKSeries	Increased base model price by \$50
03/11/16	Viking 400 Series	Increased base model price by \$50
03/11/16	Viking 600 Series	Increased base model price by \$60
03/11/16	Viking 900 Series	Increased base model price by \$75
03/29/16	VP900	Added UHF Hi option
04/29/16	VM900	Added Single Band options for 7/800 & VHF
05/10/16	Accessories	Removed Accessories Tab - will provide supplemental Accessory Price List
06/28/16	ATLAS 1200	Corrected price on 336-1224-101 from \$15,250 to \$13,500; Corrected part # & price for 800 MHz repeater
07/10/16	VP5000	Added Product
07/27/16	VP5000	Correction made - \$105 added to each radio base model price Correction made - SmartZone® Trunking (includes SmartNet®) option changed to \$375 Correction made - Project 25 Phase 2 TDMA option changed to \$400 Correction made - Project 25 Authentication changed to \$100
10/06/16	VP6000	Added product tab
01/09/17	TK-5230-5330	Corrected price on full key models from \$1,450 to \$1,500
01/09/17	VP6000	Added Intrinsically safe (CSA) option - \$99
01/09/17	VP6000	Added Intrinsically battery (KNB-LS5)
01/09/17	VP5000	Added Intrinsically safe (CSA) option - \$99
01/09/17	VP5000	Added Intrinsically battery (KNB-LS5)
01/09/17	VP900	Added Hazardous Location Operation (FM 3600 Class 1/Div 1) models
01/09/17	VP600	Added Hazardous Location Operation (FM 3600 Class 1/Div 1) models
01/09/17	VP400	Added Hazardous Location Operation (FM 3600 Class 1/Div 1) models
03/20/17	VM5000	Added Product
03/20/17	VM6000	Added Product
03/20/17	VP6000	Updated Product Sheet section
03/20/17	VP5000	Updated Product Sheet section
03/20/17	VP900	Updated Product Sheet section
03/20/17	VP600	Updated Product Sheet section
03/20/17	VP400	Updated Product Sheet section
03/20/17	TK-5430	Updated Product Sheet section
03/20/17	TK-5230-5330	Updated Product Sheet section
03/20/17	VM900	Updated Product Sheet section
03/20/17	VM600	Updated Product Sheet section
03/20/17	VM400	Updated Product Sheet section
03/20/17	TK-5730-5830-5930	Updated Product Sheet section

04/21/17	VP900	Updated Product Sheet section
04/21/17	VP600	Updated Product Sheet section
04/21/17	VP400	Updated Product Sheet section
09/01/17	VM5000	Added remote mount
09/01/17	VM7000	Added VM7000
09/01/17	VM900	Added GPS & Enhanced VRS
09/01/17	VM600	Added GPS & Enhanced VRS
09/01/17	VP6000	Added Enhanced VRS
09/01/17	VP5000	Added Enhanced VRS
09/01/17	VP900	Added Enhanced VRS
09/01/17	VP600	Added Enhanced VRS
10/19/17	VM7000	Added 2 items: KRK-17BF Remote Kit, KCT-71M4 Control Cable



Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 2  
Change Effective Date : 7/2/2018

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2019

**Commodity Specialist:** Tom Schwartz

**Telephone:** 717-346-3828

**Email:** [thschwartz@pa.gov](mailto:thschwartz@pa.gov)

**CHANGE SUMMARY:**

The revised price list for EF Johnson Company has been attached to the contract through this change notice.

Please contact the EF Johnson Company, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

# KENWOOD

**ATLAS**®  **VIKING**® **NEXEDGE**®

## Price Guide

**EFJohnson**

a JVCKENWOOD Company

*Effective Date: 05.04.18*

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## Mobiles

[Viking VM7000 Mobile](#)  
[Viking VM6000 Mobile](#)  
[Viking VM5000 Mobile](#)  
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## ATLAS Repeaters

[ATLAS 1200](#)

## KENWOOD Repeaters

<a href="#">Low Power</a>	<a href="#">TKR-D810</a>
<a href="#">NXR-5700</a>	<a href="#">TKR-D810 LP PKG</a>
<a href="#">NXR-5800</a>	<a href="#">TKB-6900</a>
<a href="#">NXR-5900</a>	<a href="#">KAS-20</a>
<a href="#">NXR-5901</a>	<a href="#">KAS-10</a>
<a href="#">NXR-710</a>	<a href="#">KPG-150AP</a>
<a href="#">NXR-810</a>	<a href="#">KPG-180AP</a>
<a href="#">NXR-900</a>	<a href="#">KTI-4</a>
<a href="#">NXR-901</a>	<a href="#">NEXEDGE Simulcast</a>
<a href="#">TKR-D710</a>	<a href="#">NEXEDGE Gen2</a>
<a href="#">TKR-D710 LP PKG</a>	<a href="#">NEXEDGE Gen1 Bridge</a>
	<a href="#">NEXEDGE MAX</a>

# KENWOOD

P25 Mission Critical

## VIKING VP6000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2

New KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels (2048 option)
- Public safety ergonomics: flare grip for total control, large glove friendly knobs, large emergency button
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-In GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth®
- Man Down
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

### USER SELECTABLE COLOR THEMES

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event indication (ex. emergency turns display orange)
- Day & night user selectable display options (8 themes available)



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.efjohnson.com/products/accessories.](http://www.efjohnson.com/products/accessories)

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™



	Radio - Base Model	Contract	List
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,808.00	\$2,260
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 2,008.00	\$2,510
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 1,968.00	\$2,460
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 2,168.00	\$2,710
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00

KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
<b>Carrying Accessories</b>		<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$0.00
	P25 CAI AMBE+2	\$ -	\$0.00
	<b>System Options</b>	<b>Contract</b>	<b>List</b>
1	Analog Conventional	\$ -	\$0.00
2	P25 Conventional	\$ 280.00	\$350.00
3	P25 Phase 1 Trunking (Must also have option 2)	\$ 100.00	\$125.00
4	P25 Phase 2 TDMA (Must also have option 3)	\$ 320.00	\$ 400.00
5	SmartNet® II/SmartZone®	\$ 300.00	\$ 375.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
	2048 Channels/Talkgroups (standard)	\$ 240.00	\$300.00
	4000 Channels/Talkgroups	\$ 480.00	\$600.00
	<b>Encryption</b>		
	DES-OFB (multi-key)	\$ -	\$0.00

	AES FIPS 140-2 (multi-key)	\$ 380.00	\$ 475.00
	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
	TrueVoice™ Noise Cancellation	\$ -	\$0.00
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Conventional Voting Scan	\$ -	\$0.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	EVRS	\$ 80.00	\$ 100.00
	Bluetooth	\$ 80.00	\$ 100.00
	Man Down	\$ 80.00	\$ 100.00

KENWOOD

P25 Mission Critical

**VIKING VP5000**

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



At just under 5.5 inches tall, these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.

**FEATURES**

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-In GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth®
- Man Down
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

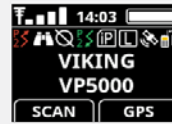
<sup>1</sup>Refer to the Viking VP5000 operating manual for detailed requirements & conditions for proper GPS operation.

**USER SELECTABLE COLOR THEMES**

- Multi-line text
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (8 themes available)



Day - High Contrast



Night - High Contrast

**COMPATIBLE WITH MULTIPLE P25 SYSTEMS**

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

**ACCESSORIES**

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.efjohnson.com/products/accessories.](http://www.efjohnson.com/products/accessories)

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



**Perpetual Software Licensing**

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



**Armada® Fleet Management**

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



**TrueVoice™ Noise Cancellation**

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

Radio - Base Model

Contract

List

VP5430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF3	UHF, 450-520 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF6	UHF, 380-470 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5230BKF3	VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 68.00	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
	<b>Carrying Accessories</b>	<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70

KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 21.04	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 17.60	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 29.40	\$ 36.75
KLH-200K3	Heavy duty leather carrying case (for both K2 & K3 models)	\$ 35.40	\$ 44.25
KLH-201K3	Nylon carrying case (for both keypad models)	\$ 21.04	\$ 26.30
<b>Special Color Housing</b>		<b>Contract</b>	<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit (Standard Key Model Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
KWD-OH-5000	Orange Housing Kit (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00

KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$0.00
	P25 CAI AMBE+2	\$ -	\$0.00
	<b>System Options</b>	<b>Contract</b>	<b>List</b>
1	Analog Conventional	\$ -	\$0.00
2	P25 Conventional	\$ -	\$0.00
3	P25 Phase 1 Trunking	\$ -	\$0.00
4	P25 Phase 2 TDMA	\$ 320.00	\$400.00
5	SmartNet® II/SmartZone®	\$ 300.00	\$ 375.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	DES-OFB (multi-key)	\$ 156.00	\$ 195.00
	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 600.00	\$ 750.00
	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
	TrueVoice™ Noise Cancellation	\$ -	\$0.00
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Conventional Voting Scan	\$ -	\$0.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication (Must also have AES FIPS 140-2)	\$ 80.00	\$100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	EVRS	\$ 80.00	\$ 100.00
	Bluetooth	\$ 80.00	\$ 100.00
	Man Down	\$ 80.00	\$ 100.00

# KENWOOD

**VIKING**

P25 Mission Critical

## VIKING VP900

VHF/700-800 MHz • SN/SZ • P25 PHASE 1 & 2



The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 2048 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VPx00 operating manual for detailed requirements & conditions for proper GPS operation.

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas.  
 Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™



2425AAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,060.00	\$ 2,575.00
2425AADA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 2,220.00	\$ 2,775.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,220.00	\$ 2,775.00
2425AAEA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,380.00	\$ 2,975.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,380.00	\$ 2,975.00
2425AAFA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,540.00	\$ 3,175.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
	Multiband 700/800 + VHF Standard	\$ -	\$ -
	Multiband 700/800 + VHF Flexible	\$ -	\$ -
	Multiband 700/800 + UHF Hi (470 - 520 MHz) Standard	\$ -	\$ -
	<b>Battery</b>	<b>Contract</b>	<b>List</b>
	No Battery (credit)	\$ (40.00)	\$ (40.00)
	Viking Li-ion Battery	\$ -	\$ -
	<b>Housing</b>	<b>Contract</b>	<b>List</b>
	Black Housing	\$ -	\$ -
	High Visibility Housing	\$ 160.00	\$ 200.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
1	Analog FM (included in base radio)	\$ -	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 160.00	\$ 200.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
1	Conventional System	\$ 280.00	\$ 350.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 500.00	\$ 625.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 580.00	\$ 725.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>		
4	Project 25 Conventional System	\$ 280.00	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 380.00	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 700.00	\$ 875.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 680.00	\$ 850.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,000.00	\$ 1,250.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	2048 Channels/Talkgroups (standard)	\$ -	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
	Single-Key AES	\$ 120.00	\$ 150.00
	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
	AES (multi-key)	\$ 380.00	\$ 475.00
	DES-OFB + AES (Multi-Key)	\$ 600.00	\$ 750.00
	ARC4 (ADP compatible)	\$ -	\$ -

	<b>Programming &amp; Data</b>		
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	Rebanding (requires 700/800 MHz)	\$ 88.00	\$ 110.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Third Party Interface	\$ 120.00	\$ 150.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
	Project 25 Data Conventional	\$ 112.00	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>		
	Project 25 Authentication	\$ 80.00	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
	EVRS	\$ 80.00	\$ 100.00

# KENWOOD

P25 Mission Critical

## VIKING VP600

700/800 MHz • VHF • UHF • SN/SZ • P25 PHASE 1 & 2



With a top display and best in the industry audio performance, the VP600 single band portable offers smarter visual and audio features that make first responder communications effortless.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS (700/800 MHz only)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VP600 operating manual for detailed requirements & conditions for proper GPS operation.

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Rad - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas.  
 Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & m



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise frequencies and eliminates the need for extra configuration. Works in digital mode and with any accessories.



Making Safe,...

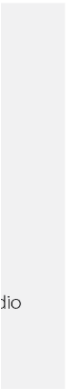
	<b>Radio - Base Model</b>	<b>Contract</b>
242577AX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 1,408.00
242577DX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,568.00
242577BX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 1,528.00
242577EX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,688.00
242577CX53XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 1,728.00
242577FX93XXX	700/800 MHz, 762-806 MHz, 2.5W, and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,888.00
242571A653XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad)	\$ 1,408.00
242571D693XXX	VHF, 136-174 MHz, 5W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,568.00
242571B653XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad)	\$ 1,528.00
242571E693XXX	VHF, 136-174 MHz, 5W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,688.00
242571C653XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad)	\$ 1,728.00
242571F693XXX	VHF, 136-174 MHz, 5W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,888.00
242572A453XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad)	\$ 1,408.00
242572D493XXX	UHF, 380-470 MHz, 4W, Model 1 (no keypad; Hazardous Location - FM)	\$ 1,568.00
242572B453XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad)	\$ 1,528.00
242572E493XXX	UHF, 380-470 MHz, 4W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 1,688.00
242572C453XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad)	\$ 1,728.00
242572F493XXX	UHF, 380-470 MHz, 4W, Model 3 (full keypad; Hazardous Location - FM)	\$ 1,888.00
	<b>Antenna</b>	<b>Contract</b>
	No Antenna (credit)	\$ (15.00)
	700/800 MHz, 1/2 Wave	\$ -
	800 MHz, 1/2 Wave	\$ -
	VHF, 136-174 MHz Dipole, red core (VHF Wideband)	\$ 12.00
	VHF, 136-151 MHz Helical, yellow core (Federal)	\$ -
	VHF, 151-162 MHz Helical, black core (Public Safety)	\$ -
	VHF, 162-174 MHz Helical, blue core (Business & Industrial)	\$ -
	UHF, 380-520 MHz, 1/4 Wave, white core	\$ -
	<b>Battery</b>	<b>Contract</b>

	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$ -
	<b>Housing</b>	<b>Contract</b>
	Black Housing	\$ -
	High Visibility Housing	\$ 160.00
	<b>Protocol</b>	<b>Contract</b>
1	Analog FM	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 160.00
	<b>System Options</b>	<b>Contract</b>
1	Conventional System	\$ 280.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 500.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 580.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>	
4	Project 25 Conventional System	\$ 280.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 380.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 700.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 680.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,000.00
	<b>Optional Features</b>	<b>Contract</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -
	Single-Key AES	\$ 120.00
	DES-OFB (multi-key)	\$ 440.00
	AES (multi-key)	\$ 380.00
	ARC4 (ADP compatible)	\$ -
	<b>Programming &amp; Data</b>	
	MDC1200/GE-Star Signaling	\$ 40.00
	Rebanding (requires 700/800 MHz)	\$ 88.00
	FIRESafe™ First Responder	\$ 200.00
	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 280.00
	GPS (requires 700/800 MHz)	\$ 80.00
	Third Party Interface	\$ 120.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>	
	Project 25 Data Conventional	\$ 112.00
	Project 25 OTAR Conventional & Trunking	\$ 600.00
	P25 Paging Encode	\$ 80.00
	OTAP (Over-the-Air Programming)	\$ 160.00

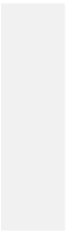
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2)</i></b>	
	Project 25 Authentication	\$ 80.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00
	EVRS	\$ 80.00



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\$ 100.00
\$ 200.00
\$ 100.00

# KENWOOD

P25 Mission Critical

## TK-5230/5330/5430

VHF • UHF • 700/800 MHz • P25 PHASE 1 & 2 • LTR

Compact P25 Phase 1/Phase 2 radio with large transfective color display, built-in GPS & Bluetooth® is a great fit for public works or public safety agencies looking for a smaller feature rich radio.



### FEATURES

- Digital operation in P25 Phase 1 & Phase 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog & LTR Operation allows migration in mixed sites
- Large, color 1.74" (240 x 180 pixels) Transfective TFT Display for better use in direct sunlight & with use of polarized sunglasses
- Easy to follow GUI for at-a-glance operational status checking & multi-line text
- 4-way Directional-pad (D-pad) & 2-Position Lever Switch for intuitive control
- Built-In GPS Receiver/Antenna for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Renowned audio quality with Active Noise Cancelling that utilizes built-in DSP with two microphones for suppression of ambient noise (dual-mic)
- Built-in 56-bit DES Encryption (4-key DES standard)
- Optional 256-bit AES Encryption
- Built-in motion sensor for life-critical man down detection
- microSD/microSDHC Memory Card Slot for increased voice & data memory capacity
- IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- 1 W loud speaker audio

### DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- Over-the-Air Programming<sup>1</sup>

### FM MODES - GENERAL

- Conventional & LTR Zones
- NPSPAC (USA only) Channels (±4.0 Modulation)
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT / DQT & Two-Tone
- Built-in Voice Inversion Scrambler

### INTELLIGENT BATTERY SYSTEM (OPTION)

- System consists of optional high-capacity Li-Ion Battery Series (KNB-L1/L2/L3), Rapid Charger (KSC-Y32), & Battery Reader (KAS-12) software
- Up to 30 rapid chargers can be chain-connected to PC installed with KAS-12
- Battery conditions displayed in color illuminated indicators on the charger & also displayed on connected PC with same color scheme
- Up to 1,000 batteries can be managed at a time (requires additional option)

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).*



<sup>1</sup> Requires OTAP management software.

Radio - Base Model

Contract

List Price

TK-5430F2	700 / 800 MHz, 3.0 Watts Analog/P25 Conventional/P25 Phase I Trunking - Standard Key Model	\$ 1,160.00	\$ 1,450.00
TK-5430F3	700 / 800 MHz, 3.0 Watts Analog/P25 Conventional/P25 Phase I Trunking - Full Key Model	\$ 1,200.00	\$ 1,500.00
<b>Licensing System</b>		<b>Contract</b>	<b>List Price</b>
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>			
KPT-300LMC	License Management Client	\$ -	\$ -
L-5000	KPT-300LMC License Key	\$ -	\$ -
<b>Software Licensing Options</b>		<b>Contract</b>	<b>List Price</b>
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>			
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 124.00	\$ 155.00
<b>P25 Trunked Programming Capability (licensed by either 1 or 2 below):</b>			
	1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK		
	2. Software Key Type: System Key File (SKF)- See L-5005		
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 707.20	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 68.00	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	\$ -	
<b>Radio Feature License Options</b>		<b>Contract</b>	<b>List Price</b>
<b>PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.</b> <b>Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transfered radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.</b>			
<b>General Radio Features</b>			
KWD-5000CH	License Key for 4000 Channel Expansion	\$ 336.00	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 240.00	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 84.00	\$ 105.00

<b>P25 Radio Features</b>			
KWD-5100CV	License Key for P25 Conventional	\$ -	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 320.00	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 560.00	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 96.00	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 144.00	\$ 180.00
<b>Antennas</b>		<b>Contract</b>	<b>List Price</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
<b>Batteries &amp; Chargers</b>		<b>Contract</b>	<b>List Price</b>
KNB-L1M	Li-ion 2000mAh (Compact Slim)	\$ 92.00	\$ 115.00
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KAS-12K	License Key for KAS-12 <b>(Authentication required)</b> Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 68.00	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
<b>Carrying Accessories</b>		<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 21.04	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 17.60	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 29.40	\$ 36.75
KLH-200K3	Heavy duty leather carrying case for TK-5x30-series (for both K2 & K3 models)	\$ 35.40	\$ 44.25
KLH-201K3	Nylon carrying case for TK-5430-series (for both keypad models)	\$ 21.04	\$ 26.30
		\$ -	
<b>Special Color Housing</b>		<b>Contract</b>	<b>List Price</b>

KWD-YH-5000	Yellow Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
KWD-OH-5000	Orange Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b><u>Compatible with ANR Feature</u></b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
<b>Encryption Modules</b>		<b>Contract</b>	<b>List Price</b>
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 680.00	\$ 850.00

KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is a U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 440.00	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 420.00	\$ 525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 294.40	\$ 368.00
<b>Service Related Accessories</b>		<b>Contract</b>	<b>List Price</b>
KPG-36XM	Full Speed USB Programming interface cable	\$ 126.80	\$ 158.50
KPG-93	KVL-3000 Plus/4000 Interface Cable for P25 Portables	\$ 210.00	\$ 262.50
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 166.40	\$ 208.00
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - <b>Restricted Purchase Requirements</b> - <b>Notes:</b> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 400.00	\$ 500.00
<b>Installation/Tuning Charges</b>		<b>Contract</b>	<b>List Price</b>
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	\$ -	\$ -
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately	\$ 96.00	\$ 120.00
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	\$ 30.00	\$ 37.50

L-5003	Install KWD-AE30K in TK-5x30 series Portable (Must purchase module separately)	\$ 60.00	\$ 75.00
L-5004	Install KWD-AE31K in TK-5x30 series Portable (Must purchase module separately)	\$ 60.00	\$ 75.00
L-5005	KPG-D1NK System Key File (SKF) <b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <b>- Restricted Purchase Requirements -</b> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 105.60	\$ 132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with TK-5x30 series Portable	\$ 21.60	\$ 27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with TK-5x30 series Portable	\$ 21.60	\$ 27.00

**-- IMPORTANT NOTES --**

**Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See [www.bis.gov](http://www.bis.gov) for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.**

**The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:**

**a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, Contractship, manufacturer's representative)**

**\* Business/Agency Name:**

**\* Address:**

**\* Contact Person Name:**

**\* Contact Phone:**

**b) Ultimate Destination: Final delivery point(s); deployment/distribution**

**\* Business/Agency Name:**

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***KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping***

***A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a Contract or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.***

# KENWOOD

P25 Mission Critical

## TK-5230/5330/5430

VHF · UHF · 700/800 MHz · P25 PHASE 1 & 2 · LTR

Compact P25 Phase 1/Phase 2 radio with large transreflective color display, built-in GPS & Bluetooth® is a great fit for public works or public safety agencies looking for a smaller feature rich radio.



### FEATURES

- Digital operation in P25 Phase 1 & Phase 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog & LTR Operation allows migration in mixed sites
- Large, color 1.74" (240 x 180 pixels) Transflective TFT Display for better use in direct sunlight & with use of polarized sunglasses
- Easy to follow GUI for at-a-glance operational status checking & multi-line text
- 4-way Directional-pad (D-pad) & 2-Position Lever Switch for intuitive control
- Built-In GPS Receiver/Antenna for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Renowned audio quality with Active Noise Cancelling that utilizes built-in DSP with two microphones for suppression of ambient noise (dual-mic)
- Built-in 56-bit DES Encryption (4-key DES standard)
- Optional 256-bit AES Encryption
- Built-in motion sensor for life-critical man down detection
- microSD/microSDHC Memory Card Slot for increased voice & data memory capacity
- IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- 1 W loud speaker audio

### DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- Over-the-Air Programming<sup>1</sup>

### FM MODES - GENERAL

- Conventional & LTR Zones
- NPSPAC (USA only) Channels (±4.0 Modulation)
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT / DQT & Two-Tone
- Built-in Voice Inversion Scrambler

### INTELLIGENT BATTERY SYSTEM (OPTION)

- System consists of optional high-capacity Li-Ion Battery Series (KNB-L1/L2/L3), Rapid Charger (KSC-Y32), & Battery Reader (KAS-12) software
- Up to 30 rapid chargers can be chain-connected to PC installed with KAS-12
- Battery conditions displayed in color illuminated indicators on the charger & also displayed on connected PC with same color scheme
- Up to 1,000 batteries can be managed at a time (requires additional option)

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).*



<sup>1</sup> Requires OTAP management software.

Radio - Base Model

Contract

List Price

Standard Key Models			
TK-5230F2	VHF(136-174MHz),6.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,160.00	\$ 1,450.00
TK-5330F2	UHF (450-520MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,160.00	\$ 1,450.00
TK-5330F5	UHF (380-470MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking, Standard Key Model	\$ 1,160.00	\$ 1,450.00
Full Key Models			
TK-5230F3	VHF (136-174MHz),6.0 Watts ,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,200.00	\$ 1,500.00
TK-5330F3	UHF (450-520MHz),5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,200.00	\$ 1,500.00
TK-5330F6	UHF (380-470MHz), 5.0 Watts,Analog,P25 Conventional/P25 Phase I Trunking,Full Key Model	\$ 1,200.00	\$ 1,500.00
Licensing System		Contract	List Price
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>			
KPT-300LMC	License Management Client	\$ -	\$ -
L-5000	KPT-300LMC License Key	\$ -	\$ -
Software Licensing Options		Contract	List Price
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>			
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 124.00	\$ 155.00
P25 Trunked Programming Capability (licensed by either 1 or 2 below):			
1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK			
2. Software Key Type: System Key File (SKF)- See L-5005			
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 707.20	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 68.00	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	\$ -	
Radio Feature License Options		Contract	List Price

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

**General Radio Features**

KWD-5000CH	License Key for 4000 Channel Expansion	\$ 336.00	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 240.00	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 84.00	\$ 105.00

**P25 Radio Features**

KWD-5100CV	License Key for P25 Conventional	\$ -	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 320.00	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 560.00	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 96.00	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 144.00	\$ 180.00

**Antennas**

		Contract	List Price
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25

**Batteries & Chargers**

		Contract	List Price
KNB-L1M	Li-ion 2000mAh (Compact Slim)	\$ 92.00	\$ 115.00
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 68.00	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00

KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
<b>Carrying Accessories</b>		<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 21.04	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 17.60	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 29.40	\$ 36.75
KLH-200K3	Heavy duty leather carrying case for TK-5x30-series (for both K2 & K3 models)	\$ 35.40	\$ 44.25
<b>Special Color Housing</b>		<b>Contract</b>	<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
KWD-OH-5000	Orange Housing Kit for TK-5x30 series Portables (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50

KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
<b>Encryption Modules</b>		<b>Contract</b>	<b>List Price</b>
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 680.00	\$ 850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 440.00	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 420.00	\$ 525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 294.40	\$ 368.00
<b>Service Related Accessories</b>		<b>Contract</b>	<b>List Price</b>
KPG-36XM	Full Speed USB Programming interface cable	\$ 126.80	\$ 158.50
KPG-93	KVL-3000 Plus/4000 Interface Cable for P25 Portables	\$ 210.00	\$ 262.50
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 166.40	\$ 208.00

KWD-ASK-MK	<p>Master Key for activating KWD-ASK-AK Access Keys</p> <p><b>- Restricted Purchase Requirements -</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 400.00	\$ 500.00
<b>Installation/Tuning Charges</b>		<b>Contract</b>	<b>List Price</b>
L-5001	<p>Factory Activation of Radio Feature Licenses (per Radio)</p> <p><b>Note:</b> Must purchase Radio Feature Licenses separately</p>	\$ 96.00	\$ 120.00
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	\$ 30.00	\$ 37.50
L-5003	Install KWD-AE30K in TK-5x30 series Portable (Must purchase module separately)	\$ 60.00	\$ 75.00
L-5004	Install KWD-AE31K in TK-5x30 series Portable (Must purchase module separately)	\$ 60.00	\$ 75.00
L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 105.60	\$ 132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with TK-5x30 series Portable	\$ 21.60	\$ 27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with TK-5x30 series Portable	\$ 21.60	\$ 27.00
		\$ -	

**-- IMPORTANT NOTES --**

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See [www.bis.gov](http://www.bis.gov) for more information regarding export regulations. **DO NOT SHIP** encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:

**a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, Contractship, manufacturer's representative)**

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

**b) Ultimate Destination: Final delivery point(s); deployment/distribution**

\* Business/Agency Name:

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***KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping***

***A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a Contract or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.***



# KENWOOD

P25 Mission Critical

## VIKING VM7000

VHF - VHF High Power - UHF - 700/800 MHz - SN/SZ - P25 PHASE 1 & 2

With the **VM7000 All-Band Multi-Deck Mobile**, you can simultaneously receive and display up to four bands so you never miss a call. The “select” and “unselect” speakers give you the option for audio control similar to a dispatch console. The **KENWOOD Viking®** is the industry’s only mobile platform providing **TrueVoice™** noise cancellation.



### FEATURES

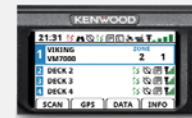
- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Single or Dual Remote Mount configuration
- External speaker
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.

### FULL-FEATURED CONTROL HEAD

- Larger display - 2.75" (36 x 60 mm)
- Resolution of 400 x 240 pixels
- Viewing angle of 140°
- Multi-color LCD + TX/RX (green/red) LEDs
- Illumination sensor for auto brightness<sup>1</sup>
- D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs
- Replaceable A/B/C button labels
- User selectable themes (8 themes available)
- Day & night display options

<sup>1</sup>Future availability



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EFJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™

Master Radio - (First Deck, Choose one)		Contract	List
VM7730HBF-M	VM7000 136-174 MHZ Hi Power Master	\$2,480.00	\$ 3,100.00

VM7730BF-M	VM7000 136-174 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF-M	VM7000 450-520 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF2-M	VM7000 380-470 MHZ Master	\$1,920.00	\$ 2,400.00
VM7930BF-M	VM7000 700/800 MHZ Master	\$1,920.00	\$ 2,400.00
<b>Slave Radio - (2nd-4th Deck, Choose up to 3)</b>		<b>Contract</b>	<b>List</b>
VM7730BF-S	VM 7000 136-174 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF-S	VM 7000 450-520 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF2-S	VM 7000 380-470 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7930BF-S	VM 7000 700/800 MHZ Slave	\$ 880.00	\$ 1,100.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
KRK-17BF	Remote Kit	\$ 320.00	\$400.00
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-29RV	KCH-20 Enhanced control head	\$ 560.00	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KCT-71M4	Control Cable	\$ 108.00	\$ 135.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KCT-72M	External Accessory Connection Cable for KCH-20R	\$ 29.36	\$ 36.70
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ 280.00	\$ 350.00
	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	SmartNet II / SmartZone	\$ 300.00	\$ 375.00
	1024 Ch	\$ -	\$ -
	2048 Ch	\$ 240.00	\$ 300.00
	4000 Ch	\$ 480.00	\$600.00
	DES-OFB multi-key	\$ -	\$ -
	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00

OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
P25 Authentication	\$ 80.00	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
GPS	\$ 80.00	\$ 100.00
GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00

# KENWOOD



P25 Mission Critical

## VIKING VM6000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

### VIKING CONTROL HEAD

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohson.com/products/accessories](http://www.ejohson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

Radio - Base Model	Contract	List
VM6730BF VM 6000 136-174 MHZ	\$ 1,720.00	\$ 2,150.00

VM6830BF	VM 6000 450-520 MHZ	\$ 1,720.00	\$ 2,150.00
VM6830BF2	VM 6000 380-470 MHZ	\$ 1,720.00	\$ 2,150.00
VM6930BF	VM 6000 700/800 MHZ	\$ 1,720.00	\$ 2,150.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
835VM6000VCH	Viking Control Head (VCH) <i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i>	\$ 720.00	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
597535777502	6 Ft remote cable	\$ 80.00	\$ 100.00
597535777502	17 Ft remote cable	\$ 128.00	\$ 160.00
597535777503	50 Ft remote cable	\$ 240.00	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 112.00	\$ 140.00
589001202303	VCH Desktop Mic	\$ 520.00	\$ 650.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
2500151006	5in. 15W Speaker, Crimp Leads	\$ 60.00	\$ 75.00
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ 280.00	\$ 350.00
	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	SmartNet II / SmartZone	\$ 300.00	\$ 375.00
	1024 Ch	\$ -	\$ -
	2048 Ch	\$ 240.00	\$ 300.00
	4000 Ch	\$ 480.00	\$600.00
	DES-OFB multi-key	\$ -	\$ -
	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	GPS	\$ 80.00	\$ 100.00

GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00
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# KENWOOD

**VIKING**

P25 Mission Critical

## VIKING VM5000

VHF • UHF • 700/800 MHz • SN/SZ • P25 PHASE 1 & 2



Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount (KCH-19 only)
- Remote mount
- Dual control heads (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/11A defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

<sup>1</sup>Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.

### BASIC CONTROL HEAD

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).*

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple®

Radio - Base Model		Contract	List
VM5730BF	VM 5000 136-174 MHZ	\$1,720.00	\$ 2,150.00

VM5830BF	VM 5000 450-520 MHZ	\$1,720.00	\$ 2,150.00
VM5830BF2	VM 5000 380-470 MHZ	\$1,720.00	\$ 2,150.00
VM5930BF	VM 5000 700/800 MHZ	\$1,720.00	\$ 2,150.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-19VM	Dash - KCH-19	\$ 144.00	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 25.20	\$ 31.50
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KMC-9C	Desktop Mic	\$ 68.80	\$ 86.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ -	\$ -
	P25 Phase 1 Trunking	\$ -	\$ -
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	SmartNet II / SmartZone	\$ 300.00	\$ 375.00
	1024 Ch	\$ -	\$ -
	DES-OFB multi-key	\$ 156.00	\$ 195.00
	AES FIPS-140-2 multi-key (DES-OFB included)	\$ 600.00	\$ 750.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	GPS	\$ 80.00	\$ 100.00
	GPS Antenna	\$ 33.60	\$ 42.00
	<b><i>Automatically selected when GPS option is selected in CeVo</i></b>		



# KENWOOD



P25 Mission Critical

## VIKING VM900

VHF/700-800 MHz • SmartNet®/SmartZone® • P25 PHASE 1 & 2



Dual-Band and multi-system radio equipped with industry leading audio, color display, public safety ergonomics, and advanced features including Over-the-Intranet (OTIP) programming.

### FEATURES

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, SN/SZ, FM Analog)
- 2048 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (requires external GPS receiver)
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount
- Remote mount
- Dash mount with remote control head
- Dual control heads (option)
- Internal or external speaker
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

### VIKING CONTROL HEAD (Option)

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & nighttime viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°

### COMPATIBLE WITH MULTIPLE P25 SYSTEMS

- EJohnson ATLAS® P25 System
- Motorola® Systems
  - Motorola Astro® 25 - P25 Phase 1 & Phase 2
  - Motorola Astro® SmartNet®/SmartZone®
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. [Download the accessory catalog at www.efjohnson.com/products/accessories.](http://www.efjohnson.com/products/accessories)

We combine P25 design expertise with recognized quality & reliability along with smarter technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Intranet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Making Safe, Simple™

	Radio - Base Model	Contract	List
	700/800 MHz, 762-870 MHz + VHF, 30/35W Dash Mount	\$ 2,140.00	\$ 2,675.00

	700/800 MHz, 762-870 MHz + VHF, 30/35W Remote Mount	\$ 2,140.00	\$ 2,675.00
	700/800 MHz, 762-870 MHz + VHF, 30/35W Control Station (includes Power supply & cabinet)	\$ 2,376.00	\$ 2,970.00
	700/800 MHz, 762-870 MHz, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
	VHF, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	VHF, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	VHF, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
	<b>Control Head Type</b>	<b>Contract</b>	<b>List</b>
	<b><i>Dash Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
	Dash-Mount Control Head (includes standard palm mic)	\$ 64.00	\$ 80.00
	Dash-Mount Control Head with no mic	\$ -	\$ -
	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 600.00	\$ 750.00
	<b><i>Viking Control Head</i></b>	\$ -	
	Dash-Mount Control Head (includes standard palm mic & external speaker)	\$ 688.00	\$ 860.00
	Dash-Mount Control Head with no mic (includes external speaker)	\$ 624.00	\$ 780.00
	Dash-Mount Control with Remote Control Head (includes one remote control head, additional mic & remote control head)	\$ 1,752.00	\$ 2,190.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
	Remote Control Head (includes standard palm mic)	\$ 440.00	\$ 550.00
	Remote Control Head with no mic	\$ 376.00	\$ 470.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 960.00	\$ 1,200.00
	Dual Control Head with no mics	\$ 832.00	\$ 1,040.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Viking Control Head</i></b>	\$ -	
	Remote Control Head (includes standard palm mic & external speaker)	\$ 1,056.00	\$ 1,320.00
	Remote Control Head with no mic (includes external speaker)	\$ 992.00	\$ 1,240.00

	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, two mounting brackets, and two external speakers)	\$ 2,192.00	\$ 2,740.00
	Dual Control Head with no mics (includes two external speakers)	\$ 2,064.00	\$ 2,580.00
	<b>Accessory Cable</b>	<b>Contract</b>	<b>List</b>
	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 124.00	\$ 155.00
	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 144.00	\$ 180.00
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -	\$ -
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 96.00	\$ 120.00
	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD R597-5357-74401 (may be ordered with dual Remote Mount)	\$ 428.80	\$ 536.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
1	Analog FM	\$ -	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 280.00	\$ 350.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
1	Conventional System	\$ 440.00	\$ 550.00
2	SMARTNET® II Trunking (includes system option 1)	\$ 480.00	\$ 600.00
3	SmartZone® Trunking (includes system options 1 & 2)	\$ 600.00	\$ 750.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
4	Project 25 Conventional System	\$ 440.00	\$ 550.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 620.00	\$ 775.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 940.00	\$ 1,175.00
7	Project 25 Phase 1 Trunking and SmartZone® Trunking (includes system options 2 & 4)	\$ 780.00	\$ 975.00
8	Project 25 Phase 2 TDMA and SmartZone® Trunking (includes system options 2, 4 & 5)	\$ 1,100.00	\$ 1,375.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
	Single-Key AES	\$ 120.00	\$ 150.00

	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
	AES (multi-key)	\$ 380.00	\$ 475.00
	ARC4 (ADP compatible)	\$ -	\$ -
	<b>Programming &amp; Data</b>		
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	Rebanding	\$ 88.00	\$ 110.00
	<b><i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
	Project 25 Data Conventional	\$ 112.00	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	OTIP (Over-the-Intranet Programming)	\$ 160.00	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>		
	Project 25 Authentication	\$ 80.00	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
	GPS	\$ 160.00	\$ 200.00
	EVRS	\$ 80.00	\$ 100.00

# KENWOOD

P25 Mission Critical

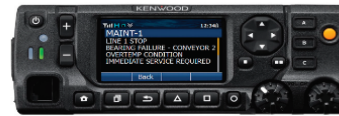
**TK-5730/5830/5930**

VHF • UHF • 700/800 MHz • P25 PHASE 1 & 2 • FM ANALOG

Round-the-clock public safety operations can be extremely demanding for both personnel and equipment. The reliable TK-5x30 mobile radios offer clear mission critical communications for police, fire and EMS.



Control Head - Dash/Remote



Full Featured Control Head - Remote

## FEATURES

- Digital operation in P25 Phase 1 & 2
- P25 Phase 1 Conventional/Trunked Operation (standard)
- Mixed Digital, FM Analog Operation allows intelligent migration in mixed sites & with digital radios in other sites
- Large, color LCD display: Full Featured - 2.75" (400 x 240 pixels); Basic - 2.55" (422 x 154 pixels)
- Easy to follow GUI & Multi-line Text
- Dual Remote Control Head Option & Multi RF Deck Options
- Built-In GPS Receiver for effective fleet management
- Bluetooth® Module built-in for hands-free operation
- Active Noise Cancelling utilizes built-in DSP with 2 microphones for suppression of ambient noise (dual-mic)
- IP54/55 and MIL-STD-810 C/D/E/F/G
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- DB 25 Accessory Connector

## FM MODES - GENERAL

- Conventional & LTR Zones
- MDC-1200: PTT ID ANI / Caller ID Display, Emergency, Radio Check / Inhibit
- QT/DQT & Two-Tone

## DIGITAL - P25 MODE

- P25 Phase 1 Conventional/Trunked Operation (standard)
- P25 Phase 2 Trunked Operation
- AMBE+2™ Enhanced Vocoder
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 GPS Location
- P25 Over-the-Air-Rekeying
- Over-the-Air Programming<sup>1</sup>

## MULTIPLE CONFIGURATIONS (OPTION)

The TK-5x30 series allows users to create a variety of configurations to suit different requirements by combining different options.

- **Single Remote Control Head/Single RF Deck:**  
Mobile is controlled by a remote control head.
- **Single Remote Control Head/Multi RF Decks:**  
Operate multiple (up to 3) radio decks from single control head.
- **Dual Remote Control Heads/Single RF Deck:**  
One controller can be mounted on the dashboard with the other control head remotely mounted (such as the back of an ambulance or fire apparatus).
- **Dual Remote Control Heads/Multi RF Decks:**  
This adds the convenience of a dual control head to the above configuration so 2 operators can control up to 3 radios from separate control heads.

## ACCESSORIES

Complete line of accessories including microphones, speakers & antennas. *Download the accessory catalog at [www.ejohson.com/products/accessories](http://www.ejohson.com/products/accessories).*



<sup>1</sup>Requires OTAP management software.

Radio - Base Model

Contract

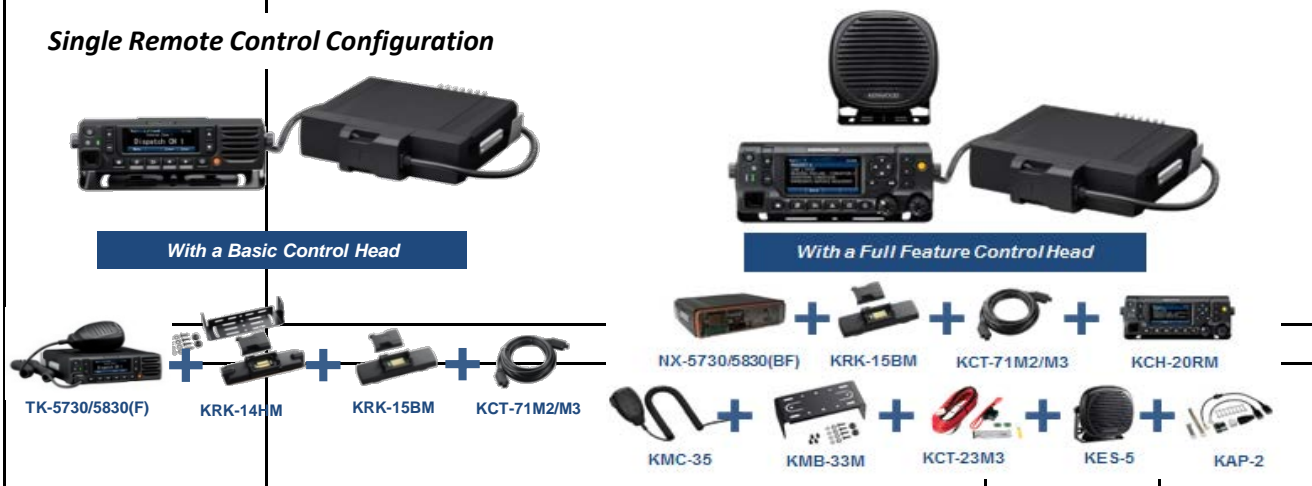
List

TK-5730BF	VHF (136-174MHz), 50 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,076.00	\$ 1,345.00
TK-5830BF	UHF (450-520MHz), 45 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,076.00	\$ 1,345.00
TK-5830BF2	UHF (380-470MHz), 45 Watts Analog,P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,076.00	\$ 1,345.00
TK-5930BF	7/800, 45 Watts, Analog, P25 Conventional, P25 Phase I Trunking <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,156.00	\$ 1,445.00
<b>Licensing System</b>		<b>Contract</b>	<b>List</b>
<b>KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the TK-5x30 Series radios.</b>			
KPT-300LMC	License Management Client	\$ -	\$ -
L-5000	KPT-300LMC License Key	\$ -	\$ -
<b>Software Licensing Options</b>		<b>Contract</b>	<b>List</b>
<b>Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.</b>			
KPG-D1NK	License Key for KPG-D1NK Programming Software for TK-5x30 Portable/Mobile (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 124.00	\$ 155.00
<b>P25 Trunked Programming Capability (licensed by either 1 or 2 below):</b>			
	1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK		
	2. Software Key Type: System Key File (SKF)- See L-5005		
KPG-180AP	OTAP Manager Software • License includes 50 radios • To add more radios / serial ports, you must contact EF Johnson Technologies (1-800-328-3911 Option 1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 707.20	\$ 884.00
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/ & KSC-Y32 (Windows® Vista/7/8/8.1) <b>Note: Requires KPT-300LMC for authentication</b>	\$ 68.00	\$ 85.00
License Keys	<b>Software License Key Discount Structure:</b> 1 License Key - 2-4 License Keys 10% Off 5-14 License Keys 35% Off 15-24 License Keys 40% Off 25+ License Keys 45% Off	\$ -	

Radio Feature License Options		Contract	List
<p>PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.</p> <p><i>Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transfered radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.</i></p>			
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	\$ -	\$ -
<b>General Radio Features</b>			
KWD-5000CH	License Key for 4000 Channel Expansion	\$ 336.00	\$ 420.00
KWD-5001FP	License Key for Front Panel Programming	\$ 240.00	\$ 300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	\$ 84.00	\$ 105.00
<b>P25 Radio Features</b>			
KWD-5100CV	License Key for P25 Conventional	\$ -	\$ -
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	\$ -	\$ -
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	\$ 320.00	\$ 400.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	\$ 560.00	\$ 700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	\$ 96.00	\$ 120.00
KWD-5106DT	License Key for P25 Packet Data (required for Trunked OTAR/GPS/Text)	\$ 144.00	\$ 180.00
<b>Dash or Remote Configuration (Firmware Release 1.5 or Later required)</b>		<b>Contract</b>	<b>List</b>
TK-5730BF	TK-5730F (50W, 136-174 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,076.00	\$ 1,345.00
TK-5830BF	TK-5380F (45W, 450-520 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,076.00	\$ 1,345.00
TK-5830BF2	TK-5380F2 (45W, 380-470 MHz) RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)	\$ 1,076.00	\$ 1,345.00
TK-5930BF	7/800, 45 Watts, Analog, P25 Conventional, P25 Phase I Trunking - <b>RF Deck Only (No KCH-19 Control Head, KMC-35 Microphone, KMB-33 Bracket, KCT-23 DC Cable)</b>	\$ 1,156.00	\$ 1,445.00
KCH-19M	Basic Control Panel	\$ 144.00	\$ 180.00
KCH-20RM	Full Featured Remote Control Panel <b>Note:</b> Remote configuration only. No Internal Speaker included. KES-5/3 is required.	\$ 480.00	\$ 600.00
KRK-14HM	Control Head Interface Kit for KCH-19M	\$ 127.20	\$ 159.00

KRK-15BM	Control Head Remote Kit for a RF Deck	\$ 40.00	\$ 50.00
KCT-71M2	Remote Control Cable (17 feet)	\$ 56.00	\$ 70.00
KCT-71M3	Remote Control Cable (25 feet)	\$ 64.00	\$ 80.00
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	\$ 42.00	\$ 52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	\$ 75.60	\$ 94.50
KMB-33M	Standard Mounting Bracket (same as supplied)	\$ 11.20	\$ 14.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	\$ 35.40	\$ 44.25
KES-5	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) or KCT-72M (connection cable) installed.	\$ 49.00	\$ 61.25
KAP-2	Horn Alert/P.A. Relay Option	\$ 50.40	\$ 63.00
KCT-72M	Accessory Connection Cable for KCH-20RM	\$ 29.36	\$ 36.70
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	\$ 27.80	\$ 34.75

### Single Remote Control Configuration



Mobile Installation Accessories		Contract	List
KAP-2	Horn Alert/P.A. Relay Option	\$ 50.40	\$ 63.00
KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	\$ 25.20	\$ 31.50
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	\$ 27.80	\$ 34.75
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)	\$ 10.96	\$ 13.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	\$ 33.60	\$ 42.00
KMB-10	Key lock adapter	\$ 21.04	\$ 26.30
KMB-33M	Standard Mounting Bracket (same as supplied)	\$ 11.20	\$ 14.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 138.40	\$ 173.00



KRA-40GM	GPS Antenna	\$ 33.60	\$ 42.00
<b>Microphones &amp; Speakers</b>		<b>Contract</b>	<b>List</b>
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	\$ 42.00	\$ 52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	\$ 75.60	\$ 94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note:</b> NOT compatible in a TDMA operation	\$ 68.80	\$ 86.00
KES-3	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	\$ 35.40	\$ 44.25
KES-5	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) installed	\$ 49.00	\$ 61.25
KCT-73MIC	External Microphone kit w/ 9.8 ft. cord for Safer Driving	\$ 21.60	\$ 27.00
KCT-74PTT	External PTT Switch kit w/ 9.8 ft cord for Safer Driving	\$ 18.40	\$ 23.00

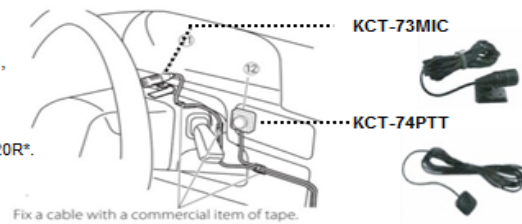
### Hands-free operation

To promote driver safety and meet hands-free regulations in certain regions, TK-5x30 series mobile offers external microphone and PTT as options.

**NOTE:** Connecting to the radio via DB25 terminal on backside of RF Deck or via optional KCT-72 "Connection Cable" on backside of KCH-19M and KCH-20R\*.

KCT-73MIC is not compatible with other NX/TK-mobile radios.

\*Available in 2015 3Q



<b>Encryption Modules</b>		<b>Contract</b>	<b>List</b>
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 680.00	\$ 850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	\$ 440.00	\$ 550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	\$ 420.00	\$ 525.00

KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	\$ 294.40	\$ 368.00
<b>Service Related Accessories</b>		<b>Contract</b>	<b>List</b>
KPG-46XM	Full Speed USB Programming interface cable	\$ 126.80	\$ 158.50
KPG-115	Key Loader Interface Cable for Motorola KVL-3000/3000 Plus	\$ 210.00	\$ 262.50
KPG-115AUT	KVL-4000 Radio Authentication Cable	<b>TBD</b>	<b>TBD</b>
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> <li>• For TK-5x30 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>	\$ 166.40	\$ 208.00
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - <b>Restricted Purchase Requirements</b> - <b>Notes:</b> <ul style="list-style-type: none"> <li>• For TK-5x30 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>	\$ 400.00	\$ 500.00
<b>Installation/Tuning Charges</b>		<b>Contract</b>	<b>List</b>
L-5006	TK-5730/5830 Programming (with basic TX/RX check)	\$ 30.00	\$ 37.50
L-5007	Install KWD-AE30K in TK-5x30 series Mobile (Must purchase module separately)	\$ 60.00	\$ 75.00
L-5008	Install KWD-AE31K in TK-5x30 series Mobile (Must purchase module separately)	\$ 60.00	\$ 75.00

L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to EF Johnson with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• EF Johnson ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>	\$ 105.60	\$ 132.00
L-5015	Install KAP-2 (Default) HR1/Internal Sp./PA	\$ 20.00	\$ 25.00
L-5016	Assemble TK-5x30 Mobile for Single Remote Head Control	\$ 33.60	\$ 42.00
L-5020	<p>KCT-71 Extended Control Head Cable (up to 50 ft. max.)</p> <p><b>Note:</b> Please specify exact length at 1ft. increments when ordering.</p> <p><b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.</p>	\$ 152.00	\$ 190.00
L-5021	<p>KCT-71 Extended Control Head Cable (up to 100 ft. max.)</p> <p><b>Note:</b> Please specify exact length at 1ft. increments when ordering.</p> <p><b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.</p>	\$ 196.00	\$ 245.00
<b>-- IMPORTANT NOTES --</b>			

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See [www.bis.gov](http://www.bis.gov) for more information regarding export regulations. **DO NOT SHIP** encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

The following information may be requested to be submitted at time of order (this information must meet internal approvals prior to shipment even if being returned later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination  
(customer distribution center, headquarters, Contractship, manufacturer's representative)

\* Business/Agency Name:

\* Address:

\* Contact Person Name:

\* Contact Phone:

b) Ultimate Destination: Final delivery point(s); deployment/distribution

\* Business/Agency Name:

\* Address:

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***KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping***

***A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a Contract or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.***

**ATLAS Price Guide | May 2018**

		<b>Contract Price</b>	<b>List Price</b>
336-1212-101	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 10,800.00	\$ 13,500.00
336-1224-101	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 10,800.00	\$ 13,500.00
336-1241-101	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 12,200.00	\$ 15,250.00
336-1224-102	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 13,180.00	\$ 16,475.00
336-1200-082	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b> Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,320.00	\$ 1,650.00
336-1200-000	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b> Includes programming software and cable.	\$ 236.00	\$ 295.00
336-1200-091	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 720.00	\$ 900.00
336-1200-092	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 1,240.00	\$ 1,550.00

# NXR-710/810

## UHF/VHF Low Power Base Stations and Repeaters



<b>BASE STATION</b>		<b>CONTRACT</b>	<b>LIST</b>
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

<b>REPEATER STATION</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

<b>REPEATER STATION WITH DUPLEXER</b>		<b>CONTRACT</b>	<b>LIST</b>
<p>Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher.</p>			

NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00

<b>REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
<p>Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-3M are mounted inside the Repeater; a separate Rack-Mount Power Supply is provided</p>			

NXR7100PSDI	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20201, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00

<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46UM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Programming Software (NXR-710/810)	\$ 82.60	103.25

B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	\$ 160.00	200.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	\$ 172.00	215.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00

<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KTI-3M	Network Interface Unit	\$ 212.00	265.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00

# NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 System
- NEXEDGE Gen2 System
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

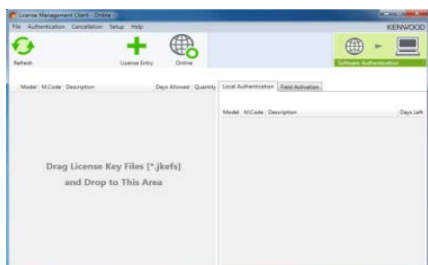
- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

## NXR-5700 REPEATER

		CONTRACT	LIST
NXR-5700K	Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00

## LICENSING SYSTEM

CONTRACT LIST



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS

CONTRACT LIST

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.



**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

- Complete the attached Radio Feature Request Form.
- Submit along with your PO to the SYSTEMS Order Desk via:
  - E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - Fax: (678) 957-1880
- License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7216-10	NXR-5700 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00

<b>Gen1 TRUNKING CONFIGURATIONS, CONT</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ -	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 204.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 972.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 6,400.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 1,224.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5800

UHF Digital & FM Base Repeaters - 400-520MHz



### GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

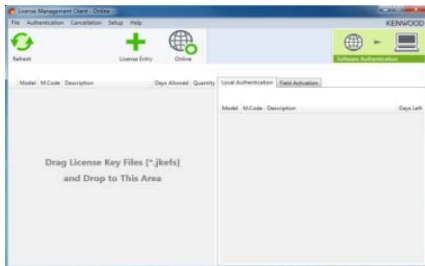
### GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

### TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5800 REPEATER		CONTRACT	LIST
NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
NXR-5800K3	Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

- Complete the attached Radio Feature Request Form.
- Submit along with your PO to the SYSTEMS Order Desk via:
  - E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - Fax: (678) 957-1880
- License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7217-10	NXR-5800 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

**RF REPEATER STATION AMPLIFIER OPTIONS**

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
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KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRES REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00

KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	
<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<a href="#">Please see the NEXEDGE Gen2 Page.</a>			
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00



KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5900

800MHz Digital & FM Base Repeaters - 806-825, 851-870 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

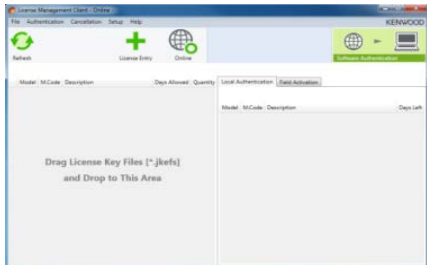
- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

## NXR-5900 REPEATER

		CONTRACT	LIST
NXR-5900K	Repeater, Digital, RX 806-825 MHz, TX 821-870 MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS

CONTRACT

LIST

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5900 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

### MOUNTING CONFIGURATIONS

		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINEREMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	
<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<a href="#">Please see the NEXEDGE Gen2 Page.</a>			
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00

KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5901

900MHz Digital & FM Base Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

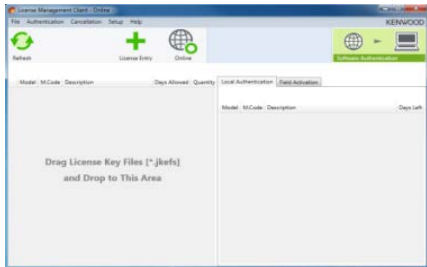
## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

NXR-5901 REPEATER		CONTRACT	LIST
NXR-5901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS	CONTRACT	LIST
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## TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5kHa and 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5901 Service Manual	\$ 40.00	50.00

**RF REPEATER STATION AMPLIFIER OPTIONS**

Note: Includes One Cable for Radio Connectivity.

KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00



KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
<b>MISC STATION OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-710

## VHF High Performance Base Stations and Repeaters - High Band 136-174MHz



### GENERAL:

- Occupies 2 RU.
- May be used as a standalone 25 W continuous or 50W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.			
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 752.00	940.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only <b>6.25kHz</b> operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00

KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-810

## UHF Base Stations and Repeaters - 400-520 MHz



### GENERAL:

- Integrated Systems
- Occupies 2 RU
- May be used as a standalone 25 W continuous or 40W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00

KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINER REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
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KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 2,832.00	3,540.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00



KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-900

800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz



## GENERAL:

- Integrated Systems.
- Occupies 1 RU.
- 360 mW transceiver unit used with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Enabling of the NXR-900 trunking feature.
  - System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
  - Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems.
- NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible.

<b>NXR-900 REPEATER (K Model)</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-900K	Repeater, Digital, RX 806-825 MHz, TX 851-870 MHz	\$ 4,600.00	5,750.00
<b>BANDWIDTH OPTION:</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for each 6.25KHz operation.	\$ 2,666.40	3,333.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8946-00	NXR-900 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	

CONSTRUCT OR ADD NEW SITES

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**ETHERNET SWITCH & ROUTER OPTIONS****CONTRACT****LIST**

Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

**EXTERNAL TRUNKING CONTROLLER OPTIONS****CONTRACT****LIST**

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

**MISC STATION OPTIONS****CONTRACT****LIST**

KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

**COMPONENTS****CONTRACT****LIST**

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-901

900 MHz High Performance Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Integrated Systems
- Occupies 1 RU
- 360 mW transceiver unit used with an external power amplifier
- Operates in analog mode at 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Trunking options include enabling of the NXR-901 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
- Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. NOTE: Recommended models are listed herein, but most commercially available IP

<b>NXR-901 REPEATER (K Model)</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00
<b>BANDWIDTH OPTION:</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	"Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5KHz or 6.25KHz operation.	\$ 2,666.40	3,333.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B53-7004-00	NXR-901 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00

KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	

ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D710

## DMR VHF Repeaters\* - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

### OPTIONS:

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00

BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTi-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTi-5M	\$ 16.00	20.00
L-1807	KTi-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00

RF BASE STATION AMPLIFIER OPTIONS		CONTRACT	LIST
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Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00



KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D710

DMR VHF Low Power Repeaters - 136-174MHz

\* Base Operations are not available.



**GENERAL:**

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

**OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>TKR-D710 REPEATER PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 136-174MHz Repeater 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
<b>REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
<b>REPEATER STATION WITH DUPLEXER</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.			
TKR-D710KPSD	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-			
TKR-D710KPSDI	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply, KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable. <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25

KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D810

## DMR UHF Repeaters - 400-520MHz

**GENERAL:**

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

**OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00

KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
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KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
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<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D810 REPEATER		CONTRACT	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810 REPEATER PACKAGE		CONTRACT	LIST
TKR-D810KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-520MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
TKR-D810K2PS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-470MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D810KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
TKR-D810K2PSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
TKR-D810KPSD	Repeater Station 5-40W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00

Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.



TKR-D810K2PSD	Repeater Station 5-40W, 400-470MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
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<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810KPSDI	Repeater Station 5-40W, 450-520MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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TKR-D810K2PSDI	Repeater Station 5-40W, 400-470MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



## GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

## OPTIONS:

- Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- T-R simplex antenna switching is included in the basic unit as well as in all external amplifiers.
- Other configurations are also available on a special order basis; please contact your Kenwood Systems Regional Sales Manager for more details.

RADIO PACKAGES		CONTRACT	LIST
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
BASIC ACCESSORIES		CONTRACT	LIST
KPG-43UM	Programming Cable	\$ 126.80	158.50
KPG-44DNK	Programming Software	\$ 54.80	68.50
B51-8460-10	TK-690 Service Manual	\$ 40.00	50.00
RF AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA21101	30-36MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21102	36-42MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21103	42-50MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21251	30-36MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21252	36-42MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21253	42-50MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
<b>WIRESLINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGOCWID	CWID Morse Code Generator <b>Note:</b> Specify call sign at time of order.	\$ 108.00	135.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
KCH-10	Basic Control Panel, 90-Series	\$ 117.60	147.00
KCT-23M2	10' Cable, DC for High-Power Mobile	\$ 31.00	38.75
KMB-5	Mounting Bracket for TK-690 Mobile Radio	\$ 11.20	14.00
KSGUT50002	2RU Utility Tray for Equipment Mounting	\$ 64.00	80.00
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00

KSGUT10001

1RU Mounting Tray

Note: Provides mounting space for up to two accessories.

\$ 40.00
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50.00

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# KAS-20

## STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and Dispatch for business, supporting both the NXDN and DMR digital protocols.

### FEATURES AND HIGHLIGHTS:

- Low-Cost Initial Investment with Upgrade licenses
  - Enhanced Scalability – Standalone PC / Multi-Client Server
  - Enhanced User Interface Design for ease of use
  - Supports multiple digital radio protocols
  - User-Selectable Options – Location, Dispatch, Voice Path, Multiple Client, and Voice Recording
  - Location Management – 1,000 subscribers
  - Definable Call Dispatch Windows
  - Embedded AMBE+2 Vocoder
  - System to System Patching\*
    - DMR Conventional
    - NXDN Conventional
    - NXDN Type-C Gen1 System
    - NXDN Type-C Gen2 System
- \*System type and bandwidth must match in order to patch calls from different system ID.



### COMPATIBLE IP CONSOLE INTERFACE\*

- Kenwood DMR Conventional
- Kenwood NXDN Conventional
- Kenwood NXDN Type-C
- Kenwood NXDN Gen2

\* KAS-20 does not support serial base connection

### SYSTEM REQUIREMENTS\*

- Windows 7, 8.1, 10 (32/64 bit OS)
- 3.0 GHz Intel Core i5 or faster CPU
- 4 GB RAM or more
- 50GB free space or more
- Internet Connection for AVL

\* Refer to KAS-20 brochure for details

SAMPLE LICENSE		CONTRACT	LIST
KAS-20K2	SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION Following features are enabled for 30 days after activation: - AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	\$ 16.00	20.00
BASE LICENSE		CONTRACT	LIST
KAS-20K	AVL & DISPATCH SOFTWARE BASE LICENSE	NC	NC

#### Notes:

1. KAS-20K base license is required per individual PC or Server. Works on both KAS-20C (Client) and KAS-20S (Server).
2. Application Software for KAS-20C (Client) and KAS-20S (Server) is available on Kenwood CONTRACT Tools.
3. Base license does not contain any of the feature licenses. Must purchase additional software upgrades to enable desired functions.
4. One KAS-20K base license allows a single connection to the RF system.

### TO PLACE AN ORDER FOR WINDOWS<sup>™</sup> SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:



**KPT-300LMC**



## License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows 7/8.1/10 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
<b>SOFTWARE UPGRADE LICENSES (FOR CLIENT)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20C-VDK	Voice Dispatch License for KAS-20 client <b>Note:</b> KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	\$ 533.60	667.00
KWD-20C-VPK	Voice Path License for KAS-20 client <b>Note:</b> Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	\$ 533.60	667.00
KWD-20C-LMK	Location Management License for KAS-20 client	\$ 533.60	667.00
<b>SOFTWARE UPGRADE LICENSES (FOR SERVER)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20S-MCK	Server upgrade license to enable multi-client operation <b>Note:</b> Single KAS-20 server software holds up to ten KAS-20 clients.	\$ 1,800.00	2,250.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks <b>Note:</b> Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	\$ 1,800.00	2,250.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	\$ 1,800.00	2,250.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30202	Windows server	\$ 3,500.00	4,375.00
KSGCP30203	Standalone PC Opt3040	\$ 1,020.00	1,275.00
KSGCP40001	USB Desktop Microphone A0110399	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	\$ 40.00	50.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	22" LED Backlit LCD Monitor 1920 x 1080 resolution E2316H	\$ 300.00	375.00
KSGCP00014	24" Monitor Backlit LCD Monitor 1920 x 1080, resolution HDMI, VGA, Displayport P2417H	\$ 416.00	520.00

# KAS-10

## GPS AVL & Dispatch Messaging Software (Version 2.x)

### Product Enhancements:

- 999 Mobile ID Capacity
- NXDN® Scrambler included
- Up to 100 KAS-10 per system, 10 per site
- 100 Group Scan with four Priority Monitor IDs

### Notes:

- NEXEDGE Gen2, Type-D and DMR Systems not supported.

<b>GPS AVL &amp; DISPATCH</b>		<b>CONTRACT</b>	<b>LIST</b>
KAS-10	GPS AVL & Dispatch Messaging Software	\$ 347.20	434.00
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface <b>Note:</b> USB-3003™ multi pass Vocoder with USB does not compatible with KAS-10.	\$ 520.00	650.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30201	Windows Workstation PC	\$ 1,612.00	2,015.00
KSGCP40001	USB Desktop Microphone	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	\$ 40.00	50.00
KSGCP40002	USB Over the Head Headset with Microphone	\$ 72.00	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	\$ 60.00	75.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	17" Anti-Glare Black LCD Monitor	\$ 300.00	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	\$ 380.00	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	\$ 836.00	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	\$ 996.00	1,245.00



# KPG-150AP

## OTAP Manager

### General

- For NEXEDGE® digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Accommodates multiple user-defined groups.
- Support for multiple serial ports facilitates transmission on different frequencies.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- KPG-150AP compares current and updated configurations, enabling transmission of only updated programming data to save on-air time.
- Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each

**Note:** NEXEDGE Type-D Trunking system and DMR System not supported.

OTAP MANAGER		CONTRACT	LIST
KPG-150AP	OTAP Manager <b>Note:</b> - Includes a license for one computer, one base radio (mobile or portable), and 10 subscriber radios (mobile or portable) - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 440.00	550.00

ADDITIONAL LICENSES		CONTRACT	LIST
<b>Note:</b> Includes a license for one additional subscriber radio (mobile or portable) attached to one computer running KPG-150AP software			
KWD-AP1	Additional Radio License for 1 PC <b>Note:</b> Price is per license on quantities of less than 100 licenses.	\$ 20.00	25.00
KWD-AP100	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 100 and 249 licenses at the same time.	\$ 20.00	25.00
KWD-AP250	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 250 and 499 licenses at the same time.	\$ 20.00	25.00
KWD-AP500	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering 500 or more licenses at the same time.	\$ 20.00	25.00
KWD-SP1	Additional System License for 1 PC <b>Note:</b> Price is per license on quantities of less than 16 licenses.	\$ 266.40	333.00

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.

# KPG-180AP

## OTAP Manager for NX-5000 Series

### General

- For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 System.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio.
- Multi-Protocol (NXDN/P25) capability.

### Note:

- NEXEDGE Type-D Trunking system and DMR System not supported.
- P25 OTAP is only available for Conventional Radio to Radio.

## LICENSING SYSTEM

## CONTRACT

## LIST



### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**.

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC

License Management Client

NC

NC

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Note:** A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

### Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSING OPTIONS, CON'T		CONTRACT	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Fifty (50) radios / One(1) <b>NXDN</b> Conventional and Type-C <b>Air</b> Communication Profile and One(1) <b>NXDN</b> Conventional and Type-C <b>IP</b> Communication Profile  <b>Note:</b> - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 707.20	884.00

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**  
**Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.**

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	\$ 1,333.60	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	\$ 2,333.60	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	\$ 3,333.60	4167.00
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	\$ 200.00	250.00
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	\$ 333.60	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	\$ 640.00	800.00

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles

Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

# KTI-4

## Telephone Interconnect Adapter

### General

- Available only for NEXEDGE® digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE® digital trunking system and an analog telephone patch panel

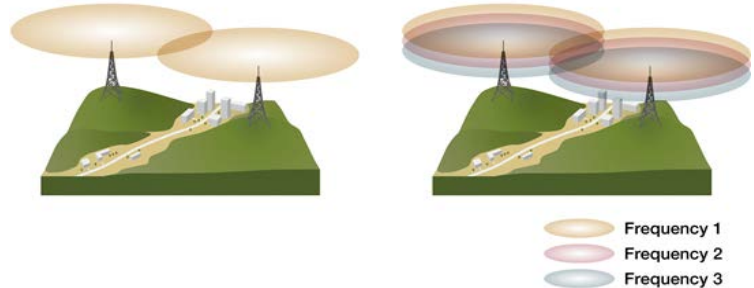
### Main Features

- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2™ vocoder for digital audio speech conversion.
- NXDN® encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

<i>Interconnect Adapter</i>		<i>CONTRACT</i>	<i>LIST</i>
KTI-4M	Telephone Interconnect Adapter	\$ 456.00	570.00
901-9416	Model 30 Worldpatch	\$ 641.00	801.25
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
L-8005	KTI-4M Calibration (Required)	\$ 60.00	75.00

**General**

- Simple multi-site operation for extended coverage.
- Digital simulcast will offer the user the ability to use a single frequency pair over a coverage area larger than serviced by a single repeater site.
- No need for radios to be programmed to roam among sites, greatly simplifying operation for the end-user and system owner.

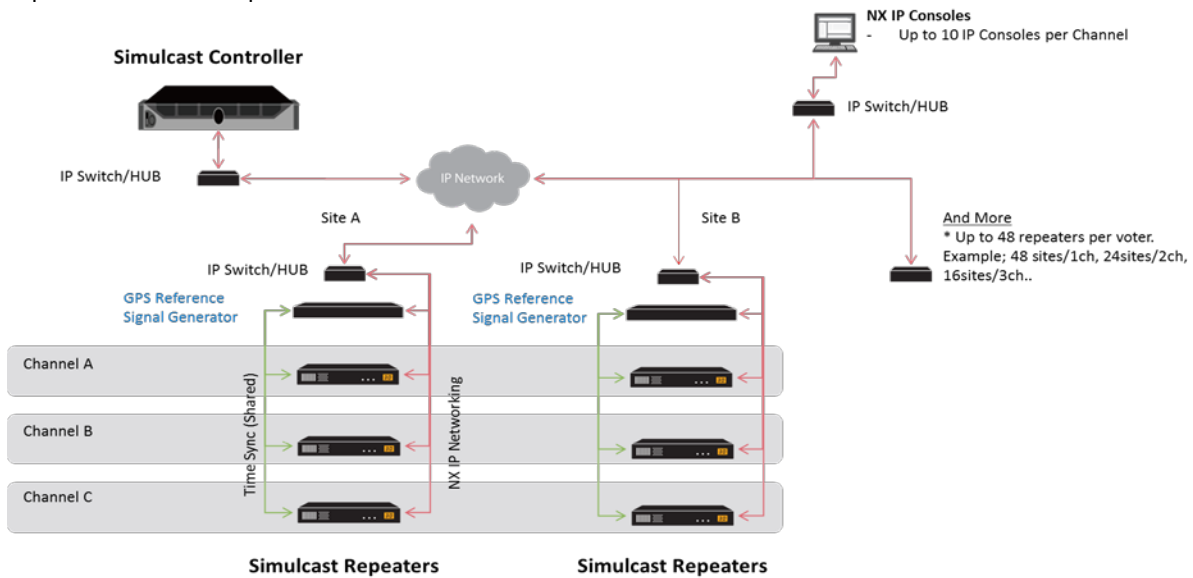


**Features and Highlights**

- 6.25 kHz NXDN Conventional
- VHF and UHF frequency models
- Up to 48 repeaters / Up to 3 channels per Controller  
*48 sites / 1CH, 24 sites / 2CH, 16sites/1CH*
- Up to 10 IP Consoles per Channel

**Applicable VHF/UHF Subscribers:**

- NX-5x00 Series
- NX-3x00/3x20 Series
- NX-x00G/x10G Series
- NX-x20 Series



<b>SIMULCAST CONTROLLER</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCT13SIM	Simulcast Controller	\$ 11,200.00	14,000.00
<b>SIMULCAST REPEATERS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-5700KSR	Simulcast Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800KSR	Simulcast Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800K3SR	Simulcast Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
<b>GPS REFERENCE</b>		<b>CONTRACT</b>	<b>LIST</b>
KSG-SIM-SG	Hi Performance GPS Receiver w/ Sync Cable <b>Note:</b> GPS reference is required per site	\$ 6,880.00	8,600.00
Includes GPS antenna, mounting hardware, antenna line surge suppressor. Antenna line should be ordered separately.			
<b>SERVICE</b>		<b>CONTRACT</b>	<b>LIST</b>

Custom

System Design, Onsite Consulting, and Coverage Testing are available. Contact the Regional Sales Manager for your area to obtain a custom quote based on specific site requirements, conditions, and environment.

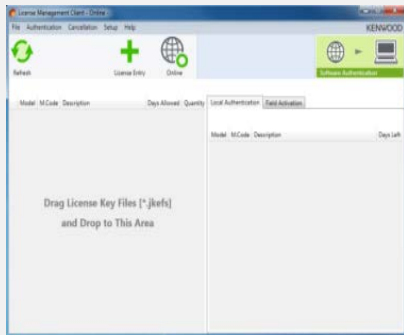
Custom

Custom

Notes:

1. Due to the complexity of the digital simulcast system, Kenwood will design, configure, and test the system.
2. IP Network and IP console is not included. CONTRACT should notify Kenwood Systems Group if required.

LICENSING SYSTEM	CONTRACT	LIST
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### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

PROGRAMMING SOFTWARE	CONTRACT	LIST
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KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	\$ 82.60	103.25
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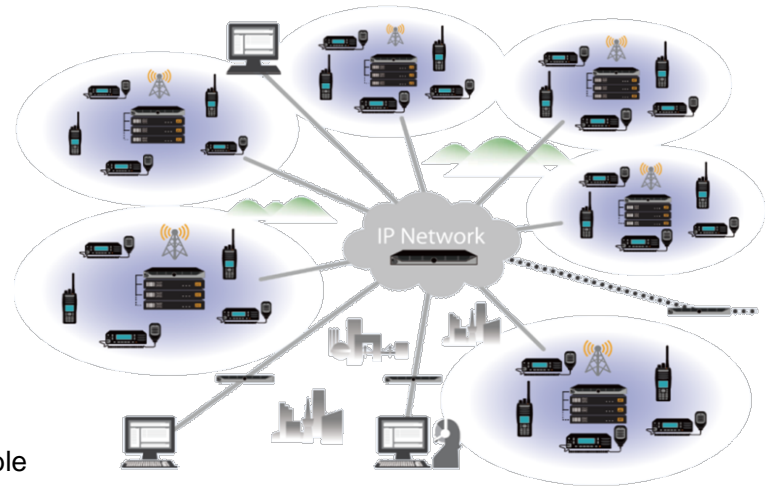
# NEXEDGE® Generation2 System

NEXEDGE Gen2

Gen2 is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. NXR-5000 and NXR-x00 series can be upgraded to Gen2 system. Key features and enhancements include: Direct Frequency Assignment (DFA), Call Pre-Emption for Console, GPS Report Channel, and an increase to the number of sites within a system.

### FEATURES AND HIGHLIGHTS:

- Up to 1,152 sites
- Up to 24 Wide Area Systems
- Up to 24 Multi System Roaming <sup>1</sup>
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel<sup>2</sup>
- SNMP Capability for Repeaters <sup>3</sup>
- Network Management and Monitoring
- NXR-700/800/900/901/5700/5800 Compatible



1. NX-x00/x10/x11/x20 series are available for 8 systems.  
 2. Requires Traffic Channel (Repeater) to use as a GPS Report Channel (GRCH).  
 3. NXR-x00 series requires to equip CF card that is installed of KPT-MIB10 software downloaded from Dealer Tools to use SNMP function.

SERVER SOFTWARE LICENSING		CONTRACT	LIST
KPG-1000SY	System Control Software <i>*Required</i> <b>Note:</b> - Required one per 48 site or per each system code - Includes NXR-5000/x00/x01 Firmware. They are automatically updated when KPG-1000SY is updated.	\$ 13,333.60	16,667.00
KPG-1001ST	Site Control Software <i>*Optional</i> <b>Note:</b> Required one per site of 10 channels or more.	\$ 2,000.00	2,500.00
KPG-1002GW	IP Gateway Software <i>*Optional</i> <b>Note:</b> Required for connecting NXIP Interface Software. One IP Gateway handles 100 interfaces and up to ten IP Gateways per system code	\$ 6,667.20	8,334.00
KPG-1003NS	Network Manager Server Software <i>*Optional</i> <b>Note:</b> Required for monitoring 101 to 1000 devices	\$ 4,000.00	5,000.00
KPG-1005RG	Roaming Gateway Server Software <i>*Optional</i> <b>Note:</b> - Required for subscriber roaming from one system to another. Roaming Gateway is required for the home system to each subscriber needing to roam. For example, subscriber from Sys A needs to roam to Sys B, Sys A needs the Roaming Gateway, Sys B doesn't need it unless Sys B subscriber needs to roam. - Roamer Subscriber must be set SKF that is issued by roamed system.	\$ 5,600.00	7,000.00

**Notes:**

1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.

SERVER HARDWARE	CONTRACT	LIST
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KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00

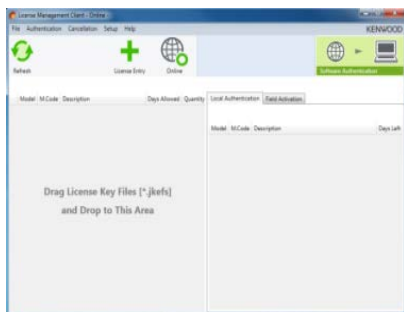
<b>WINDOWS® APPLICATION LICENSING</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-1004NC	Network Manager Client Software <b>Note:</b> Required for Network Management. <b>A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs. Requires KPT-300LMC for authentication.</b>	\$ 2,667.20	3,334.00

**TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: systemsorderdesk@us.jvckenwood.com
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**KPG-1004NC Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>



**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



**KPT-300LMC  
License Management Client**

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

<b>REPEATER TRUNKING AND MULTI SITE FEATURE</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20CTR	Repeater Trunking Feature <b>Note:</b> Required for each Trunking Repeater.	\$ 1,200.00	1,500.00
KWD-20CNT	Repeater Multi-Site Feature <b>Note:</b> Only for Multi-Site Trunking System. Required for each Trunking Repeater.	\$ 1,333.60	1,667.00

**REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2**

1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.
2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)



# KPG-157SB

NEXEDGE® Generation1 Bridge



### General

- Connects up to eight NXR-700/800/900/901-based multi-site trunked networks.
- Subscribers from each network can make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere.

### Features and Highlights

- 100 Group Calls.
- 1000 GID Exchange Sets.
- Call Types - Voice/Short Data/Long Data.
- Cross Band Networks\*.
- IP Remote Control, Configuration and Maintenance.
- Multi-Level Access Control.
- Communication and System Logging.
- Data Backup and Restore.
- NXR-700/800/900/901 Compatible.

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

SOFTWARE		CONTRACT	LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	\$ 10,000.00	12,500.00
KSGPG92010	System Group Call Path License <b>Note:</b> License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	\$ 8,000.00	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key <b>Note:</b> Required for operation.	\$ 133.60	167.00
HARDWARE		CONTRACT	LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00



**General**

- End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- Employs the latest, standards-based IP protocols and IT best practices.
- Offers highest levels of interoperability, scalability, and features.
- Designed to connect directly to a NEXEDGE® Trunking Repeater System (TRS) via IP connection.

MAX PRO WORKSTATIONS		CONTRACT	LIST
905-0410	Kenwood MAX Pro Workstation Bundle Position: One Operator Workstation PC, one Media Dock, two Speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals are included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0411	Kenwood MAX Pro Workstation Bundle, PC not included	\$ 16,975.00	21,218.75
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	\$ 14,855.00	18,568.75
930-0258	MAX Pro Software	\$ 14,320.00	17,900.00
905-0446	Kenwood MAX Pro Workstation Bundle with Rackmount Speakers Position: One Operator Workstation PC, one Media Dock, one 19" Rackmount Speaker Panel with two speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0512	1-Position 2 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 21,310.00	26,637.50
905-0513	1-Position 10 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 33,990.00	42,487.50
905-0514	1-Position 20 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blocks (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 51,670.00	64,587.50
905-0515	1-Position 2 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 19,295.00	24,118.75
905-0516	1-Position 10 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 32,250.00	40,312.50

MAX PRO WORKSTATIONS, CON'T

CONTRACT

LIST

905-0517	1-Position 20 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blockx (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 49,490.00	61,862.50
905-0518	Max Standard with Laptop Position: Laptop, USB Headset Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls)	\$ 9,270.00	11,587.50
950-1348	MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls	\$ 4,500.00	5,625.00
905-0519	MAX Standard Workstation Bundle (with PC) Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 10,305.00	12,881.25
905-0522	MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals	\$ 8,950.00	11,187.50
905-0524	MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop	\$ 4,750.00	5,937.50
<b>OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)</b>			
930-0222	Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit	\$ 1,060.00	1,325.00
930-0223	Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias	\$ 1,590.00	1,987.50
930-0224	Tone Signaling/Paging Feature Set Includes: Manual paging operation, instant call and stacked paging, 2-tone 100, 1000, and Custom Calls (Mot & GE), Quick Call (2+2), DTMF, and Knox	\$ 1,590.00	1,987.50
930-0225	Event Replay Short term audio playback at the console position	\$ 1,795.00	2,243.75
930-0226	Aux I/O Software Feature Set	\$ 1,590.00	1,987.50
<b>WORKSTATION HARDWARE OPTIONS</b>			
		<b>CONTRACT</b>	<b>LIST</b>
950-0032	Headset, 6-wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 438.24	547.80
950-0033	Headset 4-Wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 329.34	411.68
950-0454	Wireless Headset, 6-Wire, Noise Canceling (comes with two batteries) Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops	\$ 1,103.57	1,379.46
802-0115	Headset Top, Noise Cancelling	\$ 147.41	184.26
905-0414	Kenwood Desktop Microphone, Shure with Cable	\$ 615.00	768.75
950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality	\$ 800.00	1,000.00
950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	\$ 641.00	801.25
950-9102	Footswitch, Single w/ 10' cable	\$ 122.00	152.50
950-1190	Kenwood Speakers Single (cable separate)	\$ 450.00	562.50
950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	\$ 917.00	1,146.25
950-1251	2U Rackmount Gooseneck Microphone	\$ 535.00	668.75
709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	\$ 21.25	26.56
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1237	Console Position Light Pole	\$ 584.32	730.40
<b>MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP)</b>			
		<b>CONTRACT</b>	<b>LIST</b>
901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	\$ 2,695.00	3,368.75
930-0264	NEXEDGE Talkpath Interface (Conventional or Trunking) Requires license for each NEXEDGE Talkpath monitored at the console Conventional: One Talkpath per Gateway Trunking: Two Talkpaths per Gateway	\$ 530.00	662.50
<b>MAX SYSTEM HARDWARE/SOFTWARE</b>			
		<b>CONTRACT</b>	<b>LIST</b>

901-9719	Kenwood MAX Central Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway; includes five (5) 10 ft. shielded CAT5e cables for connectivity	\$ 3,395.00	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	\$ 3,290.00	4,112.50
930-0221	Block of 10 Radio Channels Licenses Up to 50 channels in the system; beyond 50 channels, please call Kenwood for pricing.	\$ 3,185.00	3,981.25
930-0376	Block of 2 Radio Channel Licenses	\$ 695.00	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	\$ 480.00	600.00
930-0273	MAX Dispatch Voice Logger License for Eventide NexLog™ Logging Recorders License applies when using Eventide NexLog™ recorder only; Eventide Recorder must have been purchased through Zetron to qualify; 930-0237 not needed	NC	NC
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	\$ 930.00	1,162.50
930-0233	MAX Portal Remote Radio License One remote Portal license is needed per Radio Gateway that is designated as remote device; may require additional Centrals	\$ 210.00	262.50
930-0234	MAX Portal Z-Node License One portal license is needed for each Z-Node that is required to operate in a multi-node system; may require additional Centrals	\$ 4,120.00	5,150.00
950-9351	Connectorized Punch down Block	\$ 116.86	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	\$ 891.00	1,113.75
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	\$ 875.00	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	\$ 783.52	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	\$ 410.00	512.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC@ 2A) 18-36VDC; power supply not included	\$ 2,729.04	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	\$ 258.96	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	\$ 33.20	41.50
<b>MAX TELEPHONY GATEWAY INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0235	Telephone Gateway Services (1 per Max Central)	\$ 2,120.00	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	\$ 65.00	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
<b>MAX DMR INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0510	MAX Dispatch DMR AIS Gateway Bundle	\$ 6,200.00	7,750.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	\$ 9,795.00	12,243.75
930-0363	MAX Dispatch DMR 5 TalkPath License	\$ 5,000.00	6,250.00
930-0364	MAX Dispatch DMR 10 TalkPath License	\$ 9,100.00	11,375.00
930-0365	MAX Dispatch DMR 20 TalkPath License	\$ 16,100.00	20,125.00
<b>MAX DMR INTERFACE, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0366	MAX Dispatch DMR 30 TalkPath License	\$ 21,100.00	26,375.00
<b>RACK MOUNTING AND POWER EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 2,650.00	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 4,875.00	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	\$ 630.80	788.50

950-1135	DIN Rail Mounting Kit Generic rack mount kit that can be used for extra power supply mounting or other devices using DIN rail mounting	\$ 505.00	631.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	\$ 80.00	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	\$ 122.00	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	\$ 170.00	212.50
810-0142	19" Rack 2U Shelf	\$ 106.24	132.80
416-0043	Fuse, 3 Amp	\$ 6.64	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	\$ 14.61	18.26
<b>MONITORS AND NETWORK EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	\$ 358.56	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 3,217.74	4,022.18
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 710.48	888.10
950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	\$ 1,095.60	1,369.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	\$ 1,401.04	1,751.30
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 2,735.68	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 4,774.16	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	\$ 66.40	83.00
<b>SYSTEMS DOCUMENTATION</b>		<b>CONTRACT</b>	<b>LIST</b>
395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	\$ 25.00	31.25
025-9638-1	MAX System Overview Manual	\$ 50.00	62.50
025-9645-1	MAX System Installation Manual	\$ 50.00	62.50
025-9654-1	MAX Dispatch System Configuration Manual	\$ 50.00	62.50
025-9649-1	MAX Operation Manual	\$ 50.00	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	\$ 50.00	62.50
025-9647-1	MAX Central Product Manual	\$ 50.00	62.50
025-9650-1	MAX Dispatch Console Design Manual	\$ 50.00	62.50
025-9630	Model 6080 Manual	\$ 50.00	62.50
025-9658-1	Media Dock XS Manual	\$ 50.00	62.50
025-9693	MAX Dispatch CAD Interface Control Document API documentation for developing 3rd party applications to control the MAX Dispatch Console; Protocol License Agreement required to obtain documentation	\$ 785.00	981.25
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	\$ 50.00	62.50
025-9632	Headset Jackbox manual	\$ 50.00	62.50
<b>CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Factory Training in Redmond, WA			
X97-344F	MAX Dispatch Factory Technical Training, First Person	\$ 1,454.16	1,817.70
X97-344A	MAX Dispatch Factory Technical Training, Additional person	\$ 723.76	904.70
XMP-K344-OWE	MAX-PSP Operator Web Training extension	\$ 1,992.00	2,490.00
<b>ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OSO	MAX-PSP On-Site Operator Training, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OST	MAX-PSP On-Site Technical Support, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>UPGRADES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC	NC

<b>SPARES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
901-9727	Kenwood MAX Digital Radio Gateway	\$ 2,695.00	3,368.75
901-9719	Kenwood MAX Central	\$ 3,395.00	4,243.75
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1278-1	Kenwood MAX Solutions Workstation PC	\$ 2,629.44	3,286.80
802-0692	Power Supply, Desktop 60W	\$ 55.78	69.72
416-0012	AC Power Cord (North America)	\$ 14.61	18.26

<b>SERVICE PLANS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Plans are for North America only

XMP-K344-EBS	MAX-PSP Extended Service Plan One year software services, one year hardware, after-hours phone support, and one year membership in the Zetron MAX Users Group; per position, per year	NC	NC
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	NC	NC
XMP-K344-APM	MAX-PSP After hours phone support 1 time Special needs - emergency and pre-scheduled service outside of regular business hours; per month	\$ 100.00	125.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	\$ 5,976.00	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	\$ 239.04	298.80
XMP-K344-MUG	MAX-PSP Zetron MAX Users Group Membership for one year into the ZMUG allows participation in MAX related webinars (must have software PSP)	NC	NC

<b>WARRANTY PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Plan is for North America only

XMP-K344-BAS	MAX-PSP Base Service Plan One year software services, one year hardware services, one year of advance hardware replacement, operator web training (2-4 hour sessions), and one year membership in the Zetron MAX Users Group	NC	NC
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# TKR-D710

## DMR VHF Low Power Repeaters - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>TKR-D710 REPEATER PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 136-174MHz Repeater 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
<b>REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D710KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
<b>REPEATER STATION WITH DUPLEXER</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.			
TKR-D710KPSD	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-			
TKR-D710KPSDI	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply, KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable. <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25



KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D810

## DMR UHF Repeaters - 400-520MHz

**GENERAL:**

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

**OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00

KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
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KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
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<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D810 REPEATER		CONTRACT	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810 REPEATER PACKAGE		CONTRACT	LIST
TKR-D810KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-520MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
TKR-D810K2PS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-470MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D810KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
TKR-D810K2PSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
TKR-D810KPSD	Repeater Station 5-40W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00

Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.

TKR-D810K2PSD	Repeater Station 5-40W, 400-470MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
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<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810KPSDI	Repeater Station 5-40W, 450-520MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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TKR-D810K2PSDI	Repeater Station 5-40W, 400-470MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



## GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

## OPTIONS:

- Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- T-R simplex antenna switching is included in the basic unit as well as in all external amplifiers.
- Other configurations are also available on a special order basis; please contact your Kenwood Systems Regional Sales Manager for more details.

RADIO PACKAGES		CONTRACT	LIST
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
BASIC ACCESSORIES		CONTRACT	LIST
KPG-43UM	Programming Cable	\$ 126.80	158.50
KPG-44DNK	Programming Software	\$ 54.80	68.50
B51-8460-10	TK-690 Service Manual	\$ 40.00	50.00
RF AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA21101	30-36MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21102	36-42MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21103	42-50MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21251	30-36MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21252	36-42MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21253	42-50MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00



KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
<b>WIRESLINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGOCWID	CWID Morse Code Generator <b>Note:</b> Specify call sign at time of order.	\$ 108.00	135.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
KCH-10	Basic Control Panel, 90-Series	\$ 117.60	147.00
KCT-23M2	10' Cable, DC for High-Power Mobile	\$ 31.00	38.75
KMB-5	Mounting Bracket for TK-690 Mobile Radio	\$ 11.20	14.00
KSGUT50002	2RU Utility Tray for Equipment Mounting	\$ 64.00	80.00
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00

KSGUT10001

1RU Mounting Tray

Note: Provides mounting space for up to two accessories.

\$ 40.00
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50.00

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# KAS-20

## STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and Dispatch for business, supporting both the NXDN and DMR digital protocols.

### FEATURES AND HIGHLIGHTS:

- Low-Cost Initial Investment with Upgrade licenses
  - Enhanced Scalability – Standalone PC / Multi-Client Server
  - Enhanced User Interface Design for ease of use
  - Supports multiple digital radio protocols
  - User-Selectable Options – Location, Dispatch, Voice Path, Multiple Client, and Voice Recording
  - Location Management – 1,000 subscribers
  - Definable Call Dispatch Windows
  - Embedded AMBE+2 Vocoder
  - System to System Patching\*
    - DMR Conventional
    - NXDN Conventional
    - NXDN Type-C Gen1 System
    - NXDN Type-C Gen2 System
- \*System type and bandwidth must match in order to patch calls from different system ID.



### COMPATIBLE IP CONSOLE INTERFACE\*

- Kenwood DMR Conventional
- Kenwood NXDN Conventional
- Kenwood NXDN Type-C
- Kenwood NXDN Gen2

\* KAS-20 does not support serial base connection

### SYSTEM REQUIREMENTS\*

- Windows 7, 8.1, 10 (32/64 bit OS)
- 3.0 GHz Intel Core i5 or faster CPU
- 4 GB RAM or more
- 50GB free space or more
- Internet Connection for AVL

\* Refer to KAS-20 brochure for details

SAMPLE LICENSE		CONTRACT	LIST
KAS-20K2	SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION Following features are enabled for 30 days after activation: - AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	\$ 16.00	20.00
BASE LICENSE		CONTRACT	LIST
KAS-20K	AVL & DISPATCH SOFTWARE BASE LICENSE	NC	NC

#### Notes:

1. KAS-20K base license is required per individual PC or Server. Works on both KAS-20C (Client) and KAS-20S (Server).
2. Application Software for KAS-20C (Client) and KAS-20S (Server) is available on Kenwood CONTRACT Tools.
3. Base license does not contain any of the feature licenses. Must purchase additional software upgrades to enable desired functions.
4. One KAS-20K base license allows a single connection to the RF system.

### TO PLACE AN ORDER FOR WINDOWS<sup>™</sup> SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:



**KPT-300LMC**



## License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows 7/8.1/10 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
<b>SOFTWARE UPGRADE LICENSES (FOR CLIENT)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20C-VDK	Voice Dispatch License for KAS-20 client <b>Note:</b> KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	\$ 533.60	667.00
KWD-20C-VPK	Voice Path License for KAS-20 client <b>Note:</b> Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	\$ 533.60	667.00
KWD-20C-LMK	Location Management License for KAS-20 client	\$ 533.60	667.00
<b>SOFTWARE UPGRADE LICENSES (FOR SERVER)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20S-MCK	Server upgrade license to enable multi-client operation <b>Note:</b> Single KAS-20 server software holds up to ten KAS-20 clients.	\$ 1,800.00	2,250.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks <b>Note:</b> Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	\$ 1,800.00	2,250.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	\$ 1,800.00	2,250.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30202	Windows server	\$ 3,500.00	4,375.00
KSGCP30203	Standalone PC Opt3040	\$ 1,020.00	1,275.00
KSGCP40001	USB Desktop Microphone A0110399	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	\$ 40.00	50.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	22" LED Backlit LCD Monitor 1920 x 1080 resolution E2316H	\$ 300.00	375.00
KSGCP00014	24" Monitor Backlit LCD Monitor 1920 x 1080, resolution HDMI, VGA, Displayport P2417H	\$ 416.00	520.00

# KAS-10

## GPS AVL & Dispatch Messaging Software (Version 2.x)

### Product Enhancements:

- 999 Mobile ID Capacity
- NXDN® Scrambler included
- Up to 100 KAS-10 per system, 10 per site
- 100 Group Scan with four Priority Monitor IDs

### Notes:

- NEXEDGE Gen2, Type-D and DMR Systems not supported.

<b>GPS AVL &amp; DISPATCH</b>		<b>CONTRACT</b>	<b>LIST</b>
KAS-10	GPS AVL & Dispatch Messaging Software	\$ 347.20	434.00
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface <b>Note:</b> USB-3003™ multi pass Vocoder with USB does not compatbile with KAS-10.	\$ 520.00	650.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30201	Windows Workstation PC	\$ 1,612.00	2,015.00
KSGCP40001	USB Desktop Microphone	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	\$ 40.00	50.00
KSGCP40002	USB Over the Head Headset with Microphone	\$ 72.00	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	\$ 60.00	75.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	17" Anti-Glare Black LCD Monitor	\$ 300.00	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	\$ 380.00	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	\$ 836.00	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	\$ 996.00	1,245.00

# KPG-150AP

## OTAP Manager

### General

- For NEXEDGE® digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Accommodates multiple user-defined groups.
- Support for multiple serial ports facilitates transmission on different frequencies.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- KPG-150AP compares current and updated configurations, enabling transmission of only updated programming data to save on-air time.
- Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each

**Note:** NEXEDGE Type-D Trunking system and DMR System not supported.

OTAP MANAGER		CONTRACT	LIST
KPG-150AP	OTAP Manager <b>Note:</b> - Includes a license for one computer, one base radio (mobile or portable), and 10 subscriber radios (mobile or portable) - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 440.00	550.00

ADDITIONAL LICENSES		CONTRACT	LIST
<b>Note:</b> Includes a license for one additional subscriber radio (mobile or portable) attached to one computer running KPG-150AP software			
KWD-AP1	Additional Radio License for 1 PC <b>Note:</b> Price is per license on quantities of less than 100 licenses.	\$ 20.00	25.00
KWD-AP100	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 100 and 249 licenses at the same time.	\$ 20.00	25.00
KWD-AP250	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 250 and 499 licenses at the same time.	\$ 20.00	25.00
KWD-AP500	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering 500 or more licenses at the same time.	\$ 20.00	25.00
KWD-SP1	Additional System License for 1 PC <b>Note:</b> Price is per license on quantities of less than 16 licenses.	\$ 266.40	333.00

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.

# KPG-180AP

## OTAP Manager for NX-5000 Series

### General

- For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 System.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio.
- Multi-Protocol (NXDN/P25) capability.

### Note:

- NEXEDGE Type-D Trunking system and DMR System not supported.
- P25 OTAP is only available for Conventional Radio to Radio.

## LICENSING SYSTEM

## CONTRACT

## LIST



### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**.

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC

License Management Client

NC

NC

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Note:** A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

### Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSING OPTIONS, CON'T		CONTRACT	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Fifty (50) radios / One(1) <b>NXDN</b> Conventional and Type-C <b>Air</b> Communication Profile and One(1) <b>NXDN</b> Conventional and Type-C <b>IP</b> Communication Profile  <b>Note:</b> - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 707.20	884.00

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**  
**Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.**

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	\$ 1,333.60	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	\$ 2,333.60	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	\$ 3,333.60	4167.00
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	\$ 200.00	250.00
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	\$ 333.60	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	\$ 640.00	800.00

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles

Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.



# KTI-4

## Telephone Interconnect Adapter

### General

- Available only for NEXEDGE® digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE® digital trunking system and an analog telephone patch panel

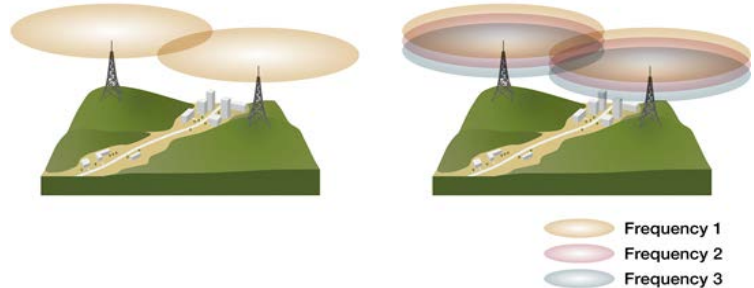
### Main Features

- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2™ vocoder for digital audio speech conversion.
- NXDN® encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

<i>Interconnect Adapter</i>		<i>CONTRACT</i>	<i>LIST</i>
KTI-4M	Telephone Interconnect Adapter	\$ 456.00	570.00
901-9416	Model 30 Worldpatch	\$ 641.00	801.25
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
L-8005	KTI-4M Calibration (Required)	\$ 60.00	75.00

**General**

- Simple multi-site operation for extended coverage.
- Digital simulcast will offer the user the ability to use a single frequency pair over a coverage area larger than serviced by a single repeater site.
- No need for radios to be programmed to roam among sites, greatly simplifying operation for the end-user and system owner.

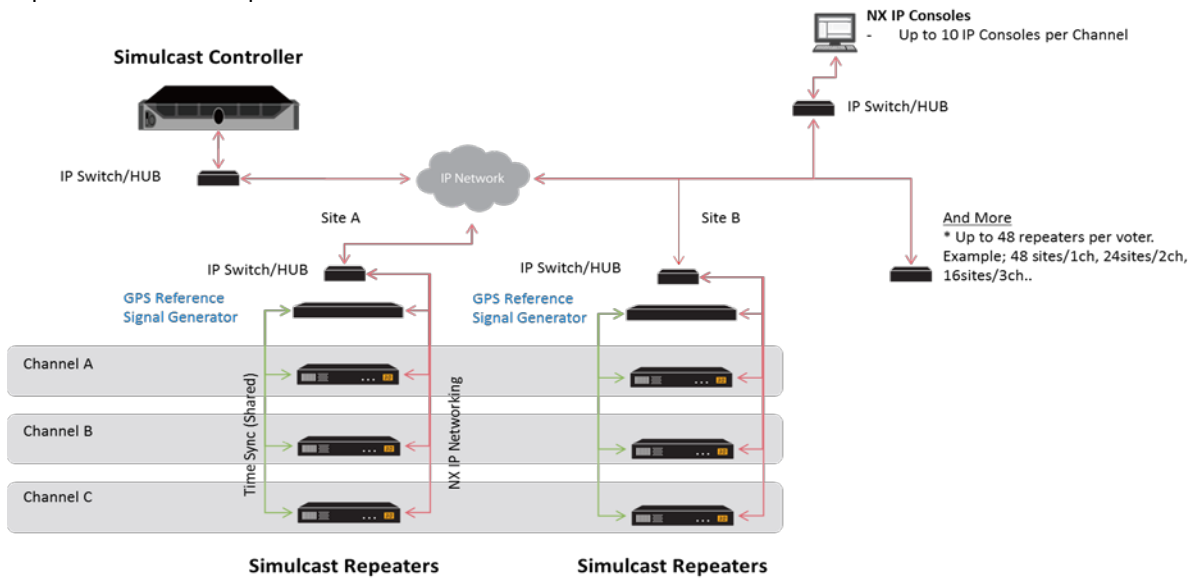


**Features and Highlights**

- 6.25 kHz NXDN Conventional
- VHF and UHF frequency models
- Up to 48 repeaters / Up to 3 channels per Controller  
48 sites / 1CH, 24 sites / 2CH, 16sites/1CH
- Up to 10 IP Consoles per Channel

**Applicable VHF/UHF Subscribers:**

- NX-5x00 Series
- NX-3x00/3x20 Series
- NX-x00G/x10G Series
- NX-x20 Series



Custom

System Design, Onsite Consulting, and Coverage Testing are available. Contact the Regional Sales Manager for your area to obtain a custom quote based on specific site requirements, conditions, and environment.

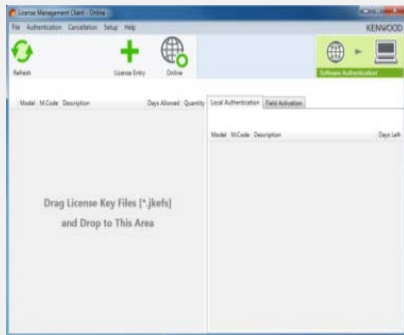
Custom

Custom

Notes:

1. Due to the complexity of the digital simulcast system, Kenwood will design, configure, and test the system.
2. IP Network and IP console is not included. CONTRACT should notify Kenwood Systems Group if required.

LICENSING SYSTEM	CONTRACT	LIST
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### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "Account Request Form" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

PROGRAMMING SOFTWARE	CONTRACT	LIST
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KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	\$ 82.60	103.25
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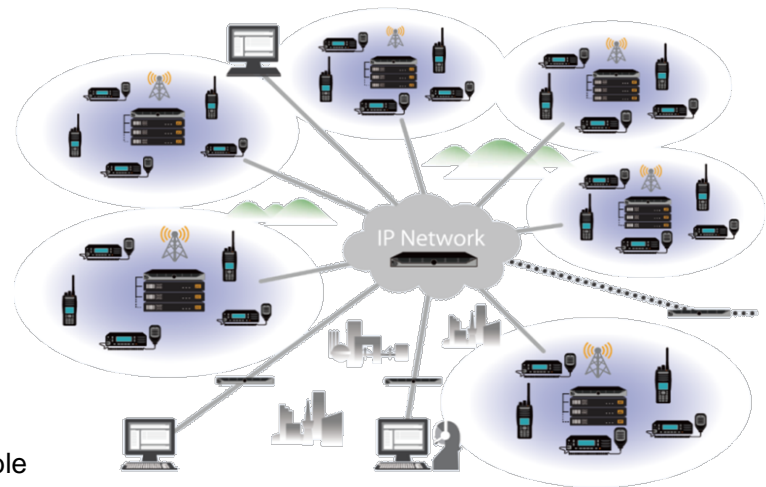
# NEXEDGE® Generation2 System

NEXEDGE Gen2

Gen2 is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. NXR-5000 and NXR-x00 series can be upgraded to Gen2 system. Key features and enhancements include: Direct Frequency Assignment (DFA), Call Pre-Emption for Console, GPS Report Channel, and an increase to the number of sites within a system.

## FEATURES AND HIGHLIGHTS:

- Up to 1,152 sites
- Up to 24 Wide Area Systems
- Up to 24 Multi System Roaming <sup>1</sup>
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel<sup>2</sup>
- SNMP Capability for Repeaters <sup>3</sup>
- Network Management and Monitoring
- NXR-700/800/900/901/5700/5800 Compatible



1. NX-x00/x10/x11/x20 series are available for 8 systems.  
 2. Requires Traffic Channel (Repeater) to use as a GPS Report Channel (GRCH).  
 3. NXR-x00 series requires to equip CF card that is installed of KPT-MIB10 software downloaded from Dealer Tools to use SNMP function.

SERVER SOFTWARE LICENSING		CONTRACT	LIST
KPG-1000SY	System Control Software <i>*Required</i> <b>Note:</b> - Required one per 48 site or per each system code - Includes NXR-5000/x00/x01 Firmware. They are automatically updated when KPG-1000SY is updated.	\$ 13,333.60	16,667.00
KPG-1001ST	Site Control Software <i>*Optional</i> <b>Note:</b> Required one per site of 10 channels or more.	\$ 2,000.00	2,500.00
KPG-1002GW	IP Gateway Software <i>*Optional</i> <b>Note:</b> Required for connecting NXIP Interface Software. One IP Gateway handles 100 interfaces and up to ten IP Gateways per system code	\$ 6,667.20	8,334.00
KPG-1003NS	Network Manager Server Software <i>*Optional</i> <b>Note:</b> Required for monitoring 101 to 1000 devices	\$ 4,000.00	5,000.00
KPG-1005RG	Roaming Gateway Server Software <i>*Optional</i> <b>Note:</b> - Required for subscriber roaming from one system to another. Roaming Gateway is required for the home system to each subscriber needing to roam. For example, subscriber from Sys A needs to roam to Sys B, Sys A needs the Roaming Gateway, Sys B doesn't need it unless Sys B subscriber needs to roam. - Roamer Subscriber must be set SKF that is issued by roamed system.	\$ 5,600.00	7,000.00

**Notes:**

1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.

SERVER HARDWARE	CONTRACT	LIST
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KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00

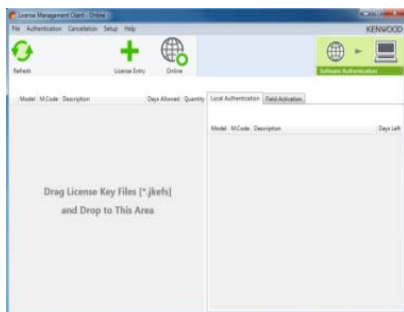
<b>WINDOWS® APPLICATION LICENSING</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-1004NC	Network Manager Client Software <b>Note:</b> Required for Network Management. <b>A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs. Requires KPT-300LMC for authentication.</b>	\$ 2,667.20	3,334.00

**TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: systemsorderdesk@us.jvckenwood.com
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**KPG-1004NC Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>



**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



**KPT-300LMC  
License Management Client**

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

<b>REPEATER TRUNKING AND MULTI SITE FEATURE</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20CTR	Repeater Trunking Feature <b>Note:</b> Required for each Trunking Repeater.	\$ 1,200.00	1,500.00
KWD-20CNT	Repeater Multi-Site Feature <b>Note:</b> Only for Multi-Site Trunking System. Required for each Trunking Repeater.	\$ 1,333.60	1,667.00

**REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2**

1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.
2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)

# KPG-157SB

NEXEDGE® Generation1 Bridge



### General

- Connects up to eight NXR-700/800/900/901-based multi-site trunked networks.
- Subscribers from each network can make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere.

### Features and Highlights

- 100 Group Calls.
- 1000 GID Exchange Sets.
- Call Types - Voice/Short Data/Long Data.
- Cross Band Networks\*.
- IP Remote Control, Configuration and Maintenance.
- Multi-Level Access Control.
- Communication and System Logging.
- Data Backup and Restore.
- NXR-700/800/900/901 Compatible.

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

SOFTWARE		CONTRACT	LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	\$ 10,000.00	12,500.00
KSGPG92010	System Group Call Path License <b>Note:</b> License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	\$ 8,000.00	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key <b>Note:</b> Required for operation.	\$ 133.60	167.00
HARDWARE		CONTRACT	LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00



**General**

- End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- Employs the latest, standards-based IP protocols and IT best practices.
- Offers highest levels of interoperability, scalability, and features.
- Designed to connect directly to a NEXEDGE® Trunking Repeater System (TRS) via IP connection.

MAX PRO WORKSTATIONS		CONTRACT	LIST
905-0410	Kenwood MAX Pro Workstation Bundle Position: One Operator Workstation PC, one Media Dock, two Speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals are included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0411	Kenwood MAX Pro Workstation Bundle, PC not included	\$ 16,975.00	21,218.75
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	\$ 14,855.00	18,568.75
930-0258	MAX Pro Software	\$ 14,320.00	17,900.00
905-0446	Kenwood MAX Pro Workstation Bundle with Rackmount Speakers Position: One Operator Workstation PC, one Media Dock, one 19" Rackmount Speaker Panel with two speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0512	1-Position 2 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 21,310.00	26,637.50
905-0513	1-Position 10 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 33,990.00	42,487.50
905-0514	1-Position 20 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blocks (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 51,670.00	64,587.50
905-0515	1-Position 2 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 19,295.00	24,118.75
905-0516	1-Position 10 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 32,250.00	40,312.50

MAX PRO WORKSTATIONS, CON'T

CONTRACT

LIST



905-0517	1-Position 20 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blockx (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 49,490.00	61,862.50
905-0518	Max Standard with Laptop Position: Laptop, USB Headset Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls)	\$ 9,270.00	11,587.50
950-1348	MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls	\$ 4,500.00	5,625.00
905-0519	MAX Standard Workstation Bundle (with PC) Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 10,305.00	12,881.25
905-0522	MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals	\$ 8,950.00	11,187.50
905-0524	MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop	\$ 4,750.00	5,937.50
<b>OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)</b>			
930-0222	Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit	\$ 1,060.00	1,325.00
930-0223	Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias	\$ 1,590.00	1,987.50
930-0224	Tone Signaling/Paging Feature Set Includes: Manual paging operation, instant call and stacked paging, 2-tone 100, 1000, and Custom Calls (Mot & GE), Quick Call (2+2), DTMF, and Knox	\$ 1,590.00	1,987.50
930-0225	Event Replay Short term audio playback at the console position	\$ 1,795.00	2,243.75
930-0226	Aux I/O Software Feature Set	\$ 1,590.00	1,987.50
<b>WORKSTATION HARDWARE OPTIONS</b>			
		<b>CONTRACT</b>	<b>LIST</b>
950-0032	Headset, 6-wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 438.24	547.80
950-0033	Headset 4-Wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 329.34	411.68
950-0454	Wireless Headset, 6-Wire, Noise Canceling (comes with two batteries) Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops	\$ 1,103.57	1,379.46
802-0115	Headset Top, Noise Cancelling	\$ 147.41	184.26
905-0414	Kenwood Desktop Microphone, Shure with Cable	\$ 615.00	768.75
950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality	\$ 800.00	1,000.00
950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	\$ 641.00	801.25
950-9102	Footswitch, Single w/ 10' cable	\$ 122.00	152.50
950-1190	Kenwood Speakers Single (cable separate)	\$ 450.00	562.50
950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	\$ 917.00	1,146.25
950-1251	2U Rackmount Gooseneck Microphone	\$ 535.00	668.75
709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	\$ 21.25	26.56
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1237	Console Position Light Pole	\$ 584.32	730.40
<b>MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP)</b>			
		<b>CONTRACT</b>	<b>LIST</b>
901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	\$ 2,695.00	3,368.75
930-0264	NEXEDGE Talkpath Interface (Conventional or Trunking) Requires license for each NEXEDGE Talkpath monitored at the console Conventional: One Talkpath per Gateway Trunking: Two Talkpaths per Gateway	\$ 530.00	662.50
<b>MAX SYSTEM HARDWARE/SOFTWARE</b>			
		<b>CONTRACT</b>	<b>LIST</b>

901-9719	Kenwood MAX Central Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway; includes five (5) 10 ft. shielded CAT5e cables for connectivity	\$ 3,395.00	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	\$ 3,290.00	4,112.50
930-0221	Block of 10 Radio Channels Licenses Up to 50 channels in the system; beyond 50 channels, please call Kenwood for pricing.	\$ 3,185.00	3,981.25
930-0376	Block of 2 Radio Channel Licenses	\$ 695.00	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	\$ 480.00	600.00
930-0273	MAX Dispatch Voice Logger License for Eventide NexLog™ Logging Recorders License applies when using Eventide NexLog™ recorder only; Eventide Recorder must have been purchased through Zetron to qualify; 930-0237 not needed	NC	NC
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	\$ 930.00	1,162.50
930-0233	MAX Portal Remote Radio License One remote Portal license is needed per Radio Gateway that is designated as remote device; may require additional Centrals	\$ 210.00	262.50
930-0234	MAX Portal Z-Node License One portal license is needed for each Z-Node that is required to operate in a multi-node system; may require additional Centrals	\$ 4,120.00	5,150.00
950-9351	Connectorized Punch down Block	\$ 116.86	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	\$ 891.00	1,113.75
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	\$ 875.00	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	\$ 783.52	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	\$ 410.00	512.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC@ 2A) 18-36VDC; power supply not included	\$ 2,729.04	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	\$ 258.96	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	\$ 33.20	41.50
<b>MAX TELEPHONY GATEWAY INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0235	Telephone Gateway Services (1 per Max Central)	\$ 2,120.00	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	\$ 65.00	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
<b>MAX DMR INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0510	MAX Dispatch DMR AIS Gateway Bundle	\$ 6,200.00	7,750.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	\$ 9,795.00	12,243.75
930-0363	MAX Dispatch DMR 5 TalkPath License	\$ 5,000.00	6,250.00
930-0364	MAX Dispatch DMR 10 TalkPath License	\$ 9,100.00	11,375.00
930-0365	MAX Dispatch DMR 20 TalkPath License	\$ 16,100.00	20,125.00
<b>MAX DMR INTERFACE, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0366	MAX Dispatch DMR 30 TalkPath License	\$ 21,100.00	26,375.00
<b>RACK MOUNTING AND POWER EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 2,650.00	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 4,875.00	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	\$ 630.80	788.50

950-1135	DIN Rail Mounting Kit Generic rack mount kit that can be used for extra power supply mounting or other devices using DIN rail mounting	\$ 505.00	631.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	\$ 80.00	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	\$ 122.00	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	\$ 170.00	212.50
810-0142	19" Rack 2U Shelf	\$ 106.24	132.80
416-0043	Fuse, 3 Amp	\$ 6.64	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	\$ 14.61	18.26
<b>MONITORS AND NETWORK EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	\$ 358.56	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 3,217.74	4,022.18
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 710.48	888.10
950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	\$ 1,095.60	1,369.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	\$ 1,401.04	1,751.30
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 2,735.68	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 4,774.16	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	\$ 66.40	83.00
<b>SYSTEMS DOCUMENTATION</b>		<b>CONTRACT</b>	<b>LIST</b>
395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	\$ 25.00	31.25
025-9638-1	MAX System Overview Manual	\$ 50.00	62.50
025-9645-1	MAX System Installation Manual	\$ 50.00	62.50
025-9654-1	MAX Dispatch System Configuration Manual	\$ 50.00	62.50
025-9649-1	MAX Operation Manual	\$ 50.00	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	\$ 50.00	62.50
025-9647-1	MAX Central Product Manual	\$ 50.00	62.50
025-9650-1	MAX Dispatch Console Design Manual	\$ 50.00	62.50
025-9630	Model 6080 Manual	\$ 50.00	62.50
025-9658-1	Media Dock XS Manual	\$ 50.00	62.50
025-9693	MAX Dispatch CAD Interface Control Document API documentation for developing 3rd party applications to control the MAX Dispatch Console; Protocol License Agreement required to obtain documentation	\$ 785.00	981.25
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	\$ 50.00	62.50
025-9632	Headset Jackbox manual	\$ 50.00	62.50
<b>CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Factory Training in Redmond, WA			
X97-344F	MAX Dispatch Factory Technical Training, First Person	\$ 1,454.16	1,817.70
X97-344A	MAX Dispatch Factory Technical Training, Additional person	\$ 723.76	904.70
XMP-K344-OWE	MAX-PSP Operator Web Training extension	\$ 1,992.00	2,490.00
<b>ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OSO	MAX-PSP On-Site Operator Training, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OST	MAX-PSP On-Site Technical Support, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>UPGRADES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC	NC

<b>SPARES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
901-9727	Kenwood MAX Digital Radio Gateway	\$ 2,695.00	3,368.75
901-9719	Kenwood MAX Central	\$ 3,395.00	4,243.75
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1278-1	Kenwood MAX Solutions Workstation PC	\$ 2,629.44	3,286.80
802-0692	Power Supply, Desktop 60W	\$ 55.78	69.72
416-0012	AC Power Cord (North America)	\$ 14.61	18.26

<b>SERVICE PLANS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Plans are for North America only

XMP-K344-EBS	MAX-PSP Extended Service Plan One year software services, one year hardware, after-hours phone support, and one year membership in the Zetron MAX Users Group; per position, per year	NC	NC
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	NC	NC
XMP-K344-APM	MAX-PSP After hours phone support 1 time Special needs - emergency and pre-scheduled service outside of regular business hours; per month	\$ 100.00	125.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	\$ 5,976.00	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	\$ 239.04	298.80
XMP-K344-MUG	MAX-PSP Zetron MAX Users Group Membership for one year into the ZMUG allows participation in MAX related webinars (must have software PSP)	NC	NC

<b>WARRANTY PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Plan is for North America only

XMP-K344-BAS	MAX-PSP Base Service Plan One year software services, one year hardware services, one year of advance hardware replacement, operator web training (2-4 hour sessions), and one year membership in the Zetron MAX Users Group	NC	NC
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## Viking Accessory Catalog

Audio Accessories > Speaker Mics		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
589360005218	SPEAKER MIC,BASIC W/EMER,3.5mm JACK,18",VP-H	\$ 90.00	\$ 150.00			✓					
589360005225	SPKR MIC,BASIC W/EMER,3.5mm JACK,25",VP600	\$ 90.00	\$ 150.00			✓					
589360010018	SPEAKER MIC BASIC, 18", VP-H	\$ 69.00	\$ 115.00			✓					
589360010024	SPEAKER MIC BASIC, 24", VP-H	\$ 69.00	\$ 115.00			✓					
589360010030	SPEAKER MIC BASIC, 30", VP-H	\$ 69.00	\$ 115.00			✓					
KMC-54WDM	SPEAKER MIC MIL-SPEC, IP67, W/ ANR, VP-T/TK	\$ 78.00	\$ 130.00	✓	✓						
R5893210B18	SPEAKER MIC PREMIUM BLACK, 18", VP-H	\$ 135.00	\$ 225.00			✓					
R5893210B24	SPEAKER MIC PREMIUM BLACK, 24", VP-H	\$ 135.00	\$ 225.00			✓					
R5893210B30	SPEAKER MIC PREMIUM BLACK, 30", VP-H	\$ 135.00	\$ 225.00			✓					
R5893210G18	SPEAKER MIC PREMIUM HI VIZ, 18", VP-H	\$ 165.00	\$ 275.00			✓					
R5893210G24	SPEAKER MIC PREMIUM HI VIZ, 24", VP-H	\$ 165.00	\$ 275.00			✓					
R5893210G30	SPEAKER MIC PREMIUM HI VIZ, 30", VP-H	\$ 165.00	\$ 275.00			✓					
R5893211B18	SPEAKER MIC PREMIUM FM BLACK, 18", VP-H	\$ 165.00	\$ 275.00			✓					
R5893211B24	SPEAKER MIC PREMIUM FM BLACK, 24", VP-H	\$ 165.00	\$ 275.00			✓					
R5893211B30	SPEAKER MIC PREMIUM FM BLACK, 30", VP-H	\$ 165.00	\$ 275.00			✓					
R5893211G18	SPEAKER MIC PREMIUM FM HI VIZ, 18", VP-H	\$ 195.00	\$ 325.00			✓					
R5893211G24	SPEAKER MIC PREMIUM FM HI VIZ, 24", VP-H	\$ 195.00	\$ 325.00			✓					
R5893211G30	SPEAKER MIC PREMIUM FM HI VIZ 30", VP-H	\$ 195.00	\$ 325.00			✓					
Audio Accessories > Specialty Speaker Mics		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
589360005618	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,18", VP-H	\$ 189.00	\$ 315.00			✓					
589360005625	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H	\$ 189.00	\$ 315.00			✓					
589360005630	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H	\$ 189.00	\$ 315.00			✓					
836FSM10	FIRE SPEAKER MIC, OTTO, 500°F, VP-H	\$ 299.40	\$ 499.00			✓					
Audio Accessories > Earpieces		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
5892006057	EARPIECE COIL CORD, NO PTT, 3.5 MM, VP-H	\$ 42.00	\$ 70.00			✓					
KEP-1	EARPHONE KIT 3.55MM (FOR KMC-41M/42WM), VP-T/TK	\$ 31.50	\$ 52.50	✓	✓						
KEP-2	EARPHONE KIT 2.50MM (FOR KMC-49), VP-T/TK	\$ 31.50	\$ 52.50	✓	✓						
Audio Accessories > Surveillance		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
5895100055	2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H	\$ 84.00	\$ 140.00			✓					
5895100056	3 WIRE LAPEL MIC KIT, VP-H	\$ 108.00	\$ 180.00			✓					
8360600050	BLUETOOTH ADAPTER, VP-H	\$ 138.00	\$ 230.00			✓					
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 93.90	\$ 156.50	✓	✓						
Audio Accessories > Headsets		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
5890015059	BREEZE HEADSET, W/STD IN-LINE PTT, VP-H	\$ 69.00	\$ 115.00			✓					
5895100051	ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H	\$ 51.00	\$ 85.00			✓					
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 75.60	\$ 126.00	✓	✓						
Audio Accessories > Mobile Mics		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)
250074031001	MOBILE MIC, STANDARD, SCH	\$ 84.00	\$ 140.00								✓
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 84.00	\$ 140.00					✓		✓	
589001603503	MOBILE MIC, KEYPAD, HOT, 13-PIN, SCH	\$ 174.00	\$ 290.00							✓	✓
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 270.00	\$ 450.00							✓	
589001603603	MOBILE MIC, KEYPAD, COLD, 13-PIN, SCH	\$ 174.00	\$ 290.00							✓	✓
589001603605	MOBILE MIC, KEYPAD, COLD,12 PIN, VCH	\$ 270.00	\$ 450.00							✓	
KMC-35	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 31.50	\$ 52.50				✓		✓		
KMC-36	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 56.70	\$ 94.50				✓		✓		
Audio Accessories > Desk Mics		Your Price	List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VM400/600/900 (SCH)



5010012011	ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H	\$ 54.00	\$ 90.00								✓	✓	
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, VM-H	\$ 51.00	\$ 85.00								✓	✓	
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT, VM-H	\$ 48.00	\$ 80.00								✓	✓	
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-H	\$ 48.00	\$ 80.00								✓	✓	
5010012070	ANTENNA BASE,MAG MOUNT,15 FT,TNC-MALE, VM-H	\$ 132.00	\$ 220.00								✓	✓	
<b>Carrying Accessories &gt; Carry Cases</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
5084600609	LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H	\$ 39.00	\$ 65.00			✓							
5084600610	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H	\$ 42.00	\$ 70.00			✓							
5084600611	LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H	\$ 42.00	\$ 70.00			✓							
5084600612	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 42.00	\$ 70.00			✓							
5084600652	NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 36.00	\$ 60.00			✓							
5084600655	NYLON CASE, BELT LOOP, MODEL 1, VP-H	\$ 36.00	\$ 60.00			✓							
KLH-200K3	LEATHER CASE, L2 & L3 MODEL, VP5000	\$ 26.55	\$ 44.25		✓								
KLH-201K3	NYLON CASE , L2 & L3 MODEL, VP5000	\$ 15.78	\$ 26.30		✓								
LEATHER CASE FIRE L2, VP6000													
R50843LF2001		\$ 42.00	\$ 70.00										
R50843LF3001	LEATHER CASE FIRE L3, VP6000	\$ 42.00	\$ 70.00	✓									
R50843LP2001	LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00	✓									
R50843LP3001	LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00	✓									
R50843NP2001	NYLON CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00	✓									
R50843NP3001	NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00	✓									
<b>Carrying Accessories &gt; Belt Loop and Straps</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 39.00	\$ 65.00	✓		✓							
585510015101	BELT LOOP LEATHER, W/D-SWIVEL , 3", VP-H	\$ 24.00	\$ 40.00			✓							
KBH-8DS	BELT LOOP LEATHER WITH PORTABLE D RING, VP5000	\$ 15.78	\$ 26.30		✓								
KLH-137ST	SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000	\$ 22.05	\$ 36.75		✓								
KLH-6SW	BELT LOOP LEATHER /DETACHABLE SWIVEL D-RING,VP5000	\$ 13.20	\$ 22.00		✓								
R50840000003	LEATHER RETAINING STRAP, VP6000	\$ 7.20	\$ 12.00	✓									
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 7.20	\$ 12.00	✓	✓								
R50840000L20	BELT LOOP LEATHER, 2", VP6000	\$ 15.00	\$ 25.00	✓									
R50840000L30	BELT LOOP LEATHER, 3", VP6000	\$ 15.00	\$ 25.00	✓									
R50840000N20	BELT LOOP, NYLON 2", VP6000	\$ 15.00	\$ 25.00	✓									
R50840000S40	BELT LOOP, LEATHER 4.25" SLOT , VP6000	\$ 15.00	\$ 25.00	✓									
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 60.00	\$ 100.00	✓	✓	✓							
R50841000003	LEATHER RETAINING STRAP VP600/900	\$ 7.20	\$ 12.00			✓							
<b>Carrying Accessories &gt; Belts</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
R50840000A50	ANTI SWAY BELT, VP-H/VP-T	\$ 12.00	\$ 20.00	✓	✓	✓							
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 45.00	\$ 75.00	✓	✓	✓							
<b>Carrying Accessories &gt; Belt Clips and Brackets</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
5855100600	BELT CLIP 2.25" SPRING LOADED, VP-H	\$ 9.00	\$ 15.00			✓							
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 8.82	\$ 14.70	✓	✓								
<b>Batteries</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
5875700373	LI-ION BATTERY, 4500 MAH, IP67, FM, VP-H	\$ 123.00	\$ 205.00			✓							
5875700471	LI-ION BATTERY, 4500 MAH, NON-FM, VP-H	\$ 93.00	\$ 155.00			✓							
KBP-8M	BATTERY CASE, AA ALKALINEX12,NO IP, ORANGE, VP-T	\$ 90.00	\$ 150.00	✓	✓								
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 81.00	\$ 135.00	✓	✓								
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 105.00	\$ 175.00	✓	✓								
KNB-LS5	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 120.00	\$ 200.00	✓	✓								
KNB-N4M	NIMH BATTERY, 2500MAH, NON IS, IP RATED, VP-T	\$ 86.52	\$ 144.20	✓	✓								
<b>Chargers</b>				<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>







8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00	✓	✓	✓	✓	✓	✓	✓	✓
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00	✓	✓	✓	✓	✓	✓	✓	✓
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00	✓	✓	✓	✓	✓	✓	✓	✓
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00	✓	✓	✓	✓	✓	✓	✓	✓
8324000004	OTIP, VM-H/VM-T	\$ 120.00	\$ 200.00				✓	✓	✓	✓	✓
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00	✓	✓	✓	✓	✓	✓	✓	✓
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00	✓	✓	✓	✓	✓	✓	✓	✓
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00	✓	✓	✓	✓	✓	✓	✓	✓
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -	✓	✓	✓	✓	✓	✓	✓	✓
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000015	25KHz DISABLED	\$ -	\$ -	✓	✓	✓	✓	✓	✓	✓	✓
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00	✓	✓	✓	✓	✓	✓	✓	✓
8326000025	BLUETOOTH	\$ 120.00	\$ 200.00	✓	✓						
8326000026	MAN DOWN	\$ 120.00	\$ 200.00	✓	✓						
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00	✓	✓	✓	✓	✓	✓	✓	✓
8327000911	ENABLE VHF, VIKING	\$ 600.00	\$1,000.00			✓				✓	✓
8327000912	ENABLE 7/800, VIKING	\$ 600.00	\$1,000.00			✓				✓	✓
<b>HW/SW Warranty</b>		<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00	✓	✓	✓	✓	✓	✓	✓	✓
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00	✓	✓	✓	✓	✓	✓	✓	✓
<b>Training and Services</b>		<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$4,000.00	\$4,000.00	✓	✓	✓	✓	✓	✓	✓	✓
3396100001	ONSITE USER TRAINING AND CONSULTATION - 1 DAY	\$3,612.00	\$4,515.00								
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$3,612.00	\$4,515.00	✓	✓	✓	✓	✓	✓	✓	✓
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$5,292.00	\$6,615.00	✓	✓	✓	✓	✓	✓	✓	✓
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$6,972.00	\$8,715.00	✓	✓	✓	✓	✓	✓	✓	✓
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$8,652.00	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	#####	#####	✓	✓	✓	✓	✓	✓	✓	✓
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$1,920.00	\$2,400.00	✓	✓	✓	✓	✓	✓	✓	✓
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00	✓	✓	✓	✓	✓	✓	✓	✓
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00	✓	✓	✓	✓	✓	✓	✓	✓
<b>Radio Application/Kits</b>		<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
023VTCD	VIKING TUNE CD **AIR**	#####	#####								
023VTLCD	VIKING TUNE LITE CD **AIR**	\$ 60.00	\$ 100.00								
835VTKVMH00	VIKING TUNE, HW KIT, VM-H	\$ 102.00	\$ 170.00								
835VTKVMX000	VIKING TUNE, HW KIT, VM-T	\$ 108.00	\$ 180.00								
835VTKVPH00	VIKING TUNE, HW KIT, VP-H	\$ 240.00	\$ 400.00								
835VTKVPX000	VIKING TUNE, HW KIT, VM-T	\$ 96.00	\$ 160.00								
<b>Upgrade Kits</b>		<b>Your Price</b>	<b>List Price</b>	<b>VP6000</b>	<b>VP5000</b>	<b>VP400/600/900</b>	<b>VM7000</b>	<b>VM6000</b>	<b>VM5000</b>	<b>VM600/900 (VCH)</b>	<b>VM400/600/900 (SCH)</b>
2500600001	KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H	\$ 9.00	\$ 15.00			✓					



## VP6000

Audio Accessories > Speaker Mics		Your Price	List Price
KMC-54WDM	SPEAKER MIC MIL-SPEC, IP67, W/ ANR, VP-T/TK	\$ 78.00	\$ 130.00
Audio Accessories > Earpieces		Your Price	List Price
KEP-1	EARPHONE KIT 3.55MM (FOR KMC-41M/42WM), VP-T/TK	\$ 31.50	\$ 52.50
KEP-2	EARPHONE KIT 2.50MM (FOR KMC-49), VP-T/TK	\$ 31.50	\$ 52.50
Audio Accessories > Surveillance		Your Price	List Price
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 93.90	\$ 156.50
Audio Accessories > Headsets		Your Price	List Price
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 75.60	\$ 126.00
Antenna/Antenna Kits > Portable Antennas		Your Price	List Price
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 20.55	\$ 34.25
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-27M	ANTENNA UHF 440-490 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-27M2	ANTENNA UHF 470-520 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 25.20	\$ 42.00
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 22.05	\$ 36.75
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 21.00	\$ 35.00
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 15.00	\$ 25.00
Carrying Accessories > Carry Cases		Your Price	List Price
R50843LF3001	LEATHER CASE FIRE L3, VP6000	\$ 42.00	\$ 70.00
R50843LP2001	LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00
R50843LP3001	LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00
R50843NP2001	NYLON CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00
R50843NP3001	NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 42.00	\$ 70.00
Carrying Accessories > Belt Loop and Straps		Your Price	List Price
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 39.00	\$ 65.00
R50840000003	LEATHER RETAINING STRAP, VP6000	\$ 7.20	\$ 12.00
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 7.20	\$ 12.00
R50840000L20	BELT LOOP LEATHER, 2", VP6000	\$ 15.00	\$ 25.00
R50840000L30	BELT LOOP LEATHER, 3", VP6000	\$ 15.00	\$ 25.00
R50840000N20	BELT LOOP, NYLON 2", VP6000	\$ 15.00	\$ 25.00
R50840000S40	BELT LOOP, LEATHER 4.25" SLOT, VP6000	\$ 15.00	\$ 25.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 60.00	\$ 100.00
Carrying Accessories > Belts		Your Price	List Price
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 12.00	\$ 20.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 45.00	\$ 75.00

Carrying Accessories > Belt Clips and Brackets		Your Price	List Price
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 8.82	\$ 14.70
Batteries		Your Price	List Price
KBP-8M	BATTERY CASE, AA ALKALINEX12,NO IP, ORANGE, VP-T	\$ 90.00	\$ 150.00
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 81.00	\$ 135.00
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 105.00	\$ 175.00
KNB-LS5	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 120.00	\$ 200.00
KNB-N4M	NIMH BATTERY, 2500MAH, NON IS, IP RATED, VP-T	\$ 86.52	\$ 144.20
Chargers		Your Price	List Price
KMB-30M	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$ 20.25	\$ 33.75
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$ 42.00	\$ 70.00
KSC-326K	CHARGER, SIX BAY RAPID RATE, VP-T	\$ 378.00	\$ 630.00
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$ 69.00	\$ 115.00
KVC-15	CHARGER VEHICULAR SINGLE BAY, VP-T	\$ 71.40	\$ 119.00
KVC-23	CHARGER ADAPTER, DC VEHICULAR FOR KSC-32, VP-T	\$ 180.00	\$ 300.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
KPG-36XM	PROGRAMMING CABLE, USB, VP-T	\$ 95.10	\$ 158.50
Encryption Accessories		Your Price	List Price
023500095005	VK5000 VOICE AND AUTH KEY CABLE, VP-T	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$ 157.50	\$ 262.50
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$ 222.00	\$ 370.00
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00

8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000025	BLUETOOTH	\$ 120.00	\$ 200.00
8326000026	MAN DOWN	\$ 120.00	\$ 200.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00
<b>HW/SW Warranty</b>		<b>Your Price</b>	<b>List Price</b>
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00
<b>Training and Services</b>		<b>Your Price</b>	<b>List Price</b>
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00
<b>Upgrade Kits</b>		<b>Your Price</b>	<b>List Price</b>
K2K-0263-00	FIRE CHANNEL KNOB, VP6000	\$ 4.80	\$ 8.00

## VP5000

Audio Accessories > Speaker Mics		Your Price	List Price
KMC-54WDM	SPEAKER MIC MIL-SPEC, IP67, W/ ANR, VP-T/TK	\$ 78.00	\$ 130.00
Audio Accessories > Earpieces		Your Price	List Price
KEP-1	EARPHONE KIT 3.55MM (FOR KMC-41M/42WM), VP-T/TK	\$ 31.50	\$ 52.50
KEP-2	EARPHONE KIT 2.50MM (FOR KMC-49), VP-T/TK	\$ 31.50	\$ 52.50
Audio Accessories > Surveillance		Your Price	List Price
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 93.90	\$ 156.50
Audio Accessories > Headsets		Your Price	List Price
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 75.60	\$ 126.00
Antenna/Antenna Kits > Portable Antennas		Your Price	List Price
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 8.22	\$ 13.70
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 20.55	\$ 34.25
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 8.40	\$ 14.00
KRA-27M	ANTENNA UHF 440-490 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-27M2	ANTENNA UHF 470-520 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 8.40	\$ 14.00
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 25.20	\$ 42.00
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 22.05	\$ 36.75
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 21.00	\$ 35.00
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 15.00	\$ 25.00
Carrying Accessories > Carry Cases		Your Price	List Price
KLH-200K3	LEATHER CASE, L2 & L3 MODEL, VP5000	\$ 26.55	\$ 44.25
KLH-201K3	NYLON CASE , L2 & L3 MODEL, VP5000	\$ 15.78	\$ 26.30
Carrying Accessories > Belt Loop and Straps		Your Price	List Price
KBH-8DS	BELT LOOP LEATHER WITH PORTABLE D RING, VP5000	\$ 15.78	\$ 26.30
KLH-137ST	SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000	\$ 22.05	\$ 36.75
KLH-6SW	BELT LOOP LEATHER /DETACHABLE SWIVEL D-RING,VP5000	\$ 13.20	\$ 22.00
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 7.20	\$ 12.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 60.00	\$ 100.00
Carrying Accessories > Belts		Your Price	List Price
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 12.00	\$ 20.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 45.00	\$ 75.00
Carrying Accessories > Belt Clips and Brackets		Your Price	List Price
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 8.82	\$ 14.70
Batteries		Your Price	List Price
KBP-8M	BATTERY CASE, AA ALKALINEX12,NO IP, ORANGE, VP-T	\$ 90.00	\$ 150.00
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 81.00	\$ 135.00

KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 105.00	\$ 175.00
KNB-LS5	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 120.00	\$ 200.00
KNB-N4M	NIMH BATTERY, 2500MAH, NON IS, IP RATED, VP-T	\$ 86.52	\$ 144.20
<b>Chargers</b>		<b>Your Price</b>	<b>List Price</b>
KMB-30M	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$ 20.25	\$ 33.75
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$ 42.00	\$ 70.00
KSC-326K	CHARGER, SIX BAY RAPID RATE, VP-T	\$ 378.00	\$ 630.00
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$ 69.00	\$ 115.00
KVC-15	CHARGER VEHICULAR SINGLE BAY, VP-T	\$ 71.40	\$ 119.00
KVC-23	CHARGER ADAPTER, DC VEHICULAR FOR KSC-32, VP-T	\$ 180.00	\$ 300.00
<b>Programming/Manual</b>		<b>Your Price</b>	<b>List Price</b>
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
KPG-36XM	PROGRAMMING CABLE, USB, VP-T	\$ 95.10	\$ 158.50
<b>Encryption Accessories</b>		<b>Your Price</b>	<b>List Price</b>
023500095005	VK5000 VOICE AND AUTH KEY CABLE, VP-T	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$ 157.50	\$ 262.50
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$ 222.00	\$ 370.00
<b>Software Options</b>		<b>Your Price</b>	<b>List Price</b>
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00

8326000015	25KHz DISABLED	\$	-	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	110.00	\$	110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	110.00	\$	110.00
8326000025	BLUETOOTH	\$	120.00	\$	200.00
8326000026	MAN DOWN	\$	120.00	\$	200.00
8326000027	P25 PAGING DECODE	\$	120.00	\$	200.00
<b>HW/SW Warranty</b>			<b>Your Price</b>		<b>List Price</b>
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	105.00	\$	175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	60.00	\$	100.00
<b>Training and Services</b>			<b>Your Price</b>		<b>List Price</b>
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING <b>**AIR**</b>	\$	4,000.00	\$	4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$	3,612.00	\$	4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$	5,292.00	\$	6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$	6,972.00	\$	8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$	8,652.00	\$	10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$	10,332.00	\$	12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$	13,188.00	\$	16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$	14,868.00	\$	18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$	16,548.00	\$	20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$	18,228.00	\$	22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$	19,908.00	\$	24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$	1,920.00	\$	2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$	420.00	\$	525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$	320.00	\$	400.00
<b>Upgrade Kits</b>			<b>Your Price</b>		<b>List Price</b>
835VP5000OH	ORANGE HOUSING, VP5000	\$	120.00	\$	200.00
835VP5000YH	YELLOW HOUSING, VP5000	\$	120.00	\$	200.00
K2K-0012-00	CHANNEL SELECTOR KNOB, VP5000/TK5X30	\$	3.60	\$	6.00



## VP600/900

Audio Accessories > Speaker Mics		Your Price	List Price
589360005218	SPEAKER MIC,BASIC W/EMER,3.5mm JACK,18",VP-H	\$ 90.00	\$ 150.00
589360005225	SPKR MIC,BASIC W/EMER,3.5mm JACK,25",VP600	\$ 90.00	\$ 150.00
589360010018	SPEAKER MIC BASIC, 18", VP-H	\$ 69.00	\$ 115.00
589360010024	SPEAKER MIC BASIC, 24", VP-H	\$ 69.00	\$ 115.00
589360010030	SPEAKER MIC BASIC, 30", VP-H	\$ 69.00	\$ 115.00
R5893210B18	SPEAKER MIC PREMIUM BLACK, 18", VP-H	\$ 135.00	\$ 225.00
R5893210B24	SPEAKER MIC PREMIUM BLACK, 24", VP-H	\$ 135.00	\$ 225.00
R5893210B30	SPEAKER MIC PREMIUM BLACK, 30", VP-H	\$ 135.00	\$ 225.00
R5893210G18	SPEAKER MIC PREMIUM HI VIZ, 18", VP-H	\$ 165.00	\$ 275.00
R5893210G24	SPEAKER MIC PREMIUM HI VIZ, 24", VP-H	\$ 165.00	\$ 275.00
R5893210G30	SPEAKER MIC PREMIUM HI VIZ, 30", VP-H	\$ 165.00	\$ 275.00
R5893211B18	SPEAKER MIC PREMIUM FM BLACK, 18", VP-H	\$ 165.00	\$ 275.00
R5893211B24	SPEAKER MIC PREMIUM FM BLACK, 24", VP-H	\$ 165.00	\$ 275.00
R5893211B30	SPEAKER MIC PREMIUM FM BLACK, 30", VP-H	\$ 165.00	\$ 275.00
R5893211G18	SPEAKER MIC PREMIUM FM HI VIZ, 18", VP-H	\$ 195.00	\$ 325.00
R5893211G24	SPEAKER MIC PREMIUM FM HI VIZ, 24", VP-H	\$ 195.00	\$ 325.00
R5893211G30	SPEAKER MIC PREMIUM FM HI VIZ 30", VP-H	\$ 195.00	\$ 325.00

Audio Accessories > Specialty Speaker Mics		Your Price	List Price
589360005618	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,18", VP-H	\$ 189.00	\$ 315.00
589360005625	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H	\$ 189.00	\$ 315.00
589360005630	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H	\$ 189.00	\$ 315.00
836FSM10	FIRE SPEAKER MIC, OTTO, 500°F, VP-H	\$ 299.40	\$ 499.00

Audio Accessories > Earpieces		Your Price	List Price
5892006057	EARPIECE COIL CORD, NO PTT, 3.5 MM, VP-H	\$ 42.00	\$ 70.00

Audio Accessories > Surveillance		Your Price	List Price
5895100055	2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H	\$ 84.00	\$ 140.00
5895100056	3 WIRE LAPEL MIC KIT, VP-H	\$ 108.00	\$ 180.00
8360600050	BLUETOOTH ADAPTER, VP-H	\$ 138.00	\$ 230.00

Audio Accessories > Headsets		Your Price	List Price
5890015059	BREEZE HEADSET, W/STD IN-LINE PTT, VP-H	\$ 69.00	\$ 115.00
5895100051	ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H	\$ 51.00	\$ 85.00

Antenna/Antenna Kits > Portable Antennas		Your Price	List Price
5010017101	ANTENNA VHF 136-151 MHZ HELICAL(YELLOW CORE),VP-H	\$ 18.00	\$ 30.00
5010017105	ANTENNA VHF 166-174 MHZ HELICAL(BLUE CORE), VP-H	\$ 18.00	\$ 30.00
5010017107	ANTENNA UHF 403-512 MHZ ,1/4 WAVE WHIP SMA, VP-H	\$ 18.00	\$ 30.00
5010017110	WIDE BAND VHF 136-174 MHz, MP ANTENNA	\$ 27.00	\$ 45.00
5010105012	ANTENNA 800 MHZ, 1/4 WAVE, WHIP, PORTABLE, VP-H	\$ 18.00	\$ 30.00
5010105013	ANTENNA 800 MHZ HALF-WAVE WHIP(RE D CORE), VP-H	\$ 18.00	\$ 30.00

5010105073	ANTENNA 7/800MHZ ,1/2 WAVE WHIP(GREEN CORE),VP-H	\$ 18.00	\$ 30.00
5010900300	ANTENNA 7/800/VHF/GPS MULTIBAND FLEXIBLE, VP-H	\$ 63.00	\$ 105.00
5010900400	ANTENNA 7/800/VHF MULTIBAND,GPS, WHITE CORE, VP-H	\$ 42.00	\$ 70.00
5010900500	ANTENNA 7/800/UHF/GPS MULTIBAND PORTABLE, VP-H	\$ 24.00	\$ 40.00
<b>Carrying Accessories &gt; Carry Cases</b>		<b>Your Price</b>	<b>List Price</b>
5084600609	LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H	\$ 39.00	\$ 65.00
5084600610	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H	\$ 42.00	\$ 70.00
5084600611	LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H	\$ 42.00	\$ 70.00
5084600612	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 42.00	\$ 70.00
5084600652	NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 36.00	\$ 60.00
5084600655	NYLON CASE, BELT LOOP, MODEL 1, VP-H	\$ 36.00	\$ 60.00
<b>Carrying Accessories &gt; Belt Loop and Straps</b>		<b>Your Price</b>	<b>List Price</b>
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 39.00	\$ 65.00
585510015101	BELT LOOP LEATHER, W/D-SWIVEL , 3", VP-H	\$ 24.00	\$ 40.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 60.00	\$ 100.00
R50841000003	LEATHER RETAINING STRAP VP600/900	\$ 7.20	\$ 12.00
<b>Carrying Accessories &gt; Belts</b>		<b>Your Price</b>	<b>List Price</b>
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 12.00	\$ 20.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 45.00	\$ 75.00
<b>Carrying Accessories &gt; Belt Clips and Brackets</b>		<b>Your Price</b>	<b>List Price</b>
5855100600	BELT CLIP 2.25" SPRING LOADED, VP-H	\$ 9.00	\$ 15.00
<b>Batteries</b>		<b>Your Price</b>	<b>List Price</b>
5875700373	LI-ION BATTERY, 4500 MAH, IP67, FM, VP-H	\$ 123.00	\$ 205.00
5875700471	LI-ION BATTERY, 4500 MAH, NON-FM, VP-H	\$ 93.00	\$ 155.00
<b>Chargers</b>		<b>Your Price</b>	<b>List Price</b>
5630600135	CHARGER VEHICULAR SINGLE BAY, MULTI-CHEM, VP-H	\$ 237.00	\$ 395.00
5630600237	CHARGER, SINGLE BAY RAPID RATE, VP-H	\$ 75.00	\$ 125.00
5630600361	CHARGER, SIX BAY MULTI-CHEM, VP-H	\$ 390.00	\$ 650.00
<b>Mobile Accessories</b>		<b>Your Price</b>	<b>List Price</b>
5975357792	Y CABLE, FIRECOM INTEGRATION, VM-H	\$ 24.00	\$ 40.00
<b>Programming/Manual</b>		<b>Your Price</b>	<b>List Price</b>
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
5970600970	PROGRAMMING CABLE, USB, VP-H	\$ 147.00	\$ 245.00
<b>Encryption Accessories</b>		<b>Your Price</b>	<b>List Price</b>
0235000940	VK5000 VOICE AND AUTH KEY CABLE, VP-H	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
5855000932	KVL4000 VOICE KEY CABLE, VP-H	\$ 165.00	\$ 275.00
R597570006701	KVL4000 AUTH KEY CABLE, VP-H	\$ 180.00	\$ 300.00
<b>Software Options</b>		<b>Your Price</b>	<b>List Price</b>

8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00
8327000911	ENABLE VHF, VIKING	\$ 600.00	\$ 1,000.00
8327000912	ENABLE 7/800, VIKING	\$ 600.00	\$ 1,000.00
<b>HW/SW Warranty</b>		<b>Your Price</b>	<b>List Price</b>
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00
<b>Training and Services</b>		<b>Your Price</b>	<b>List Price</b>
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00

3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00
<b>Upgrade Kits</b>		<b>Your Price</b>	<b>List Price</b>
2500600001	KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H	\$ 9.00	\$ 15.00
2500600002	KNOB KIT,FIRE CHANNEL/ROUND VOLUME, VP-H	\$ 9.00	\$ 15.00

## VM7000

Audio Accessories > Mobile Mics		Your Price	List Price
KMC-35	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 31.50	\$ 52.50
KMC-36	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 56.70	\$ 94.50
Audio Accessories > Desk Mics		Your Price	List Price
KMC-9C	DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20	\$ 51.60	\$ 86.00
Audio Accessories > Speakers		Your Price	List Price
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 37.80	\$ 63.00
KCT-72M	EXT ACCESSORY CONNECTION CABLE FOR 5CH-19M, KCH-20	\$ 22.02	\$ 36.70
KES-5	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 36.75	\$ 61.25
Antenna/Antenna Kits > Mobile Antennas		Your Price	List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ -	\$ -
KRA-40GM	GPS ANTENNA, VM-T	\$ 25.20	\$ 42.00
Mobile Accessories		Your Price	List Price
8360600154	WI-FI DONGLE FOR MOBILE **AIR**	\$ 51.00	\$ 85.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 7.20	\$ 12.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 18.00	\$ 30.00
Encryption Accessories		Your Price	List Price
023500095004	VK5000 VOICE AND AUTH KEY CABLE, KCH	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
KPG-115	KVL4000 VOICE KEY CABLE, VM-T-KCH	\$ 157.50	\$ 262.50
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000004	OTIP, VM-H/VM-T	\$ 120.00	\$ 200.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00

8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00

HW/SW Warranty		Your Price	List Price
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00

Training and Services		Your Price	List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00

## VM6000

Audio Accessories > Mobile Mics		Your Price	List Price
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 84.00	\$ 140.00
Audio Accessories > Desk Mics		Your Price	List Price
589001202303	DESKTOP MIC, VCH	\$ 288.00	\$ 480.00
Audio Accessories > Speakers		Your Price	List Price
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 48.00	\$ 80.00
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 45.00	\$ 75.00
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 37.80	\$ 63.00
KES-5	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 36.75	\$ 61.25
Antenna/Antenna Kits > Mobile Antennas		Your Price	List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ -	\$ -
KRA-40GM	GPS ANTENNA, VM-T	\$ 25.20	\$ 42.00
Mobile Accessories		Your Price	List Price
8360600154	WI-FI DONGLE FOR MOBILE **AIR**	\$ 51.00	\$ 85.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 7.20	\$ 12.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 18.00	\$ 30.00
Encryption Accessories		Your Price	List Price
023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$ 180.00	\$ 300.00
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000004	OTIP, VM-H/VM-T	\$ 120.00	\$ 200.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00

8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00
<b>HW/SW Warranty</b>		<b>Your Price</b>	<b>List Price</b>
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00
<b>Training and Services</b>		<b>Your Price</b>	<b>List Price</b>
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00



## VM5000

Audio Accessories > Mobile Mics		Your Price	List Price
KMC-35	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 31.50	\$ 52.50
KMC-36	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 56.70	\$ 94.50
Audio Accessories > Desk Mics		Your Price	List Price
KMC-9C	DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20	\$ 51.60	\$ 86.00
Audio Accessories > Speakers		Your Price	List Price
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 37.80	\$ 63.00
KES-3S	MOBILE SPEAKER, COMPACT LOW PROFILE, VM-T	\$ 26.55	\$ 44.25
KES-5	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 36.75	\$ 61.25
Antenna/Antenna Kits > Mobile Antennas		Your Price	List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ -	\$ -
KRA-40GM	GPS ANTENNA, VM-T	\$ 25.20	\$ 42.00
Mobile Accessories		Your Price	List Price
8360600154	WI-FI DONGLE FOR MOBILE **AIR**	\$ 51.00	\$ 85.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
KPG-46XM	PROGRAMMING CABLE, VM5000 KCH-19	\$ 95.10	\$ 158.50
Encryption Accessories		Your Price	List Price
023500095004	VK5000 VOICE AND AUTH KEY CABLE, KCH	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
KPG-115	KVL4000 VOICE KEY CABLE, VM-T-KCH	\$ 157.50	\$ 262.50
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL, VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000004	OTIP, VM-H/VM-T	\$ 120.00	\$ 200.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00

8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00

HW/SW Warranty		Your Price	List Price
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00

Training and Services		Your Price	List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00

## VM900 (VCH)

Audio Accessories > Mobile Mics		Your Price	List Price
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 84.00	\$ 140.00
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 270.00	\$ 450.00
589001603605	MOBILE MIC, KEYPAD, COLD,12 PIN, VCH	\$ 270.00	\$ 450.00
Audio Accessories > Desk Mics		Your Price	List Price
589001202303	DESKTOP MIC, VCH	\$ 288.00	\$ 480.00
Audio Accessories > Speakers		Your Price	List Price
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 48.00	\$ 80.00
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 45.00	\$ 75.00
Antenna/Antenna Kits > Mobile Antennas		Your Price	List Price
5010012001	ANTENNA 136-512 MHZ 3/4" HOLE, N-MALE, VM-H	\$ 33.00	\$ 55.00
5010012060	ANTENNA 136-960MHZ, WHIP, W/O BASE,TNC-MA, VM-H	\$ 189.00	\$ 315.00
Antenna/Antenna Kits > Mobile Antenna Kits		Your Price	List Price
5010012011	ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H	\$ 54.00	\$ 90.00
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, VM-H	\$ 51.00	\$ 85.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT, VM-H	\$ 48.00	\$ 80.00
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-H	\$ 48.00	\$ 80.00
5010012070	ANTENNA BASE,MAG MOUNT,15 FT,TNC-MALE, VM-H	\$ 132.00	\$ 220.00
Mobile Accessories		Your Price	List Price
2500600016	DASH TO REMOTE CONVERSION KIT - EXISTING VCH	\$ 321.00	\$ 535.00
2515000007	GPS MODULE AND LMR-GPS ANTENNA MOUNT	\$ 240.00	\$ 400.00
8360600154	WI-FI DONGLE FOR MOBILE **AIR**	\$ 51.00	\$ 85.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 7.20	\$ 12.00
R597535774401	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD	\$ 321.60	\$ 536.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 18.00	\$ 30.00
Encryption Accessories		Your Price	List Price
023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$ 180.00	\$ 300.00
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00

8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ 30.00	\$ 50.00
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 480.00	\$ 800.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 150.00	\$ 250.00
8324000004	OTIP, VM-H/VM-T	\$ 120.00	\$ 200.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 180.00	\$ 300.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	\$ 100.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 240.00	\$ 400.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00
8327000911	ENABLE VHF, VIKING	\$ 600.00	\$ 1,000.00
8327000912	ENABLE 7/800, VIKING	\$ 600.00	\$ 1,000.00

HW/SW Warranty		Your Price	List Price
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00

Training and Services		Your Price	List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$ 5,292.00	\$ 6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$ 6,972.00	\$ 8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$ 8,652.00	\$ 10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$ 10,332.00	\$ 12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$ 13,188.00	\$ 16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$ 14,868.00	\$ 18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$ 16,548.00	\$ 20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$ 18,228.00	\$ 22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$ 19,908.00	\$ 24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$ 1,920.00	\$ 2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$ 420.00	\$ 525.00
3396269001	EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)	\$ 320.00	\$ 400.00

## VM900 (SCH)

Audio Accessories > Mobile Mics		Your Price	List Price
250074031001	MOBILE MIC, STANDARD, SCH	\$ 84.00	\$ 140.00
589001603503	MOBILE MIC, KEYPAD, HOT, 13-PIN, SCH	\$ 174.00	\$ 290.00
589001603603	MOBILE MIC, KEYPAD, COLD, 13-PIN, SCH	\$ 174.00	\$ 290.00
Audio Accessories > Desk Mics		Your Price	List Price
5890012023	DESKTOP MIC, SCH	\$ 288.00	\$ 480.00
Antenna/Antenna Kits > Mobile Antennas		Your Price	List Price
5010012001	ANTENNA 136-512 MHZ 3/4" HOLE, N-MALE, VM-H	\$ 33.00	\$ 55.00
5010012060	ANTENNA 136-960MHZ, WHIP, W/O BASE,TNC-MA, VM-H	\$ 189.00	\$ 315.00
Antenna/Antenna Kits > Mobile Antenna Kits		Your Price	List Price
5010012011	ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H	\$ 54.00	\$ 90.00
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, VM-H	\$ 51.00	\$ 85.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT, VM-H	\$ 48.00	\$ 80.00
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-H	\$ 48.00	\$ 80.00
5010012070	ANTENNA BASE,MAG MOUNT,15 FT,TNC-MALE, VM-H	\$ 132.00	\$ 220.00
Mobile Accessories		Your Price	List Price
2515000007	GPS MODULE AND LMR-GPS ANTENNA MOUNT	\$ 240.00	\$ 400.00
8360600154	WI-FI DONGLE FOR MOBILE **AIR**	\$ 51.00	\$ 85.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 7.20	\$ 12.00
Programming/Manual		Your Price	List Price
023ARMADACD	VIKING ARMADA CD WITH OTIP/DRS/EBM SW	\$ 210.00	\$ 350.00
023VKFWCD	VIKING FIRMWARE CD	\$ 300.00	\$ 500.00
023VKMANUALCD	VIKING MANUAL CD	\$ 240.00	\$ 400.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 150.00	\$ 250.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 105.00	\$ 175.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 300.00	\$ 500.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 18.00	\$ 30.00
Encryption Accessories		Your Price	List Price
023500095001	VK5000 VOICE AND AUTH KEY CABLE, SCH	\$ 240.00	\$ 400.00
2505000100	VK5000 KEYLOADER KIT, VIKING	\$ 1,848.00	\$ 3,080.00
5855000938	KVL4000 VOICE KEY CABLE, VM-H-SCH	\$ 180.00	\$ 300.00
Software Options		Your Price	List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ 300.00	\$ 500.00
8322000001	ANALOG CONVENTIONAL, VIKING	\$ 550.00	\$ 550.00
8322000002	P25 CONVENTIONAL , VIKING	\$ 330.00	\$ 550.00
8322000004	SMARTNET II / SMARTZONE, VIKING	\$ 330.00	\$ 550.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 330.00	\$ 550.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 330.00	\$ 550.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 300.00	\$ 500.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ 330.00	\$ 550.00
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 450.00	\$ 750.00
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8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 150.00	\$ 250.00
8325000003	GPS, VIKING	\$ 120.00	\$ 200.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 60.00	\$ 100.00
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8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 180.00	\$ 300.00
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8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 180.00	\$ 300.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 360.00	\$ 600.00
8326000015	25KHz DISABLED	\$ -	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 110.00	\$ 110.00
8326000027	P25 PAGING DECODE	\$ 120.00	\$ 200.00
8327000911	ENABLE VHF, VIKING	\$ 600.00	\$ 1,000.00
8327000912	ENABLE 7/800, VIKING	\$ 600.00	\$ 1,000.00

HW/SW Warranty		Your Price	List Price
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2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 105.00	\$ 175.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 60.00	\$ 100.00

Training and Services		Your Price	List Price
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299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING **AIR**	\$ 4,000.00	\$ 4,000.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$ 3,612.00	\$ 4,515.00
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Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 3  
Change Effective Date : 1/31/2019

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2019

**Commodity Specialist:** Tom Schwartz

**Telephone:** 717-346-3828

**Email:** [thschwartz@pa.gov](mailto:thschwartz@pa.gov)

**CHANGE SUMMARY:**

The price list has been updated for E F Johnson Company and attached to this contract.

Please contact the E F Johnson Company Account Manager, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

# KENWOOD

**ATLAS**<sup>®</sup>  **VIKING**<sup>®</sup> NEXEDGE<sup>®</sup> KAIROS

## Price Guide

**EFJohnson**  
a JVCKENWOOD Company

*Effective Date: January 2019*



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[NEXEDGE MAX](#)

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[KAIROS KA-450/500](#)

KENWOOD



# P25 Mission Critical Viking VP6000

VHF · UHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

The KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels (2048 option)
- Public safety ergonomics: flare grip for control, large glove friendly knobs, large emergency button
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/ numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)

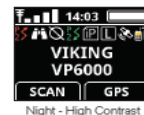
<sup>1</sup>Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## User Selectable Color Themes

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event identification
- Day & night user selectable display options (8 themes available)



## Compatible with Multiple P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P 25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radia - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

	<b>Radio - Base Model</b>	<b>Contract</b>	<b>List</b>
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$2,260
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,808.00	\$2,260
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$2,510
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 2,008.00	\$2,510
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$2,460
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 1,968.00	\$2,460
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$2,710
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 2,168.00	\$2,710
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00

KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
<b>Carrying Accessories</b>		<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$0.00
	P25 CAI AMBE+2	\$ -	\$0.00
	<b>System Options</b>	<b>Contract</b>	<b>List</b>
1	Analog Conventional	\$ -	\$0.00
2	P25 Conventional	\$ 280.00	\$350.00
3	P25 Phase 1 Trunking (Must also have option 2)	\$ 100.00	\$125.00
4	P25 Phase 2 TDMA (Must also have option 3)	\$ 320.00	\$ 400.00
5	Viking16	\$ 620.00	\$ 775.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
	2048 Channels/Talkgroups (standard)	\$ 240.00	\$300.00
	4000 Channels/Talkgroups	\$ 480.00	\$600.00
	<b>Encryption</b>		
	DES-OFB (multi-key)	\$ -	\$0.00

	AES FIPS 140-2 (multi-key)	\$ 380.00	\$ 475.00
	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
	TrueVoice™ Noise Cancellation	\$ -	\$0.00
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Conventional Voting Scan	\$ -	\$0.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	EVRS	\$ 80.00	\$ 100.00
	Bluetooth	\$ 80.00	\$ 100.00
	Man Down	\$ 80.00	\$ 100.00



# P25 Mission Critical Viking **VP5000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

At just under 5.5 inches tall (140 mm), these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-In GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4\* software encryption; compatible w/Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

## Accessories

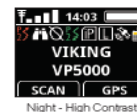
Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## User Selectable Color Themes

Multi-line text

Multiple visual indicators including battery health & signal strength

Day & night user selectable display options (8 themes available)



## Compatible With P25 Systems

- ATLAS\* P25 Phase 1 and Phase 2 System
- Motorola Astro\* 25 - P25 Phase 1 & Phase 2
- Harris VIDA\* - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA\* Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP) Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model

Contract

List

VP5430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF3	UHF, 450-520 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF6	UHF, 380-470 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5230BKF3	VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 68.00	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
	<b>Carrying Accessories</b>	<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70

KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 21.04	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 17.60	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 29.40	\$ 36.75
KLH-200K3	Heavy duty leather carrying case (for both K2 & K3 models)	\$ 35.40	\$ 44.25
KLH-201K3	Nylon carrying case (for both keypad models)	\$ 21.04	\$ 26.30
<b>Special Color Housing</b>		<b>Contract</b>	<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit (Standard Key Model Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
KWD-OH-5000	Orange Housing Kit (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00



KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$0.00
	P25 CAI AMBE+2	\$ -	\$0.00
	<b>System Options</b>	<b>Contract</b>	<b>List</b>
1	Analog Conventional	\$ -	\$0.00
2	P25 Conventional	\$ -	\$0.00
3	P25 Phase 1 Trunking	\$ -	\$0.00
4	P25 Phase 2 TDMA	\$ 320.00	\$400.00
5	Viking16	\$ 620.00	\$ 775.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	DES-OFB (multi-key)	\$ 156.00	\$ 195.00
	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 600.00	\$ 750.00
	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
	TrueVoice™ Noise Cancellation	\$ -	\$0.00
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Conventional Voting Scan	\$ -	\$0.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication (Must also have AES FIPS 140-2)	\$ 80.00	\$100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	EVRS	\$ 80.00	\$ 100.00
	Bluetooth	\$ 80.00	\$ 100.00
	Man Down	\$ 80.00	\$ 100.00

**KENWOOD**



# P25 Mission Critical Viking **VP900**

VHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - Mixed protocol zones (each channel in a zone can be from a different system) 2048 channels
  - Public safety ergonomics with large glove friendly knobs
  - Top flip display changes text orientation for viewing while in holster
  - Backlight on top display changes for event indication (ex. emergency turns display orange)
  - Multiple visual indicators including battery health & signal strength
  - 1 Watt audio output for high noise environments
  - Voice annunciation & custom announcement creation
  - Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
  - Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
  - Available in three keypad options (none, limited, full)
  - Integrated GPS<sup>1</sup>
  - MDC-1200 & GE-Star signaling
  - P25 Authentication
  - Instant Recording Replay (IRR)
  - Encryption
    - ARC4™ software encryption; compatible with Motorola ADP™
    - DES-OFB
    - AES-256 (FIPS 140-2) Single and Multi-Key
    - Over-the-Air-Rekeying (OTAR)
    - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- <sup>1</sup>Refer to the Viking VPx00 operating manual for detailed requirements & conditions for proper GPS operation.

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

2425AAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,060.00	\$ 2,575.00
2425AADA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 2,220.00	\$ 2,775.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,220.00	\$ 2,775.00
2425AAEA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,380.00	\$ 2,975.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,380.00	\$ 2,975.00
2425AAFA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,540.00	\$ 3,175.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
	Multiband 700/800 + VHF Standard	\$ -	\$ -
	Multiband 700/800 + VHF Flexible	\$ -	\$ -
	Multiband 700/800 + UHF Hi (470 - 520 MHz) Standard	\$ -	\$ -
	<b>Battery</b>	<b>Contract</b>	<b>List</b>
	No Battery (credit)	\$ (40.00)	\$ (40.00)
	Viking Li-ion Battery	\$ -	\$ -
	<b>Housing</b>	<b>Contract</b>	<b>List</b>
	Black Housing	\$ -	\$ -
	High Visibility Housing	\$ 160.00	\$ 200.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
1	Analog FM (included in base radio)	\$ -	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 160.00	\$ 200.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
1	Conventional System	\$ 280.00	\$ 350.00
2	Viking16 Trunking (includes system option 1)	\$ 740.00	\$ 925.00
3	Viking16 Trunking (includes system options 1 & 2)	\$ 820.00	\$ 1,025.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>		
4	Project 25 Conventional System	\$ 280.00	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 380.00	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 700.00	\$ 875.00
7	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 920.00	\$ 1,150.00
8	Project 25 Phase 2 TDMA and Viking Trunking (includes system options 2, 4 & 5)	\$ 1,240.00	\$ 1,550.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	2048 Channels/Talkgroups (standard)	\$ -	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
	Single-Key AES	\$ 120.00	\$ 150.00
	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
	AES (multi-key)	\$ 380.00	\$ 475.00
	DES-OFB + AES (Multi-Key)	\$ 600.00	\$ 750.00
	ARC4 (ADP compatible)	\$ -	\$ -

	<b>Programming &amp; Data</b>		
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	Rebanding (requires 700/800 MHz)	\$ 88.00	\$ 110.00
	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 280.00	\$ 350.00
	GPS	\$ 80.00	\$ 100.00
	Third Party Interface	\$ 120.00	\$ 150.00
	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
	Project 25 Data Conventional	\$ 112.00	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>		
	Project 25 Authentication	\$ 80.00	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
	EVRS	\$ 80.00	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM7000

VHF (Regular and Hi Power) · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

With the VM7000 All-Band Multi-Deck Mobile, you can simultaneously receive and display up to four bands so you never miss a call. The "select" and "unselect" speakers give you the option for audio control similar to a dispatch console. KENWOOD Viking\* is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)

1024 channels (2048 & 4096 options)

Mixed protocol zones

P25 Authentication (Link Layer Authentication)

P25 IP packet data

P25 GPS data (built in GPS)<sup>1</sup>

MDC-1200 & GE-Star signaling

P25 Conventional vote scan

Single or Dual Remote Mount configuration

External speaker

Over-the-Internet-Programming (OTIP)

Encryption

- ARC4™ software encryption; compatible with Motorola ADP™
- DES-OFB
- AES-256 (FIPS 140-2) Single and Multi-Key
- Over-the-Air-Rekeying (OTAR)
- VK5000 or Motorola KVL3000/KVL4000 Keyloaders

WiFi

Instant Recording Replay (IRR)

Voice Recording

<sup>1</sup>Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

## Enhanced Control Head

Larger display - 2.75" (36 x 60 mm)

Resolution of 400 x 240 pixels

Viewing angle of 140°

Multi-color LCD + TX/RX (green/red) LEDs

D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs

Replaceable A/B/C button labels

User selectable themes (8 themes available)

Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault®.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Master Radio - (First Deck, Choose one)		Contract	List
VM7730HBF-M	VM7000 136-174 MHZ Hi Power Master	\$2,480.00	\$ 3,100.00

VM7730BF-M	VM7000 136-174 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF-M	VM7000 450-520 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF2-M	VM7000 380-470 MHZ Master	\$1,920.00	\$ 2,400.00
VM7930BF-M	VM7000 700/800 MHZ Master	\$1,920.00	\$ 2,400.00
<b>Slave Radio - (2nd-4th Deck, Choose up to 3)</b>		<b>Contract</b>	<b>List</b>
VM7730BF-S	VM 7000 136-174 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF-S	VM 7000 450-520 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF2-S	VM 7000 380-470 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7930BF-S	VM 7000 700/800 MHZ Slave	\$ 880.00	\$ 1,100.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
KRK-17BF	Remote Kit	\$ 320.00	\$400.00
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-29RV	KCH-20 Enhanced control head	\$ 560.00	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KCT-71M4	Control Cable	\$ 108.00	\$ 135.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KCT-72M	External Accessory Connection Cable for KCH-20R	\$ 29.36	\$ 36.70
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ 280.00	\$ 350.00
	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	Viking16	\$ 620.00	\$ 775.00
	1024 Ch	\$ -	\$ -
	2048 Ch	\$ 240.00	\$ 300.00
	4000 Ch	\$ 480.00	\$600.00
	DES-OFB multi-key	\$ -	\$ -
	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00

OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
P25 Authentication	\$ 80.00	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
GPS	\$ 80.00	\$ 100.00
GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00

**KENWOOD**



# P25 Mission Critical Viking **VM6000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- WiFi
- Bluetooth
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

User selectable themes (8 themes available)

Day & night display options

An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		Contract	List
VM6730BF	VM 6000 136-174 MHZ	\$ 1,720.00	\$ 2,150.00



VM6830BF	VM 6000 450-520 MHZ	\$ 1,720.00	\$ 2,150.00
VM6830BF2	VM 6000 380-470 MHZ	\$ 1,720.00	\$ 2,150.00
VM6930BF	VM 6000 700/800 MHZ	\$ 1,720.00	\$ 2,150.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
835VM6000VCH	Viking Control Head (VCH) <i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i>	\$ 720.00	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
597535777502	6 Ft remote cable	\$ 80.00	\$ 100.00
597535777502	17 Ft remote cable	\$ 128.00	\$ 160.00
597535777503	50 Ft remote cable	\$ 240.00	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 112.00	\$ 140.00
589001202303	VCH Desktop Mic	\$ 520.00	\$ 650.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
2500151006	5in. 15W Speaker, Crimp Leads	\$ 60.00	\$ 75.00
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ 280.00	\$ 350.00
	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	Viking16	\$ 620.00	\$ 775.00
	1024 Ch	\$ -	\$ -
	2048 Ch	\$ 240.00	\$ 300.00
	4000 Ch	\$ 480.00	\$600.00
	DES-OFB multi-key	\$ -	\$ -
	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	GPS	\$ 80.00	\$ 100.00

GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00
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# P25 Mission Critical Viking VM5000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (built in GPS)†
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount (KCH-19 control head only)
- Remote mount
- Dual control heads
- Internal or external speaker
- Fixed control station
- WiFi (remote mount configuration only)
- Bluetooth (Future)
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)

†Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## Basic Control Head

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		Contract	List
VM5730BF	VM 5000 136-174 MHZ	\$1,720.00	\$ 2,150.00
VM5830BF	VM 5000 450-520 MHZ	\$1,720.00	\$ 2,150.00
VM5830BF2	VM 5000 380-470 MHZ	\$1,720.00	\$ 2,150.00
VM5930BF	VM 5000 700/800 MHZ	\$1,720.00	\$ 2,150.00
Mounting Accessories		Contract	List
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00

KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-19VM	Dash - KCH-19	\$ 144.00	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 25.20	\$ 31.50
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KMC-9C	Desktop Mic	\$ 68.80	\$ 86.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
	Analog FM	\$ -	\$ -
	P25 CAI AMBE+2	\$ -	\$ -
	Analog Conventional	\$ -	\$ -
	P25 Conventional	\$ -	\$ -
	P25 Phase 1 Trunking	\$ -	\$ -
	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
	Viking16	\$ 620.00	\$ 775.00
	1024 Ch	\$ -	\$ -
	DES-OFB multi-key	\$ 156.00	\$ 195.00
	AES FIPS-140-2 multi-key (DES-OFB included)	\$ 600.00	\$ 750.00
	ARC4 (ADP Compatible)	\$ -	\$ -
	Conventional Voting Scan	\$ -	\$ -
	TrueVoice Noise Cancellation	\$ -	\$ -
	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
	P25 Data Conventional	\$ 112.00	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
	P25 Authentication	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	GPS	\$ 80.00	\$ 100.00
	GPS Antenna	\$ 33.60	\$ 42.00
	<i>Automatically selected when GPS option is selected in CeVo</i>		

**KENWOOD**



# P25 Mission Critical Viking **VM900**

VHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Dual-band and multi-system radio equipped with industry leading audio, color display, public safety ergonomics, and advanced features including Over-the-Internet (OTIP) programming.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 2048 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (requires external GPS receiver)
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount
- Remote mount
- Dash mount with remote control head
- Dual control heads
- Fixed control station
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- WiFi
- Instant Recording Replay (IRR)

## Accessories

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at [www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

## Viking Control Head

- Public safety knobs & ergonomics
- High contrast transmissive color display for direct sunlight & nighttime viewing; not compromised by polarized sunglasses
- Resolution of 480 x 128 pixels
- Viewing angle of 120°

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model	Contract	List
700/800 MHz, 762-870 MHz + VHF, 30/35W Dash Mount	\$ 2,140.00	\$ 2,675.00

	700/800 MHz, 762-870 MHz + VHF, 30/35W Remote Mount	\$ 2,140.00	\$ 2,675.00
	700/800 MHz, 762-870 MHz + VHF, 30/35W Control Station (includes Power supply & cabinet)	\$ 2,376.00	\$ 2,970.00
	700/800 MHz, 762-870 MHz, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	700/800 MHz, 762-870 MHz, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
	VHF, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	VHF, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
	VHF, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
	<b>Control Head Type</b>	<b>Contract</b>	<b>List</b>
	<b><i>Dash Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
	Dash-Mount Control Head (includes standard palm mic)	\$ 64.00	\$ 80.00
	Dash-Mount Control Head with no mic	\$ -	\$ -
	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 600.00	\$ 750.00
	<b><i>Viking Control Head</i></b>	\$ -	
	Dash-Mount Control Head (includes standard palm mic & external speaker)	\$ 688.00	\$ 860.00
	Dash-Mount Control Head with no mic (includes external speaker)	\$ 624.00	\$ 780.00
	Dash-Mount Control with Remote Control Head (includes one remote control head, additional mic & remote control head)	\$ 1,752.00	\$ 2,190.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
	Remote Control Head (includes standard palm mic)	\$ 440.00	\$ 550.00
	Remote Control Head with no mic	\$ 376.00	\$ 470.00
	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 960.00	\$ 1,200.00
	Dual Control Head with no mics	\$ 832.00	\$ 1,040.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Viking Control Head</i></b>	\$ -	
	Remote Control Head (includes standard palm mic & external speaker)	\$ 1,056.00	\$ 1,320.00
	Remote Control Head with no mic (includes external speaker)	\$ 992.00	\$ 1,240.00

	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, two mounting brackets, and two external speakers)	\$ 2,192.00	\$ 2,740.00
	Dual Control Head with no mics (includes two external speakers)	\$ 2,064.00	\$ 2,580.00
	<b>Accessory Cable</b>	<b>Contract</b>	<b>List</b>
	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -	\$ -
	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 124.00	\$ 155.00
	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 144.00	\$ 180.00
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -	\$ -
	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 96.00	\$ 120.00
	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD R597-5357-74401 (may be ordered with dual Remote Mount)	\$ 428.80	\$ 536.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
1	Analog FM	\$ -	\$ -
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 280.00	\$ 350.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
1	Conventional System	\$ 440.00	\$ 550.00
2	Viking16 Trunking (includes system option 1)	\$ 720.00	\$ 900.00
3	Viking16 Trunking (includes system options 1 & 2)	\$ 840.00	\$ 1,050.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
4	Project 25 Conventional System	\$ 440.00	\$ 550.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 620.00	\$ 775.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 940.00	\$ 1,175.00
7	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 1,020.00	\$ 1,275.00
8	Project 25 Phase 2 TDMA and Viking16 Trunking (includes system options 2, 4 & 5)	\$ 1,340.00	\$ 1,675.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
	1024 Channels/Talkgroups (standard)	\$ -	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
	Single-Key AES	\$ 120.00	\$ 150.00

	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
	AES (multi-key)	\$ 380.00	\$ 475.00
	ARC4 (ADP compatible)	\$ -	\$ -
	<b>Programming &amp; Data</b>		
	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
	Rebanding	\$ 88.00	\$ 110.00
	<b><i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
	Project 25 Data Conventional	\$ 112.00	\$ 140.00
	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
	P25 Paging Encode	\$ 80.00	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	OTIP (Over-the-Intranet Programming)	\$ 160.00	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>		
	Project 25 Authentication	\$ 80.00	\$ 100.00
	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
	GPS	\$ 160.00	\$ 200.00
	EVRS	\$ 80.00	\$ 100.00



**ATLAS Price Guide | January 2019**

		<b>Contract Price</b>	<b>List Price</b>
336-1212-101	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 10,800.00	\$ 13,500.00
336-1224-101	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 10,800.00	\$ 13,500.00
336-1241-101	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 12,200.00	\$ 15,250.00
336-1224-102	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 13,180.00	\$ 16,475.00
336-1200-082	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b> Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,320.00	\$ 1,650.00
336-1200-000	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b> Includes programming software and cable.	\$ 236.00	\$ 295.00
336-1200-091	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 720.00	\$ 900.00
336-1200-092	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 1,240.00	\$ 1,550.00

# NXR-710/810

## UHF/VHF Low Power Base Stations and Repeaters



BASE STATION		CONTRACT	LIST
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION		CONTRACT	LIST
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher.

NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00

REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00

REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-3M are mounted inside the Repeater; a separate Rack-Mount Power Supply is provided

NXR7100PSDI	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20201, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00

BASIC ACCESSORIES		CONTRACT	LIST
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KPG-46UM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Programming Software (NXR-710/810)	\$ 82.60	103.25

B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	\$ 160.00	200.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	\$ 172.00	215.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00

<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KTI-3M	Network Interface Unit	\$ 212.00	265.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00

# NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 System
- NEXEDGE Gen2 System
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

NXR-5700 REPEATER		CONTRACT	LIST
NXR-5700K	Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
LICENSING SYSTEM		CONTRACT	LIST



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
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## TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7216-10	NXR-5700 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity

		CONTRACT	LIST
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELIN REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00

<b>Gen1 TRUNKING CONFIGURATIONS, CONT</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
		\$ -	
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# NXR-5800

UHF Digital & FM Base Repeaters - 400-520MHz



### GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

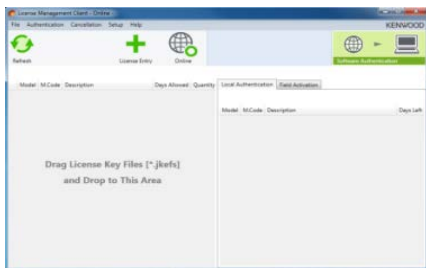
### GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

### TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5800 REPEATER		CONTRACT	LIST
NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
NXR-5800K3	Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

### SOFTWARE LICENSE OPTIONS

#### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

- Complete the attached Radio Feature Request Form.
- Submit along with your PO to the SYSTEMS Order Desk via:
  - E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - Fax: (678) 957-1880
- License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7217-10	NXR-5800 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

**RF REPEATER STATION AMPLIFIER OPTIONS**

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
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KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00

KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00

KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5900

800MHz Digital & FM Base Repeaters - 806-825, 851-870 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

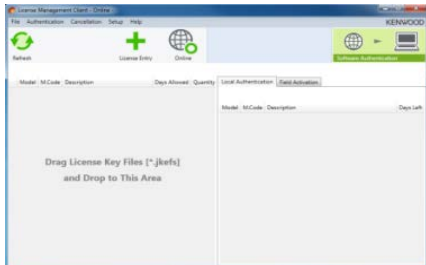
## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5900 REPEATER		CONTRACT	LIST
NXR-5900K	Repeater, Digital, RX 806-825 MHz, TX 821-870 MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure



1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5900 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

### POWER SUPPLY OPTIONS

		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

### MOUNTING CONFIGURATIONS

		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINEREMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	
<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<a href="#">Please see the NEXEDGE Gen2 Page.</a>			
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00



KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5901

900MHz Digital & FM Base Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

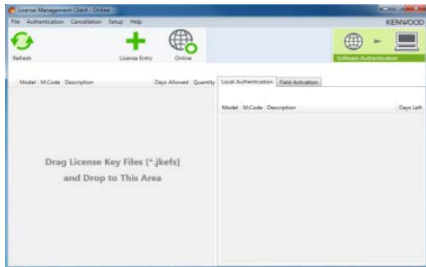
- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

## NXR-5901 REPEATER

		CONTRACT	LIST
NXR-5901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS

CONTRACT

LIST

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5kHa and 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5901 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00

KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00

<b>MISC STATION OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-710

## VHF High Performance Base Stations and Repeaters - High Band 136-174MHz



### GENERAL:

- Occupies 2 RU.
- May be used as a standalone 25 W continuous or 50W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.			
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00



KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELIN REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 752.00	940.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00



KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-810

## UHF Base Stations and Repeaters - 400-520 MHz



### GENERAL:

- Integrated Systems
- Occupies 2 RU
- May be used as a standalone 25 W continuous or 40W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00

<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00

<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00

KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINER REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of 600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	\$ 328.00	410.00
KSGTALD1	<b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
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KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 2,832.00	3,540.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00

KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-900

800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz



## GENERAL:

- Integrated Systems.
- Occupies 1 RU.
- 360 mW transceiver unit used with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Enabling of the NXR-900 trunking feature.
  - System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
  - Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems.
- NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible.

NXR-900 REPEATER (K Model)		CONTRACT	LIST
NXR-900K	Repeater, Digital, RX 806-825 MHz, TX 851-870 MHz	\$ 4,600.00	5,750.00
BANDWIDTH OPTION:		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for each 6.25KHz operation.	\$ 2,666.40	3,333.00
BASIC ACCESSORIES		CONTRACT	LIST
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8946-00	NXR-900 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
RF REPEATER STATION AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	



CONSTRUCT OR ADD NEW SITES

v

**ETHERNET SWITCH & ROUTER OPTIONS****CONTRACT****LIST**

Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

**EXTERNAL TRUNKING CONTROLLER OPTIONS****CONTRACT****LIST**

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

**MISC STATION OPTIONS****CONTRACT****LIST**

KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

**COMPONENTS****CONTRACT****LIST**

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# NXR-901

900 MHz High Performance Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Integrated Systems
- Occupies 1 RU
- 360 mW transceiver unit used with an external power amplifier
- Operates in analog mode at 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Trunking options include enabling of the NXR-901 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
- Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. NOTE: Recommended models are listed herein, but most commercially available IP

<b>NXR-901 REPEATER (K Model)</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00
<b>BANDWIDTH OPTION:</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	"Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5KHz or 6.25KHz operation.	\$ 2,666.40	3,333.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B53-7004-00	NXR-901 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00

KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	

ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D710

## DMR VHF Repeaters\* - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

### OPTIONS:

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00

BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KT1-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KT1-5M	\$ 16.00	20.00
L-1807	KT1-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00

RF BASE STATION AMPLIFIER OPTIONS		CONTRACT	LIST
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Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00

KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D710

## DMR VHF Low Power Repeaters - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D710 REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D710 REPEATER PACKAGE		CONTRACT	LIST
TKR-D710KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 136-174MHz Repeater 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D710KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.			
TKR-D710KPSD	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-			
TKR-D710KPSDI	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply, KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable. <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25

KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D810

## DMR UHF Repeaters - 400-520MHz



**GENERAL:**

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

**OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D810 REPEATER</b>	<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00

<b>BASIC ACCESSORIES and LABOR</b>	<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>RF BASE STATION AMPLIFIER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00

KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
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KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
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<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D810 REPEATER		CONTRACT	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810 REPEATER PACKAGE		CONTRACT	LIST
TKR-D810KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-520MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
TKR-D810K2PS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-470MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D810KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
TKR-D810K2PSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
TKR-D810KPSD	Repeater Station 5-40W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00

Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.

TKR-D810K2PSD	Repeater Station 5-40W, 400-470MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
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<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810KPSDI	Repeater Station 5-40W, 450-520MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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TKR-D810K2PSDI	Repeater Station 5-40W, 400-470MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



## GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

## OPTIONS:

- Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- T-R simplex antenna switching is included in the basic unit as well as in all external amplifiers.
- Other configurations are also available on a special order basis; please contact your Kenwood Systems Regional Sales Manager for more details.

RADIO PACKAGES		CONTRACT	LIST
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
BASIC ACCESSORIES		CONTRACT	LIST
KPG-43UM	Programming Cable	\$ 126.80	158.50
KPG-44DNK	Programming Software	\$ 54.80	68.50
B51-8460-10	TK-690 Service Manual	\$ 40.00	50.00
RF AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA21101	30-36MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21102	36-42MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21103	42-50MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21251	30-36MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21252	36-42MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21253	42-50MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00



KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
<b>WIRESLINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGOCWID	CWID Morse Code Generator <b>Note:</b> Specify call sign at time of order.	\$ 108.00	135.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
KCH-10	Basic Control Panel, 90-Series	\$ 117.60	147.00
KCT-23M2	10' Cable, DC for High-Power Mobile	\$ 31.00	38.75
KMB-5	Mounting Bracket for TK-690 Mobile Radio	\$ 11.20	14.00
KSGUT50002	2RU Utility Tray for Equipment Mounting	\$ 64.00	80.00
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00



KSGUT10001

1RU Mounting Tray

Note: Provides mounting space for up to two accessories.

\$ 40.00
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50.00

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# KAS-20

## STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and Dispatch for business, supporting both the NXDN and DMR digital protocols.

### FEATURES AND HIGHLIGHTS:

- Low-Cost Initial Investment with Upgrade licenses
  - Enhanced Scalability – Standalone PC / Multi-Client Server
  - Enhanced User Interface Design for ease of use
  - Supports multiple digital radio protocols
  - User-Selectable Options – Location, Dispatch, Voice Path, Multiple Client, and Voice Recording
  - Location Management – 1,000 subscribers
  - Definable Call Dispatch Windows
  - Embedded AMBE+2 Vocoder
  - System to System Patching\*
    - DMR Conventional
    - NXDN Conventional
    - NXDN Type-C Gen1 System
    - NXDN Type-C Gen2 System
- \*System type and bandwidth must match in order to patch calls from different system ID.



### COMPATIBLE IP CONSOLE INTERFACE\*

- Kenwood DMR Conventional
- Kenwood NXDN Conventional
- Kenwood NXDN Type-C
- Kenwood NXDN Gen2

\* KAS-20 does not support serial base connection

### SYSTEM REQUIREMENTS\*

- Windows 7, 8.1, 10 (32/64 bit OS)
- 3.0 GHz Intel Core i5 or faster CPU
- 4 GB RAM or more
- 50GB free space or more
- Internet Connection for AVL

\* Refer to KAS-20 brochure for details

SAMPLE LICENSE		CONTRACT	LIST
KAS-20K2	SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION Following features are enabled for 30 days after activation: - AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	\$ 16.00	20.00
BASE LICENSE		CONTRACT	LIST
KAS-20K	AVL & DISPATCH SOFTWARE BASE LICENSE	NC	NC

#### Notes:

1. KAS-20K base license is required per individual PC or Server. Works on both KAS-20C (Client) and KAS-20S (Server).
2. Application Software for KAS-20C (Client) and KAS-20S (Server) is available on Kenwood CONTRACT Tools.
3. Base license does not contain any of the feature licenses. Must purchase additional software upgrades to enable desired functions.
4. One KAS-20K base license allows a single connection to the RF system.

### TO PLACE AN ORDER FOR WINDOWS<sup>®</sup> SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:



**KPT-300LMC**



## License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows 7/8.1/10 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
<b>SOFTWARE UPGRADE LICENSES (FOR CLIENT)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20C-VDK	Voice Dispatch License for KAS-20 client <b>Note:</b> KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	\$ 533.60	667.00
KWD-20C-VPK	Voice Path License for KAS-20 client <b>Note:</b> Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	\$ 533.60	667.00
KWD-20C-LMK	Location Management License for KAS-20 client	\$ 533.60	667.00
<b>SOFTWARE UPGRADE LICENSES (FOR SERVER)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20S-MCK	Server upgrade license to enable multi-client operation <b>Note:</b> Single KAS-20 server software holds up to ten KAS-20 clients.	\$ 1,800.00	2,250.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks <b>Note:</b> Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	\$ 1,800.00	2,250.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	\$ 1,800.00	2,250.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30202	Windows server	\$ 3,500.00	4,375.00
KSGCP30203	Standalone PC Opt3040	\$ 1,020.00	1,275.00
KSGCP40001	USB Desktop Microphone A0110399	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	\$ 40.00	50.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	22" LED Backlit LCD Monitor 1920 x 1080 resolution E2316H	\$ 300.00	375.00
KSGCP00014	24" Monitor Backlit LCD Monitor 1920 x 1080, resolution HDMI, VGA, Displayport P2417H	\$ 416.00	520.00

# KAS-10

## GPS AVL & Dispatch Messaging Software (Version 2.x)

### Product Enhancements:

- 999 Mobile ID Capacity
- NXDN® Scrambler included
- Up to 100 KAS-10 per system, 10 per site
- 100 Group Scan with four Priority Monitor IDs

### Notes:

- NEXEDGE Gen2, Type-D and DMR Systems not supported.

<b>GPS AVL &amp; DISPATCH</b>		<b>CONTRACT</b>	<b>LIST</b>
KAS-10	GPS AVL & Dispatch Messaging Software	\$ 347.20	434.00
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface <b>Note:</b> USB-3003™ multi pass Vocoder with USB does not compatible with KAS-10.	\$ 520.00	650.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30201	Windows Workstation PC	\$ 1,612.00	2,015.00
KSGCP40001	USB Desktop Microphone	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	\$ 40.00	50.00
KSGCP40002	USB Over the Head Headset with Microphone	\$ 72.00	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	\$ 60.00	75.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	17" Anti-Glare Black LCD Monitor	\$ 300.00	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	\$ 380.00	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	\$ 836.00	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	\$ 996.00	1,245.00

# KPG-150AP

## OTAP Manager

### General

- For NEXEDGE® digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Accommodates multiple user-defined groups.
- Support for multiple serial ports facilitates transmission on different frequencies.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- KPG-150AP compares current and updated configurations, enabling transmission of only updated programming data to save on-air time.
- Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each

**Note:** NEXEDGE Type-D Trunking system and DMR System not supported.

OTAP MANAGER		CONTRACT	LIST
KPG-150AP	OTAP Manager <b>Note:</b> - Includes a license for one computer, one base radio (mobile or portable), and 10 subscriber radios (mobile or portable) - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 440.00	550.00

ADDITIONAL LICENSES		CONTRACT	LIST
<b>Note:</b> Includes a license for one additional subscriber radio (mobile or portable) attached to one computer running KPG-150AP software			
KWD-AP1	Additional Radio License for 1 PC <b>Note:</b> Price is per license on quantities of less than 100 licenses.	\$ 20.00	25.00
KWD-AP100	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 100 and 249 licenses at the same time.	\$ 20.00	25.00
KWD-AP250	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 250 and 499 licenses at the same time.	\$ 20.00	25.00
KWD-AP500	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering 500 or more licenses at the same time.	\$ 20.00	25.00
KWD-SP1	Additional System License for 1 PC <b>Note:</b> Price is per license on quantities of less than 16 licenses.	\$ 266.40	333.00

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.

# KPG-180AP

## OTAP Manager for NX-5000 Series

### General

- For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 System.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio.
- Multi-Protocol (NXDN/P25) capability.

### Note:

- NEXEDGE Type-D Trunking system and DMR System not supported.
- P25 OTAP is only available for Conventional Radio to Radio.

## LICENSING SYSTEM

## CONTRACT

## LIST



### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**.

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC License Management Client

NC

NC

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Note:** A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

### Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSING OPTIONS, CON'T		CONTRACT	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Fifty (50) radios / One(1) <b>NXDN</b> Conventional and Type-C <b>Air</b> Communication Profile and One(1) <b>NXDN</b> Conventional and Type-C <b>IP</b> Communication Profile  <b>Note:</b> - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <i>P25 Conventional system</i> , requires <i>KWD-AP3-P25</i> license. - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 707.20	884.00

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**

**Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.**

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	\$ 1,333.60	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	\$ 2,333.60	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	\$ 3,333.60	4167.00
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	\$ 200.00	250.00
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	\$ 333.60	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	\$ 640.00	800.00

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles

Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

# KTI-4

## Telephone Interconnect Adapter

### General

- Available only for NEXEDGE® digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE® digital trunking system and an analog telephone patch panel

### Main Features

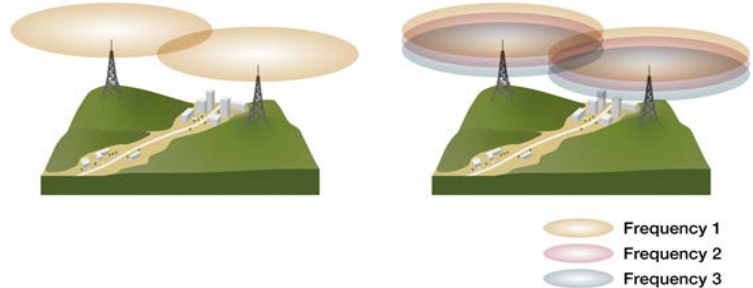
- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2™ vocoder for digital audio speech conversion.
- NXDN® encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

<i>Interconnect Adapter</i>		<i>CONTRACT</i>	<i>LIST</i>
KTI-4M	Telephone Interconnect Adapter	\$ 456.00	570.00
901-9416	Model 30 Worldpatch	\$ 641.00	801.25
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
L-8005	KTI-4M Calibration (Required)	\$ 60.00	75.00



**General**

- Simple multi-site operation for extended coverage.
- Digital simulcast will offer the user the ability to use a single frequency pair over a coverage area larger than serviced by a single repeater site.
- No need for radios to be programmed to roam among sites, greatly simplifying operation for the end-user and system owner.

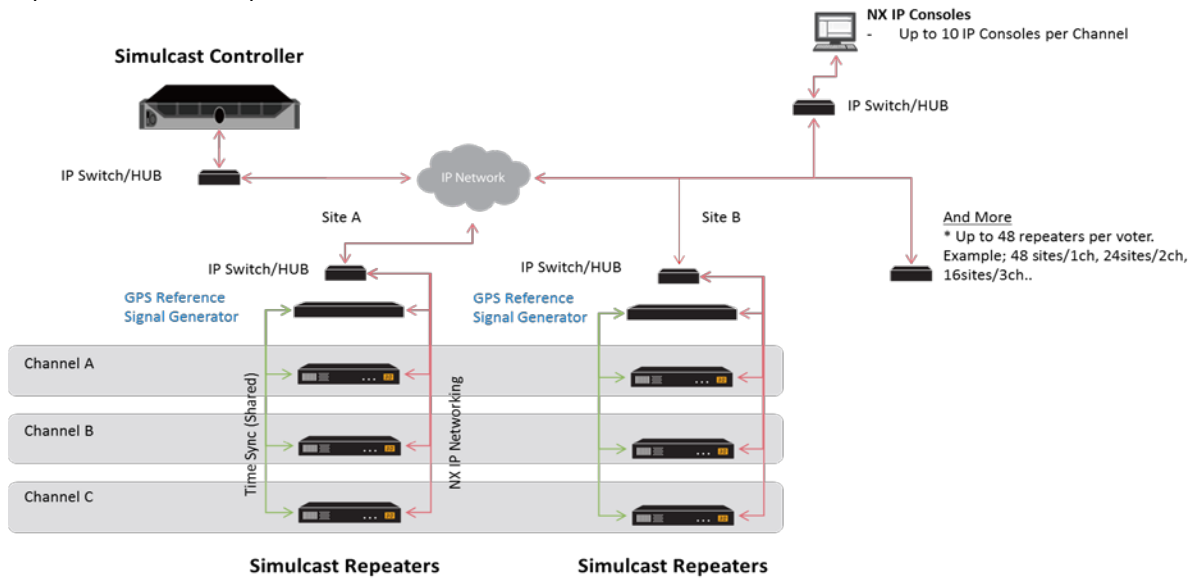


**Features and Highlights**

- 6.25 kHz NXDN Conventional
- VHF and UHF frequency models
- Up to 48 repeaters / Up to 3 channels per Controller  
48 sites / 1CH, 24 sites / 2CH, 16sites/1CH
- Up to 10 IP Consoles per Channel

**Applicable VHF/UHF Subscribers:**

- NX-5x00 Series
- NX-3x00/3x20 Series
- NX-x00G/x10G Series
- NX-x20 Series



<b>SIMULCAST CONTROLLER</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCT13SIM	Simulcast Controller	\$ 11,200.00	14,000.00
<b>SIMULCAST REPEATERS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-5700KSR	Simulcast Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800KSR	Simulcast Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800K3SR	Simulcast Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
<b>GPS REFERENCE</b>		<b>CONTRACT</b>	<b>LIST</b>
KSG-SIM-SG	Hi Performance GPS Receiver w/ Sync Cable <b>Note:</b> GPS reference is required per site	\$ 6,880.00	8,600.00
Includes GPS antenna, mounting hardware, antenna line surge suppressor. Antenna line should be ordered separately.			
<b>SERVICE</b>		<b>CONTRACT</b>	<b>LIST</b>

Custom

System Design, Onsite Consulting, and Coverage Testing are available. Contact the Regional Sales Manager for your area to obtain a custom quote based on specific site requirements, conditions, and environment.

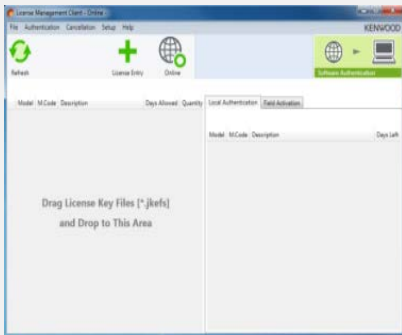
Custom

Custom

Notes:

1. Due to the complexity of the digital simulcast system, Kenwood will design, configure, and test the system.
2. IP Network and IP console is not included. CONTRACT should notify Kenwood Systems Group if required.

LICENSING SYSTEM	CONTRACT	LIST
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## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

PROGRAMMING SOFTWARE	CONTRACT	LIST
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KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	\$ 82.60	103.25
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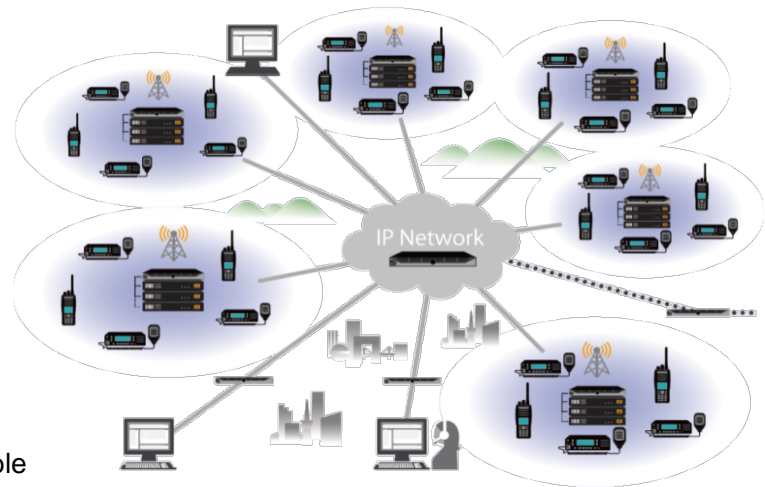
# NEXEDGE® Generation2 System

NEXEDGE Gen2

Gen2 is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. NXR-5000 and NXR-x00 series can be upgraded to Gen2 system. Key features and enhancements include: Direct Frequency Assignment (DFA), Call Pre-Emption for Console, GPS Report Channel, and an increase to the number of sites within a system.

## FEATURES AND HIGHLIGHTS:

- Up to 1,152 sites
- Up to 24 Wide Area Systems
- Up to 24 Multi System Roaming <sup>1</sup>
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel<sup>2</sup>
- SNMP Capability for Repeaters <sup>3</sup>
- Network Management and Monitoring
- NXR-700/800/900/901/5700/5800 Compatible



1. NX-x00/x10/x11/x20 series are available for 8 systems.  
 2. Requires Traffic Channel (Repeater) to use as a GPS Report Channel (GRCH).  
 3. NXR-x00 series requires to equip CF card that is installed of KPT-MIB10 software downloaded from Dealer Tools to use SNMP function.

SERVER SOFTWARE LICENSING		CONTRACT	LIST
KPG-1000SY	System Control Software <i>*Required</i> <b>Note:</b> - Required one per 48 site or per each system code - Includes NXR-5000/x00/x01 Firmware. They are automatically updated when KPG-1000SY is updated.	\$ 13,333.60	16,667.00
KPG-1001ST	Site Control Software <i>*Optional</i> <b>Note:</b> Required one per site of 10 channels or more.	\$ 2,000.00	2,500.00
KPG-1002GW	IP Gateway Software <i>*Optional</i> <b>Note:</b> Required for connecting NXIP Interface Software. One IP Gateway handles 100 interfaces and up to ten IP Gateways per system code	\$ 6,667.20	8,334.00
KPG-1003NS	Network Manager Server Software <i>*Optional</i> <b>Note:</b> Required for monitoring 101 to 1000 devices	\$ 4,000.00	5,000.00
KPG-1005RG	Roaming Gateway Server Software <i>*Optional</i> <b>Note:</b> - Required for subscriber roaming from one system to another. Roaming Gateway is required for the home system to each subscriber needing to roam. For example, subscriber from Sys A needs to roam to Sys B, Sys A needs the Roaming Gateway, Sys B doesn't need it unless Sys B subscriber needs to roam. - Roamer Subscriber must be set SKF that is issued by roamed system.	\$ 5,600.00	7,000.00

**Notes:**

1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.

SERVER HARDWARE	CONTRACT	LIST
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KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00

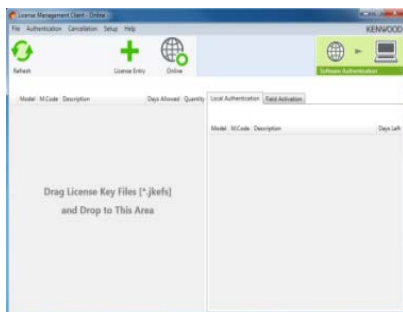
<b>WINDOWS® APPLICATION LICENSING</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-1004NC	Network Manager Client Software <b>Note:</b> Required for Network Management. <b>A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs. Requires KPT-300LMC for authentication.</b>	\$ 2,667.20	3,334.00

**TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: systemsorderdesk@us.jvckenwood.com
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

***KPG-1004NC Software License Key Discount Structure***

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>



**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



**KPT-300LMC  
License Management Client**

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
<b>REPEATER TRUNKING AND MULTI SITE FEATURE</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20CTR	Repeater Trunking Feature <b>Note:</b> Required for each Trunking Repeater.	\$ 1,200.00	1,500.00
KWD-20CNT	Repeater Multi-Site Feature <b>Note:</b> Only for Multi-Site Trunking System. Required for each Trunking Repeater.	\$ 1,333.60	1,667.00

**REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2**

1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.
2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)

# KPG-157SB

NEXEDGE® Generation1 Bridge



### General

- Connects up to eight NXR-700/800/900/901-based multi-site trunked networks.
- Subscribers from each network can make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere.

### Features and Highlights

- 100 Group Calls.
- 1000 GID Exchange Sets.
- Call Types - Voice/Short Data/Long Data.
- Cross Band Networks\*.
- IP Remote Control, Configuration and Maintenance.
- Multi-Level Access Control.
- Communication and System Logging.
- Data Backup and Restore.
- NXR-700/800/900/901 Compatible.

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

SOFTWARE		CONTRACT	LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	\$ 10,000.00	12,500.00
KSGPG92010	System Group Call Path License <b>Note:</b> License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	\$ 8,000.00	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key <b>Note:</b> Required for operation.	\$ 133.60	167.00
HARDWARE		CONTRACT	LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00



**General**

- End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- Employs the latest, standards-based IP protocols and IT best practices.
- Offers highest levels of interoperability, scalability, and features.
- Designed to connect directly to a NEXEDGE® Trunking Repeater System (TRS) via IP connection.

MAX PRO WORKSTATIONS		CONTRACT	LIST
905-0410	Kenwood MAX Pro Workstation Bundle Position: One Operator Workstation PC, one Media Dock, two Speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals are included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0411	Kenwood MAX Pro Workstation Bundle, PC not included	\$ 16,975.00	21,218.75
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	\$ 14,855.00	18,568.75
930-0258	MAX Pro Software	\$ 14,320.00	17,900.00
905-0446	Kenwood MAX Pro Workstation Bundle with Rackmount Speakers Position: One Operator Workstation PC, one Media Dock, one 19" Rackmount Speaker Panel with two speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0512	1-Position 2 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 21,310.00	26,637.50
905-0513	1-Position 10 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 33,990.00	42,487.50
905-0514	1-Position 20 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blocks (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 51,670.00	64,587.50
905-0515	1-Position 2 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 19,295.00	24,118.75



905-0516	1-Position 10 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 32,250.00	40,312.50
<b>MAX PRO WORKSTATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0517	1-Position 20 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blockx (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 49,490.00	61,862.50
905-0518	Max Standard with Laptop Position: Laptop, USB Headset Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls)	\$ 9,270.00	11,587.50
950-1348	MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls	\$ 4,500.00	5,625.00
905-0519	MAX Standard Workstation Bundle (with PC) Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 10,305.00	12,881.25
905-0522	MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals	\$ 8,950.00	11,187.50
905-0524	MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop	\$ 4,750.00	5,937.50
<b>OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)</b>			
930-0222	Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit	\$ 1,060.00	1,325.00
930-0223	Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias	\$ 1,590.00	1,987.50
930-0224	Tone Signaling/Paging Feature Set Includes: Manual paging operation, instant call and stacked paging, 2-tone 100, 1000, and Custom Calls (Mot & GE), Quick Call (2+2), DTMF, and Knox	\$ 1,590.00	1,987.50
930-0225	Event Replay Short term audio playback at the console position	\$ 1,795.00	2,243.75
930-0226	Aux I/O Software Feature Set	\$ 1,590.00	1,987.50
<b>WORKSTATION HARDWARE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
950-0032	Headset, 6-wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 438.24	547.80
950-0033	Headset 4-Wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 329.34	411.68
950-0454	Wireless Headset, 6-Wire, Noise Canceling (comes with two batteries) Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops	\$ 1,103.57	1,379.46
802-0115	Headset Top, Noise Cancelling	\$ 147.41	184.26
905-0414	Kenwood Desktop Microphone, Shure with Cable	\$ 615.00	768.75
950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality	\$ 800.00	1,000.00
950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	\$ 641.00	801.25
950-9102	Footswitch, Single w/ 10' cable	\$ 122.00	152.50
950-1190	Kenwood Speakers Single (cable separate)	\$ 450.00	562.50
950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	\$ 917.00	1,146.25
950-1251	2U Rackmount Gooseneck Microphone	\$ 535.00	668.75
709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	\$ 21.25	26.56



901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1237	Console Position Light Pole	\$ 584.32	730.40
<b>MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP)</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	\$ 2,695.00	3,368.75
930-0264	NEXEDGE Talkpath Interface (Conventional or Trunking) Requires license for each NEXEDGE Talkpath monitored at the console <i>Conventional: One Talkpath per Gateway</i> <i>Trunking: Two Talkpaths per Gateway</i>	\$ 530.00	662.50
<b>MAX SYSTEM HARDWARE/SOFTWARE</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9719	Kenwood MAX Central Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway; includes five (5) 10 ft. shielded CAT5e cables for connectivity	\$ 3,395.00	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	\$ 3,290.00	4,112.50
930-0221	Block of 10 Radio Channels Licenses Up to 50 channels in the system; beyond 50 channels, please call Kenwood for pricing.	\$ 3,185.00	3,981.25
930-0376	Block of 2 Radio Channel Licenses	\$ 695.00	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	\$ 480.00	600.00
930-0273	MAX Dispatch Voice Logger License for Eventide NexLog™ Logging Recorders License applies when using Eventide NexLog™ recorder only; Eventide Recorder must have been purchased through Zetron to qualify; 930-0237 not needed	NC	NC
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	\$ 930.00	1,162.50
930-0233	MAX Portal Remote Radio License One remote Portal license is needed per Radio Gateway that is designated as remote device; may require additional Centrals	\$ 210.00	262.50
930-0234	MAX Portal Z-Node License One portal license is needed for each Z-Node that is required to operate in a multi-node system; may require additional Centrals	\$ 4,120.00	5,150.00
950-9351	Connectorized Punch down Block	\$ 116.86	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	\$ 891.00	1,113.75
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	\$ 875.00	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	\$ 783.52	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	\$ 410.00	512.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC @ 2A) 18-36VDC; power supply not included	\$ 2,729.04	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	\$ 258.96	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	\$ 33.20	41.50
<b>MAX TELEPHONY GATEWAY INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0235	Telephone Gateway Services (1 per Max Central)	\$ 2,120.00	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	\$ 65.00	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
<b>MAX DMR INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0510	MAX Dispatch DMR AIS Gateway Bundle	\$ 6,200.00	7,750.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	\$ 9,795.00	12,243.75

930-0363	MAX Dispatch DMR 5 TalkPath License	\$ 5,000.00	6,250.00
930-0364	MAX Dispatch DMR 10 TalkPath License	\$ 9,100.00	11,375.00
930-0365	MAX Dispatch DMR 20 TalkPath License	\$ 16,100.00	20,125.00
<b>MAX DMR INTERFACE, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0366	MAX Dispatch DMR 30 TalkPath License	\$ 21,100.00	26,375.00
<b>RACK MOUNTING AND POWER EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 2,650.00	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 4,875.00	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	\$ 630.80	788.50
950-1135	DIN Rail Mounting Kit Generic rack mount kit that can be used for extra power supply mounting or other devices using DIN rail mounting	\$ 505.00	631.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	\$ 80.00	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	\$ 122.00	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	\$ 170.00	212.50
810-0142	19" Rack 2U Shelf	\$ 106.24	132.80
416-0043	Fuse, 3 Amp	\$ 6.64	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	\$ 14.61	18.26
<b>MONITORS AND NETWORK EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	\$ 358.56	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 3,217.74	4,022.18
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 710.48	888.10
950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	\$ 1,095.60	1,369.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	\$ 1,401.04	1,751.30
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 2,735.68	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 4,774.16	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	\$ 66.40	83.00
<b>SYSTEMS DOCUMENTATION</b>		<b>CONTRACT</b>	<b>LIST</b>
395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	\$ 25.00	31.25
025-9638-1	MAX System Overview Manual	\$ 50.00	62.50
025-9645-1	MAX System Installation Manual	\$ 50.00	62.50
025-9654-1	MAX Dispatch System Configuration Manual	\$ 50.00	62.50
025-9649-1	MAX Operation Manual	\$ 50.00	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	\$ 50.00	62.50
025-9647-1	MAX Central Product Manual	\$ 50.00	62.50
025-9650-1	MAX Dispatch Console Design Manual	\$ 50.00	62.50
025-9630	Model 6080 Manual	\$ 50.00	62.50
025-9658-1	Media Dock XS Manual	\$ 50.00	62.50
025-9693	MAX Dispatch CAD Interface Control Document API documentation for developing 3rd party applications to control the MAX Dispatch Console; Protocol License Agreement required to obtain documentation	\$ 785.00	981.25
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	\$ 50.00	62.50

025-9632	Headset Jackbox manual	\$ 50.00	62.50
<b>CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Factory Training in Redmond, WA			
X97-344F	MAX Dispatch Factory Technical Training, First Person	\$ 1,454.16	1,817.70
X97-344A	MAX Dispatch Factory Technical Training, Additional person	\$ 723.76	904.70
XMP-K344-OWE	MAX-PSP Operator Web Training extension	\$ 1,992.00	2,490.00
<b>ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OSO	MAX-PSP On-Site Operator Training, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OST	MAX-PSP On-Site Technical Support, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>UPGRADES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC	NC
<b>SPARES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
901-9727	Kenwood MAX Digital Radio Gateway	\$ 2,695.00	3,368.75
901-9719	Kenwood MAX Central	\$ 3,395.00	4,243.75
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1278-1	Kenwood MAX Solutions Workstation PC	\$ 2,629.44	3,286.80
802-0692	Power Supply, Desktop 60W	\$ 55.78	69.72
416-0012	AC Power Cord (North America)	\$ 14.61	18.26
<b>SERVICE PLANS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-EBS	MAX-PSP Extended Service Plan One year software services, one year hardware, after-hours phone support, and one year membership in the Zetron MAX Users Group; per position, per year	NC	NC
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	NC	NC
XMP-K344-APM	MAX-PSP After hours phone support 1 time Special needs - emergency and pre-scheduled service outside of regular business hours; per month	\$ 100.00	125.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	\$ 5,976.00	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	\$ 239.04	298.80
XMP-K344-MUG	MAX-PSP Zetron MAX Users Group Membership for one year into the ZMUG allows participation in MAX related webinars (must have software PSP)	NC	NC
<b>WARRANTY PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plan is for North America only			
XMP-K344-BAS	MAX-PSP Base Service Plan One year software services, one year hardware services, one year of advance hardware replacement, operator web training (2-4 hour sessions), and one year membership in the Zetron MAX Users Group	NC	NC

# KA-160

Analog/DMR VHF Repeaters - 136-174 MHz



### GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 Conventional
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option

### GENERAL OPTIONS

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your KENWOOD

KAIROS REPEATER		DEALER	LIST
KA-160	KAIROS Repeater, Analog/DMR, VHF, 136-174MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-160-TX	KAIROS Transmitter Only, Analog/DMR, VHF, 136-174MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-160-RX	KAIROS Receiver Only, Analog/DMR, VHF, 136-174MHz	\$ 2,102.00	\$ 3,503.25
SOFTWARE LICENSES FOR KAIROS REPEATERS		DEALER	LIST
KA-MCTCSS	License to allow the use of up to 8 different CTCSS contemporary	\$ 210.00	\$ 350.00
KA-POCSAG	License to add POCSAG capability	\$ 540.00	\$ 900.00
KA-SI-T2	License to allow Simulcast operation	\$ 5,550.00	\$ 9,250.00
KA-1+1	License required for Hot Stand-by configuration <b>Note :</b> Must purchase additional KA repeater.	\$ 240.00	\$ 400.00
PROGRAMMING SOFTWARE		DEALER	LIST
KA-MNG	Technical Documentation and Programming Software	\$ 180.00	\$ 300.00
REPEATER MOUNT (Mandatory mount option for rack mounting)		DEALER	LIST
KA-RK1v2	19" Mount Panel for One KAIROS Repeaters	\$ 240.00	\$ 400.00
KA-RK2	19" Mount Panel for Two KAIROS Repeaters	\$ 240.00	\$ 400.00
HARDWARE OPTION for KAIROS Repeaters		DEALER	LIST
KA-GPS	GPS Receiver for Simulcast Operation	\$ 240.00	\$ 400.00
GPS-ANT	GPS Antenna for Simulcast Operation	\$ 240.00	\$ 400.00
DVX-VHF	Diversity RX filter for VHF 136 - 174 MHz	\$ 600.00	\$ 1,000.00
RF REPEATER STATION AMPLIFIER OPTIONS		DEALER	LIST
<b>Note:</b> Includes One Cable for Radio Connectivity.			
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 999.00	\$ 1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00

KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 2,436.00	\$ 4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 999.00	\$ 1,665.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>DEALER</b>	<b>LIST</b>
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
<b>POWER SUPPLY OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 153.00	\$ 255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 285.00	\$ 475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 813.00	\$ 1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 813.00	\$ 1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,044.00	\$ 1,740.00
<b>MOUNTING RACK</b>		<b>DEALER</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 1,605.00	\$ 2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 648.00	\$ 1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 720.00	\$ 1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,200.00	\$ 2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 207.00	\$ 345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 54.00	\$ 90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 261.00	\$ 435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 84.00	\$ 140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 150.00	\$ 250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 225.00	\$ 375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 225.00	\$ 375.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 30.00	\$ 50.00
<b>DUPLEXER</b>		<b>DEALER</b>	<b>LIST</b>

KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 1,857.00	\$ 3,095.00
<b>COMPONENTS</b>		<b>DEALER</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 432.00	\$ 720.00
KSGMT0C03R	Crate for 3' Rack	\$ 216.00	\$ 360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 390.00	\$ 650.00
KSGMT0C07R	Crate for 7' Rack	\$ 330.00	\$ 550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,293.00	\$ 2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 312.00	\$ 520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 336.00	\$ 560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 39.00	\$ 65.00

**KA-450/500**  
Analog/DMR UHF Repeaters



**GENERAL FEATURES**

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 Conventional
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option
- System Redundancy

**GENERAL OPTIONS**

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your KENWOOD Systems Regional Sales Manager for more details.

<b>KAIROS REPEATERS</b>		<b>DEALER</b>	<b>LIST</b>
KA-450	KAIROS Repeater, Analog/DMR, UHF, 400-470MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-450-TX	KAIROS Transmitter Only, Analog/DMR, UHF, 400-470MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-450-RX	KAIROS Receiver Only, Analog/DMR, UHF, 400-470MHz	\$ 2,102.00	\$ 3,503.25
KA-500	KAIROS Repeater, Analog/DMR, UHF, 450-512MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-500-TX	KAIROS Transmitter Only, Analog/DMR, UHF, 450-512MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-500-RX	KAIROS Receiver Only, Analog/DMR, UHF, 450-512MHz	\$ 2,102.00	\$ 3,503.25
<b>SOFTWARE LICENSES FOR KAIROS REPEATERS</b>		<b>DEALER</b>	<b>LIST</b>
KA-MCTCSS	License to allow the use of up to 8 different CTCSS contemporary	\$ 210.00	\$ 350.00
KA-POCSAG	License to add POCSAG capability	\$ 540.00	\$ 900.00
KA-SI-T2	License to allow Simulcast operation	\$ 5,550.00	\$ 9,250.00
KA-1+1	License required for Hot Stand-by configuration <b>Note :</b> Must purchase additional KA repeater.	\$ 240.00	\$ 400.00
<b>PROGRAMMING SOFTWARE</b>		<b>DEALER</b>	<b>LIST</b>
KA-MNG	Technical Documentation and Programming Software	\$ 180.00	\$ 300.00
<b>REPEATER MOUNT (Mandatory mount option for rack mounting)</b>		<b>DEALER</b>	<b>LIST</b>
KA-RK1v2	19" Mount Panel for One KAIROS Repeaters	\$ 240.00	\$ 400.00
KA-RK2	19" Mount Panel for Two KAIROS Repeaters	\$ 240.00	\$ 400.00
<b>HARDWARE OPTION FOR KAIROS REPEATERS</b>		<b>DEALER</b>	<b>LIST</b>
KA-GPS	GPS Receiver for Simulcast Operation	\$ 240.00	\$ 400.00
GPS-ANT	GPS Antenna for Simulcast Operation	\$ 240.00	\$ 400.00
DVX-UHF	Diversity RX filter for UHF 400 - 470 MHz	\$ 600.00	\$ 1,000.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
<b>Note:</b> Includes One Cable for Radio Connectivity.			
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 999.00	\$ 1,665.00

KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 153.00	\$ 255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 285.00	\$ 475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 813.00	\$ 1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 813.00	\$ 1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,044.00	\$ 1,740.00
<b>MOUNTING RACK</b>		<b>DEALER</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 648.00	\$ 1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 720.00	\$ 1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 1,605.00	\$ 2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,200.00	\$ 2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 207.00	\$ 345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 54.00	\$ 90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 261.00	\$ 435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 84.00	\$ 140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 150.00	\$ 250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 225.00	\$ 375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 225.00	\$ 375.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 30.00	\$ 50.00
<b>DUPLEXER</b>		<b>DEALER</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 1,857.00	\$ 3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,065.00	\$ 1,775.00
<b>COMPONENTS</b>		<b>DEALER</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 432.00	\$ 720.00
KSGMT0C03R	Crate for 3' Rack	\$ 216.00	\$ 360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 390.00	\$ 650.00
KSGMT0C07R	Crate for 7' Rack	\$ 330.00	\$ 550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,293.00	\$ 2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 312.00	\$ 520.00





Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 4  
Change Effective Date : 7/12/2019

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2019

**Commodity Specialist:** Tom Schwartz

**Telephone:** 717-346-3828

**Email:** [thschwartz@pa.gov](mailto:thschwartz@pa.gov)

**CHANGE SUMMARY:**

The price list has been updated for E F Johnson Company and attached to this contract.

Please contact the E F Johnson Company Account Manager, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

# KENWOOD

ATLAS®  VIKING® NEXEDGE® KAIROS

## EFJohnson

a JVCKENWOOD Company

*Effective Date: 07.11.19*

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KENWOOD



# P25 Mission Critical Viking VP6000

VHF · UHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

The KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



## Features

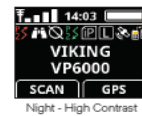
- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - Mixed protocol zones (each channel in a zone can be from a different system)
  - 1024 channels (2048 option)
  - Public safety ergonomics: flare grip for control, large glove friendly knobs, large emergency button
  - 1 Watt audio output for high noise environments
  - Voice announcement & custom announcements creation
  - Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
  - Full key models (w/ numeric keypad)
  - Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
  - MDC-1200 & GE-Star signaling
  - P25 Authentication
  - Bluetooth\*
  - Man Down
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible w/Motorola ADP™
    - P25/TIA defined: AES-256
    - DES-OFB
    - Over-the-Air-Rekeying (OTAR)
- <sup>1</sup>Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## User Selectable Color Themes

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event identification
- Day & night user selectable display options (8 themes available)



## Compatible with Multiple P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P 25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radia - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

	Radio - Base Model	Contract	List
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$ 2,260.00
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$ 2,260.00
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 1,808.00	\$ 2,260.00
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,808.00	\$ 2,260.00
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$ 2,510.00
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$ 2,510.00
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 2,008.00	\$ 2,510.00
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 2,008.00	\$ 2,510.00
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$ 2,460.00
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$ 2,460.00
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 1,968.00	\$ 2,460.00
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 1,968.00	\$ 2,460.00
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$ 2,710.00
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$ 2,710.00
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 2,168.00	\$ 2,710.00
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 2,168.00	\$ 2,710.00
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00

KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
<b>Carrying Accessories</b>		<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
<b>Protocol</b>		<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$0.00
8321000002	P25 CAI AMBE+2	\$ -	\$0.00
<b>System Options</b>		<b>Contract</b>	<b>List</b>
8322000001	Analog Conventional	\$ -	\$0.00
8322000002	P25 Conventional	\$ 280.00	\$350.00
8322000005	P25 Phase 1 Trunking (Must also have option 2)	\$ 100.00	\$125.00
8322000006	P25 Phase 2 TDMA (Must also have option 3)	\$ 320.00	\$ 400.00
8322000104	Viking16	\$ 620.00	\$ 775.00
<b>Optional Features</b>		<b>Contract</b>	<b>List</b>
<b>Channels/Talkgroups</b>			
8326000007	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
8326000008	2048 Channels/Talkgroups	\$ 240.00	\$300.00
8326000009	4096 Channels/Talkgroups	\$ 480.00	\$600.00
<b>Encryption</b>			
8323000003	DES-OFB (multi-key)	\$ -	\$0.00

8323000004	AES FIPS 140-2 (multi-key)	\$ 380.00	\$ 475.00
8323000005	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
8326000014	TrueVoice™ Noise Cancellation	\$ -	\$0.00
8326000002	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
8326000005	P25 Conventional Voting Scan	\$ -	\$0.00
8325000002	P25 Data Conventional	\$ 112.00	\$ 140.00
8325000001	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
8326000001	P25 Authentication	\$ 80.00	\$100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8326000003	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
8326000004	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
8325000003	GPS	\$ 80.00	\$ 100.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
8326000024	EVRS	\$ 80.00	\$ 100.00
8326000029	Bluetooth	\$ 80.00	\$ 100.00
8326000026	Man Down	\$ 80.00	\$ 100.00

KENWOOD

VIKING

## P25 Mission Critical Viking **VP5000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

At just under 5.5 inches tall (140 mm), these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.



### Features

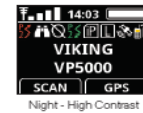
- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

### Accessories

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at  
[www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

### User Selectable Color Themes

- Multi-line text
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (8 themes available)



### Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA® Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model

Contract

List



VP5430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5330BKF3	UHF, 450-520 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5330BKF6	UHF, 380-470 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
VP5230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,244.00	\$ 1,555.00
VP5230BKF3	VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,284.00	\$ 1,605.00
	<b>Model Options</b>	<b>Contract</b>	<b>List</b>
	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 79.20	\$ 99.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
KRA-32K	700/800 MHz Whip Antenna	\$ 28.00	\$ 35.00
KRA-36	700/800 MHz Stubby Antenna	\$ 20.00	\$ 25.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 11.20	\$ 14.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 11.20	\$ 14.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 11.20	\$ 14.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 10.96	\$ 13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 10.96	\$ 13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 10.96	\$ 13.70
KRA-26M	VHF helical antenna 146-162 MHz	\$ 11.20	\$ 14.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 11.20	\$ 14.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 11.20	\$ 14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 10.96	\$ 13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 10.96	\$ 13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 10.96	\$ 13.70
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 27.40	\$ 34.25
	<b>Batteries &amp; Chargers</b>	<b>Contract</b>	<b>List</b>
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 108.00	\$ 135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 140.00	\$ 175.00
KNB-LS5	Li-ion Intrinsically Safe	\$ 160.00	\$ 200.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 92.00	\$ 115.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 68.00	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 56.00	\$ 70.00
KSC-326K	Rapid rate 6-unit charger	\$ 504.00	\$ 630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	\$ 27.00	\$ 33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 95.20	\$ 119.00
	<b>Carrying Accessories</b>	<b>Contract</b>	<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 11.76	\$ 14.70

KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 21.04	\$ 26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 17.60	\$ 22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 29.40	\$ 36.75
KLH-200K3	Heavy duty leather carrying case (for both K2 & K3 models)	\$ 35.40	\$ 44.25
KLH-201K3	Nylon carrying case (for both keypad models)	\$ 21.04	\$ 26.30
<b>Special Color Housing</b>		<b>Contract</b>	<b>List Price</b>
KWD-YH-5000	Yellow Housing Kit (Standard Key Model Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
KWD-OH-5000	Orange Housing Kit (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion) Note: If you order only housing and perform Contract Installation, IP67/68 Warranty Claim will not be eligible.	\$ 32.00	\$ 40.00
<b>Microphones &amp; Audio Accessories</b>		<b>Contract</b>	<b>List Price</b>
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <b>Compatible with ANR Feature</b> <b>Note:</b> only compatible with a TK-5x30 series portable	\$ 104.00	\$ 130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	\$ 91.20	\$ 114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).	\$ 200.00	\$ 250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics	\$ 42.00	\$ 52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 42.00	\$ 52.50
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30	\$ 41.20	\$ 51.50
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30	\$ 43.80	\$ 54.75
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4	\$ 51.20	\$ 64.00
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	\$ 172.00	\$ 215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 125.20	\$ 156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 147.20	\$ 184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 100.80	\$ 126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	\$ 336.00	\$ 420.00

KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	\$ 294.40	\$ 368.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$0.00
8321000002	P25 CAI AMBE+2	\$ -	\$0.00
	<b>System Options</b>	<b>Contract</b>	<b>List</b>
8322000001	Analog Conventional	\$ -	\$0.00
8322000002	P25 Conventional	\$ -	\$0.00
8322000005	P25 Phase 1 Trunking	\$ -	\$0.00
8322000006	P25 Phase 2 TDMA	\$ 320.00	\$400.00
8322000104	Viking16	\$ 620.00	\$ 775.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
8326000007	1024 Channels/Talkgroups (standard)	\$ -	\$0.00
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
8323000003	DES-OFB (multi-key)	\$ 156.00	\$ 195.00
8323000004	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 600.00	\$ 750.00
8323000005	ARC4 (ADP compatible)	\$ -	\$0.00
	<b>Programming &amp; Data</b>		
8326000014	TrueVoice™ Noise Cancellation	\$ -	\$0.00
8326000002	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
8326000005	P25 Conventional Voting Scan	\$ -	\$0.00
8325000002	P25 Data Conventional	\$ 112.00	\$ 140.00
8325000001	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 600.00	\$ 750.00
8326000001	P25 Authentication (Must also have AES FIPS 140-2)	\$ 80.00	\$100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8326000003	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
8326000004	FIRESafe™ Command (includes First Responder)	\$ 280.00	\$ 350.00
8325000003	GPS	\$ 80.00	\$ 100.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
8326000024	EVRS	\$ 80.00	\$ 100.00
8326000029	Bluetooth	\$ 80.00	\$ 100.00
8326000026	Man Down	\$ 80.00	\$ 100.00

KENWOOD



P25 Mission Critical

# Viking **VP900**

VHF · 700/800 MHz

P25 Phase 1 & 2 · Viking16

The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.



## Features

Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)

Mixed protocol zones (each channel in a zone can be from a different system)  
2048 channels

Public safety ergonomics with large glove friendly knobs

Top flip display changes text orientation for viewing while in holster

Backlight on top display changes for event indication (ex. emergency turns display orange)

Multiple visual indicators including battery health & signal strength

1 Watt audio output for high noise environments

Voice annunciation & custom announcement creation

Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G

Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)

Available in three keypad options (none, limited, full)

Integrated GPS<sup>1</sup>

MDC-1200 & GE-Star signaling

P25 Authentication

Instant Recording Replay (IRR)

Encryption

- ARC4™ software encryption; compatible with Motorola ADP™
- DES-OFB
- AES-256 (FIPS 140-2) Single and Multi-Key
- Over-the-Air-Rekeying (OTAR)
- VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VPx00 operating manual for detailed requirements & conditions for proper GPS operation.

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

2425AAAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,060.00	\$ 2,575.00
2425AADA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad; Hazardous Location - FM)	\$ 2,220.00	\$ 2,775.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,220.00	\$ 2,775.00
2425AAEA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad; Hazardous Location - FM)	\$ 2,380.00	\$ 2,975.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,380.00	\$ 2,975.00
2425AAFA93XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad; Hazardous Location - FM)	\$ 2,540.00	\$ 3,175.00
	<b>Antenna</b>	<b>Contract</b>	<b>List</b>
P51EAA	Multiband 700/800 + VHF Standard	\$ -	\$ -
P51EAB	Multiband 700/800 + VHF Flexible	\$ -	\$ -
P51EAC	Multiband 700/800 + UHF Hi (470 - 520 MHz) Standard	\$ -	\$ -
	<b>Battery</b>	<b>Contract</b>	<b>List</b>
P51EB0	No Battery (credit)	\$ (40.00)	\$ (40.00)
P51EB5	Viking Li-ion Battery	\$ -	\$ -
	<b>Housing</b>	<b>Contract</b>	<b>List</b>
P51EH3	Black Housing	\$ -	\$ -
KWD-YH-5000	High Visibility Housing	\$ 160.00	\$ 200.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
8321000001	Analog FM (included in base radio)	\$ -	\$ -
8321000002	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 160.00	\$ 200.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
8322000001	Conventional System	\$ 280.00	\$ 350.00
8322000104	Viking16	\$ 620.00	\$ 775.00
	<b>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</b>		
8322000002	Project 25 Conventional System	\$ 280.00	\$ 350.00
8322000005	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 380.00	\$ 475.00
8322000006	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 700.00	\$ 875.00
	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 1,060.00	\$ 1,325.00
	Project 25 Phase 2 TDMA and Viking16 Trunking (includes system options 2, 4 & 5)	\$ 1,380.00	\$ 1,725.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
8326000008	2048 Channels/Talkgroups (standard)	\$ -	\$ -
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>		
8323000001	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
8323000002	Single-Key AES	\$ 120.00	\$ 150.00
8323000003	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
8323000004	AES (multi-key)	\$ 380.00	\$ 475.00
8323000007	DES-OFB + AES (Multi-Key)	\$ 600.00	\$ 750.00
8323000005	ARC4 (ADP compatible)	\$ -	\$ -
	<b>Programming &amp; Data</b>		

8326000002	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
8326000003	FIRESafe™ First Responder	\$ 200.00	\$ 250.00
8326000004	FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 280.00	\$ 350.00
8325000003	GPS	\$ 80.00	\$ 100.00
	Third-Party Interface	\$ 120.00	\$ 150.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 240.00	\$ 300.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
8325000002	Project 25 Data Conventional	\$ 112.00	\$ 140.00
8324000007	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
	<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>		
8326000001	Project 25 Authentication	\$ 80.00	\$ 100.00
8325000001	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
8326000024	EVRS	\$ 80.00	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM7000

VHF (Regular and Hi Power) · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

With the VM7000 All-Band Multi-Deck Mobile, you can simultaneously receive and display up to four bands so you never miss a call. The "select" and "unselect" speakers give you the option for audio control similar to a dispatch console. KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)

1024 channels (2048 & 4096 options)

Mixed protocol zones

P25 Authentication (Link Layer Authentication)

P25 IP packet data

P25 GPS data (built in GPS)<sup>1</sup>

MDC-1200 & GE-Star signaling

P25 Conventional vote scan

Single or Dual Remote Mount configuration

External speaker

Over-the-Internet-Programming (OTIP)

Encryption

- ARC4™ software encryption; compatible with Motorola ADP™
- DES-OFB
- AES-256 (FIPS 140-2) Single and Multi-Key
- Over-the-Air-Rekeying (OTAR)
- VK5000 or Motorola KVL3000/KVL4000 Keyloaders

WiFi

Instant Recording Replay (IRR)

Voice Recording

<sup>1</sup>Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas.

Download the accessory catalog at

[www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

## Enhanced Control Head

Larger display - 2.75" (36 x 60 mm)

Resolution of 400 x 240 pixels

Viewing angle of 140°

Multi-color LCD + TX/RX (green/red) LEDs

D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs

Replaceable A/B/C button labels

User selectable themes (8 themes available)

Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA® Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Master Radio - (First Deck, Choose one)		Contract	List
VM7730HBF-M	VM7000 136-174 MHz Hi Power Master	\$2,480.00	\$ 3,100.00

VM7630HBF-P	VM7000 39-50 MHZ Low Power Master	\$2,480.00	\$ 3,100.00
VM7730BF-M	VM7000 136-174 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF-M	VM7000 450-520 MHZ Master	\$1,920.00	\$ 2,400.00
VM7830BF2-M	VM7000 380-470 MHZ Master	\$1,920.00	\$ 2,400.00
VM7930BF-M	VM7000 700/800 MHZ Master	\$1,920.00	\$ 2,400.00
<b>Slave Radio - (2nd-4th Deck, Choose up to 3)</b>		<b>Contract</b>	<b>List</b>
VM7730BF-S	VM 7000 136-174 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF-S	VM 7000 450-520 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7830BF2-S	VM 7000 380-470 MHZ Slave	\$ 880.00	\$ 1,100.00
VM7930BF-S	VM 7000 700/800 MHZ Slave	\$ 880.00	\$ 1,100.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
KRK-17BF	Remote Kit	\$ 320.00	\$400.00
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-29RV	KCH-20 Enhanced control head	\$ 560.00	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KCT-71M4	Control Cable	\$ 108.00	\$ 135.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KCT-72M	External Accessory Connection Cable for KCH-20R	\$ 29.36	\$ 36.70
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$ -
8321000002	P25 CAI AMBE+2	\$ -	\$ -
8322000001	Analog Conventional	\$ -	\$ -
8322000002	P25 Conventional	\$ 280.00	\$ 350.00
8322000005	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
8322000006	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
8322000104	Viking16	\$ 620.00	\$ 775.00
8326000007	1024 Channels/Talkgroups	\$ -	\$ -
8326000008	2048 Channels/Talkgroups	\$ 240.00	\$ 300.00
8326000009	4096 Channels/Talkgroups	\$ 480.00	\$600.00
8323000003	DES-OFB multi-key	\$ -	\$ -
8323000004	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
8323000005	ARC4 (ADP Compatible)	\$ -	\$ -
8326000005	Conventional Voting Scan	\$ -	\$ -
8326000014	TrueVoice Noise Cancellation	\$ -	\$ -
8326000002	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
8325000002	P25 Data Conventional	\$ 112.00	\$ 140.00
8325000001	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00



8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000002	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
8326000001	P25 Authentication	\$ 80.00	\$ 100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8324000004	OTIP (Over-the-Internet Programming)	\$ 160.00	\$ 200.00
8325000003	GPS	\$ 80.00	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00

**KENWOOD**



# P25 Mission Critical Viking **VM6000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- WiFi
- Bluetooth
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

User selectable themes (8 themes available)

Day & night display options

An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		Contract	List
VM6730BF	VM 6000 136-174 MHz	\$ 1,720.00	\$ 2,150.00

VM6830BF	VM 6000 450-520 MHZ	\$ 1,720.00	\$ 2,150.00
VM6830BF2	VM 6000 380-470 MHZ	\$ 1,720.00	\$ 2,150.00
VM6930BF	VM 6000 700/800 MHZ	\$ 1,720.00	\$ 2,150.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
835VM6000VCH	Viking Control Head (VCH) <i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i>	\$ 720.00	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
597535777502	6 Ft remote cable	\$ 80.00	\$ 100.00
597535777502	17 Ft remote cable	\$ 128.00	\$ 160.00
597535777503	50 Ft remote cable	\$ 240.00	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 112.00	\$ 140.00
589001202303	VCH Desktop Mic	\$ 520.00	\$ 650.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
2500151006	5in. 15W Speaker, Crimp Leads	\$ 60.00	\$ 75.00
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$ -
8321000002	P25 CAI AMBE+2	\$ -	\$ -
8322000001	Analog Conventional	\$ -	\$ -
8322000002	P25 Conventional	\$ 280.00	\$ 350.00
8322000005	P25 Phase 1 Trunking	\$ 100.00	\$ 125.00
8322000006	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
8322000104	Viking16	\$ 620.00	\$ 775.00
8326000007	1024 Channels/Talkgroups	\$ -	\$ -
8326000008	2048 Channels/Talkgroups	\$ 240.00	\$ 300.00
8326000009	4096 Channels/Talkgroups	\$ 480.00	\$600.00
8323000003	DES-OFB multi-key	\$ -	\$ -
8323000004	AES FIPS-140-2 multi-key	\$ 380.00	\$ 475.00
8323000005	ARC4 (ADP Compatible)	\$ -	\$ -
8326000005	Conventional Voting Scan	\$ -	\$ -
8326000014	TrueVoice Noise Cancellation	\$ -	\$ -
8326000002	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
8325000002	P25 Data Conventional	\$ 112.00	\$ 140.00
8325000001	P25 Data Trunking (Conventional included)	\$ 160.00	\$ 200.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000002	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
8326000001	P25 Authentication	\$ 80.00	\$ 100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8324000004	OTIP (Over-the-Internet Programming)	\$ 160.00	\$ 200.00

8325000003	GPS	\$ 80.00	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00



# P25 Mission Critical Viking VM5000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - 1024 channels
  - Mixed protocol zones
  - P25 Authentication (Link Layer Authentication)
  - P25 IP packet data
  - GPS AVL data (built in GPS)†
  - MDC-1200 & GE-Star signaling
  - Analog & P25 Conventional vote scan
  - Dash mount (KCH-19 control head only)
  - Remote mount
  - Dual control heads
  - Internal or external speaker
  - Fixed control station
  - WiFi (remote mount configuration only)
  - Bluetooth (Future)
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible w/Motorola ADP™
    - DES-OFB
    - AES-256 (FIPS 140-2) Single and Multi-Key
    - Over-the-Air-Rekeying (OTAR)
- †Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## Basic Control Head

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		Contract	List
VM5730BF	VM 5000 136-174 MHZ	\$1,720.00	\$ 2,150.00

VM5830BF	VM 5000 450-520 MHZ	\$1,720.00	\$ 2,150.00
VM5830BF2	VM 5000 380-470 MHZ	\$1,720.00	\$ 2,150.00
VM5930BF	VM 5000 700/800 MHZ	\$1,720.00	\$ 2,150.00
<b>Mounting Accessories</b>		<b>Contract</b>	<b>List</b>
KMB-33M	Mounting Bracket	\$ 11.20	\$ 14.00
KMB-34	Mounting Case	\$ 38.40	\$ 48.00
KPS-15	DC Switch (P/S)	\$ 138.40	\$ 173.00
KCT-46	Ignition Sense Cable	\$ 10.96	\$ 13.70
<b>Control head</b>		<b>Contract</b>	<b>List</b>
KCH-19VM	Dash - KCH-19	\$ 144.00	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 25.20	\$ 31.50
KCT-23M3	DC Cable-Remote	\$ 27.80	\$ 34.75
KCT-71M2	17 Ft remote cable	\$ 56.00	\$ 70.00
KCT-71M3	25 Feet remote cable	\$ 64.00	\$ 80.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 240.00	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 400.00	\$ 500.00
KMC-35	KCH Standard Mobile Mic	\$ 42.00	\$ 52.50
KMC-36	12 Keypad Mic	\$ 33.61	\$ 42.01
KMC-9C	Desktop Mic	\$ 68.80	\$ 86.00
<b>Speaker</b>		<b>Contract</b>	<b>List</b>
KES-3S	Low Profile Ext. Speaker	\$ 60.00	\$ 75.00
KAP-2	HA / PA Relay	\$ 50.40	\$ 63.00
KES-5	40W External Speaker	\$ 49.00	\$ 61.25
<b>Software Options</b>		<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$ -
8321000002	P25 CAI AMBE+2	\$ -	\$ -
8322000001	Analog Conventional	\$ -	\$ -
8322000002	P25 Conventional	\$ -	\$ -
8322000005	P25 Phase 1 Trunking	\$ -	\$ -
8322000006	P25 Phase 2 TDMA	\$ 320.00	\$ 400.00
8322000104	Viking16	\$ 620.00	\$ 775.00
8326000007	1024 Channels/Talkgroups	\$ -	\$ -
8323000003	DES-OFB multi-key	\$ 156.00	\$ 195.00
8323000004	AES FIPS-140-2 multi-key (DES-OFB included)	\$ 600.00	\$ 750.00
8323000005	ARC4 (ADP Compatible)	\$ -	\$ -
8326000005	Conventional Voting Scan	\$ -	\$ -
8326000014	TrueVoice Noise Cancellation	\$ -	\$ -
8326000002	MDC1200 / GE-Star Signaling	\$ 40.00	\$ 50.00
8325000002	P25 Data Conventional	\$ 112.00	\$ 140.00
8325000001	P25 Data Trunking (Conventional incl)	\$ 160.00	\$ 200.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000002	OTAR (Over-the-Air-Rekeying)	\$ 600.00	\$ 750.00
8326000001	P25 Authentication	\$ 80.00	\$ 100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8325000003	GPS	\$ 80.00	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 33.60	\$ 42.00



**KENWOOD**



# P25 Mission Critical Viking **VM900**

VHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Dual-band and multi-system radio equipped with industry leading audio, color display, public safety ergonomics, and advanced features including Over-the-Internet (OTIP) programming.



## Features

Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)

2048 channels

Mixed protocol zones

P25 Authentication (Link Layer Authentication)

P25 IP packet data

GPS AVL data (requires external GPS receiver)

MDC-1200 & GE-Star signaling

Analog & P25 Conventional vote scan

Dash mount

Remote mount

Dash mount with remote control head

Dual control heads

Fixed control station

Encryption

- ARC4™ software encryption; compatible w/Motorola ADP™
- DES-OFB
- AES-256 (RPS 140-2) Single and Multi-Key
- Over-the-Air-Rekeying (OTAR)
- VK5000 or Motorola KVL3000/KVL4000 Keyloaders

WiFi

Instant Recording Replay (IRR)

## Accessories

Complete line of accessories including microphones, speakers & antennas.  
Download the accessory catalog at [www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

## Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & nighttime viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model

Contract

List



VM900/DM/DB/7/8	700/800 MHz, 762-870 MHz + VHF, 30/35W Dash Mount	\$ 2,140.00	\$ 2,675.00
VM900/RM/DB/7/8	700/800 MHz, 762-870 MHz + VHF, 30/35W Remote Mount	\$ 2,140.00	\$ 2,675.00
VM900/CS/DB/7/8	700/800 MHz, 762-870 MHz + VHF, 30/35W Control Station (includes Power supply & cabinet)	\$ 2,376.00	\$ 2,970.00
VM900/DM/SB/7/8	700/800 MHz, 762-870 MHz, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
VM900/RM/SB/7/8	700/800 MHz, 762-870 MHz, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
VM900/CS/SB/7/8	700/800 MHz, 762-870 MHz, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
VM900/DM/SB/VHF	VHF, 30/35W Dash Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
VM900RM/SB/VHF	VHF, 30/35W Remote Mount (Single Band)	\$ 1,408.00	\$ 1,760.00
VM900/CS/SB/VHF	VHF, 30/35W Control Station (includes Power supply & cabinet) (Single Band)	\$ 1,752.00	\$ 2,190.00
	<b>Control Head Type</b>	<b>Contract</b>	<b>List</b>
	<b><i>Dash Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
STDCH PALMMIC DASH	Dash-Mount Control Head (includes standard palm mic)	\$ 64.00	\$ 80.00
STDCH DMNOMIC DASH	Dash-Mount Control Head with no mic	\$ -	\$ -
STDCH DMREMOTE	Dash-Mount Control with Remote Control Head (includes one remote control head & normal bracket)	\$ 600.00	\$ 750.00
	<b><i>Viking Control Head</i></b>	\$ -	
VCH PALMMIC DASH	Dash-Mount Control Head (includes standard palm mic & external speaker)	\$ 688.00	\$ 860.00
VCH DMNOMIC DASH	Dash-Mount Control Head with no mic (includes external speaker)	\$ 624.00	\$ 780.00
VCH DMREMOTE	Dash-Mount Control with Remote Control Head (includes one remote control head, additional mic & remote control head)	\$ 1,752.00	\$ 2,190.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Standard LCD Control Head</i></b>	\$ -	
STDCH RCH DUAL, PALM MIC	Remote Control Head (includes standard palm mic)	\$ 440.00	\$ 550.00
STDCH RCH DUAL, NO MIC	Remote Control Head with no mic	\$ 376.00	\$ 470.00
STDCH DUALPALMMIC DUAL	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, and two mounting brackets)	\$ 960.00	\$ 1,200.00
STDCH DUALCH DUAL	Dual Control Head with no mics	\$ 832.00	\$ 1,040.00
	<b><i>Remote Mount Options</i></b>		
	<b><i>Viking Control Head</i></b>	\$ -	

VCH RCH REMOTE	Remote Control Head (includes standard palm mic & external speaker)	\$ 1,056.00	\$ 1,320.00
VCH RCH REMOTE NO MIC	Remote Control Head with no mic (includes external speaker)	\$ 992.00	\$ 1,240.00
VCH DUALPALMMIC DUAL	Dual Control Head (includes two remote control heads attached to the remote mount radio, two microphones, two mounting brackets, and two external speakers)	\$ 2,192.00	\$ 2,740.00
VCH DUALCH DUAL	Dual Control Head with no mics (includes two external speakers)	\$ 2,064.00	\$ 2,580.00
	<b>Accessory Cable</b>	<b>Contract</b>	<b>List</b>
R597-5357-70201	Cable, Serial, USB, Standard Interface R597-5357-70201 (included with dash mount)	\$ -	\$ -
R597-5357-70701	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (included with remote mount)	\$ -	\$ -
R597-5357-70701	Cable, Single remote, Serial, USB, Standard Interface R597-5357-70701 (dash mount)	\$ 124.00	\$ 155.00
R597-5357-73801	Cable, Single Remote, Serial, USB, PVP/UDDI, Standard Interface R597-5357-73801 (remote mount)	\$ 144.00	\$ 180.00
R597-5357-74201	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (included with remote dual mount)	\$ -	\$ -
R597-5357-74201	Cable, Dual Remote, Serial, USB, Standard R597-5357-74201 (single remote mount)	\$ 96.00	\$ 120.00
R597-5357-74401	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD R597-5357-74401 (may be ordered with dual Remote Mount)	\$ 428.80	\$ 536.00
	<b>Protocol</b>	<b>Contract</b>	<b>List</b>
8321000001	Analog FM	\$ -	\$ -
8321000002	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 280.00	\$ 350.00
	<b>System Option</b>	<b>Contract</b>	<b>List</b>
8322000001	Conventional System	\$ 440.00	\$ 550.00
8322000104	Viking16	\$ 620.00	\$ 775.00
	<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
8322000002	Project 25 Conventional System	\$ 440.00	\$ 550.00
8322000005	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 620.00	\$ 775.00
8322000006	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 940.00	\$ 1,175.00
	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 1,400.00	\$ 1,750.00
	Project 25 Phase 2 TDMA and Viking16 (includes system options 2, 4 & 5)	\$ 1,720.00	\$ 2,150.00
	<b>Optional Features</b>	<b>Contract</b>	<b>List</b>
	<b>Channels/Talkgroups</b>		
8326000007	1024 Channels/Talkgroups (standard)	\$ -	\$ -

<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>			
8323000001	Single-Key DES-OFB (included with Protocol Option 2)	\$ -	\$ -
8323000002	Single-Key AES	\$ 120.00	\$ 150.00
8323000003	DES-OFB (multi-key)	\$ 440.00	\$ 550.00
8323000004	AES (multi-key)	\$ 380.00	\$ 475.00
8323000005	ARC4 (ADP compatible)	\$ -	\$ -
<b>Programming &amp; Data</b>			
8326000002	MDC1200/GE-Star Signaling	\$ 40.00	\$ 50.00
<i>The following selection requires Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i>			
8325000002	Project 25 Data Conventional	\$ 112.00	\$ 140.00
8324000002	Project 25 OTAR Conventional & Trunking	\$ 600.00	\$ 750.00
8326000027	P25 Paging Encode	\$ 80.00	\$ 100.00
8324000003	OTAP (Over-the-Air Programming)	\$ 160.00	\$ 200.00
8324000004	OTIP (Over-the-Intranet Programming)	\$ 160.00	\$ 200.00
<i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i>			
8326000001	Project 25 Authentication	\$ 80.00	\$ 100.00
8325000001	Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 160.00	\$ 200.00
8325000003	GPS	\$ 160.00	\$ 200.00
8326000023	EVRS	\$ 80.00	\$ 100.00

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		<b>Contract Price</b>	<b>List Price</b>
336-1212-101	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 10,800.00	\$ 13,500.00
336-1224-101	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 10,800.00	\$ 13,500.00
336-1241-101	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 12,200.00	\$ 15,250.00
336-1224-102	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 13,180.00	\$ 16,475.00
336-1200-082	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b> Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,320.00	\$ 1,650.00
336-1200-000	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b> Includes programming software and cable.	\$ 236.00	\$ 295.00
336-1200-091	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 720.00	\$ 900.00
336-1200-092	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$ 1,240.00	\$ 1,550.00

# NXR-710/810

## UHF/VHF Low Power Base Stations and Repeaters



BASE STATION		CONTRACT	LIST
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION		CONTRACT	LIST
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher.

NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00

REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00

REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-3M are mounted inside the Repeater; a separate Rack-Mount Power Supply is provided

NXR7100PSDI	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20201, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00

BASIC ACCESSORIES		CONTRACT	LIST
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KPG-46UM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Programming Software (NXR-710/810)	\$ 82.60	103.25

B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	\$ 160.00	200.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	\$ 172.00	215.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00

<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KTI-3M	Network Interface Unit	\$ 212.00	265.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00

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# NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 System
- NEXEDGE Gen2 System
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

## NXR-5700 REPEATER

NXR-5700K Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in

**CONTRACT**

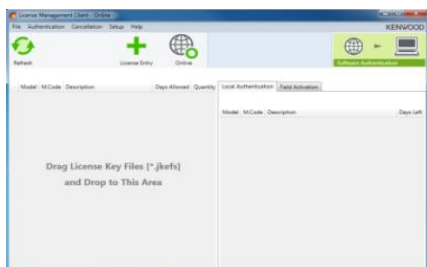
**LIST**

\$ 4,266.40 5,333.00

## LICENSING SYSTEM

**CONTRACT**

**LIST**



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC

### License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC

License Management Client

NC

NC

L-5000

Account Registration Key

**Note:** specify the number of PC's used for Radio Feature License Activation.

NC

NC

## SOFTWARE LICENSE OPTIONS

**CONTRACT**

**LIST**

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.



**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

<b>SOFTWARE LICENSE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7216-10	NXR-5700 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity

		<b>CONTRACT</b>	<b>LIST</b>
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00

<b>Gen1 TRUNKING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ -	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

|

# NXR-5800

## UHF Digital & FM Base Repeaters - 400-520MHz



### GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

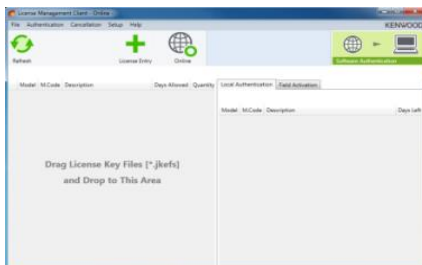
### GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

### TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5800 REPEATER		CONTRACT	LIST
NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
NXR-5800K3	Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS	CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

<b>SOFTWARE LICENSE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

- Complete the attached Radio Feature Request Form.
- Submit along with your PO to the SYSTEMS Order Desk via:
  - E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - Fax: (678) 957-1880
- License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7217-10	NXR-5800 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

**RF REPEATER STATION AMPLIFIER OPTIONS**

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
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KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00



KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00

KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-5900

800MHz Digital & FM Base Repeaters - 806-825, 851-870 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

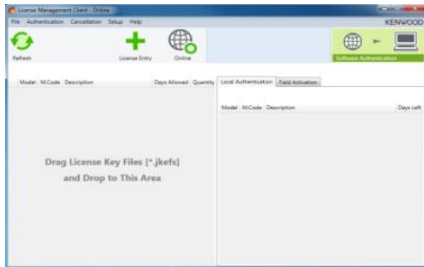
## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5900 REPEATER		CONTRACT	LIST
NXR-5900K	Repeater, Digital, RX 806-825 MHz, TX 821-870 MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5900 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

### MOUNTING CONFIGURATIONS

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINEREMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	
<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<a href="#">Please see the NEXEDGE Gen2 Page.</a>			
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00

KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-5901

900MHz Digital & FM Base Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

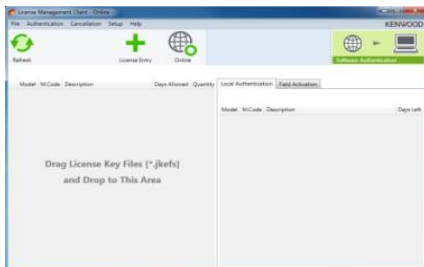
## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

NXR-5901 REPEATER		CONTRACT	LIST
NXR-5901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS CONTRACT LIST

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

*Software License Key Discount Structure*

1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5kHa and 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5901 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00

KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00

<b>MISC STATION OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-710

## VHF High Performance Base Stations and Repeaters - High Band 136-174MHz



### GENERAL:

- Occupies 2 RU.
- May be used as a standalone 25 W continuous or 50W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.			
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 752.00	940.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only <b>6.25kHz</b> operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00



KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-810

## UHF Base Stations and Repeaters - 400-520 MHz



### GENERAL:

- Integrated Systems
- Occupies 2 RU
- May be used as a standalone 25 W continuous or 40W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
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NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00

<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00

<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00

KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINER REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of 600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	\$ 328.00	410.00
KSGTALD1	<b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
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KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 2,832.00	3,540.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00

KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-900

800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz



## GENERAL:

- Integrated Systems.
- Occupies 1 RU.
- 360 mW transceiver unit used with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Enabling of the NXR-900 trunking feature.
  - System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
  - Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems.
- NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible.

<b>NXR-900 REPEATER (K Model)</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-900K	Repeater, Digital, RX 806-825 MHz, TX 851-870 MHz	\$ 4,600.00	5,750.00
<b>BANDWIDTH OPTION:</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for each 6.25KHz operation.	\$ 2,666.40	3,333.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8946-00	NXR-900 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.			
KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00



<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	

CONSTRUCT OR ADD NEW SITES

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**ETHERNET SWITCH & ROUTER OPTIONS****CONTRACT****LIST**

Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

**EXTERNAL TRUNKING CONTROLLER OPTIONS****CONTRACT****LIST**

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

**MISC STATION OPTIONS****CONTRACT****LIST**

KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

**COMPONENTS****CONTRACT****LIST**

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# NXR-901

900 MHz High Performance Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Integrated Systems
- Occupies 1 RU
- 360 mW transceiver unit used with an external power amplifier
- Operates in analog mode at 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Trunking options include enabling of the NXR-901 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
- Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. NOTE: Recommended models are listed herein, but most commercially available IP

NXR-901 REPEATER (K Model)		CONTRACT	LIST
NXR-901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00
BANDWIDTH OPTION:		CONTRACT	LIST
KXK-3M3	"Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5KHz or 6.25KHz operation.	\$ 2,666.40	3,333.00
BASIC ACCESSORIES		CONTRACT	LIST
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B53-7004-00	NXR-901 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
RF REPEATER STATION AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00

KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	

ADD NEW REPEATER CHANNEL(S)		v	
SWAP OUT SPARE REPEATERS		v	
CONSTRUCT OR ADD NEW SITES		v	
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# TKR-D710

## DMR VHF Repeaters\* - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

### OPTIONS:

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00

BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00

RF BASE STATION AMPLIFIER OPTIONS		CONTRACT	LIST
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Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00



KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# TKR-D710

## DMR VHF Low Power Repeaters - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D710 REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D710 REPEATER PACKAGE		CONTRACT	LIST
TKR-D710KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 136-174MHz Repeater 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D710KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.			
TKR-D710KPSD	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-			
TKR-D710KPSDI	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply, KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable. <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25

KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00

KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
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KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
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<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D810 REPEATER		CONTRACT	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810 REPEATER PACKAGE		CONTRACT	LIST
TKR-D810KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-520MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
TKR-D810K2PS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-470MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D810KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
TKR-D810K2PSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
<p>Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.</p>			
TKR-D810KPSD	Repeater Station 5-40W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00

TKR-D810K2PSD	Repeater Station 5-40W, 400-470MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
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<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810KPSDI	Repeater Station 5-40W, 450-520MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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TKR-D810K2PSDI	Repeater Station 5-40W, 400-470MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

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# TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



## GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

## OPTIONS:

- Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- T-R simplex antenna switching is included in the basic unit as well as in all external amplifiers.
- Other configurations are also available on a special order basis; please contact your Kenwood Systems Regional Sales Manager for more details.

RADIO PACKAGES		CONTRACT	LIST
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
BASIC ACCESSORIES		CONTRACT	LIST
KPG-43UM	Programming Cable	\$ 126.80	158.50
KPG-44DNK	Programming Software	\$ 54.80	68.50
B51-8460-10	TK-690 Service Manual	\$ 40.00	50.00
RF AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA21101	30-36MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21102	36-42MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21103	42-50MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21251	30-36MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21252	36-42MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21253	42-50MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
<b>WIRESLINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGOCWID	CWID Morse Code Generator <b>Note:</b> Specify call sign at time of order.	\$ 108.00	135.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
KCH-10	Basic Control Panel, 90-Series	\$ 117.60	147.00
KCT-23M2	10' Cable, DC for High-Power Mobile	\$ 31.00	38.75
KMB-5	Mounting Bracket for TK-690 Mobile Radio	\$ 11.20	14.00
KSGUT50002	2RU Utility Tray for Equipment Mounting	\$ 64.00	80.00
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00



KSGUT10001

1RU Mounting Tray

Note: Provides mounting space for up to two accessories.

\$ 40.00
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50.00

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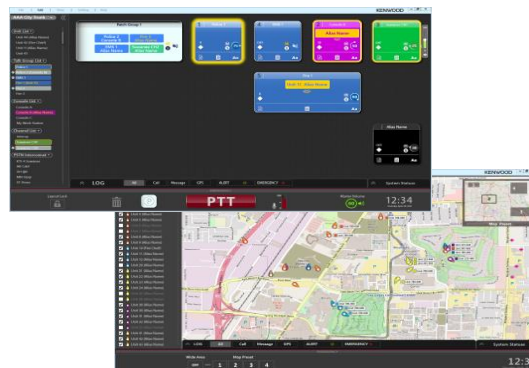
# KAS-20

## STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and Dispatch for business, supporting both the NXDN and DMR digital protocols.

### FEATURES AND HIGHLIGHTS:

- Low-Cost Initial Investment with Upgrade licenses
  - Enhanced Scalability – Standalone PC / Multi-Client Server
  - Enhanced User Interface Design for ease of use
  - Supports multiple digital radio protocols
  - User-Selectable Options – Location, Dispatch, Voice Path, Multiple Client, and Voice Recording
  - Location Management – 1,000 subscribers
  - Definable Call Dispatch Windows
  - Embedded AMBE+2 Vocoder
  - System to System Patching\*
    - DMR Conventional
    - NXDN Conventional
    - NXDN Type-C Gen1 System
    - NXDN Type-C Gen2 System
- \*System type and bandwidth must match in order to patch calls from different system ID.



### COMPATIBLE IP CONSOLE INTERFACE\*

- Kenwood DMR Conventional
- Kenwood NXDN Conventional
- Kenwood NXDN Type-C
- Kenwood NXDN Gen2

\* KAS-20 does not support serial base connection

### SYSTEM REQUIREMENTS\*

- Windows 7, 8.1, 10 (32/64 bit OS)
- 3.0 GHz Intel Core i5 or faster CPU
- 4 GB RAM or more
- 50GB free space or more
- Internet Connection for AVL

\* Refer to KAS-20 brochure for details

SAMPLE LICENSE		CONTRACT	LIST
KAS-20K2	SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION Following features are enabled for 30 days after activation: - AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	\$ 16.00	20.00
BASE LICENSE		CONTRACT	LIST
KAS-20K	AVL & DISPATCH SOFTWARE BASE LICENSE	NC	NC

#### Notes:

1. KAS-20K base license is required per individual PC or Server. Works on both KAS-20C (Client) and KAS-20S (Server).
2. Application Software for KAS-20C (Client) and KAS-20S (Server) is available on Kenwood CONTRACT Tools.
3. Base license does not contain any of the feature licenses. Must purchase additional software upgrades to enable desired functions.
4. One KAS-20K base license allows a single connection to the RF system.

### TO PLACE AN ORDER FOR WINDOWS<sup>™</sup> SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:



**KPT-300LMC**



## License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows 7/8.1/10 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
<b>SOFTWARE UPGRADE LICENSES (FOR CLIENT)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20C-VDK	Voice Dispatch License for KAS-20 client <b>Note:</b> KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	\$ 533.60	667.00
KWD-20C-VPK	Voice Path License for KAS-20 client <b>Note:</b> Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	\$ 533.60	667.00
KWD-20C-LMK	Location Management License for KAS-20 client	\$ 533.60	667.00
<b>SOFTWARE UPGRADE LICENSES (FOR SERVER)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20S-MCK	Server upgrade license to enable multi-client operation <b>Note:</b> Single KAS-20 server software holds up to ten KAS-20 clients.	\$ 1,800.00	2,250.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks <b>Note:</b> Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	\$ 1,800.00	2,250.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	\$ 1,800.00	2,250.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30202	Windows server	\$ 3,500.00	4,375.00
KSGCP30203	Standalone PC Opt3040	\$ 1,020.00	1,275.00
KSGCP40001	USB Desktop Microphone A0110399	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	\$ 40.00	50.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	22" LED Backlit LCD Monitor 1920 x 1080 resolution E2316H	\$ 300.00	375.00
KSGCP00014	24" Monitor Backlit LCD Monitor 1920 x 1080, resolution HDMI, VGA, Displayport P2417H	\$ 416.00	520.00

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# KAS-10

## GPS AVL & Dispatch Messaging Software (Version 2.x)

### Product Enhancements:

- 999 Mobile ID Capacity
- NXDN® Scrambler included
- Up to 100 KAS-10 per system, 10 per site
- 100 Group Scan with four Priority Monitor IDs

### Notes:

- NEXEDGE Gen2, Type-D and DMR Systems not supported.

<b>GPS AVL &amp; DISPATCH</b>		<b>CONTRACT</b>	<b>LIST</b>
KAS-10	GPS AVL & Dispatch Messaging Software	\$ 347.20	434.00
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface <b>Note:</b> USB-3003™ multi pass Vocoder with USB does not compatible with KAS-10.	\$ 520.00	650.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30201	Windows Workstation PC	\$ 1,612.00	2,015.00
KSGCP40001	USB Desktop Microphone	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	\$ 40.00	50.00
KSGCP40002	USB Over the Head Headset with Microphone	\$ 72.00	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	\$ 60.00	75.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	17" Anti-Glare Black LCD Monitor	\$ 300.00	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	\$ 380.00	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	\$ 836.00	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	\$ 996.00	1,245.00

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# KPG-150AP

## OTAP Manager

### General

- For NEXEDGE® digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Accommodates multiple user-defined groups.
- Support for multiple serial ports facilitates transmission on different frequencies.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- KPG-150AP compares current and updated configurations, enabling transmission of only updated programming data to save on-air time.
- Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each

**Note:** NEXEDGE Type-D Trunking system and DMR System not supported.

OTAP MANAGER		CONTRACT	LIST
KPG-150AP	OTAP Manager <b>Note:</b> - Includes a license for one computer, one base radio (mobile or portable), and 10 subscriber radios (mobile or portable) - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 440.00	550.00

ADDITIONAL LICENSES		CONTRACT	LIST
Note: Includes a license for one additional subscriber radio (mobile or portable) attached to one computer running KPG-150AP software			
KWD-AP1	Additional Radio License for 1 PC <b>Note:</b> Price is per license on quantities of less than 100 licenses.	\$ 20.00	25.00
KWD-AP100	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 100 and 249 licenses at the same time.	\$ 20.00	25.00
KWD-AP250	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 250 and 499 licenses at the same time.	\$ 20.00	25.00
KWD-AP500	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering 500 or more licenses at the same time.	\$ 20.00	25.00
KWD-SP1	Additional System License for 1 PC <b>Note:</b> Price is per license on quantities of less than 16 licenses.	\$ 266.40	333.00

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.



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# KPG-180AP

## OTAP Manager for NX-5000 Series

### General

- For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 System.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and loading features ensure efficient and reliable data control.

### Main Features

- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio.
- Multi-Protocol (NXDN/P25) capability.

### Note:

- NEXEDGE Type-D Trunking system and DMR System not supported.
- P25 OTAP is only available for Conventional Radio to Radio.

## LICENSING SYSTEM

## CONTRACT

## LIST



### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**.

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC License Management Client

NC

NC

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Note:** A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

### Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSING OPTIONS, CON'T		CONTRACT	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Fifty (50) radios / One(1) <b>NXDN</b> Conventional and Type-C <b>Air</b> Communication Profile and One(1) <b>NXDN</b> Conventional and Type-C <b>IP</b> Communication Profile  <b>Note:</b> - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 707.20	884.00

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**  
**Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.**

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	\$ 1,333.60	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	\$ 2,333.60	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	\$ 3,333.60	4167.00
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	\$ 200.00	250.00
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	\$ 333.60	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	\$ 640.00	800.00

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles

Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

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# KTI-4

## Telephone Interconnect Adapter

### General

- Available only for NEXEDGE® digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE® digital trunking system and an analog telephone patch panel

### Main Features

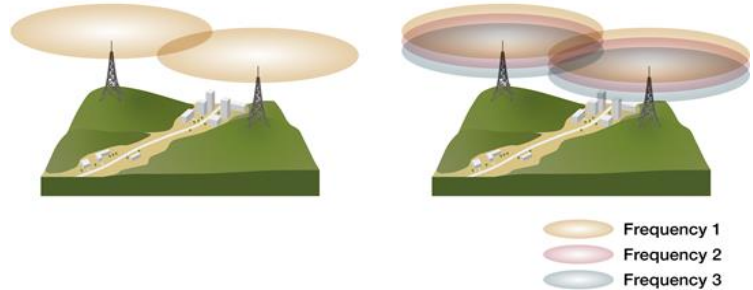
- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2™ vocoder for digital audio speech conversion.
- NXDN® encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

<i>Interconnect Adapter</i>		<i>CONTRACT</i>	<i>LIST</i>
KTI-4M	Telephone Interconnect Adapter	\$ 456.00	570.00
901-9416	Model 30 Worldpatch	\$ 641.00	801.25
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
L-8005	KTI-4M Calibration (Required)	\$ 60.00	75.00

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**General**

- Simple multi-site operation for extended coverage.
- Digital simulcast will offer the user the ability to use a single frequency pair over a coverage area larger than serviced by a single repeater site.
- No need for radios to be programmed to roam among sites, greatly simplifying operation for the end-user and system owner.

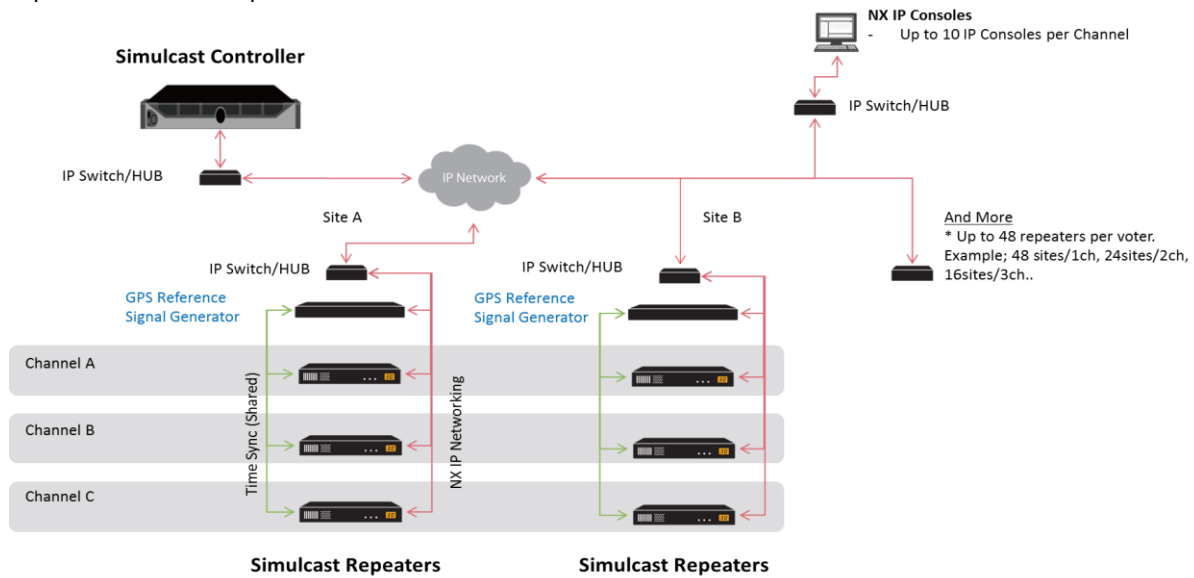


**Features and Highlights**

- 6.25 kHz NXDN Conventional
- VHF and UHF frequency models
- Up to 48 repeaters / Up to 3 channels per Controller  
*48 sites / 1CH, 24 sites / 2CH, 16sites/1CH*
- Up to 10 IP Consoles per Channel

**Applicable VHF/UHF Subscribers:**

- NX-5x00 Series
- NX-3x00/3x20 Series
- NX-x00G/x10G Series
- NX-x20 Series



<b>SIMULCAST CONTROLLER</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCT13SIM	Simulcast Controller	\$ 11,200.00	14,000.00
<b>SIMULCAST REPEATERS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-5700KSR	Simulcast Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800KSR	Simulcast Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800K3SR	Simulcast Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
<b>GPS REFERENCE</b>		<b>CONTRACT</b>	<b>LIST</b>
KSG-SIM-SG	Hi Performance GPS Receiver w/ Sync Cable <b>Note:</b> GPS reference is required per site	\$ 6,880.00	8,600.00
Includes GPS antenna, mounting hardware, antenna line surge suppressor. Antenna line should be ordered separately.			
<b>SERVICE</b>		<b>CONTRACT</b>	<b>LIST</b>

Custom

System Design, Onsite Consulting, and Coverage Testing are available. Contact the Regional Sales Manager for your area to obtain a custom quote based on specific site requirements, conditions, and environment.

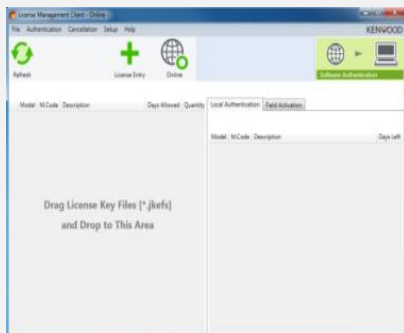
Custom

Custom

Notes:

1. Due to the complexity of the digital simulcast system, Kenwood will design, configure, and test the system.
2. IP Network and IP console is not included. CONTRACT should notify Kenwood Systems Group if required.

LICENSING SYSTEM	CONTRACT	LIST
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### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

PROGRAMMING SOFTWARE	CONTRACT	LIST
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KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	\$ 82.60	103.25
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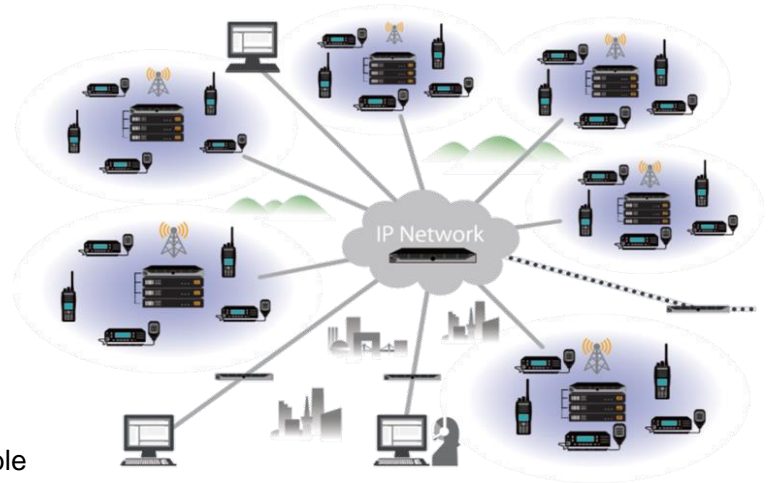
# NEXEDGE® Generation2 System

NEXEDGE Gen2

Gen2 is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. NXR-5000 and NXR-x00 series can be upgraded to Gen2 system. Key features and enhancements include: Direct Frequency Assignment (DFA), Call Pre-Emption for Console, GPS Report Channel, and an increase to the number of sites within a system.

## FEATURES AND HIGHLIGHTS:

- Up to 1,152 sites
- Up to 24 Wide Area Systems
- Up to 24 Multi System Roaming <sup>1</sup>
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel<sup>2</sup>
- SNMP Capability for Repeaters <sup>3</sup>
- Network Management and Monitoring
- NXR-700/800/900/901/5700/5800 Compatible



1. NX-x00/x10/x11/x20 series are available for 8 systems.  
 2. Requires Traffic Channel (Repeater) to use as a GPS Report Channel (GRCH).  
 3. NXR-x00 series requires to equip CF card that is installed of KPT-MIB10 software downloaded from Dealer Tools to use SNMP function.

SERVER SOFTWARE LICENSING		CONTRACT	LIST
KPG-1000SY	System Control Software <i>*Required</i> <b>Note:</b> - Required one per 48 site or per each system code - Includes NXR-5000/x00/x01 Firmware. They are automatically updated when KPG-1000SY is updated.	\$ 13,333.60	16,667.00
KPG-1001ST	Site Control Software <i>*Optional</i> <b>Note:</b> Required one per site of 10 channels or more.	\$ 2,000.00	2,500.00
KPG-1002GW	IP Gateway Software <i>*Optional</i> <b>Note:</b> Required for connecting NXIP Interface Software. One IP Gateway handles 100 interfaces and up to ten IP Gateways per system code	\$ 6,667.20	8,334.00
KPG-1003NS	Network Manager Server Software <i>*Optional</i> <b>Note:</b> Required for monitoring 101 to 1000 devices	\$ 4,000.00	5,000.00
KPG-1005RG	Roaming Gateway Server Software <i>*Optional</i> <b>Note:</b> - Required for subscriber roaming from one system to another. Roaming Gateway is required for the home system to each subscriber needing to roam. For example, subscriber from Sys A needs to roam to Sys B, Sys A needs the Roaming Gateway, Sys B doesn't need it unless Sys B subscriber needs to roam. - Roamer Subscriber must be set SKF that is issued by roamed system.	\$ 5,600.00	7,000.00

**Notes:**

1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.

SERVER HARDWARE	CONTRACT	LIST
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KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00

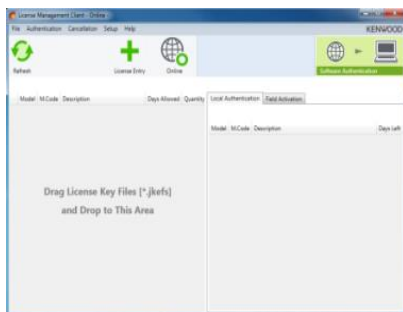
<b>WINDOWS® APPLICATION LICENSING</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-1004NC	Network Manager Client Software <b>Note:</b> Required for Network Management. <b>A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs. Requires KPT-300LMC for authentication.</b>	\$ 2,667.20	3,334.00

**TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: systemsorderdesk@us.jvckenwood.com
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

***KPG-1004NC Software License Key Discount Structure***

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>



**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



**KPT-300LMC  
License Management Client**

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
<b>REPEATER TRUNKING AND MULTI SITE FEATURE</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20CTR	Repeater Trunking Feature <b>Note:</b> Required for each Trunking Repeater.	\$ 1,200.00	1,500.00
KWD-20CNT	Repeater Multi-Site Feature <b>Note:</b> Only for Multi-Site Trunking System. Required for each Trunking Repeater.	\$ 1,333.60	1,667.00

**REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2**

1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.
2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)

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# KPG-157SB

NEXEDGE® Generation1 Bridge



### General

- Connects up to eight NXR-700/800/900/901-based multi-site trunked networks.
- Subscribers from each network can make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere.

### Features and Highlights

- 100 Group Calls.
- 1000 GID Exchange Sets.
- Call Types - Voice/Short Data/Long Data.
- Cross Band Networks\*.
- IP Remote Control, Configuration and Maintenance.
- Multi-Level Access Control.
- Communication and System Logging.
- Data Backup and Restore.
- NXR-700/800/900/901 Compatible.

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

SOFTWARE		CONTRACT	LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	\$ 10,000.00	12,500.00
KSGPG92010	System Group Call Path License <b>Note:</b> License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	\$ 8,000.00	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key <b>Note:</b> Required for operation.	\$ 133.60	167.00
HARDWARE		CONTRACT	LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00

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**General**

- End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- Employs the latest, standards-based IP protocols and IT best practices.
- Offers highest levels of interoperability, scalability, and features.
- Designed to connect directly to a NEXEDGE® Trunking Repeater System (TRS) via IP connection.

MAX PRO WORKSTATIONS		CONTRACT	LIST
905-0410	Kenwood MAX Pro Workstation Bundle Position: One Operator Workstation PC, one Media Dock, two Speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals are included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0411	Kenwood MAX Pro Workstation Bundle, PC not included	\$ 16,975.00	21,218.75
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	\$ 14,855.00	18,568.75
930-0258	MAX Pro Software	\$ 14,320.00	17,900.00
905-0446	Kenwood MAX Pro Workstation Bundle with Rackmount Speakers Position: One Operator Workstation PC, one Media Dock, one 19" Rackmount Speaker Panel with two speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0512	1-Position 2 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 21,310.00	26,637.50
905-0513	1-Position 10 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 33,990.00	42,487.50
905-0514	1-Position 20 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blocks (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 51,670.00	64,587.50
905-0515	1-Position 2 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 19,295.00	24,118.75



905-0516	1-Position 10 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 32,250.00	40,312.50
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<b>MAX PRO WORKSTATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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905-0517	1-Position 20 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blockx (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 49,490.00	61,862.50
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905-0518	Max Standard with Laptop Position: Laptop, USB Headset Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls)	\$ 9,270.00	11,587.50
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950-1348	MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls	\$ 4,500.00	5,625.00
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905-0519	MAX Standard Workstation Bundle (with PC) Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 10,305.00	12,881.25
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905-0522	MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals	\$ 8,950.00	11,187.50
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905-0524	MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop	\$ 4,750.00	5,937.50
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<b>OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)</b>			
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930-0222	Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit	\$ 1,060.00	1,325.00
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930-0223	Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias	\$ 1,590.00	1,987.50
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930-0224	Tone Signaling/Paging Feature Set Includes: Manual paging operation, instant call and stacked paging, 2-tone 100, 1000, and Custom Calls (Mot & GE), Quick Call (2+2), DTMF, and Knox	\$ 1,590.00	1,987.50
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930-0225	Event Replay Short term audio playback at the console position	\$ 1,795.00	2,243.75
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930-0226	Aux I/O Software Feature Set	\$ 1,590.00	1,987.50
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<b>WORKSTATION HARDWARE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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950-0032	Headset, 6-wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 438.24	547.80
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950-0033	Headset 4-Wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 329.34	411.68
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950-0454	Wireless Headset, 6-Wire, Noise Canceling (comes with two batteries) Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops	\$ 1,103.57	1,379.46
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802-0115	Headset Top, Noise Cancelling	\$ 147.41	184.26
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905-0414	Kenwood Desktop Microphone, Shure with Cable	\$ 615.00	768.75
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950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality	\$ 800.00	1,000.00
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950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	\$ 641.00	801.25
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950-9102	Footswitch, Single w/ 10' cable	\$ 122.00	152.50
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950-1190	Kenwood Speakers Single (cable separate)	\$ 450.00	562.50
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950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	\$ 917.00	1,146.25
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950-1251	2U Rackmount Gooseneck Microphone	\$ 535.00	668.75
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709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	\$ 21.25	26.56
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901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1237	Console Position Light Pole	\$ 584.32	730.40
<b>MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP)</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	\$ 2,695.00	3,368.75
930-0264	NEXEDGE Talkpath Interface (Conventional or Trunking) Requires license for each NEXEDGE Talkpath monitored at the console <i>Conventional: One Talkpath per Gateway</i> <i>Trunking: Two Talkpaths per Gateway</i>	\$ 530.00	662.50
<b>MAX SYSTEM HARDWARE/SOFTWARE</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9719	Kenwood MAX Central Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway; includes five (5) 10 ft. shielded CAT5e cables for connectivity	\$ 3,395.00	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	\$ 3,290.00	4,112.50
930-0221	Block of 10 Radio Channels Licenses Up to 50 channels in the system; beyond 50 channels, please call Kenwood for pricing.	\$ 3,185.00	3,981.25
930-0376	Block of 2 Radio Channel Licenses	\$ 695.00	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	\$ 480.00	600.00
930-0273	MAX Dispatch Voice Logger License for Eventide NexLog™ Logging Recorders License applies when using Eventide NexLog™ recorder only; Eventide Recorder must have been purchased through Zetron to qualify; 930-0237 not needed	NC	NC
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	\$ 930.00	1,162.50
930-0233	MAX Portal Remote Radio License One remote Portal license is needed per Radio Gateway that is designated as remote device; may require additional Centrals	\$ 210.00	262.50
930-0234	MAX Portal Z-Node License One portal license is needed for each Z-Node that is required to operate in a multi-node system; may require additional Centrals	\$ 4,120.00	5,150.00
950-9351	Connectorized Punch down Block	\$ 116.86	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	\$ 891.00	1,113.75
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	\$ 875.00	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	\$ 783.52	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	\$ 410.00	512.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC@ 2A) 18-36VDC; power supply not included	\$ 2,729.04	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	\$ 258.96	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	\$ 33.20	41.50
<b>MAX TELEPHONY GATEWAY INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0235	Telephone Gateway Services (1 per Max Central)	\$ 2,120.00	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	\$ 65.00	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
<b>MAX DMR INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0510	MAX Dispatch DMR AIS Gateway Bundle	\$ 6,200.00	7,750.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	\$ 9,795.00	12,243.75

930-0363	MAX Dispatch DMR 5 TalkPath License	\$ 5,000.00	6,250.00
930-0364	MAX Dispatch DMR 10 TalkPath License	\$ 9,100.00	11,375.00
930-0365	MAX Dispatch DMR 20 TalkPath License	\$ 16,100.00	20,125.00
<b>MAX DMR INTERFACE, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0366	MAX Dispatch DMR 30 TalkPath License	\$ 21,100.00	26,375.00
<b>RACK MOUNTING AND POWER EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 2,650.00	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 4,875.00	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	\$ 630.80	788.50
950-1135	DIN Rail Mounting Kit Generic rack mount kit that can be used for extra power supply mounting or other devices using DIN rail mounting	\$ 505.00	631.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	\$ 80.00	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	\$ 122.00	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	\$ 170.00	212.50
810-0142	19" Rack 2U Shelf	\$ 106.24	132.80
416-0043	Fuse, 3 Amp	\$ 6.64	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	\$ 14.61	18.26
<b>MONITORS AND NETWORK EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	\$ 358.56	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 3,217.74	4,022.18
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 710.48	888.10
950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	\$ 1,095.60	1,369.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	\$ 1,401.04	1,751.30
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 2,735.68	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 4,774.16	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	\$ 66.40	83.00
<b>SYSTEMS DOCUMENTATION</b>		<b>CONTRACT</b>	<b>LIST</b>
395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	\$ 25.00	31.25
025-9638-1	MAX System Overview Manual	\$ 50.00	62.50
025-9645-1	MAX System Installation Manual	\$ 50.00	62.50
025-9654-1	MAX Dispatch System Configuration Manual	\$ 50.00	62.50
025-9649-1	MAX Operation Manual	\$ 50.00	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	\$ 50.00	62.50
025-9647-1	MAX Central Product Manual	\$ 50.00	62.50
025-9650-1	MAX Dispatch Console Design Manual	\$ 50.00	62.50
025-9630	Model 6080 Manual	\$ 50.00	62.50
025-9658-1	Media Dock XS Manual	\$ 50.00	62.50
025-9693	MAX Dispatch CAD Interface Control Document API documentation for developing 3rd party applications to control the MAX Dispatch Console; Protocol License Agreement required to obtain documentation	\$ 785.00	981.25
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	\$ 50.00	62.50

025-9632	Headset Jackbox manual	\$ 50.00	62.50
<b>CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Factory Training in Redmond, WA			
X97-344F	MAX Dispatch Factory Technical Training, First Person	\$ 1,454.16	1,817.70
X97-344A	MAX Dispatch Factory Technical Training, Additional person	\$ 723.76	904.70
XMP-K344-OWE	MAX-PSP Operator Web Training extension	\$ 1,992.00	2,490.00
<b>ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OSO	MAX-PSP On-Site Operator Training, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OST	MAX-PSP On-Site Technical Support, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>UPGRADES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC	NC
<b>SPARES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
901-9727	Kenwood MAX Digital Radio Gateway	\$ 2,695.00	3,368.75
901-9719	Kenwood MAX Central	\$ 3,395.00	4,243.75
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1278-1	Kenwood MAX Solutions Workstation PC	\$ 2,629.44	3,286.80
802-0692	Power Supply, Desktop 60W	\$ 55.78	69.72
416-0012	AC Power Cord (North America)	\$ 14.61	18.26
<b>SERVICE PLANS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-EBS	MAX-PSP Extended Service Plan One year software services, one year hardware, after-hours phone support, and one year membership in the Zetron MAX Users Group; per position, per year	NC	NC
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	NC	NC
XMP-K344-APM	MAX-PSP After hours phone support 1 time Special needs - emergency and pre-scheduled service outside of regular business hours; per month	\$ 100.00	125.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	\$ 5,976.00	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	\$ 239.04	298.80
XMP-K344-MUG	MAX-PSP Zetron MAX Users Group Membership for one year into the ZMUG allows participation in MAX related webinars (must have software PSP)	NC	NC
<b>WARRANTY PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plan is for North America only			
XMP-K344-BAS	MAX-PSP Base Service Plan One year software services, one year hardware services, one year of advance hardware replacement, operator web training (2-4 hour sessions), and one year membership in the Zetron MAX Users Group	NC	NC

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# KA-160

Analog/DMR VHF Repeaters - 136-174 MHz



### GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 Conventional
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option

### GENERAL OPTIONS

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your KENWOOD

KAIROS REPEATER		DEALER	LIST
KA-160	KAIROS Repeater, Analog/DMR, VHF, 136-174MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-160-TX	KAIROS Transmitter Only, Analog/DMR, VHF, 136-174MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-160-RX	KAIROS Receiver Only, Analog/DMR, VHF, 136-174MHz	\$ 2,102.00	\$ 3,503.25
SOFTWARE LICENSES FOR KAIROS REPEATERS		DEALER	LIST
KA-MCTCSS	License to allow the use of up to 8 different CTCSS contemporary	\$ 210.00	\$ 350.00
KA-POCSAG	License to add POCSAG capability	\$ 540.00	\$ 900.00
KA-SI-T2	License to allow Simulcast operation	\$ 5,550.00	\$ 9,250.00
KA-1+1	License required for Hot Stand-by configuration <b>Note:</b> Must purchase additional KA repeater.	\$ 240.00	\$ 400.00
PROGRAMMING SOFTWARE		DEALER	LIST
KA-MNG	Technical Documentation and Programming Software	\$ 180.00	\$ 300.00
REPEATER MOUNT (Mandatory mount option for rack mounting)		DEALER	LIST
KA-RK1v2	19" Mount Panel for One KAIROS Repeaters	\$ 240.00	\$ 400.00
KA-RK2	19" Mount Panel for Two KAIROS Repeaters	\$ 240.00	\$ 400.00
HARDWARE OPTION for KAIROS Repeaters		DEALER	LIST
KA-GPS	GPS Receiver for Simulcast Operation	\$ 240.00	\$ 400.00
GPS-ANT	GPS Antenna for Simulcast Operation	\$ 240.00	\$ 400.00
DVX-VHF	Diversity RX filter for VHF 136 - 174 MHz	\$ 600.00	\$ 1,000.00
RF REPEATER STATION AMPLIFIER OPTIONS		DEALER	LIST
<b>Note:</b> Includes One Cable for Radio Connectivity.			
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 999.00	\$ 1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00

KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 2,436.00	\$ 4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 999.00	\$ 1,665.00
<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>DEALER</b>	<b>LIST</b>
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,296.00	\$ 2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 1,836.00	\$ 3,060.00
<b>POWER SUPPLY OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 153.00	\$ 255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 285.00	\$ 475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 813.00	\$ 1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 813.00	\$ 1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,044.00	\$ 1,740.00
<b>MOUNTING RACK</b>		<b>DEALER</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 1,605.00	\$ 2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 648.00	\$ 1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 720.00	\$ 1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,200.00	\$ 2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 207.00	\$ 345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 54.00	\$ 90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 261.00	\$ 435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 84.00	\$ 140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 150.00	\$ 250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 225.00	\$ 375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 225.00	\$ 375.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 30.00	\$ 50.00
<b>DUPLEXER</b>		<b>DEALER</b>	<b>LIST</b>

KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHZ. Includes one LMR-400 interface cable.	\$ 1,857.00	\$ 3,095.00
<b>COMPONENTS</b>		<b>DEALER</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 432.00	\$ 720.00
KSGMT0C03R	Crate for 3' Rack	\$ 216.00	\$ 360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 390.00	\$ 650.00
KSGMT0C07R	Crate for 7' Rack	\$ 330.00	\$ 550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,293.00	\$ 2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 312.00	\$ 520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 336.00	\$ 560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 39.00	\$ 65.00



## KA-450/500

### Analog/DMR UHF Repeaters



#### GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 Conventional
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option
- System Redundancy

#### GENERAL OPTIONS

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your KENWOOD Systems Regional Sales Manager for more details.

KAIROS REPEATERS		DEALER	LIST
KA-450	KAIROS Repeater, Analog/DMR, UHF, 400-470MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-450-TX	KAIROS Transmitter Only, Analog/DMR, UHF, 400-470MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-450-RX	KAIROS Receiver Only, Analog/DMR, UHF, 400-470MHz	\$ 2,102.00	\$ 3,503.25
KA-500	KAIROS Repeater, Analog/DMR, UHF, 450-512MHz, 1-25W, 100% Duty	\$ 2,522.00	\$ 4,203.25
KA-500-TX	KAIROS Transmitter Only, Analog/DMR, UHF, 450-512MHz, 1-25W, 100% Duty	\$ 2,102.00	\$ 3,503.25
KA-500-RX	KAIROS Receiver Only, Analog/DMR, UHF, 450-512MHz	\$ 2,102.00	\$ 3,503.25
SOFTWARE LICENSES FOR KAIROS REPEATERS		DEALER	LIST
KA-MCTCSS	License to allow the use of up to 8 different CTCSS contemporary	\$ 210.00	\$ 350.00
KA-POCSAG	License to add POCSAG capability	\$ 540.00	\$ 900.00
KA-SI-T2	License to allow Simulcast operation	\$ 5,550.00	\$ 9,250.00
KA-1+1	License required for Hot Stand-by configuration <b>Note :</b> Must purchase additional KA repeater.	\$ 240.00	\$ 400.00
PROGRAMMING SOFTWARE		DEALER	LIST
KA-MNG	Technical Documentation and Programming Software	\$ 180.00	\$ 300.00
REPEATER MOUNT (Mandatory mount option for rack mounting)		DEALER	LIST
KA-RK1v2	19" Mount Panel for One KAIROS Repeaters	\$ 240.00	\$ 400.00
KA-RK2	19" Mount Panel for Two KAIROS Repeaters	\$ 240.00	\$ 400.00
HARDWARE OPTION FOR KAIROS REPEATERS		DEALER	LIST
KA-GPS	GPS Receiver for Simulcast Operation	\$ 240.00	\$ 400.00
GPS-ANT	GPS Antenna for Simulcast Operation	\$ 240.00	\$ 400.00
DVX-UHF	Diversity RX filter for UHF 400 - 470 MHz	\$ 600.00	\$ 1,000.00
RF REPEATER STATION AMPLIFIER OPTIONS		DEALER	LIST
<b>Note:</b> Includes One Cable for Radio Connectivity.			
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00

KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 999.00	\$ 1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,299.00	\$ 2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 2,364.00	\$ 3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 153.00	\$ 255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 285.00	\$ 475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 813.00	\$ 1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 813.00	\$ 1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,044.00	\$ 1,740.00
<b>MOUNTING RACK</b>		<b>DEALER</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 648.00	\$ 1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 720.00	\$ 1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 1,605.00	\$ 2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,200.00	\$ 2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 207.00	\$ 345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 54.00	\$ 90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 261.00	\$ 435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 84.00	\$ 140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>DEALER</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 150.00	\$ 250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 225.00	\$ 375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 225.00	\$ 375.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 30.00	\$ 50.00
<b>DUPLEXER</b>		<b>DEALER</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 1,857.00	\$ 3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,065.00	\$ 1,775.00
<b>COMPONENTS</b>		<b>DEALER</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 432.00	\$ 720.00
KSGMT0C03R	Crate for 3' Rack	\$ 216.00	\$ 360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 390.00	\$ 650.00
KSGMT0C07R	Crate for 7' Rack	\$ 330.00	\$ 550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,293.00	\$ 2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 312.00	\$ 520.00



Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 5  
Change Effective Date : 10/19/2020

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2021

**Commodity Specialist:** John Weikle    **Telephone:** 717-787-4103    **Email:** [jweikle@pa.gov](mailto:jweikle@pa.gov)

**CHANGE SUMMARY:**

The price list has been updated for E F Johnson Company and attached to this contract.

Please contact the E F Johnson Company Account Manager, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

E.F. JOHNSON COMPANY

## Commercial Price List

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IFB 6100039075

October 19, 2020

KENWOOD

VIKING

# P25 Mission Critical Viking VP6000

VHF · UHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

The KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - Mixed protocol zones (each channel in a zone can be from a different system)
  - 1024 channels (2048 option)
  - Public safety ergonomics: flare grip for control, large glove friendly knobs, large emergency button
  - 1 Watt audio output for high noise environments
  - Voice annunciation & custom announcements creation
  - Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
  - Full key models (w/ numeric keypad)
  - Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
  - MDC-1200 & GE-Star signaling
  - P25 Authentication
  - Bluetooth\*
  - Man Down
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible w/Motorola ADP™
    - P25/TIA defined: AES-256
    - DES-OFB
    - Over-the-Air-Rekeying (OTAR)
- Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## User Selectable Color Themes

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event identification
- Day & night user selectable display options (8 themes available)



## Compatible with Multiple P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P 25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA® Radia - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

	Radio - Base Model	List
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 2,260.00
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 2,510.00
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 2,460.00
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 2,710.00
	Model Options	List
250VP500001	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 99.00
	Antenna	List
KRA-32K	700/800 MHz Whip Antenna	\$ 36.00
KRA-36	700/800 MHz Stubby Antenna	\$ 26.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 16.67
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 16.67
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 16.67
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 16.67
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 16.67
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 16.67
KRA-26M	VHF helical antenna 146-162 MHz	\$ 16.67
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 16.67
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 16.67
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 16.67
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 16.67
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 16.67
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 35.00

Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 142.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 183.00
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 200.00
KNB-LS7	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 300.00
	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	
KSC-Y32K	<b>Note:</b> NiMH/Li-ion battery only	\$ 130.00
	License Key for KAS-12 ( <b>Authentication required</b> )	
KAS-12K	Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 82.00
KSC-326AK	Rapid rate 6-unit charger	\$ 745.00
	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	
KVC-15		\$ 162.00
Carrying Accessories		List Price
KBH-11	Spring action belt clip (2.5")	\$ 15.00
	Leather Case, L3 battery, VP6000 Fire. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843LF3001		\$ 70.00
	Leather Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843LP3001		\$ 70.00
	Nylon Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843NP3001		\$ 70.00
R50840000L20	2" Belt Loop for Leather Cases R50843Lx3001	\$ 25.00
R50840000N20	2" Belt Loop for Nylon Cases R50843Nx3001	\$ 25.00
R50840000L30	3" Belt Loop for Leather Cases R50843Lx3001	\$ 25.00
Microphones & Audio Accessories		List Price
	MIL-SPEC, Speaker Mic. with Antenna Connector	
KMC-49	<b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 332.00
	MIL-SPEC, IP67 (Immersion) Speaker Mic.	
KMC-70M	3 Programmable Buttons	\$ 133.00
	MIL-SPEC, IP67 (Immersion) Speaker Mic. Hi-Viz Green.	
KMC-70GR	3 Programmable Buttons	\$ 142.00
	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	
KEP-1		\$ 53.00
	2.5mm earphone kit for KMC-49 Speaker Mic	
KEP-2		\$ 53.00
	2-wire palm mic w/earphone, universal connector (Black)	
KHS-11BL		\$ 160.00
	3-wire mini lapel mic w/earphone, universal connector (Black)	
KHS-12BL		\$ 203.33
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 128.00

	Protocol	List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	System Options	List
1	Analog Conventional	\$0
2	P25 Conventional	\$350.00
3	P25 Phase 1 Trunking (Must also have option 2)	\$125.00
4	P25 Phase 2 TDMA (Must also have option 3)	\$ 400.00
5	Viking16	\$ 775.00
	Optional Features	List
	Channels/Talkgroups	
	1024 Channels/Talkgroups (standard)	\$0
	2048 Channels/Talkgroups (standard)	\$300.00
	4096 Channels/Talkgroups	\$600.00
	Encryption	
	DES-OFB (multi-key)	\$0
	AES FIPS 140-2 (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$0
	Programming & Data	
	TrueVoice™ Noise Cancellation	\$0
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00
	Bluetooth	\$ 100.00
	Man Down	\$ 100.00





## P25 Mission Critical Viking **VP5000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

At just under 5.5 inches tall (140 mm), these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.



### Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP\*
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

### Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

### User Selectable Color Themes

- Multi-line text
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (8 themes available)



### Compatible With P25 Systems

- ATLAS\* P25 Phase 1 and Phase 2 System
- Motorola Astro\* 25 - P25 Phase 1 & Phase 2
- Harris VIDA\* - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA\* Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault\*.



#### Armada\* Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
VP5430F2	P25 Portable, 700/800 MHz band, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,555.00
VP5430F3	P25 Portable, 700/800 MHz band, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,605.00
VP5330F2	P25 Portable, UHF Hi, 450-520 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330F5	P25 Portable, UHF Lo, 380-470 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330F3	P25 Portable, UHF Hi, 450-520 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5330F6	P25 Portable, UHF Lo,, 380-470 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5230F2	P25 Portable, VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5230F3	P25 Portable, VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,605.00
Model Options		List
250VP500001	Intrinsically Safe (CSA) - <i>KNB-LS5 or -LS7 battery required</i>	\$ 99.00
Antenna		List
KRA-32K	700/800 MHz Whip Antenna	\$ 36.00
KRA-36	700/800 MHz Stubby Antenna	\$ 26.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 16.67
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 16.67
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 16.67
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 16.67
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 16.67
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 16.67
KRA-26M	VHF helical antenna 146-162 MHz	\$ 16.67
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 16.67
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 16.67
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 16.67
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 16.67
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 16.67
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 35.00
Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 142.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 183.00
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 200.00
KNB-LS7	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 300.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 130.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00

KSC-32	Rapid rate single unit charger	\$ 82.00
KSC-326AK	Rapid rate 6-unit charger	\$ 745.00
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 162.00
<b>Carrying Accessories</b>		<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 15.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 27.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 23.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 38.00
KLH-200K3	Heavy duty leather carrying case for VP5000 series with KNB-L2/L3/LS5CU batteries (for both keypad models)	\$ 45.00
KLH-201K3	Nylon carrying case for VP5000 series with KNB-L2/L3/LS5CU battery (for both keypad models)	\$ 27.00
<b>Special Color Housing</b>		<b>List Price</b>
835VP5000OH	ORANGE HOUSING, VP5000, MODEL 2	\$ 200.00
835VP5000YH	YELLOW HOUSING, VP5000, MODEL 2	\$ 200.00
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 332.00
KMC-70M	MIL-SPEC, IP67 (Immersion) Speaker Mic. 3 Programmable Buttons	\$ 133.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	\$ 53.00
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 53.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 160.00
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 203.33
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 128.00

	<b>Protocol</b>	<b>List</b>
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	<b>System Options</b>	<b>List</b>
1	Analog Conventional	\$0
2	P25 Conventional	\$0
3	P25 Phase 1 Trunking	\$0
4	P25 Phase 2 TDMA	\$ 400.00
5	Viking16	\$ 775.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$0
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	DES-OFB (multi-key)	\$ 195.00
	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 750.00
	ARC4 (ADP compatible)	\$0
	<b>Programming &amp; Data</b>	
	TrueVoice™ Noise Cancellation	\$0
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00
	P25 Authentication (Must also have AES FIPS 140-2)	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00
	Bluetooth	\$ 100.00
	Man Down	\$ 100.00

KENWOOD



# P25 Mission Critical Viking **VP900**

VHF - 700/800 MHz  
P25 Phase 1 & 2 - Viking16

The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system) 2048 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Instant Recording Replay (IRR)
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VP900 operating manual for detailed requirements & conditions for proper GPS operation.

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault®.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
2425AAAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,575.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,775.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,975.00
Antenna		List
	Multiband 700/800 + VHF Standard	\$0
	Multiband 700/800 + VHF Flexible	\$0
Battery		List
	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$0
Housing		List
	Black Housing	\$0
	High Visibility Housing	\$ 200.00
Protocol		List
1	Analog FM (included in base radio)	\$0
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 200.00
System Option		List
1	Conventional System	\$ 350.00
2	Viking16	\$ 775.00
<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
4	Project 25 Conventional System	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 875.00
7	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 850.00
8	Project 25 Phase 2 TDMA and Viking16 Trunking (includes system options 2, 4 & 5)	\$ 1,250.00

Optional Features	List
<b>Channels/Talkgroups</b>	
2048 Channels/Talkgroups (standard)	\$0
<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
Single-Key DES-OFB (included with Protocol Option 2)	\$0
Single-Key AES	\$ 150.00
DES-OFB (multi-key)	\$ 550.00
AES (multi-key)	\$ 475.00
DES-OFB + AES (Multi-Key)	\$ 750.00
ARC4 (ADP compatible)	\$0
<b>Programming &amp; Data</b>	
MDC1200/GE-Star Signaling	\$ 50.00
FIRESafe™ First Responder	\$ 250.00
FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 350.00
GPS	\$ 100.00
Third Party Interface	\$ 150.00
Keypad Programming (U.S. Federal Government Only)	\$ 300.00
<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
Project 25 Data Conventional	\$ 140.00
Project 25 OTAR Conventional & Trunking	\$ 750.00
P25 Paging Decode	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 200.00
<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>	
Project 25 Authentication	\$ 100.00
Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
EVRS	\$ 100.00

# KENWOOD



## VM7000

VHF (with High Power and Low Band High Power<sup>2</sup> options) ·  
 UHF-Low · UHF-High · 700/800 MHz  
 Analog · P25 Phase 1 & 2 · Viking16

With the VM7000 All-Band Multi-Deck Mobile, you can simultaneously receive and display up to four bands so you never miss a call. The "select" and "unselect" speakers give you the option for audio control similar to a dispatch console. KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



### Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 and 4096 options)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Single or Dual Remote Mount configuration
- External speaker
- Over-the-Internet-Programming (OTIP)
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- WiFi
- Instant Recording Replay (IRR)
- Voice Recording

<sup>1</sup>Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.

### Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

### Enhanced Control Head

- Larger display - 2.75" (36 x 60 mm)
- Resolution of 400 x 240 pixels
- Viewing angle of 140°
- Multi-color LCD + TX/RX (green/red) LEDs
- D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs
- Replaceable A/B/C button labels
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### Compatible With P25 Systems<sup>2</sup>

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Primary Radio - (First Deck, Choose one)		List
VM7630HBF-P	VM7000 39-50 MHZ Hi Power Low Band Primary	\$ 3,100.00
VM7730HBF-P	VM7000 136-174 MHZ Hi Power Primary	\$ 3,100.00
VM7730BF-P	VM7000 136-174 MHZ Primary	\$ 2,400.00
VM7830BF-P	VM7000 450-520 MHZ Primary	\$ 2,400.00
VM7830BF2-P	VM7000 380-470 MHZ Primary	\$ 2,400.00
VM7930BF-P	VM7000 700/800 MHZ Primary	\$ 2,400.00
Secondary Radio - (2nd-4th Deck, Choose up to 3)		List
VM7730HBF-S	VM7000 136-174 MHZ Hi Power Secondary	\$ 1,800.00
VM7630HBF-S	VM7000 39-50 MHZ Hi Power Low Band Secondary	\$ 1,800.00
VM7730BF-S	VM7000 136-174 MHZ Secondary	\$ 1,100.00
VM7830BF-S	VM7000 450-520 MHZ Secondary	\$ 1,100.00
VM7830BF2-S	VM7000 380-470 MHZ Secondary	\$ 1,100.00
VM7930BF-S	VM7000 700/800 MHZ Secondary	\$ 1,100.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-36	Hi Power Deck Mounting Bracket	\$ 77.00
836VMB10	Mounting Bracket, Dual Deck, VM7000	\$ 165.00
KCT-46	Ignition Sense Cable	\$ 14.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 250.00
KCT-18	Hi Power Ignition Sense Cable	\$ 20.00
Control head		List
KCH-20RV	KCH-20 Enhanced control head	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 55.00
KCT-23M4	Hi Power Deck DC Cable	\$ 55.00
KCT-71M2	17 Ft remote cable	\$ 72.00
KCT-71M3	25 Feet remote cable	\$ 82.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 500.00
KCT-71M4	1.6 Ft Remote Cable / Multi-deck Control Cable	\$ 46.00
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 53.00
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 97.00
597539077901	USB Micro A-B Cable	\$ 18.00
Speaker		List
KCT-72M	External Accessory Connection Cable for KCH-20RV/KCH-21RF remote control heads	\$ 37.00
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
KES-5A	40W External Speaker	\$ 61.25
Power Supply		List
EH-30	VM7000 30 Amp DC Power Supply for Hi-Power decks	\$550
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$177

Software Options	List
Analog FM	\$0
P25 CAI AMBE+2	\$0
Analog Conventional	\$0
P25 Conventional	\$ 350.00
P25 Phase 1 Trunking	\$ 125.00
P25 Phase 2 TDMA	\$ 400.00
Viking16	\$ 775.00
1024 Ch	\$0
2048 Ch	\$ 300.00
4096 Ch	\$600.00
DES-OFB multi-key	\$0
AES FIPS-140-2 multi-key	\$ 475.00
ARC4 (ADP Compatible)	\$0
Conventional Voting Scan	\$0
TrueVoice Noise Cancellation	\$0
MDC1200 / GE-Star Signaling	\$ 50.00
P25 Data Conventional	\$ 140.00
P25 Data Trunking (Conventional incl)	\$ 200.00
P25 Paging Decode	\$ 100.00
OTAR (Over-the-Air-Rekeying)	\$ 750.00
P25 Authentication	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 200.00
GPS	\$ 100.00
GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 42.00
EVRS	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM6000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - 1024 channels (2048 option)
  - Mixed protocol zones
  - P25 Authentication (Link Layer Authentication)
  - P25 IP packet data
  - P25 GPS data (built in GPS)<sup>1</sup>
  - MDC-1200 & GE-Star signaling
  - Analog & P25 Conventional vote scan
  - Remote mount only (Viking Control Head)
  - Dual Viking Control Heads (option)
  - External speaker
  - Fixed control station
  - WiFi
  - Bluetooth
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible with Motorola ADP\*
    - DES-OFB
    - AES-256 (FIPS 140-2) Single and Multi-Key
    - Over-the-Air-Rekeying (OTAR)
    - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- <sup>1</sup>Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

## Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

User selectable themes (8 themes available)

Day & night display options

An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
VM6730BF	VM6000 136-174 MHZ	\$ 2,150.00
VM6830BF	VM6000 450-520 MHZ	\$ 2,150.00
VM6830BF2	VM6000 380-470 MHZ	\$ 2,150.00
VM6930BF	VM6000 700/800 MHZ	\$ 2,150.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 55.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 177.00
KCT-46	Ignition Sense Cable	\$ 14.00
Control head		List
	Viking Control Head (VCH)	
835VM6000VCH	<b><i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i></b>	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 55.00
597535777501	6 Ft remote cable	\$ 100.00
597535777502	17 Ft remote cable	\$ 160.00
597535777503	50 Ft remote cable	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 140.00
589001202303	VCH Desktop Mic	\$ 480.00
Speaker		List
2500151006	5in. 15W Speaker, Crimp Leads	\$ 75.00
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
KES-5A	40W External Speaker	\$ 61.25

Software Options		List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	Analog Conventional	\$0
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	Viking16	\$ 775.00
	1024 Ch	\$0
	2048 Ch	\$ 300.00
	4096 Ch	\$ 600.00
	DES-OFB multi-key	\$0
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$0
	Conventional Voting Scan	\$0
	TrueVoice Noise Cancellation	\$0
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option selected in CeVo</i>	\$ 42.00
	EVRS	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM5000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - 1024 channels
  - Mixed protocol zones
  - P25 Authentication (Link Layer Authentication)
  - P25 IP packet data
  - GPS AVL data (built in GPS)
  - MDC-1200 & GE-Star signaling
  - Analog & P25 Conventional vote scan
  - Dash mount (KCH-19 control head only)
  - Remote mount
  - Dual control heads
  - Internal or external speaker
  - Fixed control station
  - WiFi (remote mount configuration only)
  - Bluetooth (Future)
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible w/Motorola ADP™
    - DES-OFB
    - AES-256 (FIPS 140-2) Single and Multi-Key
    - Over-the-Air-Rekeying (OTAR)
- Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.*

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

## Basic Control Head

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
VM5730BF	VM5000 136-174 MHZ	\$ 2,150.00
VM5830BF	VM5000 450-520 MHZ	\$ 2,150.00
VM5830BF2	VM5000 380-470 MHZ	\$ 2,150.00
VM5930BF	VM5000 700/800 MHZ	\$ 2,150.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 55.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 177.00
KCT-46	Ignition Sense Cable	\$ 14.00
Control head		List
KCH-19VM	Dash - KCH-19	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 40.00
KCT-23M3	DC Cable-Remote	\$ 55.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 250.00
KCT-71M2	17 Ft remote cable	\$ 72.00
KCT-71M3	25 Feet remote cable	\$ 82.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 500.00
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 53.00
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 97.00
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	\$ 88.00
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Improved noise response for Phase 2 TDMA systems	\$ 183.00
Speaker		List
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
RPSP-15	5W External Speaker, compact	\$ 25.00
KES-5A	40W External Speaker	\$ 61.25

Software Options		List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	Analog Conventional	\$0
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	Viking16	\$ 775.00
	1024 Ch	\$0
	DES-OFB multi-key	\$0
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$0
	Conventional Voting Scan	\$0
	TrueVoice Noise Cancellation	\$0
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 42.00
	EVRS	\$ 100.00



## Enhanced Vehicular Repeater Systems

EVRS Models		List
SVR-P255M-W3K	VEHICULAR REPEATER 764-870 MHZ	\$ 6,300.00
SVR-P255UA-W3K	VEHICULAR REPEATER 405-470 MHZ	\$ 6,300.00
SVR-P255V-W3K	VEHICULAR REPEATER 136-174 MHZ	\$ 6,300.00
Cables		List
SMX-350-W3K	VM7000 MULTIDECK INTERFACE MUX CABLE	\$ 1,100.00
7502-10-1245-W3K	SVR VMX000 INTERFACE CABLE	\$ 120.00
7555-10-1245-W3K	SVR VM900 INTERFACE CABLE	\$ 120.00
TCK-203-W3K	SVR 3' TNC CABLE KIT FOR USE WITH BPF/BRF FILTERS	\$ 98.00
TCK-206-W3K	SVR 6' TNC CABLE KIT FOR USE WITH BPF/BRF FILTERS	\$ 124.00
Filters and Pre-Selectors		List
BRF-1601-W3K	NOTCH FILTER, 150-174 MHZ, ( 5M SEPARATION)	\$ 250.00
BRF-1602-W3K	DUAL NOTCH FILTER, 150-174 MHZ (2M SEPARTATION)	\$ 420.00
BRF-4601-W3K	NOTCH FILTER, 450-470 MHZ (10M SEPARATION)	\$ 250.00
BRF-4602-W3K	DUAL NOTCH FILTER, 450-470 MHZ (5M SEPARATION)	\$ 420.00
BPF-1604-W3K	PRE-SELECTOR, 150-174 MHZ (FACTORY TUNED)	\$ 420.00
BPF-7704-W3K	PRE-SELECTOR, 770 MHZ, (FACTORY TUNED)	\$ 420.00
BPF-8604-W3K	PRE-SELECTOR, 860 MHZ, (FACTORY TUNED)	\$ 420.00
Accessories		List
KLA-250-W3K	SVR-P250 KEY LOADER ADAPTER	\$ 1,104.00
FY-4-W3K	SVR PROGRAMMING CABLE & SOFTWARE	\$ 72.00
Options		List
9300-11-0058-W3K	SVR-P250 AES & DES ENCRYPTION	\$ 1,270.00

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List Price

336-1212-101	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$	13,500.00
336-1224-101	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$	13,500.00
336-1241-101	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$	15,250.00
336-1224-102	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b> Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$	16,475.00
336-1200-082	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b> Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$	1,650.00
336-1200-000	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b> Includes programming software and cable.	\$	295.00
336-1200-091	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$	900.00
336-1200-092	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b> Includes single power supply, rack mount kit and power cable.	\$	1,550.00

# Accessory Catalog

## Speaker Mics



**P/N:** 589360010024

**List Price:** \$115.00

**Name:** SPEAKER MIC BASIC, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** MIL-std and PTT button. Available in three lengths.



**P/N:** 589360010030

**List Price:** \$115.00

**Name:** SPEAKER MIC BASIC, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** MIL-std and PTT button. Available in three lengths.



**P/N:** GEM-ML56PRM-C-01

**List Price:** \$200.00

**Name:** VIKING SPEAKER MIC, BLACK, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** Premium Speaker Microphone for VP900 series radios. The Viking Speaker Microphone is engineered to be the best-in-class. It offers loud, clear audio communications without the need to draw additional power from the radio battery, because it does not use an active amplifier. The immersion-rated Viking Speaker Microphone is fully compatible with Viking software-based frequency noise cancellation in analog and digital communications. IP67, MIL-std rated, PTT button, emergency button, 24" cord, 3.5 mm earphone jack, and volume hi-lo button, black.



**P/N:** GEM-ML56PRMHV24-EF1

**List Price:** \$250.00

**Name:** VIKING SPEAKER MIC, HI VIZ, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** Premium Speaker Microphone for VP900 series radios. The Viking Speaker Microphone is engineered to be the best-in-class. It offers loud, clear audio communications without the need to draw additional power from the radio battery, because it does not use an active amplifier. The immersion-rated Viking Speaker Microphone is fully compatible with Viking software-based frequency noise cancellation in analog and digital communications. IP67, MIL-std rated, PTT button, emergency button, 24" cord, 3.5 mm earphone jack, and volume hi-lo button. High visibility green.



**P/N:** KMC-70GR

**List Price:** \$142.00

**Name:** SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T

**Compatible With:** VP6000,VP5000

**Details:** IP67, IS (CSA), MIL-std, PTT button, two programmable buttons, and earphone jack(3.5mm). Coiled Cable length is 26 in. (Stretched length: 78 in.)



**P/N:** KMC-70M

**List Price:** \$133.00

**Name:** SPEAKER MIC, 3PF KEYS, BLACK, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Speaker mic with PTT button, three programmable buttons, and earphone jack (3.5mm). Rated IP67, IS (CSA), MIL-std, Coiled Cable length is 26 in. (Stretched length: 78 in.) Compatible with Kenwood Viking VPx000 series radios.



**P/N:** R5893210B30

**List Price:** \$225.00

**Name:** SPEAKER MIC PREMIUM BLACK, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, detachable cable, 3.5 mm earphone jack, and volume hi-lo button. Available in three lengths.



**P/N:** R5893210G30

**List Price:** \$275.00

**Name:** SPEAKER MIC PREMIUM HI VIZ, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, detachable cable, 3.5 mm earphone jack, and volume hi-lo button. Available in three lengths.

## Specialty Speaker Mics



**P/N:** 589360005618

**List Price:** \$315.00

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,18", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$315.00

**P/N:** 589360005625

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$315.00

**P/N:** 589360005630

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$199.00

**P/N:** APTT1

**Name:** SPEAKER MIC, AINA BT PTT VOICE RESPONDER

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** AINA's PTT Voice Responder is a next generation speaker-microphone which can be connected via Bluetooth to Viking 5000/6000/7000 series subscriber radios. It features PTT plus 5 programmable buttons.VM/VPx000 radios optioned with Bluetooth support the AINA PTT Voice Responder Remote Bluetooth speaker mic. The speaker mic configuration in Armada supports the programmable buttons and customizable blue tooth audio profile. Firmware Notes: \*Viking radios require firmware 8.28.5 or later for compatibility.\*The AINA Voice Responder requires correct firmware and manufacturing date of 1735 or later for compatibility.Accessories:\* ADC1: AINA PTT VR Desktop Charger Cradle\* AVC1: AINA PTT VR Vehicle Charger Cradle



**List Price:** \$145.00

**P/N:** BTR-155

**Name:** BLUETOOTH SPEAKER MIC, SAVOX, K551071 VP-T

**Compatible With:** VP6000,VP5000

**Details:** BLUETOOTH SPEAKER MIC, SAVOX, K551071 VP-TThe Savox BTR-155 Bluetooth Remote Speaker Mic is compatible with the Kenwood Viking VPx000 radios. The rugged design of this Remote Speaker Microphone makes it light, robust (to IP55) and the function buttons have been designed so it can be operated with protective gloves.



**P/N:** KMC-49

**List Price:** \$332.00

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** IP67, IS(CSA), MIL-std, PTT button, two programmable buttons, earphone jack, and antenna connector (antenna is not included but can use standard portable antenna). 5/16-in. coax cable hex wrench is included. Available in 24 in.



**P/N:** V2-G4JD221

**List Price:** \$499.00

**Name:** FIRE SPEAKER MIC, OTTO, 500°F, VP-H

**Compatible With:** VP400/600/900

**Details:** FIRE SPEAKER MIC, OTTO, 500°F, VP-H Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market. Designed to continue functioning even in extreme situations, the OTTO 500 gives fire professionals those critical minutes of communications that can mean the difference between life and death. OTTO 500 is tested to function for more than five minutes at 500 F (260 C) utilizing special high-temperature materials in the case, cable and strain relief. With full immersion capability in one meter of water for 31 minutes and exceptional debris protection including a removable grill and replaceable debris screen for easy cleaning, the durable OTTO 500 is the clear choice for extreme fire-fighting environments Features :Functions for more than five minutes at 500 F (260 C)IP68, immersion rated to one meter of water for 31 minutesNew clip design with increased clamping force and metal loopRemovable green grill with replaceable debris screenLarge PTT for use with glovesOptional emergency button



**P/N:** V2-G4KC221

**List Price:** \$499.00

**Name:** FIRE SPEAKER MIC, OTTO, 500°F, VP-T

**Compatible With:** VP6000,VP5000

**Details:** FIRE SPEAKER MIC, OTTO, 500°F, VP-T. Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market. Designed to continue functioning even in extreme situations, the OTTO 500 gives fire professionals those critical minutes of communications that can mean the difference between life and death. OTTO 500 is tested to function for more than five minutes at 500 F (260 C) utilizing special high-temperature materials in the case, cable and strain relief. With full immersion capability in one meter of water for 31 minutes and exceptional debris protection including a removable grill and replaceable debris screen for easy cleaning, the durable OTTO 500 is the clear choice for extreme fire-fighting environments Features Functions for more than five minutes at 500 F (260 C)IP68, immersion rated to one meter of water for 31 minutesNew clip design with increased clamping force and metal loopRemovable green grill with replaceable debris screen .Large PTT for use with glovesOptional emergency button.Note: Also available as CSA Intrinsically Safe rated as part number V2-G4KC221-S.

## Earpieces



**P/N:** 5892006057

**List Price:** \$70.00

**Name:** EARPIECE COIL CORD, NO PTT, 3.5 MM, VP-H

**Compatible With:** VP400/600/900

**Details:** Earpiece with quick disconnect and noise attenuating eartube/earplug.



**P/N:** KEP-1

**List Price:** \$53.00

**Name:** EARPHONE KIT 3.55MM, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** 3.5 mm earphone kit for speaker mic earpiece with quick disconnect and noise attenuating eartube/earplug. Receive only.



**P/N:** KEP-2

**List Price:** \$53.00

**Name:** EARPHONE KIT 2.5 MM , VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** 2.5 mm earphone kit with quick disconnect and noise attenuating eartube/earplug. Receive only.

## Surveillance



**P/N:** 5895100055

**List Price:** \$140.00

**Name:** 2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H

**Compatible With:** VP400/600/900

**Details:** Mini lapel microphone kit consists of two cables: one that has an earphone and one that has a combined PTT and microphone. Requires adapter (not included): 5895100051.



**P/N:** 5895100056

**List Price:** \$180.00

**Name:** 3 WIRE LAPEL MIC KIT, VP-H

**Compatible With:** VP400/600/900

**Details:** Mini lapel microphone kit consists of three cables: earphone, push to talk switch and a low profile lapel microphone cable.





**P/N:** BTH-300KIT1

**List Price:** \$140.00

**Name:** BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-TThe NEW BTH-300 series PRYMEBLU® Bluetooth (wireless) professional grade lapel microphone kit features a front mounted, easy to use, PTT button. The BTH-300 features a 3.5mm jack compatible. It comes with EH-1189sC Bud style earphone which has a 16" (retracted) Coil Cord and collar clip.



**P/N:** EH-1189SC

**List Price:** \$10.00

**Name:** EARPHONE, BUD STYLE, FOR BTH-300, VP-T

**Compatible With:**

**Details:** EARPHONE, BUD STYLE, FOR BTH-300, VP-TPryme EH-1189SC - Listen Only Earpiece - Ear Bud Style w/Coil Cable w/3.5mm Plug 90 degree plugProduct Specifications:Pryme EH-1189SC earphoneCoil CordBud ear-piece3.5mm 90 degree plugLength 14" coiled / 28" stretchedx89 - 3.5mm Right Angle ConnectorStyle: Single PinFits 3.5mm Audio Jack



**P/N:** KHS-11BL

**List Price:** \$160.00

**Name:** 2 WIRE PALM MIC W/EARPHONE, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** Earphone kit with PTT, microphone, and a radio connector.

## Headsets



**P/N:** 5890015059

**List Price:** \$115.00

**Name:** BREEZE HEADSET, W/STD IN-LINE PTT, VP-H

**Compatible With:** VP400/600/900

**Details:** Flexible boom microphone with in-line PTT. Requires the following accessory adapter (not included): Accessory adapter w/3.5 mm threaded jack (5895100051).





**List Price:** \$85.00

**P/N:** 5895100051

**Name:** ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H

**Compatible With:** VP400/600/900

**Details:** Adapter works with earphone kit 5895100055 and headset 5890015059.



**List Price:** \$380.00

**P/N:** BTH-900

**Name:** BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Pryme BTH-900-EMB Bluetooth Dual Ear Muff Racing Style Headset & Microphone. The BTH-900 has both an over-the-head adjustable strap and a strong Behind-the-Head (BTH) spring steel band for a secure fit. The BTH-900 style headset has an extra large PTT button for use with heavy gloves. The headset can be dual-linked with cellphone or tablets AND TWO-WAY RADIOS - AT THE SAME TIME! Fully integrated Bluetooth technology. No wires! No external BT boxes! Clean and professional. Dual operation Bluetooth for use with both Cellphones or Tablets at same time as Two-way radios. Separate control buttons for PTT (radio) and Cellphone (Answer / Call). Sealed rubber control switches give positive user feedback and are sealed to keep dust and moisture out. The Two-color LED indicator shows status of power, low voltage, linked, and other states. Noise reducing condenser boom microphone with wind sock is easy to replace. Bluetooth version 3.0, Class 2. HSP, HFP, A2DP, AVRCP. Typical range approx. 10 meters (30 feet). Operating time approx. 10 hours. Standby 50 hours. Charging cable (USB type) and Wall Charger included. Operating temperature range -15° C to +50° C Alternate configurations may be available. The BTH-800 Over-the-Head (OTH) style has a wide padded head band that is very comfortable. The BTH-700 kit is designed to fit in the slots found on most safety helmets used in safety / construction applications. Foam Ear Pads are easy to replace or upgrade to GEL type for additional comfort. Please contact your Viking Product manager for availability information of alternate styles..



**List Price:** \$128.00

**P/N:** KHS-14

**Name:** HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T

**Compatible With:** VP6000,VP5000

**Details:** Light weight single muff headset with boom mic & in-line PTT, universal connector, black. Intrinsically safe.

## Mobile Mics



**P/N:** 250074031001

**List Price:** \$140.00

**Name:** MOBILE MIC, STANDARD, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Mobile mic 13 PIN for Standard Control Head in VM600 and VM900.



**P/N:** 250074031003

**List Price:** \$140.00

**Name:** MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Mobile mic(HOT) for Viking Control Head in VM6000 and VM600/900. For dual remote installations use KEYPAD COLD MIC(589001603605) for the 2nd remote.



**P/N:** 589001603503

**List Price:** \$290.00

**Name:** MOBILE MIC, KEYPAD, HOT, 13-PIN, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Keypad mic (hot)13 PIN for Standard Control Head in VM600 and VM900.



**P/N:** 589001603505

**List Price:** \$450.00

**Name:** MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH

**Compatible With:** VM600/900 (VCH)

**Details:** Keypad mic 12-Pin (hot) for Viking Control Head in VM600 and VM900.



**P/N:** 589001603603

**List Price:** \$290.00

**Name:** MOBILE MIC, KEYPAD, COLD, 13-PIN, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Keypad mic (cold) noise cancelling dual remote for Standard Control Head in VM600 and VM900 for dual remote configuration.



**P/N:** 589001603605

**List Price:** \$450.00

**Name:** MOBILE MIC, KEYPAD, COLD, 12 PIN, VCH

**Compatible With:** VM600/900 (VCH)

**Details:** Keypad mic 12-PIN (cold) dual Remote for Viking Control Head in VM600 and VM900 for dual remote configuration.



**P/N:** KMC-65M

**List Price:** \$53.00

**Name:** MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20

**Compatible With:** VM7000, VM5000

**Details:** Mobile mic for KCH-19/20.



**P/N:** KMC-66M

**List Price:** \$97.00

**Name:** MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20

**Compatible With:** VM7000, VM5000

**Details:** Keypad mobile mic for KCH-19/20.

## Desk Mics



**P/N:** 5890012023

**List Price:** \$480.00

**Name:** DESKTOP MIC, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Control station desktop mic for Standard Control Head.



**P/N:** 589001202303

**List Price:** \$480.00

**Name:** DESKTOP MIC, VCH

**Compatible With:** VM6000, VM600/900 (VCH)

**Details:** Control station desktop mic for Viking Control Head.



**P/N:** KMC-59C

**List Price:** \$183.00

**Name:** DESKTOP MIC, 8-PIN, TDMA

**Compatible With:** VM7000,VM5000

**Details:** Control Station Desktop Mic with 8-PIN modular jack. Recommended for P25 Phase II, DMR TDMA, and other systems for superior noise rejection.



**P/N:** KMC-9C

**List Price:** \$88.00

**Name:** DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20

**Compatible With:** VM7000,VM5000

**Details:** Control station desktop mic for KCH-19. Please also see recommended KMC-59C Desktop Mic if system includes P25 Phase II or DMR TDMA channels.

## Speakers



**P/N:** 2500151005

**List Price:** \$80.00

**Name:** MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Standard remote speaker for Viking Control Head. Plugs into Pins 1 and 2 of the 8-pin JST connector that comes with every accessory cable.



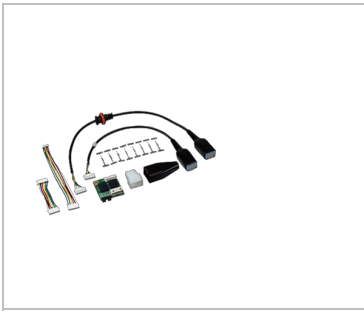
**P/N:** 2500151006

**List Price:** \$75.00

**Name:** MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Speaker for Viking Control Head with Crimp leads.



**List Price:** \$64.00

**P/N:** KAP-2

**Name:** HORN ALERT/P.A. RELAY OPTION, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:** The KAP-2 is an interface kit for VM5000, VM6000 and VM7000 series mobiles to allow certain accessory functions out of the rear of the radio via a "pigtail" cable. It is required to connect the KES-5A external speaker through the rear panel of the radio. It contains a small relay circuit board, and some wiring and connectors. For use with: External speaker (such as KES-5A) at rear of the radio Interfacing a police vehicle's Public Address system – provides relay control and audio Output of Horn Alert (can be used with unit call feature for fire stations/fire engines, for example) Other 3rd party accessories needing the audio and control pins at the rear of the radio (special headset interfaces, etc) It has a jumper setting for selecting the routing of audio (Internal or External Audio). If set to Internal, audio is routed through the speaker jack on the back of the radio. If set to external, audio is routed through the KAP-2 board pigtail. It is a common accessory for VM7000 multi-deck decks (included by default in the high-power VHF & Low band) if individual deck audio is desired This is almost always needed for the VM6000, because the Viking Control Head doesn't have an internal speaker. Some configuration via Armada may be needed to use an associated function (such as Horn Alert)



**List Price:** \$37.00

**P/N:** KCT-72M

**Name:** EXT ACCESSORY CONNECTION CABLE FOR KCH-19M, KCH-20

**Compatible With:** VM7000

**Details:** Required to connect the KES-5A external speaker with a VM7000 at the KCH-20 control head or a VM5000 remote mount at the KCH-19.



**List Price:** \$61.25

**P/N:** KES-5A

**Name:** MOBILE SPEAKER, 40W MAX INPUT, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:** MOBILE SPEAKER, 40W MAX INPUT, VM-T. Requires KAP-2 to connect to radio. Requires KCT-72M accessory cable when connecting to KCH-20 Control Head.



**List Price:** \$25.00

**P/N:** RPSP-15

**Name:** MOBILE SPEAKER, COMPACT, 5W, VM-T

**Compatible With:** VM5000

**Details:** MOBILE SPEAKER, COMPACT, 5W, VM-T



**P/N:** 5875700471

**List Price:** \$155.00

**Name:** L-ION BATTERY, 4500 MAH, NON-FM, VP-H

**Compatible With:** VP400/600/900

**Details:** High Capacity NON IS battery. IP67, MIL-STD



**P/N:** 835VBFM

**List Price:** \$205.00

**Name:** L-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H

**Compatible With:** VP400/600/900

**Details:** L-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H. This kit includes 5875700373 BATTERY, FM KEY AND CARABINER FOR FM KEY.



**P/N:** KBP-8M

**List Price:** \$120.00

**Name:** BATTERY CASE, AA ALKALINEX12,NO IP, ORANGE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included.



**P/N:** KNB-L2M

**List Price:** \$142.00

**Name:** L-ION BATTERY, 2600MAH, NON IS, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Standard L2 size battery. IP67, MIL-STD



**P/N:** KNB-L3M

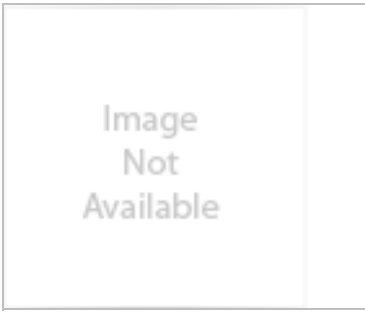
**List Price:** \$183.00

**Name:** L-ION BATTERY, 3400MAH, NON IS, VP-T

**Compatible With:** VP6000,VP5000

**Details:** High Capacity L3 size battery. IP67, MIL-STD





**P/N:** KNB-LS5

**List Price:** \$200.00

**Name:** LI-ION BATTERY, 2000MAH, CSA, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Please see KNB-LS5CU as replacement. Standard L2 size Intrinsically Safe battery for USA only. IP67, MIL-STD



**P/N:** KNB-LS5CU

**List Price:** \$200.00

**Name:** LI-ION BATTERY, 2000MAH, CSA, VP-T

**Compatible With:**

**Details:** Standard L2 size CSA rated Intrinsically Safe battery (USA only.) IP67, MIL-STD. Direct replacement for the KNB-LS5 battery



**P/N:** KNB-LS7

**List Price:** \$300.00

**Name:** LI-ION BATTERY, 3800MAH, CSA, VP-T

**Compatible With:** VP6000,VP5000

**Details:** LI-ION BATTERY, 3800MAH, CSA, VP-T



**P/N:** KNB-N4M

**List Price:** \$147.00

**Name:** NIMH BATTERY, 2500MAH, NON IS, IP RATED, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Standard Nickel Metal Hydride battery suited for low temperature environment.

## Chargers



**P/N:** 5630600237

**List Price:** \$125.00

**Name:** CHARGER, SINGLE BAY RAPID RATE, VP-H

**Compatible With:** VP400/600/900

**Details:** CHARGER, BATT, SINGLE BAY, RAPID



**P/N:** 5630600361

**List Price:** \$650.00

**Name:** CHARGER, SIX BAY MULTI-CHEM, VP-H

**Compatible With:** VP400/600/900

**Details:** Six Unit multi-chem charger. This charger works for ES models as well.



**P/N:** 836VVC10

**List Price:** \$400.00

**Name:** SINGLE BAY VEHICULAR CHARGER, VP-H

**Compatible With:** VP400/600/900

**Details:** This ultra-rugged product is designed for charging two-way radio batteries in any installation with a 12-24VDC power source. The vehicular charger 836VVC10 can charge batteries with lithium ion (Li-Ion) or lithium polymer (LiPo) chemistry. Please review this manual before installing or using the vehicular charger. 836VVC10 Features1. Product label showing charge status.2. Holes for fastening to dash or mounting bracket.3. Connection point for DC power cable.4. Battery charging contacts.5. Status LED (orange, red, green).6. Hook for connecting tie-down strap.7. Tie-down strap.8. Screws and spacers for fastening charger to vehicle.9. DC power cable with locking connector plug.



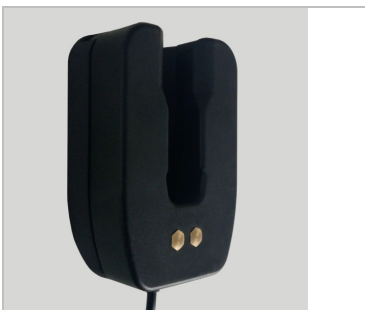
**P/N:** ADC1

**List Price:** \$79.00

**Name:** CHARGER CRADLE, DESKTOP, AINA BT PTT VR MIC

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** For use with the AINA PTT Voice Responder remote speaker mic, part number APTT1. Designed for use on desktops and counters. Connect to any standard 5V USB phone charger.



**P/N:** AVC1

**List Price:** \$49.00

**Name:** CHARGER CRADLE, VEHICLE, AINA BT PTT VR MIC

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** For use with the AINA PTT Voice Responder remote speaker mic, part number APTT1. The Vehicle Charger Cradle is compatible with most mount manufacturers, using standard AMPs hole pattern or male 1/4"-20 threaded stud. 5V male USB connector.





**P/N:** KMB-30A

**List Price:** \$61.00

**Name:** WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Wall Mount Bracket for KSC-326K/326AK/256K/256AK



**P/N:** KSC-32

**List Price:** \$82.00

**Name:** CHARGER, SINGLE BAY RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Single Unit tri-chemical rapid rate charger. Does not work with battery optimizing software. Kenwood KSC-32 Single-Unit Tri-Chemistry Rapid Rate Charger Includes 110/220VAC auto-switching AC Adapter with US-Style line cord plug. Charges Ni-Cd, Ni-MH and Li-Ion battery Types



**P/N:** KSC-326AK

**List Price:** \$745.00

**Name:** CHARGER, SIX UNIT RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** CHARGER, SIX UNIT RAPID RATE, VP-T. Width 21.9 inchDepth 8.0 inchHeight 4.1 inchInput 100-240V 50/60Hz 1.5-0.8AOutput: Li-ion: 9.4V 1.42A x 6, Ni-MH: 13.2V 1A x 6CEC: Yes



**P/N:** KSC-Y32K

**List Price:** \$130.00

**Name:** CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T

**Compatible With:** VP6000,VP5000

**Details:** Single Unit Intelligent tri-chemical rapid rate charger. Microprocessor controlled to prevent over-charging. Interchangeable adapter pods allow charging of a variety of battery models. Highly durable construction



**P/N:** KVC-15

**List Price:** \$162.00

**Name:** VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** The KVC-15 is a rapid rate vehicular charger adapter for the KSC-32 charger base, to adapt use of a Kenwood single pocket desk charger for vehicular use powered from a conventional 12V DC vehicle accessory socket or cigarette lighter socket. The KVC-15 is comprised of a steel mounting base & adjustable locking bracket to hold the charger, and a matching DC cable with a fused cigarette lighter plug. The KVC-15 is intended for under-dash, wall, or floor mounting, in a weather protected location in a vehicle, preferably in the cab or in an enclosed work or cargo space. This device is not intended for unprotected operation in wet locations. This unit is designed for 12V DC operation, only.



**P/N:** KVC-23

**List Price:** \$307.00

**Name:** VEHICULAR CHARGER, VP-T

**Compatible With:** VP6000,VP5000

**Details:** The KVC-23 has a rugged, heavy-duty design ideal for the demanding public safety and industrial sectors which require the charging of portables in the field during long shifts, in remote locations and during times of mass power outages. The KVC-23 Vehicular Charger includes an adjustable-angle steel bracket, D.C. power, ignition sense, and vehicular repeater control leads. 1. Three dedicated LED Status Indicator (Red : Charging, Green : Full, Repeater ON : Yellow)2. Operates in 12V vehicle power systems3. Overcharge protection prevents against reduced battery pack life caused by excessive charging4. Easy to use design allows charging to start by simply sliding the radio or battery into the charger slot5. Easily customized to support a variety of Kenwood radio types, batteries and customer options6. Easily accessible Repeater ON/OFF control button

## Portable Antennas



**P/N:** 5010017101

**List Price:** \$30.00

**Name:** ANTENNA VHF 136-151 MHZ HELICAL(YELLOW CORE),VP-H

**Compatible With:** VP400/600/900

**Details:** Single band VHF antenna. Works for both Viking & ES models



**P/N:** 5010017107

**List Price:** \$30.00

**Name:** ANTENNA UHF 403-512 MHZ ,1/4 WAVE WHIP SMA, VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking & ES models



**P/N:** 5010017110

**List Price:** \$45.00

**Name:** WIDE BAND VHF 136-174 MHz, MP ANTENNA

**Compatible With:** VP400/600/900

**Details:** Single band VHF antenna. Works for both Viking & ES models



**P/N:** 5010105012

**List Price:** \$30.00

**Name:** ANTENNA 800 MHz, 1/4 WAVE, WHIP, PORTABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and 5100 ES



**P/N:** 5010105013

**List Price:** \$30.00

**Name:** ANTENNA 800 MHz HALF-WAVE WHIP(REDCORE), VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and ES



**P/N:** 5010105073

**List Price:** \$30.00

**Name:** ANTENNA 7/800MHZ ,1/2 WAVE WHIP(GREEN CORE),VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and ES



**P/N:** 5010900300

**List Price:** \$105.00

**Name:** ANTENNA 7/800/VHF/GPS MULTIBAND FLEXIBLE, VP-H

**Compatible With:** VP400/600/900

**Details:** ANTENNA, MULTIBAND 7/800/VHF/GPS, FLEXIBLE, VP9xx  
Electrical Specifications  
Frequency: 136-174 / 763-869 / 1575.42 MHz  
Gain (by band): > -10 dBi / -3 Typical dBi / -3 Peak dBi  
VSWR: 3.2:1 Max  
Connector Type: SMA(F)  
Polarization: Linear, Vertical  
Impedance 50 Ohm  
Power Max: 6 Watt minimum  
Mechanical Specifications  
Operating Temperature -30°C to 63°C MIL-STD-810G, Methods 501.5 & 502.5, Procedure II  
Storage Temperature -40°C to 71°C MIL-STD-810G, Methods 501.5 & 502.5, Procedure I  
Immersion: 2 Meters 30 minutes MIL-STD-810G, Methods 512.5, Procedure I  
Antenna Weight: 1.5 oz maximum  
Antenna Flexibility: +/- 180°, 500 Cycles  
Length: 8.325 inches nominal (211 mm), 8.5 inches max (216 mm)



**P/N:** 5010900400

**List Price:** \$70.00

**Name:** ANTENNA 7/800/VHF MULTIBAND, GPS, WHITE CORE, VP-H

**Compatible With:** VP400/600/900

**Details:** ANTENNA, MULTIBAND, 700-800/VHF, GPS, LOGO, WHITE CORE  
Electrical Specifications  
Frequency Bands: 136-174 MHz / 762-870 MHz / 1573-1577 MHz  
Return Loss Typical by band: -3dB Max / -6dB Max / -6dB Max  
Gain Peak Typical -7 dBi / 0 dBi / -1 dBi  
Connector Type SMA(F)  
Polarization Linear, Vertical  
Impedance 50 Ohm  
Power (Maximum) 10 Watt  
Mechanical Specifications  
Operating Temperature -30°C to 70°C  
Storage Temperature -40°C to 85°C  
Environmental Conditions Indoor / Outdoor  
Antenna Weight 40g maximum  
Antenna Flexibility: +/- 70°, 720 cycles  
Length: 8.2 inches (208mm)



**P/N:** KRA-22M

**List Price:** \$16.67

**Name:** ANTENNA VHF 148-162 MHz LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000, VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-22M2

**List Price:** \$16.67

**Name:** ANTENNA VHF 162-174 MHz LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000, VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-22M3

**List Price:** \$16.67

**Name:** ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M

**List Price:** \$16.67

**Name:** ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M2

**List Price:** \$16.67

**Name:** ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M3

**List Price:** \$16.67

**Name:** ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-25

**List Price:** \$35.00

**Name:** ANTENNA VHF 148-162 MZ, WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is HIGH GAIN VHF HELICALLY LOADED VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M

**List Price:** \$16.67

**Name:** ANTENNA VHF 146-162 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M2

**List Price:** \$16.67

**Name:** ANTENNA VHF 162-174 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M3

**List Price:** \$16.67

**Name:** ANTENNA VHF 136-150 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M

**List Price:** \$16.67

**Name:** ANTENNA UHF 440-490 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M2

**List Price:** \$16.67

**Name:** ANTENNA UHF 470-520 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M3

**List Price:** \$16.67

**Name:** ANTENNA UHF 400-450 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-28

**List Price:** \$43.00

**Name:** ANTENNA VHF 140-170 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is BROAD-BAND HELIC LOADED VHF whip long profile, wide band coverage antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-29

**List Price:** \$38.00

**Name:** ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is BROAD BAND VHF whip long profile, wide band coverage antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-32K

**List Price:** \$36.00

**Name:** ANTENNA 700/800 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is 700/800 Whip antenna. Works with VP5000/6000 and almost all of current Kenwood products.



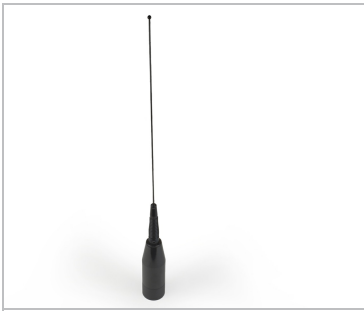
**P/N:** KRA-36

**List Price:** \$26.00

**Name:** ANTENNA 700/800 MHZ STUB, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is 700/800 Stubby antenna. Works with VP5000/6000 and almost all of current Kenwood products.



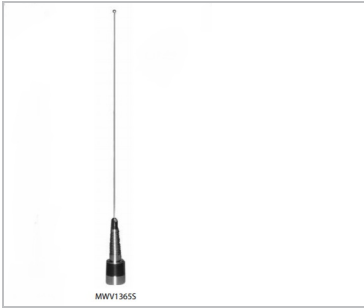
**P/N:** 5010012060

**List Price:** \$315.00

**Name:** ANTENNA 136-960MHZ, WHIP, W/O BASE, TNC-MA, VM-H

**Compatible With:** VM600/900 (VCH), VM400/600/900 (SCH)

**Details:** "Wide Spectrum Multiband Antenna. IP67 compliant design, when installed on the roof or trunk of a vehicle. No tune, multiband coverage of full spectrum VHF, TETRA/UHF and 700/800/900 MHz frequencies"



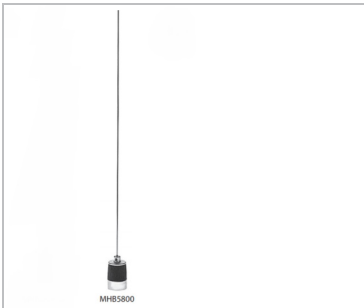
**P/N:** 836VRA10

**List Price:** \$100.00

**Name:** ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T

**Compatible With:** VM7000, VM6000, VM5000

**Details:** ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T These PCTEL antennas address equipment inter-operability challenges by providing superior bandwidth coverage without sacrificing antenna performance. Features • 136-174 MHz. • no tune design for seamless operation and installation ease across multiple frequency bands. • Rugged stainless steel spring and wideband tube assembly for maximum durability and shock absorption. • Thick-wall housing, double-sealed for maximum weatherproofing • Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts.



**P/N:** 836VRA11

**List Price:** \$80.00

**Name:** ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T

**Compatible With:**

**Details:** ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T These 5/8 Wave antennas utilize a chrome coil design with the enhancement of a heavy-duty tapered rod for maximum durability in tough environments. Features • Frequency Range 144-174 MHz. • The matching coil is supported by a low loss coil for superior performance in heavy duty applications. • The tapered coil housing design enhances appearance and prevents moisture from entering the load. • Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts.



**P/N:** 836VRA12

**List Price:** \$280.00

**Name:** ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T

**Compatible With:**

**Details:** ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T The patent-pending WPD136M6C-001 multi-band mobile antenna is a commercial, heavy-duty vehicular antenna. It has an omnidirectional pattern and is vertically polarized with a 50 ohm match. It also has excellent quality & RF performance, and is specifically designed as a full spectrum public safety voice & data communications antenna.





**P/N:** BB3803WS

**List Price:** \$120.00

**Name:** ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP

**Compatible With:** VM7000,VM6000,VM5000

**Details:** ANTENNA, MOBILE, UHF 380-420 MHZ, 3DBI WHIP \*NMO Mount - requires mounting base for installation\*Frequency Range 380-520 MHZ



**P/N:** KRA-40GM

**List Price:** \$43.00

**Name:** GPS ANTENNA, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:**

## Mobile Antenna Kits



**P/N:** 5010012011

**List Price:** \$90.00

**Name:** ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA KIT, MOBILE MAGNETIC MOUNT.



**P/N:** 5010012020

**List Price:** \$85.00

**Name:** ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA KIT 760-870 MHz LO-PROFILE BLACK BMLPV700. Designed for overhead clearance.Kit contains:\* Antenna: MAXRAD 740-870 MHz Low Profile Vertical 2 dB gain\* Brass 3/4" hole mount with 17' ML195 Cable (unterminated)\* N-type ConnectorCompatible with the 700/800 Mhz models of VMx00 and VM5000/6000/7000 mobile radios.



**List Price:** \$80.00

**P/N:** 5010012021

**Name:** ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** 760-870 MHz whip antenna (3db) mobile kit, through hole, roof mount.Kit includes:\* Mobile Antenna\* 3/4" hole Brass Mount with 17' RG8X cable (unterminated)\* N-type Male connector (Solder pin, clamp-on braid)\* Allen key and gasket partsCompatible with the 700/800 Mhz models of VMx00 and VM5000/6000/7000 mobile radios.



**List Price:** \$80.00

**P/N:** 5010012037

**Name:** ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA BASE,HOLE MOUNT,17FT,RG8X CBL,N-MALE NMO. Corrosion Resistant, Eliminates RF noise or static



**List Price:** \$220.00

**P/N:** 5010012070

**Name:** ANTENNA BASE,MAG MOUNT,15 FT,TNC-MALE, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** "BASE,ANTENNA,MOBILE,MAG,15 FT CABLE,TNC- DUAL BAND BASE,ANTENNA,MOBILE,MAG,15 FT CABLE,TNC-FEMALE "



**List Price:** \$105.00

**P/N:** G8PI

**Name:** MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI

**Compatible With:** VM7000,VM6000,VM5000

**Details:** This mount is compatible with Viking VMx000 series radio models in the VHF and UHF bands which have an PL259 UHF-Style female connector. This includes models: VM5730BF VM5000 136-174 MHz VHF VM5830BF VM5000 450-520 MHz UHF Hi VM5830BF2 VM5000 380-470 MHz UHF Lo VM6730BF VM6000 136-174 MHz VHF VM6830BF VM6000 450-520 MHz UHF Hi VM6830BF2 VM6000 380-470 MHz UHF Lo VM7630HBF-x VM7000 39-50 MHz Low Band (Hi Power 110W) VM7730HBF-x VM7000 136-174 MHz VHF (Hi Power 110W) VM7730BF-x VM7000 136-174 MHz VHF VM7830BF-x VM7000 450-520 MHz UHF Hi VM7830BF2-P VM7000 380-470 MHz UHF Lo The GR8PI magnetic antenna mount is a mobile antenna mount that offers removability. No drilling into the vehicle is required for installation making the location of the magnetic mount easy to adjust. The vehicle antenna mount thread size is 1-1/8 inch - 18. A rubber boot is included to prevent damage to your vehicle. The chrome-plated NMO mount includes 12 feet of RG58A/U cable. A PL259 connector is installed. The Laird chrome vehicle magnet mount is designed for use with NMO mount mobile antennas up to 1000 MHz. \* Frequency range 0-1000 MHz\* Magnetic Mount Base\* 12' Cable RG-58A/U\* PL259 UHF-type female connector\* Compatible with standard NMO mount antennas. Antenna not included.



**P/N:** G8XNI

**List Price:** \$115.00

**Name:** MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** This mount is compatible with Viking VMx000 series radio models in the 700/800 MHz band which have an N-Style female connector, this includes models: VM7930BF-x VM6930BFVM5930BF Also, compatible with the VM900/VM600 series of radios. The G8XNI magnetic antenna mount is a mobile antenna mount that offers removability. No drilling into the vehicle is required for installation making the location of the magnetic mount easy to adjust. The vehicle antenna mount thread size is 1-1/8 inch - 18. The chrome NMO mount includes 12 feet of RG8X cable. An N male crimp style connector is installed. This chrome vehicle magnet mount is designed for use with mobile antennas within 27-1000 MHz \* 27-1000 MHz\* Magnet Mount base\* 12'cable\* N-type Male connector \* Compatible with standard NMO mount antennas. Antenna not included.

## Mobile Antenna Accs



**P/N:** 000-14000

**List Price:** \$150.00

**Name:** CONN, ADAPT, N JACK TO UHF PLUG, 000-14000

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH)

**Details:** Adapter Connector with an N-type male jack to PL289 UHF female plug. May be used with the VMx00 series and the VMx000 series 7/800 mobiles to adapt to PL289 UHF style connections like on the VMx000 UHF and VHF mobiles. Amphenol part number 000-14000



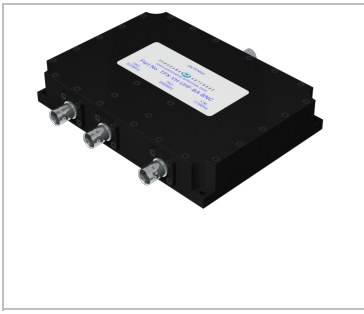
**P/N:** 000-34125

**List Price:** \$140.00

**Name:** CONN, ADAPT, UHF JACK TO N PLUG, 000-34125

**Compatible With:** VM7000,VM6000,VM5000

**Details:** Adapter Connector for UHF Jack (Male) to N-Type Female (Plug) Amphenol P/N 000-34125 May be used to adapt from the PL-289 connector on the back of UHF and VHF VMx000 radios to an N-Type connector on the antenna cable.



**List Price:** \$525.00

**P/N:** 8361125006

**Name:** TRIPLEXER, MOBILE, VHF UHF 7/800, PANORAMA

**Compatible With:** VM7000

**Details:** Triplexer TPX-VH-UHF-BA-TNC from Panorama Antennas can split the signal from a tri-band antenna to three separate radios, such as a VM7000 tri-deck configuration. The Triplexer is also bidirectional, and can also combine the signals from three antennas to a single wideband input. There is no need for switching or matching as the TPX-VH-UHF-BA-TNC will automatically split or combine UHF and VHF to route them to their separate radios. The compact unit requires no power cables and can easily be installed in the roof lining of any vehicle or mounted next to the radio. The TPX-VH-UHF-BA-TNC is ideal for tri-band multifrequency installations. For use with multi-band antennas 5010012060 or 836VRA12 for VM7000 tri-deck configurations where a single antenna is desired for the application. Equipped with 4 TNC-female (socket) connections, with identification of frequency ranges marked. Not for use with VM7000 Hi-power RF decks. Complete rejection of certain specific harmonics of Tx channels to prevent Rx desense to other bands is not guaranteed, depending on channel configuration and the exact frequencies in use. These limited cases may result in missed receptions or temporary loss of control channel on other decks.

## Carry Cases



**List Price:** \$65.00

**P/N:** 5084600609

**Name:** LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, leather belt flap, rings for shoulder strap attachment, and an elastic retaining cord. Designed to fit the Model 1. Designed to fit the VP600/900.



**List Price:** \$70.00

**P/N:** 5084600610

**Name:** LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, detachable swivel belt loop, and an elastic retaining cord. Designed to fit the Model 1. Designed to fit the VP600/900.



**List Price:** \$70.00

**P/N:** 5084600611

**Name:** LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, leather belt flap, rings for shoulder strap attachment, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$70.00**

**P/N:** 5084600612

**Name:** LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$60.00**

**P/N:** 5084600652

**Name:** NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** 1000-denier nylon, an impact absorbing firm foam to hold its shape, stainless steel rivets and nickel-plated brass snaps, a detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$60.00**

**P/N:** 5084600655

**Name:** NYLON CASE, BELT LOOP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** 1000-denier nylon, an impact absorbing firm foam to hold its shape, stainless steel rivets and nickel-plated brass snaps, a detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$45.00**

**P/N:** KLH-200K3

**Name:** LEATHER CASE, L2 & L3 MODEL, VP5000

**Compatible With:** VP5000

**Details:** Works with this swivel belt loop: KLH-6SW.



**List Price: \$27.00**

**P/N:** KLH-201K3

**Name:** NYLON CASE, L2 & L3 MODEL, VP5000

**Compatible With:** VP5000

**Details:** Works with this swivel belt loop: KLH-6SW.



**P/N:** R50843LF2001

**List Price:** \$70.00

**Name:** LEATHER CASE FIRE L2, VP6000

**Compatible With:**

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. This case includes Metal D-rings, with the ability to accept an optional shoulder strap. Includes a one-snap release leather retaining strap for secure hold.



**P/N:** R50843LF3001

**List Price:** \$70.00

**Name:** LEATHER CASE FIRE L3, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with a high abrasion resistant finish, stainless steel rivets, nickel plated brass snaps, metal D-rings, for a shoulder strap, and a one-snap release leather retaining strap. Designed to fit the L3 battery and also L2 battery with spacer.



**P/N:** R50843LP2001

**List Price:** \$70.00

**Name:** LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. It Includes a one-snap release leather-retaining strap. Works with L2 size battery. D-Swivel male post. May be matched with a belt loop, with options being: R50840000L30 - Leather 3 inch Belt Loop R50840000L20 - Leather 2 inch Belt loop R50840000S40 - Leather 4.25 inch Slot Belt Loop



**P/N:** R50843LP3001

**List Price:** \$70.00

**Name:** LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. It Includes a one-snap release leather-retaining strap for secure hold. Designed to fit the L3 battery and also L2 battery with spacer. May be matched with a belt loop, with options being: R50840000L30 - Leather 3 inch Belt Loop R50840000L20 - Leather 2 inch Belt loop R50840000S40 - Leather 4.25 inch Slot Belt Loop



**P/N:** R50843NP2001

**List Price:** \$70.00

**Name:** NYLON CASE POLICE, L2 MODEL, VP6000

**Compatible With:** VP6000

**Details:** Specially designed tightly woven 1000 denier nylon for high abrasion resistance, stainless steel rivets and nickel plated brass snaps. Includes a one-snap release leather retaining strap.



**P/N:** R50843NP3001

**List Price:** \$70.00

**Name:** NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Specially designed tightly woven 1000 denier nylon for high abrasion resistance, stainless steel rivets and nickel plated brass snaps. Includes a one-snap release leather retaining strap. Designed to fit the L3 battery and also L2 battery with spacer. Compatible with belt loop part number R50840000N20.

## Belt Loop and Straps



**P/N:** 5084600100

**List Price:** \$65.00

**Name:** SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-HVP-T

**Compatible With:** VP6000,VP400/600/900

**Details:** Top grain leather, 1 3/36 inches wide adjustable from approximately 52 to 60 inches long. It has multiple length settings and a forged belt buckle.



**P/N:** 5084600612-AR

**List Price:** \$12.00

**Name:** TOP RESTRAINING STRAP REPLACEMENT, CASE 5084600612

**Compatible With:** VP400/600/900

**Details:** Elastic top restraining strap replacement for the VP900 leather carrying case #508460061.



**P/N:** 585510015101

**List Price:** \$40.00

**Name:** BELT LOOP LEATHER, W/D-SWIVEL, 3", VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain high abrasion leather belt loop is designed to fit belts up to 3 inches wide. Leather reinforcements, stainless steel rivets and an all metal swivel receptacle. Comes with case mounting bracket.





**P/N:** KBH-8DS

**List Price:** \$27.00

**Name:** BELT LOOP LEATHER WITH PORTABLE D RING, VP5000

**Compatible With:** VP5000

**Details:** Attached to VP5000 Radio Directly. Attached to the radio directly to swivel



**P/N:** KLH-137ST

**List Price:** \$38.00

**Name:** SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000

**Compatible With:** VP5000

**Details:**



**P/N:** KLH-6SW

**List Price:** \$23.00

**Name:** BELT LOOP LEATHER /DETACHABLE SWIVEL D-RING,VP5000

**Compatible With:** VP5000

**Details:** Used for KLH leather Cases(KLH-200K3) to Swivel.



**P/N:** R5084000003

**List Price:** \$12.00

**Name:** LEATHER RETAINING STRAP, VP6000

**Compatible With:** VP6000

**Details:** This all leather retaining strap was designed for one-snap release with the ability to hold the unit securely, and have long life. Made with 4 ounce (1/16 inch) top grain leather, nickel plated brass snaps, and stainless steel rivets.



**P/N:** R5084000004

**List Price:** \$12.00

**Name:** RETAINING STRAP, PS MIC- KMC 49, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This all leather retaining strap was designed for use with the KMC-49 speaker mic, to hold the unit securely, and have long life. Made with 4 ounce (1/16 inch) top grain leather, nickel plated brass snaps, and stainless steel rivets. Remove the regular strap from the VP6000 cases and insert this strap for use with KMC-49 mic.





**P/N:** R50840000L20

**List Price:** \$25.00

**Name:** BELT LOOP LEATHER, 2", VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 2 inches wide. It measures approximately 3 and 5/8 inches tall and 2 and 7/16 inches wide.



**P/N:** R50840000L30

**List Price:** \$25.00

**Name:** BELT LOOP LEATHER, 3", VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 3 inches wide. It measures approximately 4 and 1/2 inches tall and 2 and 3/4 inches wide.



**P/N:** R50840000N20

**List Price:** \$25.00

**Name:** BELT LOOP, NYLON 2", VP6000

**Compatible With:** VP6000

**Details:** This heavy duty nylon web belt loop is designed to fit belts up to 2 and 1/2 inches wide. It measures approximately 3 and 5/8 inches tall and 2 inches wide. Compatible with nylon case R50843NP3001.



**P/N:** R50840000S40

**List Price:** \$25.00

**Name:** BELT LOOP, LEATHER 4.25" SLOT , VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 2 inches wide. It measures approximately 3 inches tall and 4 and 1/2 inches wide.



**P/N:** R50840000SS0

**List Price:** \$100.00

**Name:** SHOULDER STRAP, VP-H/VP-T

**Compatible With:** VP6000, VP5000, VP400/600/900

**Details:** Boston leather (English Bridle) leather, 1 1/4 inches wide adjustable from approximately 67 to 75 inches long. It has multiple length settings, 2 swiveling cross holding snap hooks, and 2 microphone holding loops for a high degree adjustability.



**P/N:** R50841000003

**List Price:** \$12.00

**Name:** LEATHER RETAINING STRAP VP600/900

**Compatible With:** VP400/600/900

**Details:** LEATHER RETAINING STRAP VP600/900

## Belts



**P/N:** R50840000AS0

**List Price:** \$20.00

**Name:** ANTI SWAY BELT, VP-H/VP-T

**Compatible With:** VP6000,VP5000,VP400/600/900

**Details:** Boston leather (English Bridle) leather for ultimate comfort and long life. Designed to increase unit stability, it measures approximately 11, 1/2 inches long and 1 inch wide.



**P/N:** R50840000UB0

**List Price:** \$75.00

**Name:** UTILITY BELT, VP-H/VP-T

**Compatible With:** VP6000,VP5000,VP400/600/900

**Details:** Boston Leather (English Bridle) leather for ultimate comfort and long life. It has multiple length settings and a forged belt buckle.

## Belt Clips and Brackets



**P/N:** 5855100600

**List Price:** \$15.00

**Name:** BELT CLIP 2.25" SPRING LOADED, VP-H

**Compatible With:** VP400/600/900

**Details:** Removable portable belt clip



**P/N:** KBH-11

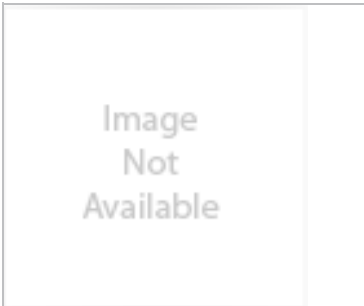
**List Price:** \$15.00

**Name:** BELT CLIP 2.5" SPRING ACTION, VP-T

**Compatible With:** VP6000,VP5000

**Details:**

## Mobile Accessories



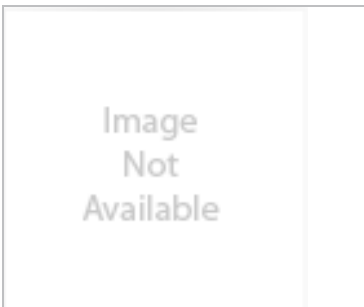
**P/N:** 2500600016

**List Price:** \$535.00

**Name:** DASH TO REMOTE CONVERSION KIT - EXISTING VCH

**Compatible With:** VM600/900 (VCH)

**Details:** DASH TO REMOTE CONVERSION KIT - EXISTING VCH



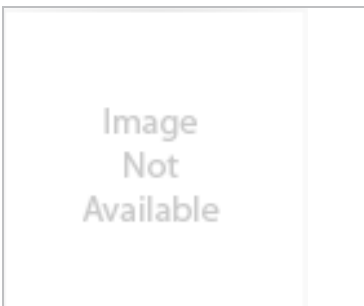
**P/N:** 2505300003

**List Price:** \$650.00

**Name:** KIT, ADD REMOTE TO DASH, SCH,VM-H

**Compatible With:**

**Details:**



**P/N:** 2505300012

**List Price:** \$535.00

**Name:** KIT, CONVERT DASH TO REMOTE,VM-H

**Compatible With:**

**Details:** This kit is needed to add a second control head. It can be SCH or VCH.



**P/N:** 2515000007

**List Price:** \$400.00

**Name:** GPS MODULE AND LMR-GPS ANTENNA MOUNT

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** GPS MODULE AND LMR-GPS ANTENNA MOUNT. This also Requires 8325000003 GPS Software option.



**List Price:** \$40.00

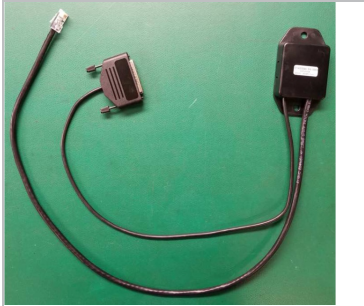
**P/N:** 5975357792

**Name:** Y CABLE, FIRECOM INTEGRATION, VM-H

**Compatible With:** VP400/600/900

**Details:** DB15 MALE TO 2 DB15 FEMALES JOYSTICK SHARING CABLE.

004FIRECOM5000D100: This is the part number of Firecom intercom installation manual. If an installation requires single or dual remote control heads along with Firecom's Intercom, then a Y cable is required. The male end of the cable connects to a remote control head DB15 female port in the back of the radio, and the two female DB15 connectors of the Y cable are used for the remote control heads and the intercom.



**List Price:** \$170.00

**P/N:** 835VMSIB

**Name:** SERIAL INTERFACE BOX RS232-RS485 VM-T

**Compatible With:** VM6000,VM5000

**Details:** UART(RS232) to RS485 converter. Intended for VM-T series radio to interface to a Smart Siren Platinum model SSP2000B



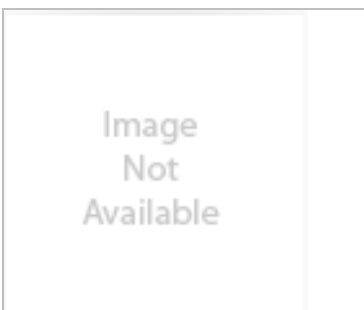
**List Price:** \$12.00

**P/N:** 8360600156

**Name:** MICRO USB MALE TO USB FEMALE ADAPTER CABLE

**Compatible With:** VM7000,VM6000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Requires when OTIP is ordered. Works on all mobile with exception of VM5000 dash mount



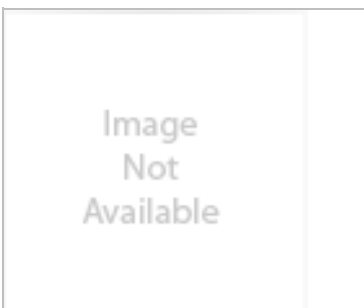
**List Price:** \$165.00

**P/N:** 836VMB10

**Name:** MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000

**Compatible With:** VM7000

**Details:** MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000



**List Price:** \$550.00

**P/N:** EH-30

**Name:** VM7000 DC POWER SUPPLY

**Compatible With:** VM7000

**Details:** DC power supply to be used with VM7000 in a multideck configuration operating as a control station. For single deck a KPS-15 is sufficient.



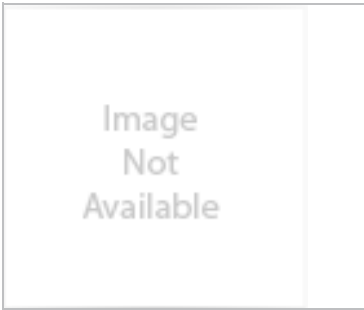
**P/N:** KCH-21RVM

**List Price:** \$995.00

**Name:** VIKING HAND HELD CONTROLLER BODY

**Compatible With:**

**Details:** The Viking Handheld Control Head (KCH-21) is a full featured control head to work with the Viking VM6000 Mobile and VM7000 Multideck Mobile Radios. Handheld design allows one-handed operation of PTT, volume, and channel selection. Requires the Control Head Remote Kit KRK-17BF for the mobile radio and the KCT-77M2 remote control head cable.



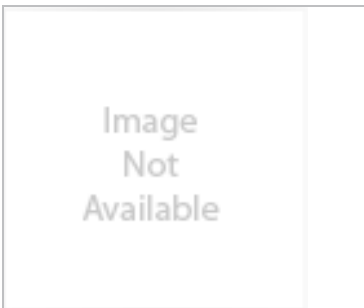
**P/N:** KCT-71M2

**List Price:** \$72.00

**Name:** REMOTE CONTROL CABLE (17 FEET)

**Compatible With:**

**Details:** REMOTE CONTROL CABLE (17 FEET)FOR TK-5X30 SERIES MOBILE RADIOS



**P/N:** KPS-15

**List Price:** \$177.00

**Name:** DC SWITCHG P/S 117/230 VAC; Power Supply

**Compatible With:** VM7000,VM6000,VM5000

**Details:** DC SWITCHG P/S 117/230 VAC; 23A MAX CONT, 25A PEAK



**P/N:** R597535774401

**List Price:** \$536.00

**Name:** CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD

**Compatible With:** VM600/900 (VCH)

**Details:** CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD



**List Price:** \$2,500.00

**P/N:** SSP2000B

**Name:** FEDERAL SIGNAL BOX, VM-T

**Compatible With:**

**Details:** FEDERAL SIGNAL BOX, VM-T THE SSP2000B IS A PROGRAMMABLE SIREN/LIGHT CONTROLLER WITH A REMOTE-MOUNT AMPLIFIER AND NOISE CANCELLING MICROPHONE. THE SSP2000B IS COMPATIBLE WITH THE FS CONVERGENCE NETWORK FEATURES: WAIL, YELP, HI/LO AND PRIORITY TONES PUBLIC ADDRESS AND AIR HORN. FOUR PORTS FOR SERIAL COMMUNICATION DEVICES. PROGRAMMING CAN BE DONE OUTSIDE THE VEHICLE WITHOUT THE AMPLIFIER. ELEVEN SOLID STATE AUXILIARY RELAYS. PROGRAMMABLE INPUT CIRCUITS (6 ON AMPLIFIER) 100 WATTS. To connect it with VM-T radios buy 835VMSIB together with this equipment.



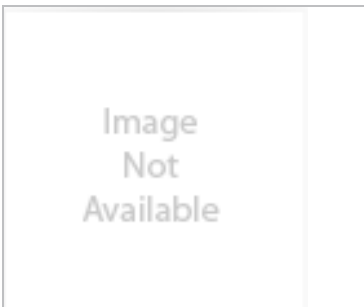
**List Price:** \$750.00

**P/N:** UPORT 404

**Name:** USB HUB, VM7000

**Compatible With:**

**Details:** USB HUB, VM7000 This is a USB HUB for VM7000. It can connect all four decks in single go for programming. Hi-Speed USB 2.0 hubs for up to 480 Mbps USB transmission. USB-IF certification. Dual power inputs (power jack and terminal block) 15 kV ESD Level 4 protection for all USB ports. Rugged metal housing. DIN-Rail and wall mountable. Comprehensive diagnostic LEDs. Choose bus power or external power (UPort 404). The UPort™ 404 are industrial-grade USB 2.0 hubs that expand 1 USB port into 4. The hub is designed to provide true USB 2.0 Hi-Speed 480 Mbps data transmission through each port, even for heavy-load applications. USB-IF certified and fully compliant with the USB Plug & Play specification, the UPort™ 404 USB hub provide a full 500 mA of power per port to ensure that your USB devices will function properly. Support for 12-40 VDC power also makes these USB hubs ideal for mobile applications.



**List Price:** \$85.00

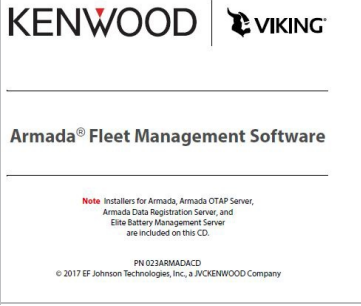
**P/N:** USB433WACDB

**Name:** DONGLE WI-FI, VM-T AND VM-H

**Compatible With:** VM7000, VM6000, VM5000, VM600/900 (VCH)

**Details:** DONGLE WI-FI, VM-T AND VM-H

**Programming/Manual**



**P/N:** 023ARMADACD

**List Price:** \$350.00

**Name:** VIKING ARMADA CD WITH OTIP/DRS/EBM SW

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 023VKFWCD

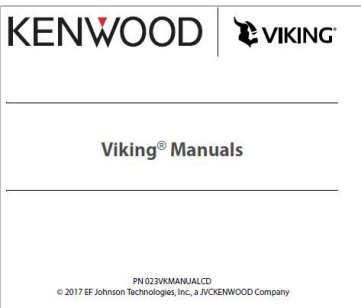
**List Price:** \$500.00

**Name:** VIKING FIRMWARE CD

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 023VKMANUALCD

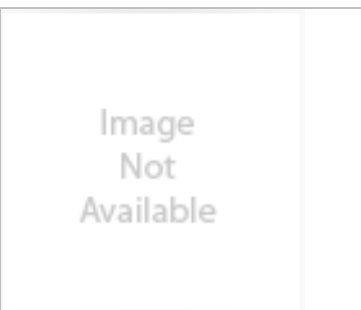
**List Price:** \$400.00

**Name:** VIKING MANUAL CD

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 2505000972

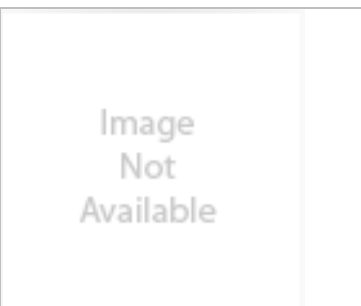
**List Price:** \$250.00

**Name:** VIKING RADIO SECURITY DEVICE - MASTER

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** VIKING RADIO SECURITY DEVICE - MASTER



**P/N:** 2505000974

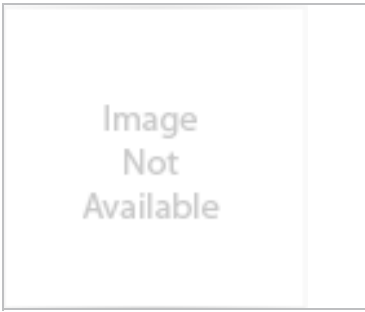
**List Price:** \$175.00

**Name:** VIKING RADIO SECURITY DEVICE - SLAVE

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** VIKING RADIO SECURITY DEVICE - SLAVE



**P/N:** 2990045094

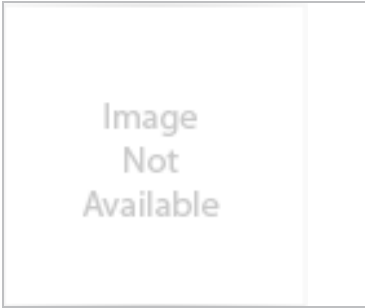
**List Price:** \$500.00

**Name:** ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 5970600970

**List Price:** \$245.00

**Name:** PROGRAMMING CABLE, USB, VP-H

**Compatible With:** VP400/600/900

**Details:**



**P/N:** KPG-36XM

**List Price:** \$162.00

**Name:** PROGRAMMING CABLE, USB, VP-T

**Compatible With:** VP6000,VP5000

**Details:**



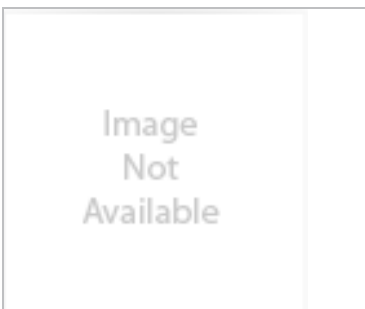
**P/N:** KPG-46XM

**List Price:** \$162.00

**Name:** PROGRAMMING CABLE, VM5000 KCH-19

**Compatible With:** VM5000

**Details:** The KPG-46XM programming cable interfaces to your VM5000 through the KCH-19 Control Head in dash mount configurations.



**P/N:** R5975357791

**List Price:** \$30.00

**Name:** PROGRAMMING CABLE, USB, VM-T RM AND VM-H

**Compatible With:** VM7000,VM6000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** USB Programming cable for Viking Series Mobile radios with Remote Mount control heads.Can be used withVM5000 with KCH-19 remote mount control headVM6000 with VCH remote mount control headVM6000 with KCH-21 hand held controllerVM7000 with KCH-20 remote mount control headVM7000 with KCH-21 hand held controllerAlso compatible with legacy VMx00 series radios with VCH or SCH control heads.





**List Price:** \$35.00

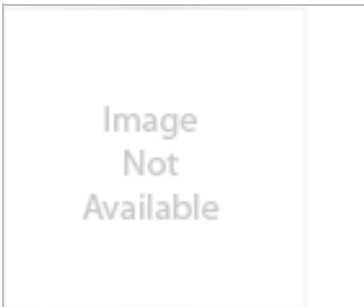
**P/N:** U026-016

**Name:** PROGRAMMING CABLE, 16-FEET USB, VM-T RM AND VM-H

**Compatible With:**

**Details:** PROGRAMMING CABLE, 16-FEET USB, VM-T RM AND VM-H 16 foot USB 2.0 Type A Male to Female Active Extension Cable extends a USB signal Supports data transfer rates up to 480 Mbps Premium double-shielded cables with tinned copper braid and aluminum mylar foil feature twisted 28/22 AWG data/power lines Gold-plated connectors with gold-plated copper contacts assure positive connectivity Regenerates USB signal for extra-long distances: daisy-chain up to 5 to extend the signal up to 80 feet

## Encryption Accessories



**List Price:** \$400.00

**P/N:** 0235000940

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect VK5000 keyloader kit to the VP X00 side port



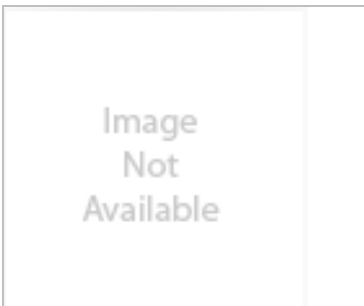
**List Price:** \$400.00

**P/N:** 023500095001

**Name:** VK5000 VOICE AND AUTH KEY CABLE, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Cable required to connect VK5000 keyloader kit to the Standard Control head. Availability Note: this cable has limited inventory remaining, and is discontinued. Once inventory is depleted, this cable will no longer be offered. Caution: If order quantity exceeds inventory, the quantity will be limited to what is remaining or else the line cancelled.



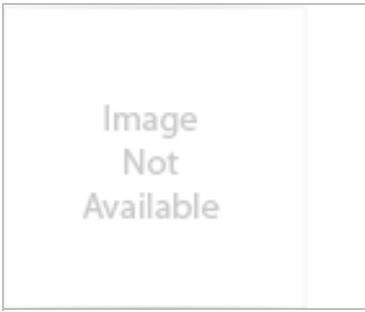
**List Price:** \$400.00

**P/N:** 023500095003

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VCH

**Compatible With:** VM6000, VM600/900 (VCH)

**Details:** Cable required to connect VK5000 keyloader kit to the Viking Control head



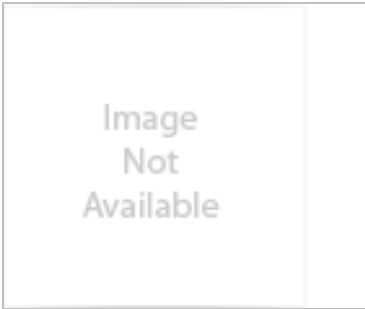
**P/N:** 023500095004

**List Price:** \$400.00

**Name:** VK5000 VOICE AND AUTH KEY CABLE, KCH

**Compatible With:** VM7000,VM5000

**Details:** Cable required to connect VK5000 keyloader kit to the KCH 19, KCH-21 or KCH 20



**P/N:** 023500095005

**List Price:** \$400.00

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect VK5000 keyloader kit to the VP X000 side port



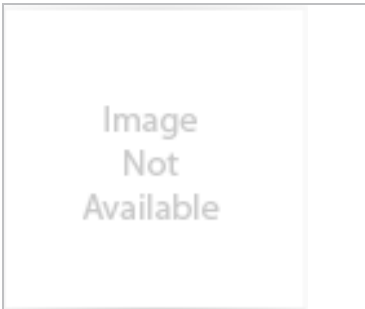
**P/N:** 250SK5000

**List Price:** \$2,400.00

**Name:** VK5000S SONIM KEYLOADER KIT

**Compatible With:**

**Details:** VK5000S SONIM KEYLOADER KIT



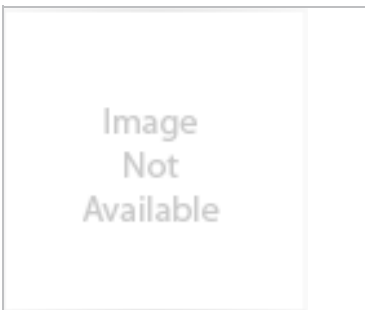
**P/N:** 5855000932

**List Price:** \$275.00

**Name:** KVL4000 VOICE KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect KVL4000 keyloader to theVPX00 sideport for voice keyloading



**P/N:** 5855000938

**List Price:** \$300.00

**Name:** KVL4000 VOICE KEY CABLE, VM-H-SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Cable required to connect KVL4000 keyloader kit to the Standard Control head for voice keyloading. For authentication keyloading, use an off-the-shelf DB9 cable for VMX00

Image  
Not  
Available

**P/N:** 585500094001

**List Price:** \$300.00

**Name:** KVL4000 VOICE KEY CABLE, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Cable required to connect KVL4000 keyloader to the Viking Control head for voice keyloading. For authentication keyloading, use an off-the-shelf DB9 cable for VMX00 and off-the-shelf DB25-DB9 cable for VMX000



**P/N:** KPG-115

**List Price:** \$268.00

**Name:** KVL4000 VOICE KEY CABLE, VM-T-KCH

**Compatible With:** VM7000,VM5000

**Details:** Cable required to connect KVL4000 keyloader to the KCH-19, KCH-21 or KCH-20 for voice keyloading. For authentication keyloading, use an off-the-shelf DB25-DB9 cable for VMX000

Image  
Not  
Available

**P/N:** KPG-115AUT

**List Price:** \$337.00

**Name:** KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)

**Compatible With:**

**Details:** KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)

Image  
Not  
Available

**P/N:** KPG-93

**List Price:** \$268.00

**Name:** KVL4000 VOICE KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect KVL3000/4000/5000 keyloader to the VPX000 sideport for voice keyloading of DES/AES.

Image  
Not  
Available

**P/N:** KPG-93AUT

**List Price:** \$337.00

**Name:** KVL4000 AUTH KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect KVL4000 keyloader to theVPX000 sideport for authentication keyloading

Image  
Not  
Available

**P/N:** KWD-AE30K

**List Price:** \$867.00

**Name:** AES FIPS140-2 DES ENCRYPTION MODULE (MULTI-KEY)

**Compatible With:**

**Details:** AES FIPS140-2 & DES ENCRYPTION MODULE (MULTI-KEY) FOR VP-5x30 SERIES RADIOS

Image  
Not  
Available

**P/N:** R597570006701

**List Price:** \$300.00

**Name:** KVL4000 AUTH KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect KVL4000 keyloader to the VPH00 sideport for authentication keyloading

## Software Options

Image  
Not  
Available

**P/N:** 8321000002

**List Price:** \$500.00

**Name:** DIGITAL (P25 CAI AMBE +2), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8322000001

**List Price:** \$550.00

**Name:** ANALOG CONVENTIONAL, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8322000002

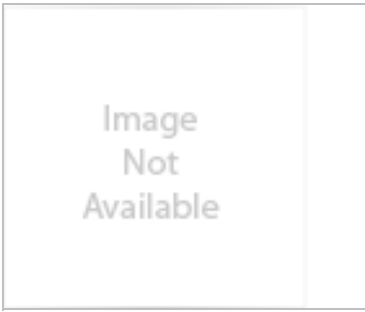
**List Price:** \$550.00

**Name:** P25 CONVENTIONAL , VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8322000005

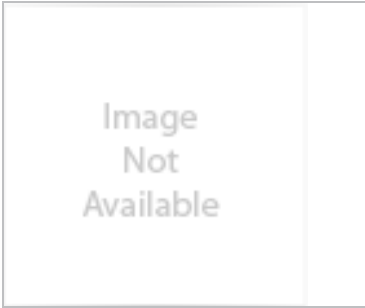
**List Price:** \$550.00

**Name:** P25 PHASE 1 TRUNKING, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8322000006

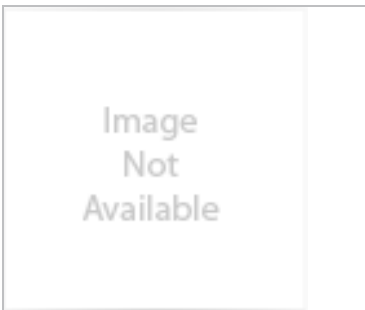
**List Price:** \$550.00

**Name:** P25 PHASE 2 TDMA, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



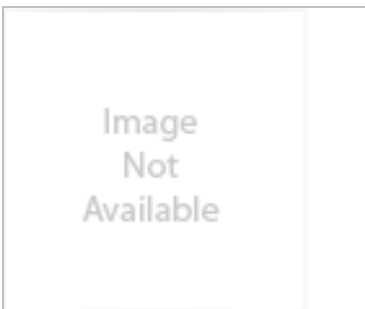
**P/N:** 8322000104

**List Price:** \$775.00

**Name:** VIKING16

**Compatible With:**

**Details:** VIKING16



**P/N:** 8323000002

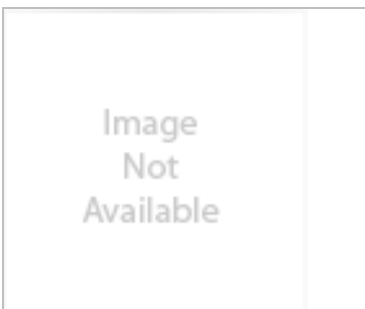
**List Price:** \$500.00

**Name:** AES FIPS SINGLE KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000003

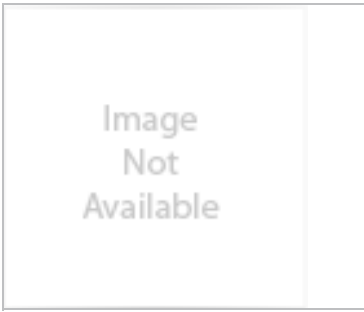
**List Price:** \$550.00

**Name:** DES-OFB MULTI-KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000004

**List Price:** \$750.00

**Name:** AES FIPS MULTI-KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000005

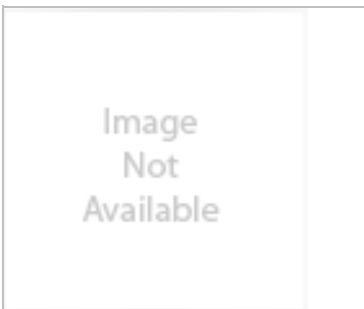
**List Price:** \$50.00

**Name:** ARC4 (ADP COMPATIBLE), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The ARC4 (Alleged Rivest Cipher 4) software encryption option for Kenwood Viking VP/VM series radios uses software keys created in the Viking Armada radio programming software and is compatible with Motorola's ADP encryption.



**P/N:** 8324000002

**List Price:** \$800.00

**Name:** P25 OTAR (OVER THE AIR REKEYING), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Over-The Air-Rekeying (OTAR) is the process of sending encryption keys and related key management messages over-the-air to specific radios. OTAR is available only on P25 conventional and trunked channels, and only to program DES-OFB and AES keys.



**P/N:** 8324000003

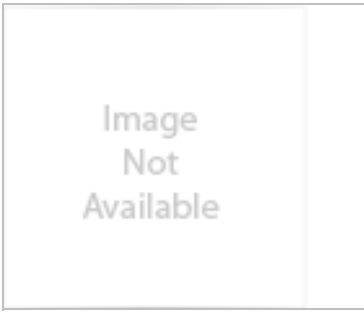
**List Price:** \$250.00

**Name:** OTAP (OVER-THE-AIR PROGRAMMING), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Over the Air Programming (OTAP) option enables you to program radios without connecting them to a computer. For P25 trunking and Conventional P25 only



**P/N:** 8324000004

**List Price:** \$200.00

**Name:** OTIP, VM-H/VM-T

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** OTIP allows programming of mobile radios over W-Fi. available on all mobiles. On VM5000, it is available in remote mount configuration. Please make sure to order the hardware required for mobile. These are available under mobile accessories: USB433WACDB: Dongle W-Fi, VM-T and VM-H



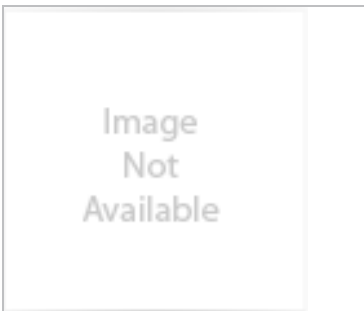
**P/N:** 8324000005

**List Price:** \$300.00

**Name:** KEYPAD PROGRAMMING (US FED GOVT), VIKING

**Compatible With:**  
VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



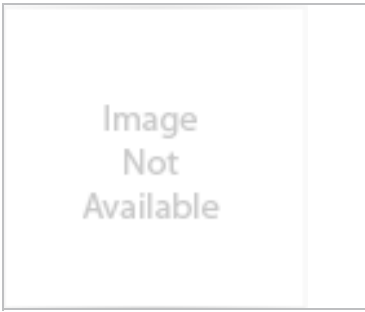
**P/N:** 8325000001

**List Price:** \$250.00

**Name:** P25 DATA TRUNKING (PACKET DATA), VIKING

**Compatible With:**  
VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The P25 Packet Data mode allows a subscriber unit to act as a packet data modem for a remote application connected to the radio via RS-232 port. For example, the subscriber unit could communicate with a mobile computer through a PPP connection on the radio port to send/retrieve data to a police incident reporting app or state databases on the wide area network. This option is for enabling External Data on P25 Trunking systems only. See also: software option 8325000002 for Data on P25 Conventional systems. However, please note that when configured along with the purchase of a new a radio, the data option for P25 Conventional is also included by default. This option is not needed for data applications which are internal to the radio, such as OTAP, OTAR, or GPS location reporting.



**P/N:** 8325000002

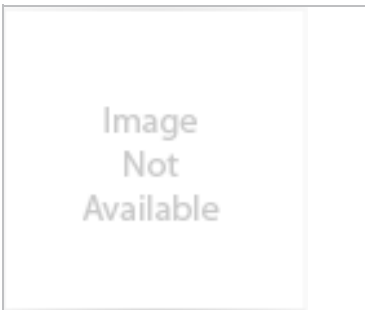
**List Price:** \$250.00

**Name:** P25 DATA CONVENTIONAL (PACKET DATA), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The P25 Packet Data mode allows a subscriber unit to act as a packet data modem for a remote application connected to the radio via RS-232 port. For example, the subscriber unit could communicate with a mobile computer through a PPP connection on the radio port to send/retrieve data to a police incident reporting app or state databases on the wide area network. This option is for enabling External Data on P25 Conventional systems only. See also: software option 8325000001 for Data on P25 Trunking systems. This option is not needed for data applications which are internal to the radio, such as OTAP, OTAR, or GPS location reporting.



**P/N:** 8325000003

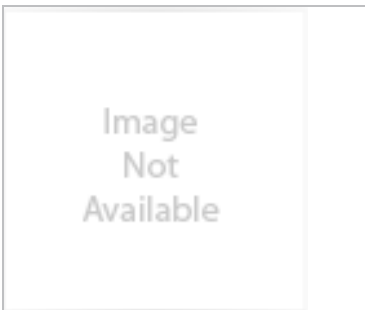
**List Price:** \$200.00

**Name:** GPS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** For Mobiles, you will need GPS Hardware. Please order these items in addition to 8325000003:VMH00: Order the GPS hardware module(2515000007)VMT000: Order only the GPS antenna(KRA-40GM)



**P/N:** 8326000001

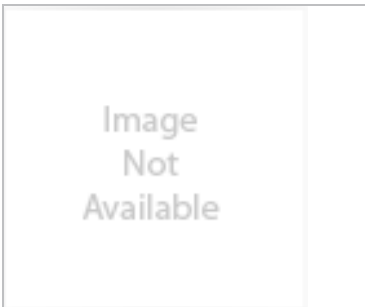
**List Price:** \$100.00

**Name:** P25 AUTHENTICATION, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Link Layer Network Security. Note: For VP5000 series radios, requires KWD-AE30K hardware module if not already installed.



**P/N:** 8326000002

**List Price:** \$100.00

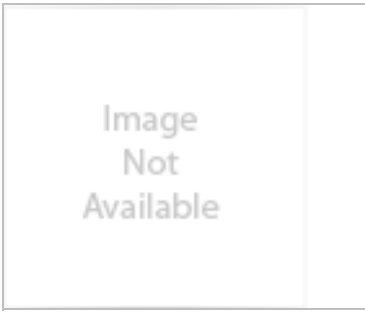
**Name:** MDC1200 / GE-STAR SIGNALING, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**





**P/N:** 8326000003

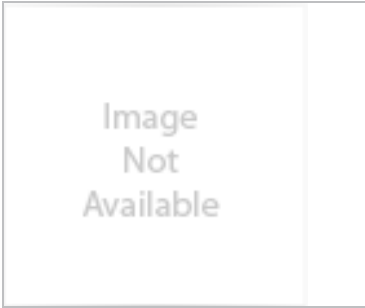
**List Price:** \$300.00

**Name:** FIRESAFE™ FIRST RESPONDER, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000004

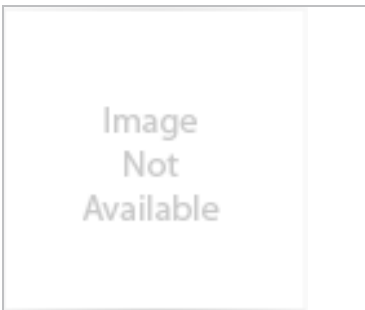
**List Price:** \$400.00

**Name:** FIRESAFE™ COMMAND, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000005

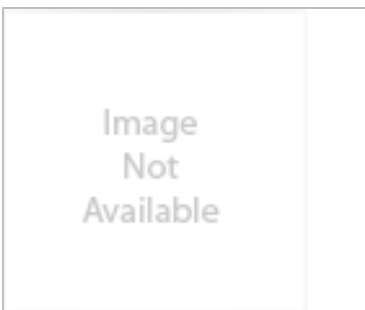
**List Price:** \$0.00

**Name:** P25 CONV VOTE SCAN, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000008

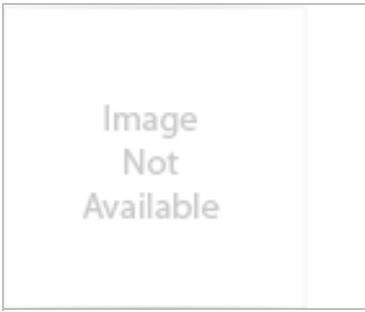
**List Price:** \$300.00

**Name:** 2048 CHANNELS/TALKGROUPS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000013

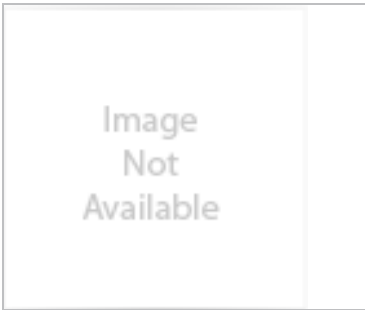
**List Price:** \$600.00

**Name:** THIRD PARTY INTERFACE, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The Third-Party Interface software option for Kenwood Viking VM/VP Series Radios is an optional data interface for third party network devices, consoles, or other control equipment. Data is transmitted via IP Packets over USB or Serial Packets over RS232, depending on physical connection. The attached equipment must be capable of supporting the Kenwood Viking Third-Party Interface protocol.



**P/N:** 8326000015

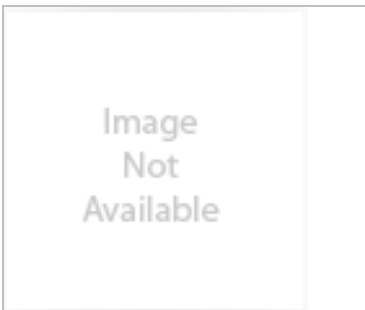
**List Price:** \$0.00

**Name:** 25KHz DISABLED

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** 25KHz DISABLED



**P/N:** 8326000019

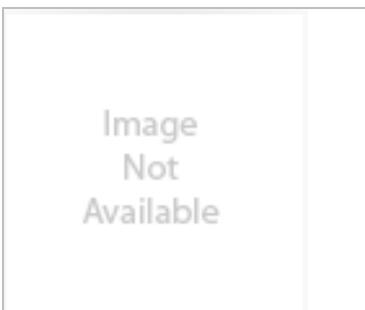
**List Price:** \$110.00

**Name:** REBANDING (NEXTEL), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000020

**List Price:** \$110.00

**Name:** REBANDING (NON-NEXTEL), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8326000023

**List Price:** \$200.00

**Name:** ENHANCED VRS PORTABLE

**Compatible With:**

**Details:** ENHANCED VRS PORTABLE

Image  
Not  
Available

**P/N:** 8326000024

**List Price:** \$200.00

**Name:** ENHANCED VRS MOBILE

**Compatible With:**

**Details:** ENHANCED VRS MOBILE

Image  
Not  
Available

**P/N:** 8326000025

**List Price:** \$200.00

**Name:** BLUETOOTH

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** BLUETOOTH

Image  
Not  
Available

**P/N:** 8326000026

**List Price:** \$200.00

**Name:** MAN DOWN

**Compatible With:** VP6000,VP5000

**Details:** MAN DOWN

Image  
Not  
Available

**P/N:** 8326000027

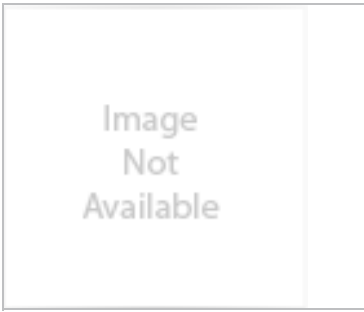
**List Price:** \$200.00

**Name:** P25 PAGING DECODE

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900  
(VCH),VM400/600/900 (SCH)

**Details:** P25 PAGING DECODE



**P/N:** 8326000028

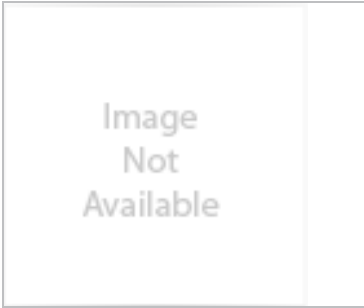
**List Price:** \$200.00

**Name:** INSTANT RECORDING REPLAY

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** INSTANT RECORDING REPLAY



**P/N:** 8326000029

**List Price:** \$100.00

**Name:** VOICE RECORDING

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** The Voice Audio Recording feature allows received and transmitted audio to be logged for future retrieval in Armada. The radio can be configured in Armada to save either Rx Audio only or Rx+Tx Audio.



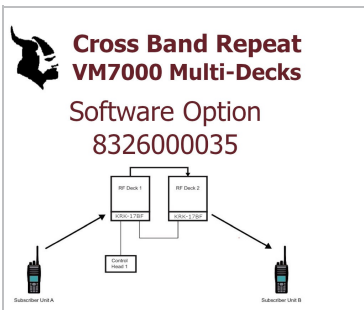
**P/N:** 8326000033

**List Price:** \$200.00

**Name:** BLUETOOTH LOW ENERGY

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** Bluetooth Low Energy (BLE) is an extension of the Bluetooth protocol for small data payload applications requiring limited, infrequent connections. Select this option for use with iBeacon/BlueCats Beacon or the AID vest insert available from Select Engineering. If using the Pryme, Savox, AINA, or OTTO Bluetooth speaker mics or other Bluetooth headsets and earpieces, please select the standard Bluetooth option, part number 8326000025.



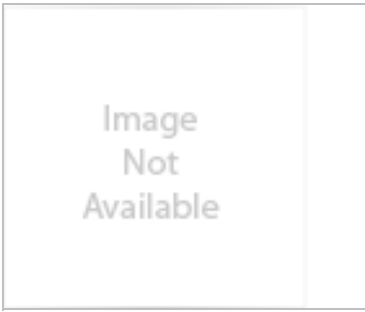
**P/N:** 8326000035

**List Price:** \$300.00

**Name:** CROSS BAND REPEAT

**Compatible With:**

**Details:** The Cross Band Repeater function for VM7000 multi-decks allows the received signal from an RF deck to be transmitted on a second RF deck. Available across analog or digital conventional channels, either same type or mixed. (Does not support trunked channels.) Cable required: DB25M null modem cable for digital-only channels or custom DB25 cable for analog or mixed analog/digital channel types. See installation manual for cable details.



**P/N:** 8327000911

**List Price:** \$1,000.00

**Name:** ENABLE VHF, VIKING

**Compatible With:** VP400/600/900,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Enables VHF band in a VP900 or VM900.



**P/N:** 8327000912

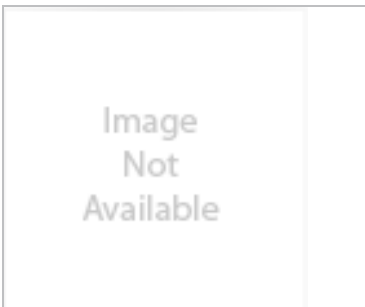
**List Price:** \$1,000.00

**Name:** ENABLE 7/800, VIKING

**Compatible With:** VP400/600/900,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Enables 7/800 band on a VP900 or VM900 radio

## HW/SW Warranty



**P/N:** 2990600013

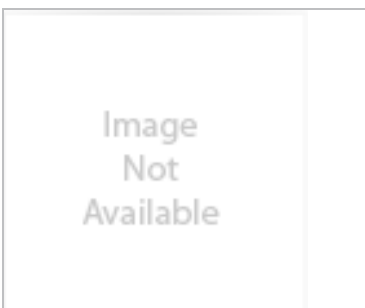
**List Price:** \$175.00

**Name:** 2-YR EXTENDED WARRANTY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Extended standard warranty can be bought within the first three yeras when the radio is under warranty. 2-YEAR EXTENDED WARRANTY Applies to VIKING and KENWOOD TK subscribers. Do NOT use with ES subscribers. Please order one unit of this item for each RF Deck in VM7000. For example, a 3 deck VM7000 will require 3 units of extended warranty as warranty is tied to a RF Deck.



**P/N:** 2990600017

**List Price:** \$100.00

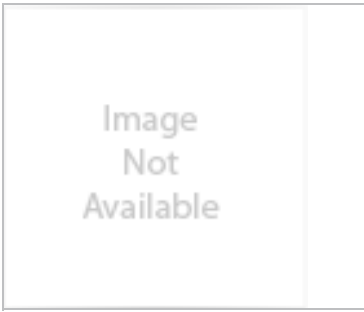
**Name:** 1-YR EXTENDED WARRANTY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Extended Standard Warranty can be bought within the first three years when the radio is under warranty. 1-YEAR EXTENDED WARRANTY Applies to VIKING and KENWOOD TK radios. Do NOT use with ES radios. Please order one unit of this item for each RF Deck in VM7000. For example, a 3 deck VM7000 will require 3 units of extended warranty as warranty is tied to a RF Deck.

## Training and Services



**P/N:** 299PRGM001

**List Price:** \$4,000.00

**Name:** RADIO PROFILE CREATION FOR PROGRAMMING \*\*AIR\*\*

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ conversion of existing radio codeplugs to Armada Templates



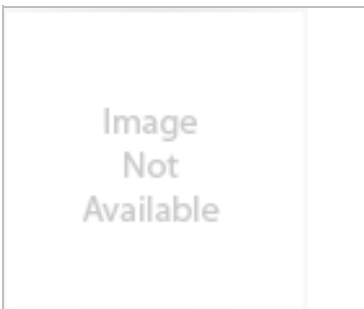
**P/N:** 3396100001

**List Price:** \$4,515.00

**Name:** ONSITE USER TRAINING AND CONSULTATION - 1 DAY

**Compatible With:**

**Details:** Customized Performance+Expert™ consultation(dedicated subscriber trainer), review of radio basic functionality and customized client templates at Dealer or Customer determined location.Price is per day.Order multiple units for multiple day training. Price does not include: travel outside continental USA/shipping of demo equipment/material cost.



**P/N:** 3396101001

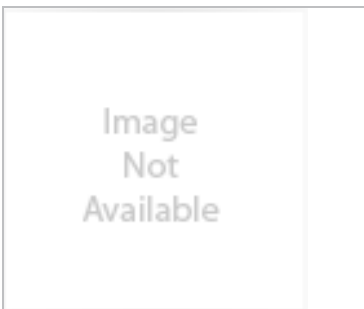
**List Price:** \$4,515.00

**Name:** ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396102001

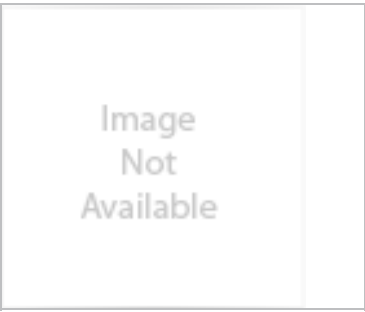
**List Price:** \$6,615.00

**Name:** ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396103001

**List Price:** \$8,715.00

**Name:** ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396104001

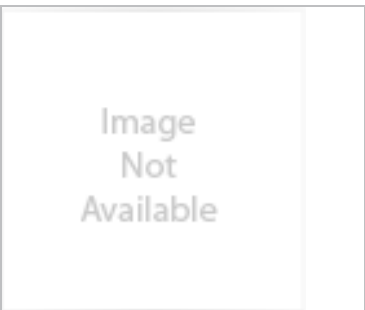
**List Price:** \$10,815.00

**Name:** ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396105001

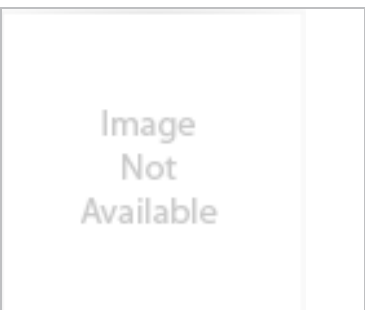
**List Price:** \$12,915.00

**Name:** ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396106001

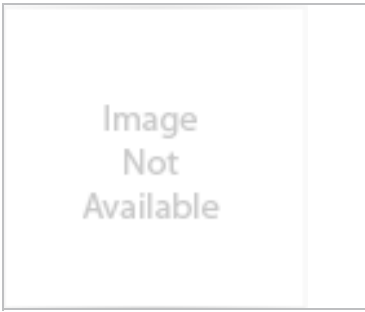
**List Price:** \$16,485.00

**Name:** ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396107001

**List Price:** \$18,585.00

**Name:** ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396108001

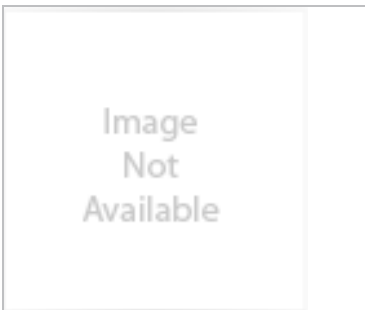
**List Price:** \$20,685.00

**Name:** ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396109001

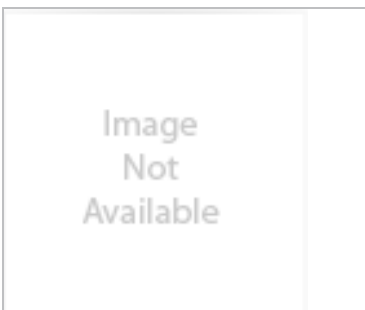
**List Price:** \$22,785.00

**Name:** ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396110001

**List Price:** \$24,885.00

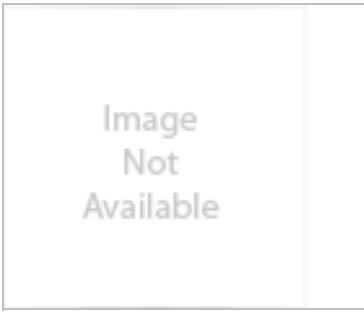
**Name:** ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.





**P/N:** 3396205001

**List Price:** \$2,400.00

**Name:** EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.



**P/N:** 3396214001

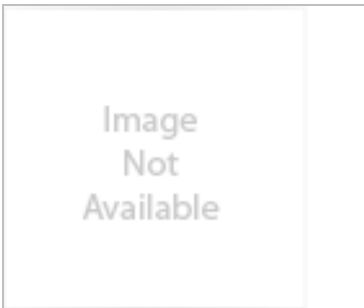
**List Price:** \$525.00

**Name:** EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.



**P/N:** 3396269001

**List Price:** \$400.00

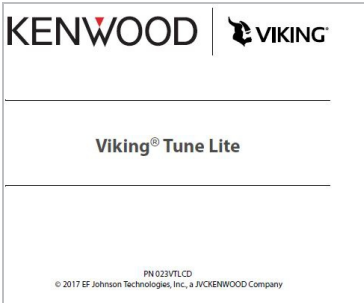
**Name:** EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.

## Radio Application/Kits



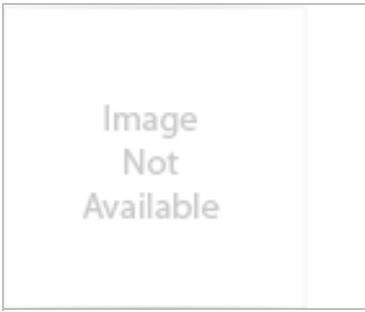
**P/N:** 023VTLCD

**List Price:** \$100.00

**Name:** VIKING TUNE LITE CD \*\*AIR\*\*

**Compatible With:**

**Details:** VikingTuneLite software will allow TCXO (reference oscillator) tuning for your Viking subscriber radios. VikingTuneLite can also be used to perform standard digital Phase 1 and Phase 2 TX/RX specification tests. A calibrated radio frequency service monitor is required.



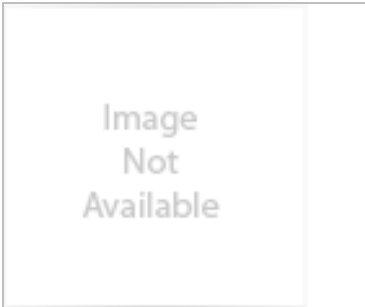
**P/N:** 835VTKVMH00

**List Price:** \$170.00

**Name:** VIKING TUNE, HW KIT, VM-H

**Compatible With:**

**Details:**



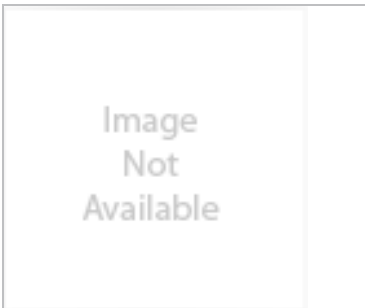
**P/N:** 835VTKVMX000

**List Price:** \$180.00

**Name:** VIKING TUNE, HW KIT, VM-T

**Compatible With:**

**Details:**



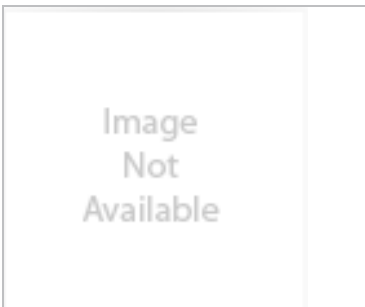
**P/N:** 835VTKVPH00

**List Price:** \$400.00

**Name:** VIKING TUNE, HW KIT, VP-H

**Compatible With:**

**Details:**



**P/N:** 835VTKVPX000

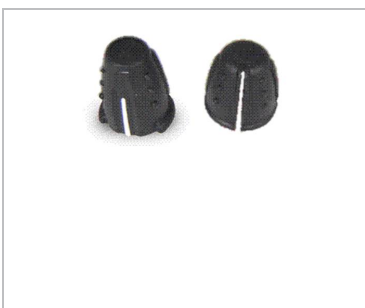
**List Price:** \$160.00

**Name:** VIKING TUNE, HW KIT, VP-T

**Compatible With:**

**Details:**

## Upgrade Kits



**P/N:** 2500600001

**List Price:** \$15.00

**Name:** KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H

**Compatible With:** VP400/600/900

**Details:** KNOB KIT, #1 VIKING, ROUND CHANNEL/ROUND VOLUME

Image  
Not  
Available

**P/N:** 2500600002

**List Price:** \$15.00

**Name:** KNOB KIT,FIRE CHANNEL/ROUND VOLUME, VP-H

**Compatible With:** VP400/600/900

**Details:** KNOB KIT, #2 VIKING, FIRE CHANNEL/ROUND VOLUME



**P/N:** 835VP5000OH

**List Price:** \$200.00

**Name:** ORANGE HOUSING, VP5000

**Compatible With:** VP5000

**Details:** VP5000 Model 2 Upgrade kit to convert black housing into orange housing. Pricing includes all services required to install the colored housing.(Also order L-5025 to indicate Factory Installation needed, and to be eligible for warranty of IP67/68 immersion)



**P/N:** 835VP5000YH

**List Price:** \$200.00

**Name:** YELLOW HOUSING, VP5000

**Compatible With:** VP5000

**Details:** VP5000 Model 2 Upgrade kit to convert black housing into orange housing.Pricing includes all services required to install the colored housing

Image  
Not  
Available

**P/N:** B0K-0002-00

**List Price:** \$4.00

**Name:** DUST COVER CAP FOR VP5000

**Compatible With:** VP6000,VP5000

**Details:** Please order all three part numbers for the VP5000 Dust Cover Kit:B0K-0002-00: DUST COVER CAP FOR VP5000G5D-0027-00: DUST COVER PACKING RUBBERN08-0571-04: DUST COVER SCREW

Image  
Not  
Available

**P/N:** B0K-0078-00

**List Price:** \$2.00

**Name:** DUST COVER CAP FOR VP6000

**Compatible With:** VP6000,VP5000

**Details:** Please, order all three part numbers for the Dust Cover Kit: B0K-0078-00: DUST COVER CAP FOR VP6000G5D-0027-00: DUST COVER PACKING RUBBERN08-0571-04: DUST COVER SCREW



**P/N:** K2K-0012-00

**List Price:** \$6.00

**Name:** CHANNEL SELECTOR KNOB, VP5000/TK5X30

**Compatible With:** VP5000

**Details:** CHANNEL SELECTOR KNOB FOR VP5000/TK5X30



**P/N:** K2K-0263-00

**List Price:** \$8.00

**Name:** FIRE CHANNEL KNOB, VP6000

**Compatible With:** VP6000

**Details:** KNOB 16 CHANNEL MUSHROOM VP6000

Part Number	Description	List Price
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**Repeaters**

**Individual Repeaters**

<b>3361241101</b>	<b>1200 P25 STATION 100W 800 MHZ</b>	\$15,250.00
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1200 P25 Repeater for 800 Mhz band. Repeater only. No Power Supply.



<b>3361200082</b>	<b>1200 P25 BASE STATION DFSI LICENCE KEY</b>	\$1,650.00
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Licence Key needed to support DFSI connectivity

<b>3361200091</b>	<b>POWER SPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b>	\$900.00
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<b>3361200092</b>	<b>POWER SPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b>	\$1,550.00
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<b>3361212101</b>	<b>1200 P25 STATION 100W VHF (148-174MHz)</b>	\$13,500.00
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1200 P25 Repeater for bands (148-174MHz). Repeater only. No Power Supply.



<b>3361212102</b>	<b>1200 P25 STATION 100W VHF (148-174MHz) HISTAB</b>	\$16,475.00
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1200 P25 Repeater for VHF bands (148-174MHz) for High Stability requirements. Repeater only. No Power Supply.



<b>3361224101</b>	<b>1200 P25 STATION 100W UHF (450-485MHz)</b>	\$13,500.00
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1200 P25 Repeater for UHF bands (450-485MHz). Repeater only. No Power Supply.



Part Number	Description	List Price
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**3361224102**      **1200 P25 STATION 100W UHF (450-485MHz)  
 HISTAB**  
 1200 P25 Repeater for UHF bands (450-485MHz) for High  
 Stability requirements. Repeater only. No Power Supply.



\$16,475.00

**3361200000**      **ATLAS TOOLS PROGRAMMING KIT**  
 Use with Atlas 1200 Repeaters only



\$295.00



## ATLAS 1200

		List Price
	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b>	
336-1212-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 13,500.00
	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b>	
336-1224-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 13,500.00
	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b>	
336-1241-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 15,250.00
	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b>	
336-1224-102	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 16,475.00
	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b>	
336-1200-082	Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,650.00
	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b>	
336-1200-000	Includes programming software and cable.	\$ 295.00
	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b>	
336-1200-091	Includes single power supply, rack mount kit and power cable.	\$ 900.00
	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b>	
336-1200-092	Includes single power supply, rack mount kit and power cable.	\$ 1,550.00

<b>ATLAS 4500</b>		List Price
<b>MANAGEMENT</b>		
335-6100-001	ATLAS 6100 BASIC NETWORK MANAGEMENT SYSTEM	\$4,000
335-6200-001	ATLAS 6200 ADVANCED NETWORK MANAGEMENT SYSTEM	\$40,000
335-6300-001	ATLAS 6300 MANAGEMENT SYSTEM CLIENT	\$3,043
335-6400-002	ATLAS 6400 DATA GATEWAY	\$80,000
335-6500-002	ATLAS 6500 KEY MANAGEMENT FACILITY	\$80,000
335-6600-001	ATLAS 6600 ISSI GATEWAY	\$40,000
335-6700-001	ATLAS 6700 TELEPHONE INTERCONNECT GATEWAY	\$100,000
<b>BASE STATION</b>		
<b>ATLAS 4500 VHF</b>		
3354511111	ATLAS 4500 AC VHF PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354511112	ATLAS 4500 AC VHF PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354511121	ATLAS 4500 AC VHF PHASE 1 TRUNK MULTICAST	\$21,000.00
3354511122	ATLAS 4500 AC VHF PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354511221	ATLAS 4500 AC VHF PHASE 2 TRUNK MULTICAST	\$42,000.00
3354511222	ATLAS 4500 AC VHF PHASE 2 TRUNK SIMULCAST	\$52,000.00
3354521111	ATLAS 4500 DC VHF PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354521112	ATLAS 4500 DC VHF PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354521121	ATLAS 4500 DC VHF PHASE 1 TRUNK MULTICAST	\$21,000.00
3354521122	ATLAS 4500 DC VHF PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354521221	ATLAS 4500 DC VHF PHASE 2 TRUNK MULTICAST	\$42,000.00
3354521222	ATLAS 4500 DC VHF PHASE 2 TRUNK SIMULCAST	\$52,000.00
<b>ATLAS 4500 UHF</b>		
3354512111	ATLAS 4500 AC UHF PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354512112	ATLAS 4500 AC UHF PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354512121	ATLAS 4500 AC UHF PHASE 1 TRUNK MULTICAST	\$21,000.00
3354512122	ATLAS 4500 AC UHF PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354512221	ATLAS 4500 AC UHF PHASE 2 TRUNK MULTICAST	\$42,000.00
3354512222	ATLAS 4500 AC UHF PHASE 2 TRUNK SIMULCAST	\$52,000.00
3354522111	ATLAS 4500 DC UHF PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354522112	ATLAS 4500 DC UHF PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354522121	ATLAS 4500 DC UHF PHASE 1 TRUNK MULTICAST	\$21,000.00
3354522122	ATLAS 4500 DC UHF PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354522221	ATLAS 4500 DC UHF PHASE 2 TRUNK MULTICAST	\$42,000.00
3354522222	ATLAS 4500 DC UHF PHASE 2 TRUNK SIMULCAST	\$52,000.00
<b>ATLAS 4500 7/800 MHz</b>		
3354513111	ATLAS 4500 AC 7/800 PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354513112	ATLAS 4500 AC 7/800 PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354513121	ATLAS 4500 AC 7/800 PHASE 1 TRUNK MULTICAST	\$21,000.00
3354513122	ATLAS 4500 AC 7/800 PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354513221	ATLAS 4500 AC 7/800 PHASE 2 TRUNK MULTICAST	\$42,000.00
3354513222	ATLAS 4500 AC 7/800 PHASE 2 TRUNK SIMULCAST	\$52,000.00



3354523111	ATLAS 4500 DC 7/800 PHASE 1 CONVENTIONAL MULTICAST	\$17,000.00
3354523112	ATLAS 4500 DC 7/800 PHASE 1 CONVENTIONAL SIMULCAST	\$27,000.00
3354523121	ATLAS 4500 DC 7/800 PHASE 1 TRUNK MULTICAST	\$21,000.00
3354523122	ATLAS 4500 DC 7/800 PHASE 1 TRUNK SIMULCAST	\$31,000.00
3354523221	ATLAS 4500 DC 7/800 PHASE 2 TRUNK MULTICAST	\$42,000.00
3354523222	ATLAS 4500 DC 7/800 PHASE 2 TRUNK SIMULCAST	\$52,000.00
<b>CONTROLLERS</b>		
335-8100-002	ATLAS 8100 CONV SITE NETWORK I/F (CSNI) BASIC	\$9,000
335-8100-101	ATLAS 8100 CONV SITE NETWORK I/F (CSNI) ADVANCED	\$11,000
335-8200-001	ATLAS 8200 TRUNKING SITE NETWORK INTERFACE (TSNI)	\$30,000
335-8200-101	ATLAS 8200 TRUNKING SITE NETWORK I/F (TSNI) ADVANCED	\$60,000
<b>DISPATCH CONSOLE</b>		
335-7000-002	ATLAS 7000 STARGATE CONSOLE	\$19,000
585-395-0005	19" LCD MONITOR	\$454
335-7102-001	VIDEO CARD AND VIDEO CABLE KIT	\$1,000
597-3950-105-01	ABOB - HIB INTERFACE CABLE	\$200
585-1156-402	HEADSET MODULE OPERATOR CONNECTION INTERFACE	\$1,000
585-1156-400	HEADSET MODULE SUPERVISOR CONNECTION INTERFACE	\$1,000
589-0012-025	HEADSET MICROPHONE PTT AND AMPLIFIER CONTROLLER	\$400
589-0012-035	WIRELESS PTT ADAPTER	\$1,000
589-0012-027	HEADSET MICROPHONE ASSEMBLY, VOICE TUBE	\$300
589-0012-028	HEADSET MICROPHONE ASSEMBLY, NOISE CANCELLATION	\$300
589-0015-065	BOSE SPEAKER (ONE PAIR)	\$250
585-3950-008	8 INPUT/8 OUTPUT RELAY CONTROL	\$1,200
<b>GATEWAYS</b>		
335-8410-001	ATLAS 8410 ANALOG/LOGGING GATEWAY	\$7,500
335-8300-001	ATLAS 8300 MOBILE RADIO GATEWAY	\$3,500
335-8410-101	ATLAS 8410 ANALOG/LOGGING GATEWAY ADVANCED	\$9,000
335-8300-101	ATLAS 8300 MOBILE RADIO GATEWAY ADVANCED	\$5,500
<b>EVENTIDE LOGGER</b>		
335-7500-001	EFJ NEXLOG 740 BASE BUNDLE	\$16,500
335-7511-002	P25 BASE OPTION WITH 8 P25 TALKGROUP	\$22,500
333-7512-001	ADDITIONAL 8 CHANNELS OF P25	\$1,500



# NX-5200/5300

Table of Contents

## VHF/UHF Digital & FM Analog Portable Radios



<Standard Key Model >   <Full Key Model >

**All NX-5000 series portables include:**

- Belt Clip (KBH-11)
- Universal Connector Cap
- User Guide
- Premium Warranty: 3 Years\*

All Accessories / options: 1 Year

*Purchase Battery, Charger, Antenna separately*

**\*Note:**

1. To meet IP grades and MIL, the universal connector cap or KENWOOD official accessory must be installed/connected.
2. To maintain immersion specs (IP67/68), all warranty service must be done by one of the three National Kenwood Authorized Service Centers. IP67/68 Certification is valid under the 3 year premium warranty. No re-certification is available.

**Because of spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed;**

- |            |            |            |
|------------|------------|------------|
| • 144.0000 | • 384.0000 | • 460.8000 |
| • 147.4560 | • 403.2000 | • 480.0000 |
| • 153.6000 | • 422.4000 | • 499.2000 |
| • 172.0325 | • 432.0000 | • 518.4000 |
| • 172.8000 | • 441.6000 |            |

Approved by CSA-us International Inc. for Classes I, II & III, Div. 1, Groups D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C hazardous locations.

**Note:** Environmental conditions are less than 32°F (0°C), KENWOOD carrying cases must be used.

### STANDARD

#### ■ GENERAL FEATURES

- 6 W (136-174 MHz) Models
- 5 W (380-470, 450-520 MHz) Models
- 1024 CH-GID / 128 Zones
- Standard Key Models (w/o numeric keypad)
- Full Key Models (w/ numeric keypad)
- Full Color 1.74" (240 x 180 pixels) Transflective TFT Display
- Multi-line Text Display
- Function/Status Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- 16-Position Mechanical Selector (w/ a stopper)
- 4-way Directional-pad (D-pad)
- 2 Position Lever Switch
- Emergency/AUX Key
- 3 Side PF Keys
- 1W Speaker Audio
- Multi Digital Protocol 1
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP67/68 Immersion
- Color Housing Option
- Digital Encode/Decode Format

*1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.*

#### ■ DIGITAL – NXDN® MODE

- NXDN® Conventional / TYPE-C (Gen1/Gen2) Trunking
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

#### ■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Programming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

#### ■ ANALOG MODE

- Conventional Zones
- LTR® Zones
- FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)

### OPTIONAL FEATURES

#### ■ GENERAL FEATURES

- 4000 Channel ([KWD-5000CH](#))
- Front Panel Programming ([KWD-5001FP](#))
- microSD/microSDHC Memory Card Slot ([KWD-5002SD](#))
- Built-in Bluetooth® Module for Data ([KWD-5003BT](#))
- Remote Control Commands by Subscriber Units ([KWD-5007RC](#))
- 256-bit AES Encryption ([KWD-AE30K/31K](#) Encryption Module required)
- Battery Management Solution ([KSC-Y32K](#) Charger & [KAS-12K](#) Software License Key required)

#### ■ DIGITAL – P25 MODE

- Conventional Features ([KWD-5100CV](#))
- Phase 1 Trunking Features ([KWD-5100CV](#) & [5101TR](#))
- Phase 2 Trunking Features ([KWD-5100CV](#) & [5101TR](#) & [5102TR](#))
- Conventional OTAR ([KWD-5103RK](#))
- Trunking OTAR ([KWD-5103RK](#) & [5106DT](#))
- Conventional Voting Scan ([KWD-5105VT](#))
- Packet Data required for Trunked OTAR/GPS ([KWD-5106DT](#))
- Link Layer Authentication ([KWD-5100CV](#) & [KWD-5101TR](#) & [KWD-AE3x](#) Encryption Board Required)

#### ■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional & S-Trunking Features ([KWD-5300CV](#))
- DMR Tier 3 Trunking Features ([KWD-5300CV](#) & [KWD-5301TR](#))



# NX-5200/5300

## VHF/UHF Digital & FM Analog Portable Radios

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<b>RADIO</b>		<b>LIST</b>
<i>Standard Key Models</i>		
NX-5300K2	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	842.00
<b>FIELD PROGRAMMING UNIT (FPU)</b>		<b>LIST</b>
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8/8.1/10) <i>Note: Requires KPT-300LMC for authentication</i>	155.00
<b>P25 Radio Features</b>		<b>LIST</b>
KWD-5100CV	License Key for P25 Conventional	575.00
<b>DMR Radio Features</b>		<b>LIST</b>
KWD-5300CV	License Key for DMR Tier 2 Conventional & S-Trunking	60.00
<b>ANTENNAS</b>		<b>LIST</b>
KRA-17M2	UHF STUBBY ANTENNA 470-512 MHZ	13.70
<b>BATTERIES AND CHARGERS</b>		<b>LIST</b>
KNB-L3M	Li-ion 3400mAh (High Capacity)	183.00
KSC-32	Rapid rate single unit charger	82.00
KSC-326AK	Rapid rate 6-unit charger CEC Compliant	745.00
<b>MICROPHONES &amp; AUDIO ACCESSORIES</b>		<b>LIST</b>
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <i>Note: 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]</i>	332.00
<b>SERVICE RELATED ACCESSORIES</b>		<b>LIST</b>
KPG-36XM	Full Speed USB Programming interface cable <i>Note: This cable with USB mode may used for SD Card Direct Access.</i>	162.00



# NX-5700/5800/5900

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VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios



### NX-5000(K-version\*) Mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket (KMB-33M)
- DC Cable
- Blade Fuse
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

\*BK-version comes with a RF deck only

## STANDARD

### GENERAL FEATURES

- 50 W (136-174 MHz) Models
- 45 W (380-470, 450-520 MHz) Models
- 35 W (700/800 MHz) Models
- 1024 CH-GID / 128 Zones
- Full Color 2.55" (154 x 422 pixels) TFT Display
- Multi-line Text Display
- Function/Status Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- Emergency/AUX Key
- 4W Speaker Audio
- DB-25 Accessory Connector
- Multi Digital Protocol <sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Mobile Relay Station<sup>2</sup> (DMR Mode<sup>3</sup>)
- Cross Band Repeater (Only)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- ML-STD-810 C/D/E/F/G
- IP54/55

1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.

2. Requires **L-5023** DB25 Cable between Decks.

### DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking (except 700MHz)
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming (requires KPG-180AP OTAP Manager Software)
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

### DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

### ANALOG MODE

- Conventional Zones
- LTR® Zones
- FleetSync®II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)
- DTMF

### Multi-Deck Compatible Models & Modes

Models	Bands	Power	Operable Modes
NX-5600H	Lowband VHF (39-50)	110 Watts	Analog/NXDN
NX-5700	VHF (136-174)	50 Watts	Analog/NXDN/DMR/P25
NX-5700H	VHF (136-174)	110 Watts	Analog/NXDN/P25
NX-5800H	UHF (380-470, 450-520)	100 Watts	Analog/NXDN/P25
NX-5800	UHF (380-470, 450-520)	50 Watts	Analog/NXDN/DMR/P25
NX-5900	7/800	35 Watts	Analog/NXDN/DMR/P25

## OPTIONAL FEATURES & CONFIGURATIONS

### GENERAL FEATURES

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control by Subscriber Units (KWD-5007RC)

### DIGITAL – P25 MODE

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)

### DIGITAL – DMR MODE

- DMR Tier 2 Conventional & S-Trunking Features (KWD-5300CV)
- DMR Tier 3 Trunking Features (KWD-5300CV & KWD-5301TR)

### MOUNTING & REMOTE CONFIGURATIONS

(See NX-5000 Accessory page for details)

- KCH-20R Featured Control Head
- KCH-21R Handheld Control Head
- Single Remote Control Head (KRK Kit & KCT-71 or KCT-77 Cable required)
- Dual Remote Control Heads (KCH-19/20R/21R & KRK Kit & KCT-71 or KCT-77 Cables required)
- Multiple RF Decks (KRK Kit & KCT-71 or KCT-77 Control Cable + KWD-5004MR License Key Activation required\*)

\* ONLY for the radios with S/N: B5900000 or earlier.



	<h1 style="margin: 0;">NX-5700/5800/5900</h1> <p style="margin: 0;">VHF/UHF/700/800MHz Digital &amp; FM Analog Mobile Radios</p>	<p style="margin: 0;">Table of Contents</p>
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RADIO	<i>LIST</i>
NX-5800K      UHF (450-520MHz), 45 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	1000.00
<i>DMR Features</i>	<i>LIST</i>
KWD-5300CV      License Key for DMR Tier 2 Conventional & S-Trunking	60.00
<i>OVER THE AIR PROGRAMMING (OTAP)</i>	<i>LIST</i>
KPG-180AP <b>OTAP Manager Software (Windows® Vista/7/8/8.1/10)</b> License includes: Software manages up to fifty(50) radio program files, one communication profile for each NXDN serial connection, DMR serial connection, NXDN Type-C IP, and DMR AIS IP connection <b>Note:</b> For each serial or IP connection to radio or base station, one applicable communication profile is required. <b>Note:</b> Requires KPT-300LMC for license authentication	884.00
KWD-AP5500      Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	4167.00
<i>OTHER ACCESSORIES</i>	
5010012011      ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H	90.00
KPS-15          DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	177.00

# KENWOOD | KAIROS

## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz



### GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 & 3 simulcast repeaters
- Kairos S-Trunk repeaters
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option
- System Redundancy

### GENERAL OPTIONS

- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU

<b>KAIROS REPEATER AND GATEWAY</b>		<b>LIST</b>
KA160	KAIROS DMR VHF (136-174 MHz) REPEATER, 1-25W	\$ 3,540
KA450	KAIROS DMR UHF LO (400-470 MHz) REPEATER, 1-25W	\$ 3,540
KA500	KAIROS DMR UHF HI (450-527 MHz) REPEATER, 1-25W	\$ 3,540
KA080	KAIROS 66-88MHz RF BACKHAUL REPEATER, 1-25W	\$ 3,800
<b>REPEATER MOUNT (Mandatory mount option for rack mounting)</b>		<b>LIST</b>
KA-RK1V2-BPM	19" MOUNT PANEL FOR 1 KAIROS REPEATER	\$ 435
KA-RK2-BPM	19" MOUNT PANEL FOR 2 KAIROS REPEATER	\$ 435
<b>Kairos Software Options</b>		<b>LIST</b>
<b>DMR Tier 2</b>		<b>LIST</b>
KA-SI-T2M	TIER 2 SIMULCAST LICENSE	\$ 4,000
<b>Alarm Monitoring and Other</b>		<b>LIST</b>
KA-NET-RCM	NETCONTROL - MONITORING AND REMOTE CONTROL SW	\$ 150
KA-1+1M	KIT AND SW FOR HOT STAND-BY CONFIGURATION <i>Note : Must purchase additional KA repeater.</i>	\$ 200
KA-MCTCSSM	MCTCSS SW LICENSE	\$ 200
KA-POCSAG	POCSAG KAIROS	\$ 610
<b>IP Gateway Software License</b>		<b>LIST</b>
IPGW-1013	IP GATEWAY WITH SERVER, SOFTWARE, INSTALLATION	\$ 5,000
KWD-1013T2	DMR TIER II LICENSE	\$ 1,500
KAGW-1013	KAIROS GATEWAY	\$ 3,340
<b>KAS-20 Console</b>		<b>LIST</b>
KAS-20K	DISPATCH CLIENT LICENSE	\$ -
KWD-20S-MCK	MULTI-CLIENT LICENSE	\$ 2,000
KWD-20S-RSK	RF SYSTEM LICENSE	\$ 2,500
KWD-20C-VDK	VOICE DISPATCH LICENSE	\$ 600
KWD-20C-VPK	VOICE PATH LICENSE	\$ 500
KWD-20S-VRK	VOICE RECORD LICENSE	\$ 1,750
KWD-20C-LMK	LOCATION MANAGEMENT LICENSE	\$ 500



# KENWOOD | KAIROS

## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

### AMPLIFIER (OPTION) - ONE PER REPEATER

LIST

Note: Includes One Cable for Radio Connectivity.		
KSGPA22403	AMP 136-174MHz, 3W INPUT, 25-50W OUTPUT	\$ 1,665
KSGPA22415	AMP, 136-174 MHz, 3W INPUT, 100W OUTPUT	\$ 2,160
KSGPA22723	AMP 152-162MHz, 3W INPUT, 100W OUTPUT <i>Note: KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 1,950
KSGPA22724	AMP 162-174MHz, 3W INPUT, 100W OUTPUT <i>Note: KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 1,950
KSGPA22441	AMP 136-144MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22442	AMP 144-152MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22443	AMP 152-162MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22444	AMP 162-174MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22253	AMP 152-162MHz, 3W INPUT, 250W OUTPUT	\$ 4,060
KSGPA23401	AMP 406-450MHz, 3W INPUT, 20-40W OUTPUT	\$ 1,665
KSGPA23411	AMP 406-450MHz, 3W INPUT, 50-100W OUTPUT	\$ 2,165
KSGPA23702	AMP 403-450MHz, 3W INPUT, 100W OUTPUT <i>Note: KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 2,240
KSGPA23441	AMP 406-450MHz, 3W INPUT, 150W OUTPUT	\$ 3,940
KSGPA23413	AMP 450-512MHz, 3W INPUT, 50-100W OUTPUT	\$ 2,165
KSGPA23403	AMP 450-512MHz, 3W INPUT, 20-40W OUTPUT	\$ 1,665
KSGPA23703	AMP 450-512MHz, 3W INPUT, 100W OUTPUT <i>Note: KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 2,240
KSGPA23443	AMP 450-512MHz, 3W INPUT, 150W OUTPUT	\$ 3,940
KSGMT90005	RACK, BLACK, 5-PACK <i>Note: Must be ordered when Vertical Mount (KSGPA22723 or KSGPA22724 is ordered. One rack can hold up to 5 amplifier</i>	\$ 675

### DUPLEXER (OPTION) - ONE PER REPEATER

LIST

KSGDX12556	DUPLEXER 6 CAVITY VHF BPBR <i>Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable</i>	\$ 3,095
KSGDX13546	DUPLEXER 6 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 3,095
KSGDX23101	DUPLEXER 4 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note: Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 1,775

### HARDWARE OPTIONS

LIST

KA-24BFSM	EXTENSION CONNECTOR FOR RX (MULTICOUPLER) <i>Note: Order if you want to not connect the cables directly to the repeater, instead you want to connect through a flexible cable</i>	\$ 45
KA-24NFSM	EXTENSION CONNECTOR FOR GPS, TX, RX (ANT/DUPLXR) <i>Note: Order if you want to not connect the cables directly to the repeater, instead you want to connect through a flexible cable</i>	\$ 45
KA-VOC-2M	ANALOG 4-WIRE TO DIGITAL (DMR/P25) CONVERTER <i>Note: Optional item, only if you want to convert analog 4-wire audio to P25</i>	\$ 650
3351557001	GPS ANTENNA SECURE SYNC KIT <i>Note: Order one per site. Provides antenna connection to the GPS receiver for simulcast repeaters</i>	\$ 550
3351558001	GPS ANTENNA SURGE SUPPRESSOR <i>Note: Optional, item. Protects the GPS receiver inside the repeater from surges</i>	\$ 550
KA-GPSM	GPS RECEIVER	\$ 400



# KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

POWER SUPPLY OPTIONS		LIST
KSGPS20200	POWER SUPPLY, 20A, 13.8VDC <i>Note: when operating repeater without AMP - 25W - incompatible with amplifier</i>	\$ 255
KSGPS20400	POWER SUPPLY, 40A, 13.8VDC, 19" WIDE RACK MOUNTED <i>Note: upto 100W one per repeater, Incompatible with 150W or 250W amplifier option</i>	\$ 475
KSGPS20352	POWER SUPPLY, 35A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER <i>Note: Incompatible with 150W or 250W amplifier option. - one per repeater - up to 100W</i>	\$ 1,355
KSGPS20701	POWER SUPPLY, 70A, 13.8VDC, 19" WIDE RACK MOUNTED <i>Note: one 150/250W repeater or two 100 W</i>	\$ 1,355
KSGPS20702	POWER SUPPLY 70A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER <i>Note: one 150/250W repeater</i>	\$ 1,740
MOUNTING RACK		LIST
KSGMCAB4	77" (40RU) LOCKING CABINET WITH CRATE	\$ 2,943
KSGMRCK3	3' (17RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 1,080
KSGMRCK7	7' (45RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 1,200
KSGMT20020	42" (20RU) LOCKING CABINET	\$ 2,000
KSGMT0C20U	CRATE FOR 42" (20RU) LOCKING CABINET <i>Note: Optional for situations where extra protection during transportation is required.</i>	\$ 397
KSGMT20001	CABINET SOLID TOP PANEL	\$ 90
KSGMT20002	CABINET FAN TOP ASSEMBLY	\$ 435
KSGMT20003	CABINET SOLID FLOOR PANEL <i>Note: (INCLUDES FIVE PRE-DRILLED OPENINGS AND GROMMETS)</i>	\$ 140
VP-10-BPM	CLOSURE 10TE, FOR VERTICAL MOUNTING	\$ 100
VP-4-BPM	CLOSURE 4TE, FOR VERTICAL MOUNTING	\$ 60
KSGTM10TCS	CASE, TONE TERM PANEL	\$ 65
ETHERNET SWITCH & ROUTER OPTIONS		LIST
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on d		
KSGNS10008	8-PORT MANAGED NETWORK SWITCH <i>Note: 1RU Mounting Tray (KSGUT10001) sold separately.</i>	\$ 250
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	\$ 415
KSGRT-RV340	4-PORT MANAGED VPN ROUTER - RACK MOUNTABLE <i>Note: 1RU Mounting Tray (KSGUT10001) sold separately</i>	\$ 600
KSGUT10001	MOUNTING TRAY, 1RU <i>Note: Provides mounting space for up to two accessories</i>	\$ 50
KSGNS10024	RACK MOUNTED 24-PORT MANAGED NETWORK SWITCH	\$ 375
KSGRT20001	HP MSR2003 AC ROUTER <i>Note: For complex system, order this router instead of the KSGRT-RV340</i>	\$ 1,800
KSGMS100P1	15A POWER STRIP, 19" RACKMOUNT, 1RU <i>Note: One recommended per rack when including a switch and/or router</i>	\$ 91
DESIGN SERVICE		LIST
NTW-PROGM	COMPLEX NETWORK DESIGN AND PROGRAMMING <i>Contact the Regional Sales Manager for your area to obtain a custom quote based on specific requirements, conditions, and environment.</i>	Custom
SYS-PROGM	SYSTEM DESIGN AND PROGRAMMING <i>Contact the Regional Sales Manager for your area to obtain a custom quote based on specific requirements, conditions, and environment.</i>	Custom



# KENWOOD | KAIROS

## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

<i>OTHER SERVICES</i>		<i>LIST</i>	
3391105001	STAGING SERVICE	\$	225.00
3391101001	PROGRAM MANAGEMENT	\$	225.00
3391107001	REMOTE TECHNICAL SUPPORT	\$	225.00
3391109001	ON SITE TECHNICAL SUPPORT	\$	225.00
3391102001	SYSTEM ENGINEERING	\$	225.00
3391202001	SYSTEM INSTALLATION	\$	225.00



Parent Contract Number: 6100039075  
SAP/SRM Contract Number: 4400016318  
Change Number: 6  
Change Effective Date : 11/24/2020

**Using Agency:** All Using Agencies

**Contract Title:** Two-Way Radio Equipment & Services

**Contract Period:** Beginning January 1, 2017 and Ending December 31, 2021

**Commodity Specialist:** John Weikle    **Telephone:** 717-787-4103    **Email:** [jweikle@pa.gov](mailto:jweikle@pa.gov)

**CHANGE SUMMARY:**

The price list has been updated for E F Johnson Company and attached to this contract.

Please contact the E F Johnson Company Account Manager, Ed Milano, with any questions regarding products and pricing.

Ed Milano

508-850-6125

[emilano@efji.com](mailto:emilano@efji.com)

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.**

E.F. JOHNSON COMPANY

## Commercial Price List

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IFB 6100039075

November 17, 2020

KENWOOD

VIKING

# P25 Mission Critical Viking VP6000

VHF · UHF · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

The KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels (2048 option)
- Public safety ergonomics: flare grip for control, large glove friendly knobs, large emergency button
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcements creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G
- Full key models (w/ numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - P25/TIA defined: AES-256
  - DES-OFB
  - Over-the-Air-Rekeying (OTAR)

Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

## User Selectable Color Themes

- Multi-line text
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Backlight changes for event identification
- Day & night user selectable display options (8 themes available)



## Compatible with Multiple P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P 25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA® Radia - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

	Radio - Base Model	List
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 2,260.00
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 2,260.00
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 2,510.00
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 2,510.00
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 2,460.00
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 2,460.00
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 2,710.00
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 2,710.00
	Model Options	List
250VP500001	Intrinsically Safe (CSA) - <i>KNB-LS5 battery required</i>	\$ 99.00
	Antenna	List
KRA-32K	700/800 MHz Whip Antenna	\$ 36.00
KRA-36	700/800 MHz Stubby Antenna	\$ 26.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 16.67
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 16.67
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 16.67
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 16.67
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 16.67
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 16.67
KRA-26M	VHF helical antenna 146-162 MHz	\$ 16.67
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 16.67
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 16.67
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 16.67
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 16.67
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 16.67
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 35.00

Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 142.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 183.00
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 200.00
KNB-LS7	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 300.00
	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	
KSC-Y32K	<b>Note:</b> NiMH/Li-ion battery only	\$ 130.00
	License Key for KAS-12 <b>(Authentication required)</b>	
KAS-12K	Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00
KSC-32	Rapid rate single unit charger	\$ 82.00
KSC-326AK	Rapid rate 6-unit charger	\$ 745.00
	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	
KVC-15		\$ 162.00
Carrying Accessories		List Price
KBH-11	Spring action belt clip (2.5")	\$ 15.00
	Leather Case, L3 battery, VP6000 Fire. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843LF3001		\$ 70.00
	Leather Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843LP3001		\$ 70.00
	Nylon Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	
R50843NP3001		\$ 70.00
R50840000L20	2" Belt Loop for Leather Cases R50843Lx3001	\$ 25.00
R50840000N20	2" Belt Loop for Nylon Cases R50843Nx3001	\$ 25.00
R50840000L30	3" Belt Loop for Leather Cases R50843Lx3001	\$ 25.00
Microphones & Audio Accessories		List Price
	MIL-SPEC, Speaker Mic. with Antenna Connector	
KMC-49	<b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 332.00
	MIL-SPEC, IP67 (Immersion) Speaker Mic.	
KMC-70M	3 Programmable Buttons	\$ 133.00
	MIL-SPEC, IP67 (Immersion) Speaker Mic. Hi-Viz Green.	
KMC-70GR	3 Programmable Buttons	\$ 142.00
	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	
KEP-1		\$ 53.00
	2.5mm earphone kit for KMC-49 Speaker Mic	
KEP-2		\$ 53.00
	2-wire palm mic w/earphone, universal connector (Black)	
KHS-11BL		\$ 160.00
	3-wire mini lapel mic w/earphone, universal connector (Black)	
KHS-12BL		\$ 203.33
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 128.00

	Protocol	List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	System Options	List
1	Analog Conventional	\$0
2	P25 Conventional	\$350.00
3	P25 Phase 1 Trunking (Must also have option 2)	\$125.00
4	P25 Phase 2 TDMA (Must also have option 3)	\$ 400.00
5	Viking16	\$ 775.00
	Optional Features	List
	Channels/Talkgroups	
	1024 Channels/Talkgroups (standard)	\$0
	2048 Channels/Talkgroups (standard)	\$300.00
	4096 Channels/Talkgroups	\$600.00
	Encryption	
	DES-OFB (multi-key)	\$0
	AES FIPS 140-2 (multi-key)	\$ 475.00
	ARC4 (ADP compatible)	\$0
	Programming & Data	
	TrueVoice™ Noise Cancellation	\$0
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00
	Bluetooth	\$ 100.00
	Man Down	\$ 100.00



# P25 Mission Critical Viking **VP5000**

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

At just under 5.5 inches tall (140 mm), these small KENWOOD Viking portable radios are packed with advanced features for today's public safety agencies.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Full key models (w/numeric keypad) & standard key models (w/o numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth\*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP\*
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloader

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

## User Selectable Color Themes

- Multi-line text
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (8 themes available)



## Compatible With P25 Systems

- ATLAS\* P25 Phase 1 and Phase 2 System
- Motorola Astro\* 25 - P25 Phase 1 & Phase 2
- Harris VIDA\* - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA\* Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault\*.



### Armada\* Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.



Radio - Base Model		List
VP5430F2	P25 Portable, 700/800 MHz band, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 1,555.00
VP5430F3	P25 Portable, 700/800 MHz band, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,605.00
VP5330F2	P25 Portable, UHF Hi, 450-520 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330F5	P25 Portable, UHF Lo, 380-470 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5330F3	P25 Portable, UHF Hi, 450-520 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5330F6	P25 Portable, UHF Lo,, 380-470 MHz, Model 3 (full keypad)	\$ 1,605.00
VP5230F2	P25 Portable, VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,555.00
VP5230F3	P25 Portable, VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,605.00
Model Options		List
250VP500001	Intrinsically Safe (CSA) - <i>KNB-LS5 or -LS7 battery required</i>	\$ 99.00
Antenna		List
KRA-32K	700/800 MHz Whip Antenna	\$ 36.00
KRA-36	700/800 MHz Stubby Antenna	\$ 26.00
KRA-27M	UHF whip antenna 440-490 MHz	\$ 16.67
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 16.67
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 16.67
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 16.67
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 16.67
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 16.67
KRA-26M	VHF helical antenna 146-162 MHz	\$ 16.67
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 16.67
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 16.67
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 16.67
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 16.67
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 16.67
KRA-25	VHF High gain helically loaded whip antenna 148-162 MHz	\$ 35.00
Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 142.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 183.00
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 200.00
KNB-LS7	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 300.00
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software) <b>Note:</b> NiMH/Li-ion battery only	\$ 130.00
KAS-12K	License Key for KAS-12 ( <b>Authentication required</b> ) Battery Reader Software for KNB-L1M/L2M/L3M & KSC-Y32 (Windows® Vista/7/8/8.1)	\$ 85.00

KSC-32	Rapid rate single unit charger	\$ 82.00
KSC-326AK	Rapid rate 6-unit charger	\$ 745.00
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 162.00
<b>Carrying Accessories</b>		<b>List Price</b>
KBH-11	Spring action belt clip (2.5")	\$ 15.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	\$ 27.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	\$ 23.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 38.00
KLH-200K3	Heavy duty leather carrying case for VP5000 series with KNB-L2/L3/LS5CU batteries (for both keypad models)	\$ 45.00
KLH-201K3	Nylon carrying case for VP5000 series with KNB-L2/L3/LS5CU battery (for both keypad models)	\$ 27.00
<b>Special Color Housing</b>		<b>List Price</b>
835VP5000OH	ORANGE HOUSING, VP5000, MODEL 2	\$ 200.00
835VP5000YH	YELLOW HOUSING, VP5000, MODEL 2	\$ 200.00
<b>Microphones &amp; Audio Accessories</b>		<b>List Price</b>
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 332.00
KMC-70M	MIL-SPEC, IP67 (Immersion) Speaker Mic. 3 Programmable Buttons	\$ 133.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	\$ 53.00
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 53.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 160.00
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 203.33
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 128.00

	<b>Protocol</b>	<b>List</b>
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	<b>System Options</b>	<b>List</b>
1	Analog Conventional	\$0
2	P25 Conventional	\$0
3	P25 Phase 1 Trunking	\$0
4	P25 Phase 2 TDMA	\$ 400.00
5	Viking16	\$ 775.00
	<b>Optional Features</b>	<b>List</b>
	<b>Channels/Talkgroups</b>	
	1024 Channels/Talkgroups (standard)	\$0
	<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
	DES-OFB (multi-key)	\$ 195.00
	AES FIPS140-2 (DES-OFB included) (multi key)	\$ 750.00
	ARC4 (ADP compatible)	\$0
	<b>Programming &amp; Data</b>	
	TrueVoice™ Noise Cancellation	\$0
	MDC1200/GE-Star Signaling	\$ 50.00
	P25 Conventional Voting Scan	\$0
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional included)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-The-Air-Rekeying)	\$ 750.00
	P25 Authentication (Must also have AES FIPS 140-2)	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	FIRESafe™ First Responder	\$ 250.00
	FIRESafe™ Command (includes First Responder)	\$ 350.00
	GPS	\$ 100.00
	Keypad Programming (U.S. Federal Government Only)	\$ 300.00
	EVRS	\$ 100.00
	Bluetooth	\$ 100.00
	Man Down	\$ 100.00

KENWOOD



# P25 Mission Critical Viking **VP900**

VHF - 700/800 MHz  
P25 Phase 1 & 2 - Viking16

The Viking® VP900 is a dual-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system) 2048 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Instant Recording Replay (IRR)
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VP900 operating manual for detailed requirements & conditions for proper GPS operation.

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault®.



### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
2425AAAA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 1 (no keypad)	\$ 2,575.00
2425AABA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W, and 806-870 MHz, 3W, Model 2 (limited keypad)	\$ 2,775.00
2425AACA53XXX	700/800 MHz, 762-806 MHz + VHF 2.5W and VHF and 806-870 MHz, 3W, Model 3 (full keypad)	\$ 2,975.00
<b>Antenna</b>		<b>List</b>
	Multiband 700/800 + VHF Standard	\$0
	Multiband 700/800 + VHF Flexible	\$0
<b>Battery</b>		<b>List</b>
	No Battery (credit)	\$ (40.00)
	Viking Li-ion Battery	\$0
<b>Housing</b>		<b>List</b>
	Black Housing	\$0
	High Visibility Housing	\$ 200.00
<b>Protocol</b>		<b>List</b>
1	Analog FM (included in base radio)	\$0
2	Digital/Project 25 CAI AMBE+2 with Free Single-Key DES-OFB (includes protocol option 1)	\$ 200.00
<b>System Option</b>		<b>List</b>
1	Conventional System	\$ 350.00
2	Viking16	\$ 775.00
<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>		
4	Project 25 Conventional System	\$ 350.00
5	Project 25 Phase 1 Trunking Only (includes system option 4)	\$ 475.00
6	Project 25 Phase 2 TDMA (includes system option 4 & 5)	\$ 875.00
7	Project 25 Phase 1 Trunking and Viking16 Trunking (includes system options 2 & 4)	\$ 850.00
8	Project 25 Phase 2 TDMA and Viking16 Trunking (includes system options 2, 4 & 5)	\$ 1,250.00

Optional Features	List
<b>Channels/Talkgroups</b>	
2048 Channels/Talkgroups (standard)	\$0
<b>Encryption (requires Protocol Option 2 - Digital/Project 25 CAI AMBE+2)</b>	
Single-Key DES-OFB (included with Protocol Option 2)	\$0
Single-Key AES	\$ 150.00
DES-OFB (multi-key)	\$ 550.00
AES (multi-key)	\$ 475.00
DES-OFB + AES (Multi-Key)	\$ 750.00
ARC4 (ADP compatible)	\$0
<b>Programming &amp; Data</b>	
MDC1200/GE-Star Signaling	\$ 50.00
FIRESafe™ First Responder	\$ 250.00
FIRESafe™ First Command (includes FIRESafe™ First Responder)	\$ 350.00
GPS	\$ 100.00
Third Party Interface	\$ 150.00
Keypad Programming (U.S. Federal Government Only)	\$ 300.00
<b><i>The following selections require Protocol Option 2 (Digital/Project 25 CAI AMBE+2):</i></b>	
Project 25 Data Conventional	\$ 140.00
Project 25 OTAR Conventional & Trunking	\$ 750.00
P25 Paging Decode	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 200.00
<b><i>The following selections require a System Option 5-8 (options with Phase 1 or Phase 2):</i></b>	
Project 25 Authentication	\$ 100.00
Project 25 Data Trunking (includes Project 25 Data Conventional)	\$ 200.00
EVRS	\$ 100.00

# KENWOOD



## VM7000

VHF (with High Power and Low Band High Power<sup>2</sup> options) ·  
 UHF-Low · UHF-High · 700/800 MHz  
 Analog · P25 Phase 1 & 2 · Viking16

With the VM7000 All-Band Multi-Deck Mobile, you can simultaneously receive and display up to four bands so you never miss a call. The "select" and "unselect" speakers give you the option for audio control similar to a dispatch console. KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



### Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 and 4096 options)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Conventional vote scan
- Single or Dual Remote Mount configuration
- External speaker
- Over-the-Internet-Programming (OTIP)
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- WiFi
- Instant Recording Replay (IRR)
- Voice Recording

<sup>1</sup>Refer to the Viking VM7000 operating manual for detailed requirements & conditions for proper GPS operation.

### Accessories

Complete line of accessories including microphones, speakers & antennas.  
 Download the accessory catalog at  
[www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

### Enhanced Control Head

- Larger display - 2.75" (36 x 60 mm)
- Resolution of 400 x 240 pixels
- Viewing angle of 140°
- Multi-color LCD + TX/RX (green/red) LEDs
- D-Pad & more PF keys, dedicated emergency key & channel/volume control knobs
- Replaceable A/B/C button labels
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

### Compatible With P25 Systems<sup>2</sup>

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either a direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Primary Radio - (First Deck, Choose one)		List
VM7630HBF-P	VM7000 39-50 MHZ Hi Power Low Band Primary	\$ 3,100.00
VM7730HBF-P	VM7000 136-174 MHZ Hi Power Primary	\$ 3,100.00
VM7730BF-P	VM7000 136-174 MHZ Primary	\$ 2,400.00
VM7830BF-P	VM7000 450-520 MHZ Primary	\$ 2,400.00
VM7830BF2-P	VM7000 380-470 MHZ Primary	\$ 2,400.00
VM7930BF-P	VM7000 700/800 MHZ Primary	\$ 2,400.00
Secondary Radio - (2nd-4th Deck, Choose up to 3)		List
VM7730HBF-S	VM7000 136-174 MHZ Hi Power Secondary	\$ 1,800.00
VM7630HBF-S	VM7000 39-50 MHZ Hi Power Low Band Secondary	\$ 1,800.00
VM7730BF-S	VM7000 136-174 MHZ Secondary	\$ 1,100.00
VM7830BF-S	VM7000 450-520 MHZ Secondary	\$ 1,100.00
VM7830BF2-S	VM7000 380-470 MHZ Secondary	\$ 1,100.00
VM7930BF-S	VM7000 700/800 MHZ Secondary	\$ 1,100.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-36	Hi Power Deck Mounting Bracket	\$ 77.00
836VMB10	Mounting Bracket, Dual Deck, VM7000	\$ 165.00
KCT-46	Ignition Sense Cable	\$ 14.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 250.00
KCT-18	Hi Power Ignition Sense Cable	\$ 20.00
Control head		List
KCH-20RV	KCH-20 Enhanced control head	\$ 700.00
KCT-23M3	DC Cable-Remote	\$ 55.00
KCT-23M4	Hi Power Deck DC Cable	\$ 55.00
KCT-71M2	17 Ft remote cable	\$ 72.00
KCT-71M3	25 Feet remote cable	\$ 82.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 500.00
KCT-71M4	1.6 Ft Remote Cable / Multi-deck Control Cable	\$ 46.00
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 53.00
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 97.00
597539077901	USB Micro A-B Cable	\$ 18.00
Speaker		List
KCT-72M	External Accessory Connection Cable for KCH-20RV/KCH-21RF remote control heads	\$ 37.00
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
KES-5A	40W External Speaker	\$ 61.25
Power Supply		List
EH-30	VM7000 30 Amp DC Power Supply for Hi-Power decks	\$550
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$177



Software Options	List
Analog FM	\$0
P25 CAI AMBE+2	\$0
Analog Conventional	\$0
P25 Conventional	\$ 350.00
P25 Phase 1 Trunking	\$ 125.00
P25 Phase 2 TDMA	\$ 400.00
Viking16	\$ 775.00
1024 Ch	\$0
2048 Ch	\$ 300.00
4096 Ch	\$600.00
DES-OFB multi-key	\$0
AES FIPS-140-2 multi-key	\$ 475.00
ARC4 (ADP Compatible)	\$0
Conventional Voting Scan	\$0
TrueVoice Noise Cancellation	\$0
MDC1200 / GE-Star Signaling	\$ 50.00
P25 Data Conventional	\$ 140.00
P25 Data Trunking (Conventional incl)	\$ 200.00
P25 Paging Decode	\$ 100.00
OTAR (Over-the-Air-Rekeying)	\$ 750.00
P25 Authentication	\$ 100.00
OTAP (Over-the-Air Programming)	\$ 200.00
GPS	\$ 100.00
GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 42.00
EVRS	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM6000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
  - 1024 channels (2048 option)
  - Mixed protocol zones
  - P25 Authentication (Link Layer Authentication)
  - P25 IP packet data
  - P25 GPS data (built in GPS)\*
  - MDC-1200 & GE-Star signaling
  - Analog & P25 Conventional vote scan
  - Remote mount only (Viking Control Head)
  - Dual Viking Control Heads (option)
  - External speaker
  - Fixed control station
  - WiFi
  - Bluetooth
  - Instant Recording Replay (IRR)
  - Voice Recording
  - Encryption
    - ARC4™ software encryption; compatible with Motorola ADP\*
    - DES-OFB
    - AES-256 (FIPS 140-2) Single and Multi-Key
    - Over-the-Air-Rekeying (OTAR)
    - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- \*Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohanson.com/products/accessories](http://www.ejohanson.com/products/accessories).

## Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

User selectable themes (8 themes available)

Day & night display options

An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
VM6730BF	VM6000 136-174 MHZ	\$ 2,150.00
VM6830BF	VM6000 450-520 MHZ	\$ 2,150.00
VM6830BF2	VM6000 380-470 MHZ	\$ 2,150.00
VM6930BF	VM6000 700/800 MHZ	\$ 2,150.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 55.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 177.00
KCT-46	Ignition Sense Cable	\$ 14.00
Control head		List
	Viking Control Head (VCH)	
835VM6000VCH	<b><i>The pricing is valid only when purchased with the radio. If purchased separately, List price is \$1,695</i></b>	\$ 900.00
KCT-23M3	DC Cable-Remote	\$ 55.00
597535777501	6 Ft remote cable	\$ 100.00
597535777502	17 Ft remote cable	\$ 160.00
597535777503	50 Ft remote cable	\$ 300.00
250074031003	VCH Standard Mobile Mic	\$ 140.00
589001202303	VCH Desktop Mic	\$ 480.00
Speaker		List
2500151006	5in. 15W Speaker, Crimp Leads	\$ 75.00
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
KES-5A	40W External Speaker	\$ 61.25

Software Options		List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	Analog Conventional	\$0
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	Viking16	\$ 775.00
	1024 Ch	\$0
	2048 Ch	\$ 300.00
	4096 Ch	\$ 600.00
	DES-OFB multi-key	\$0
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$0
	Conventional Voting Scan	\$0
	TrueVoice Noise Cancellation	\$0
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option selected in CeVo</i>	\$ 42.00
	EVRS	\$ 100.00

KENWOOD

VIKING

# P25 Mission Critical Viking VM5000

VHF · UHF (High & Low) · 700/800 MHz  
P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



## Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- GPS AVL data (built in GPS)
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Dash mount (KCH-19 control head only)
- Remote mount
- Dual control heads
- Internal or external speaker
- Fixed control station
- WiFi (remote mount configuration only)
- Bluetooth (Future)
- Instant Recording Replay (IRR)
- Voice Recording
- Encryption
  - ARC4™ software encryption; compatible w/Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)

*Refer to the Viking VM5000 operating manual for detailed requirements & conditions for proper GPS operation.*

## Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.ejohnson.com/products/accessories](http://www.ejohnson.com/products/accessories).

## Basic Control Head

- Resolution of 422 x 154 pixel
- Viewing angle of 140°
- User selectable themes (8 themes available)
- Day & night display options



Day - High Contrast



Night - High Contrast

## Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



### Armada® Fleet Management

Update your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

Radio - Base Model		List
VM5730BF	VM5000 136-174 MHZ	\$ 2,150.00
VM5830BF	VM5000 450-520 MHZ	\$ 2,150.00
VM5830BF2	VM5000 380-470 MHZ	\$ 2,150.00
VM5930BF	VM5000 700/800 MHZ	\$ 2,150.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 14.00
KMB-34	Mounting Case	\$ 55.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 177.00
KCT-46	Ignition Sense Cable	\$ 14.00
Control head		List
KCH-19VM	Dash - KCH-19	\$ 180.00
KCT-23M	DC Cable-Dash	\$ 40.00
KCT-23M3	DC Cable-Remote	\$ 55.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 250.00
KCT-71M2	17 Ft remote cable	\$ 72.00
KCT-71M3	25 Feet remote cable	\$ 82.00
597535777050	VM5000/7000 Remote Cable upto 50 Ft	\$ 300.00
597535777100	VM5000/7000 Remote Cable upto 100 Ft	\$ 500.00
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 53.00
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 97.00
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	\$ 88.00
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Improved noise response for Phase 2 TDMA systems	\$ 183.00
Speaker		List
KAP-2	Horn Alert / PA Relay Option Kit	\$ 64.00
RPSP-15	5W External Speaker, compact	\$ 25.00
KES-5A	40W External Speaker	\$ 61.25

Software Options		List
	Analog FM	\$0
	P25 CAI AMBE+2	\$0
	Analog Conventional	\$0
	P25 Conventional	\$ 350.00
	P25 Phase 1 Trunking	\$ 125.00
	P25 Phase 2 TDMA	\$ 400.00
	Viking16	\$ 775.00
	1024 Ch	\$0
	DES-OFB multi-key	\$0
	AES FIPS-140-2 multi-key	\$ 475.00
	ARC4 (ADP Compatible)	\$0
	Conventional Voting Scan	\$0
	TrueVoice Noise Cancellation	\$0
	MDC1200 / GE-Star Signaling	\$ 50.00
	P25 Data Conventional	\$ 140.00
	P25 Data Trunking (Conventional incl)	\$ 200.00
	P25 Paging Decode	\$ 100.00
	OTAR (Over-the-Air-Rekeying)	\$ 750.00
	P25 Authentication	\$ 100.00
	OTAP (Over-the-Air Programming)	\$ 200.00
	GPS	\$ 100.00
	GPS Antenna <i>Automatically selected when GPS option is selected in CeVo</i>	\$ 42.00
	EVRS	\$ 100.00

## Enhanced Vehicular Repeater Systems

EVRS Models		List
SVR-P255M-W3K	VEHICULAR REPEATER 764-870 MHZ	\$ 6,300.00
SVR-P255UA-W3K	VEHICULAR REPEATER 405-470 MHZ	\$ 6,300.00
SVR-P255V-W3K	VEHICULAR REPEATER 136-174 MHZ	\$ 6,300.00
Cables		List
SMX-350-W3K	VM7000 MULTIDECK INTERFACE MUX CABLE	\$ 1,100.00
7502-10-1245-W3K	SVR VMX000 INTERFACE CABLE	\$ 120.00
7555-10-1245-W3K	SVR VM900 INTERFACE CABLE	\$ 120.00
TCK-203-W3K	SVR 3' TNC CABLE KIT FOR USE WITH BPF/BRF FILTERS	\$ 98.00
TCK-206-W3K	SVR 6' TNC CABLE KIT FOR USE WITH BPF/BRF FILTERS	\$ 124.00
Filters and Pre-Selectors		List
BRF-1601-W3K	NOTCH FILTER, 150-174 MHZ, ( 5M SEPARATION)	\$ 250.00
BRF-1602-W3K	DUAL NOTCH FILTER, 150-174 MHZ (2M SEPARTATION)	\$ 420.00
BRF-4601-W3K	NOTCH FILTER, 450-470 MHZ (10M SEPARATION)	\$ 250.00
BRF-4602-W3K	DUAL NOTCH FILTER, 450-470 MHZ (5M SEPARATION)	\$ 420.00
BPF-1604-W3K	PRE-SELECTOR, 150-174 MHZ (FACTORY TUNED)	\$ 420.00
BPF-7704-W3K	PRE-SELECTOR, 770 MHZ, (FACTORY TUNED)	\$ 420.00
BPF-8604-W3K	PRE-SELECTOR, 860 MHZ, (FACTORY TUNED)	\$ 420.00
Accessories		List
KLA-250-W3K	SVR-P250 KEY LOADER ADAPTER	\$ 1,104.00
FY-4-W3K	SVR PROGRAMMING CABLE & SOFTWARE	\$ 72.00
Options		List
9300-11-0058-W3K	SVR-P250 AES & DES ENCRYPTION	\$ 1,270.00



**ATLAS Price Guide | May 2019**

**List Price**

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	<b>ATLAS 1200 P25 STATION 100W VHF 148-174MHz</b>		
336-1212-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$	13,500.00

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	<b>ATLAS 1200 P25 STATION 100W UHF 450-485MHz</b>		
336-1224-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$	13,500.00

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	<b>ATLAS 1200 P25 STATION 100W 800 MHZ</b>		
336-1241-101	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$	15,250.00

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	<b>ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB</b>		
336-1224-102	Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$	16,475.00

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	<b>ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY</b>		
336-1200-082	Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$	1,650.00

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	<b>ATLAS 1200 TOOLS PROGRAMMING KIT</b>		
336-1200-000	Includes programming software and cable.	\$	295.00

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	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b>		
336-1200-091	Includes single power supply, rack mount kit and power cable.	\$	900.00

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	<b>ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b>		
336-1200-092	Includes single power supply, rack mount kit and power cable.	\$	1,550.00

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# Accessory Catalog

## Speaker Mics



**P/N:** 589360010024

**List Price:** \$115.00

**Name:** SPEAKER MIC BASIC, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** MIL-std and PTT button. Available in three lengths.



**P/N:** 589360010030

**List Price:** \$115.00

**Name:** SPEAKER MIC BASIC, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** MIL-std and PTT button. Available in three lengths.



**P/N:** GEM-ML56PRM-C-01

**List Price:** \$200.00

**Name:** VIKING SPEAKER MIC, BLACK, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** Premium Speaker Microphone for VP900 series radios. The Viking Speaker Microphone is engineered to be the best-in-class. It offers loud, clear audio communications without the need to draw additional power from the radio battery, because it does not use an active amplifier. The immersion-rated Viking Speaker Microphone is fully compatible with Viking software-based frequency noise cancellation in analog and digital communications. IP67, MIL-std rated, PTT button, emergency button, 24" cord, 3.5 mm earphone jack, and volume hi-lo button, black.



**P/N:** GEM-ML56PRMHV24-EF1

**List Price:** \$250.00

**Name:** VIKING SPEAKER MIC, HI VIZ, 24", VP-H

**Compatible With:** VP400/600/900

**Details:** Premium Speaker Microphone for VP900 series radios. The Viking Speaker Microphone is engineered to be the best-in-class. It offers loud, clear audio communications without the need to draw additional power from the radio battery, because it does not use an active amplifier. The immersion-rated Viking Speaker Microphone is fully compatible with Viking software-based frequency noise cancellation in analog and digital communications. IP67, MIL-std rated, PTT button, emergency button, 24" cord, 3.5 mm earphone jack, and volume hi-lo button. High visibility green.



**P/N:** KMC-70GR

**List Price:** \$142.00

**Name:** SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T

**Compatible With:** VP6000,VP5000

**Details:** IP67, IS (CSA), MIL-std, PTT button, two programmable buttons, and earphone jack(3.5mm). Coiled Cable length is 26 in. (Stretched length: 78 in.)



**P/N:** KMC-70M

**List Price:** \$133.00

**Name:** SPEAKER MIC, 3PF KEYS, BLACK, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Speaker mic with PTT button, three programmable buttons, and earphone jack (3.5mm). Rated IP67, IS (CSA), MIL-std, Coiled Cable length is 26 in. (Stretched length: 78 in.) Compatible with Kenwood Viking VPx000 series radios.



**P/N:** R5893210B30

**List Price:** \$225.00

**Name:** SPEAKER MIC PREMIUM BLACK, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, detachable cable, 3.5 mm earphone jack, and volume hi-lo button. Available in three lengths.



**P/N:** R5893210G30

**List Price:** \$275.00

**Name:** SPEAKER MIC PREMIUM HI VIZ, 30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, detachable cable, 3.5 mm earphone jack, and volume hi-lo button. Available in three lengths.

## Specialty Speaker Mics



**P/N:** 589360005618

**List Price:** \$315.00

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,18", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$315.00

**P/N:** 589360005625

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$315.00

**P/N:** 589360005630

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H

**Compatible With:** VP400/600/900

**Details:** IP67, MIL-std, PTT button, emergency button, earphone jack, and antenna connector (antenna is not included). Available in three lengths.



**List Price:** \$199.00

**P/N:** APTT1

**Name:** SPEAKER MIC, AINA BT PTT VOICE RESPONDER

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** AINA's PTT Voice Responder is a next generation speaker-microphone which can be connected via Bluetooth to Viking 5000/6000/7000 series subscriber radios. It features PTT plus 5 programmable buttons.VM/VPx000 radios optioned with Bluetooth support the AINA PTT Voice Responder Remote Bluetooth speaker mic. The speaker mic configuration in Armada supports the programmable buttons and customizable blue tooth audio profile. Firmware Notes: \*Viking radios require firmware 8.28.5 or later for compatibility.\*The AINA Voice Responder requires correct firmware and manufacturing date of 1735 or later for compatibility.Accessories:\* ADC1: AINA PTT VR Desktop Charger Cradle\* AVC1: AINA PTT VR Vehicle Charger Cradle



**List Price:** \$145.00

**P/N:** BTR-155

**Name:** BLUETOOTH SPEAKER MIC, SAVOX, K551071 VP-T

**Compatible With:** VP6000,VP5000

**Details:** BLUETOOTH SPEAKER MIC, SAVOX, K551071 VP-TThe Savox BTR-155 Bluetooth Remote Speaker Mic is compatible with the Kenwood Viking VPx000 radios. The rugged design of this Remote Speaker Microphone makes it light, robust (to IP55) and the function buttons have been designed so it can be operated with protective gloves.



**P/N:** KMC-49

**List Price:** \$332.00

**Name:** SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** IP67, IS(CSA), MIL-std, PTT button, two programmable buttons, earphone jack, and antenna connector (antenna is not included but can use standard portable antenna). 5/16-in. coax cable hex wrench is included. Available in 24 in.



**P/N:** V2-G4JD221

**List Price:** \$499.00

**Name:** FIRE SPEAKER MIC, OTTO, 500°F, VP-H

**Compatible With:** VP400/600/900

**Details:** FIRE SPEAKER MIC, OTTO, 500°F, VP-H Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market. Designed to continue functioning even in extreme situations, the OTTO 500 gives fire professionals those critical minutes of communications that can mean the difference between life and death. OTTO 500 is tested to function for more than five minutes at 500 F (260 C) utilizing special high-temperature materials in the case, cable and strain relief. With full immersion capability in one meter of water for 31 minutes and exceptional debris protection including a removable grill and replaceable debris screen for easy cleaning, the durable OTTO 500 is the clear choice for extreme fire-fighting environments Features :Functions for more than five minutes at 500 F (260 C)IP68, immersion rated to one meter of water for 31 minutesNew clip design with increased clamping force and metal loopRemovable green grill with replaceable debris screenLarge PTT for use with glovesOptional emergency button



**P/N:** V2-G4KC221

**List Price:** \$499.00

**Name:** FIRE SPEAKER MIC, OTTO, 500°F, VP-T

**Compatible With:** VP6000,VP5000

**Details:** FIRE SPEAKER MIC, OTTO, 500°F, VP-T. Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market. Designed to continue functioning even in extreme situations, the OTTO 500 gives fire professionals those critical minutes of communications that can mean the difference between life and death. OTTO 500 is tested to function for more than five minutes at 500 F (260 C) utilizing special high-temperature materials in the case, cable and strain relief. With full immersion capability in one meter of water for 31 minutes and exceptional debris protection including a removable grill and replaceable debris screen for easy cleaning, the durable OTTO 500 is the clear choice for extreme fire-fighting environments Features Functions for more than five minutes at 500 F (260 C)IP68, immersion rated to one meter of water for 31 minutesNew clip design with increased clamping force and metal loopRemovable green grill with replaceable debris screen .Large PTT for use with glovesOptional emergency button.Note: Also available as CSA Intrinsically Safe rated as part number V2-G4KC221-S.

## Earpieces



**P/N:** 5892006057

**List Price:** \$70.00

**Name:** EARPIECE COIL CORD, NO PTT, 3.5 MM, VP-H

**Compatible With:** VP400/600/900

**Details:** Earpiece with quick disconnect and noise attenuating eartube/earplug.



**P/N:** KEP-1

**List Price:** \$53.00

**Name:** EARPHONE KIT 3.55MM, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** 3.5 mm earphone kit for speaker mic earpiece with quick disconnect and noise attenuating eartube/earplug. Receive only.



**P/N:** KEP-2

**List Price:** \$53.00

**Name:** EARPHONE KIT 2.5 MM , VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** 2.5 mm earphone kit with quick disconnect and noise attenuating eartube/earplug. Receive only.

## Surveillance



**P/N:** 5895100055

**List Price:** \$140.00

**Name:** 2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H

**Compatible With:** VP400/600/900

**Details:** Mini lapel microphone kit consists of two cables: one that has an earphone and one that has a combined PTT and microphone. Requires adapter (not included): 5895100051.



**P/N:** 5895100056

**List Price:** \$180.00

**Name:** 3 WIRE LAPEL MIC KIT, VP-H

**Compatible With:** VP400/600/900

**Details:** Mini lapel microphone kit consists of three cables: earphone, push to talk switch and a low profile lapel microphone cable.



**P/N:** BTH-300KIT1

**List Price:** \$140.00

**Name:** BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-TThe NEW BTH-300 series PRYMEBLU® Bluetooth (wireless) professional grade lapel microphone kit features a front mounted, easy to use, PTT button. The BTH-300 features a 3.5mm jack compatible. It comes with EH-1189sC Bud style earphone which has a 16" (retracted) Coil Cord and collar clip.



**P/N:** EH-1189SC

**List Price:** \$10.00

**Name:** EARPHONE, BUD STYLE, FOR BTH-300, VP-T

**Compatible With:**

**Details:** EARPHONE, BUD STYLE, FOR BTH-300, VP-TPryme EH-1189SC - Listen Only Earpiece - Ear Bud Style w/Coil Cable w/3.5mm Plug 90 degree plugProduct Specifications:Pryme EH-1189SC earphoneCoil CordBud ear-piece3.5mm 90 degree plugLength 14" coiled / 28" stretchedx89 - 3.5mm Right Angle ConnectorStyle: Single PinFits 3.5mm Audio Jack



**P/N:** KHS-11BL

**List Price:** \$160.00

**Name:** 2 WIRE PALM MIC W/EARPHONE, VP-T/TK

**Compatible With:** VP6000,VP5000

**Details:** Earphone kit with PTT, microphone, and a radio connector.

## Headsets



**P/N:** 5890015059

**List Price:** \$115.00

**Name:** BREEZE HEADSET, W/STD IN-LINE PTT, VP-H

**Compatible With:** VP400/600/900

**Details:** Flexible boom microphone with in-line PTT. Requires the following accessory adapter (not included): Accessory adapter w/3.5 mm threaded jack (5895100051).





**List Price:** \$85.00

**P/N:** 5895100051

**Name:** ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H

**Compatible With:** VP400/600/900

**Details:** Adapter works with earphone kit 5895100055 and headset 5890015059.



**List Price:** \$380.00

**P/N:** BTH-900

**Name:** BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Pryme BTH-900-EMB Bluetooth Dual Ear Muff Racing Style Headset & Microphone. The BTH-900 has both an over-the-head adjustable strap and a strong Behind-the-Head (BTH) spring steel band for a secure fit. The BTH-900 style headset has an extra large PTT button for use with heavy gloves. The headset can be dual-linked with cellphone or tablets AND TWO-WAY RADIOS - AT THE SAME TIME! Fully integrated Bluetooth technology. No wires! No external BT boxes! Clean and professional. Dual operation Bluetooth for use with both Cellphones or Tablets at same time as Two-way radios. Separate control buttons for PTT (radio) and Cellphone (Answer / Call). Sealed rubber control switches give positive user feedback and are sealed to keep dust and moisture out. The Two-color LED indicator shows status of power, low voltage, linked, and other states. Noise reducing condenser boom microphone with wind sock is easy to replace. Bluetooth version 3.0, Class 2. HSP, HFP, A2DP, AVRCP. Typical range approx. 10 meters (30 feet). Operating time approx. 10 hours. Standby 50 hours. Charging cable (USB type) and Wall Charger included. Operating temperature range -15° C to +50° C Alternate configurations may be available. The BTH-800 Over-the-Head (OTH) style has a wide padded head band that is very comfortable. The BTH-700 kit is designed to fit in the slots found on most safety helmets used in safety / construction applications. Foam Ear Pads are easy to replace or upgrade to GEL type for additional comfort. Please contact your Viking Product manager for availability information of alternate styles..



**List Price:** \$128.00

**P/N:** KHS-14

**Name:** HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T

**Compatible With:** VP6000,VP5000

**Details:** Light weight single muff headset with boom mic & in-line PTT, universal connector, black. Intrinsically safe.

## Mobile Mics





**P/N:** 250074031001

**List Price:** \$140.00

**Name:** MOBILE MIC, STANDARD, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Mobile mic 13 PIN for Standard Control Head in VM600 and VM900.



**P/N:** 250074031003

**List Price:** \$140.00

**Name:** MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Mobile mic(HOT) for Viking Control Head in VM6000 and VM600/900. For dual remote installations use KEYPAD COLD MIC(589001603605) for the 2nd remote.



**P/N:** 589001603503

**List Price:** \$290.00

**Name:** MOBILE MIC, KEYPAD, HOT, 13-PIN, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Keypad mic (hot)13 PIN for Standard Control Head in VM600 and VM900.



**P/N:** 589001603505

**List Price:** \$450.00

**Name:** MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH

**Compatible With:** VM600/900 (VCH)

**Details:** Keypad mic 12-Pin (hot) for Viking Control Head in VM600 and VM900.



**P/N:** 589001603603

**List Price:** \$290.00

**Name:** MOBILE MIC, KEYPAD, COLD, 13-PIN, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Keypad mic (cold) noise cancelling dual remote for Standard Control Head in VM600 and VM900 for dual remote configuration.



**P/N:** 589001603605

**List Price:** \$450.00

**Name:** MOBILE MIC, KEYPAD, COLD, 12 PIN, VCH

**Compatible With:** VM600/900 (VCH)

**Details:** Keypad mic 12-PIN (cold) dual Remote for Viking Control Head in VM600 and VM900 for dual remote configuration.



**P/N:** KMC-65M

**List Price:** \$53.00

**Name:** MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20

**Compatible With:** VM7000, VM5000

**Details:** Mobile mic for KCH-19/20.



**P/N:** KMC-66M

**List Price:** \$97.00

**Name:** MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20

**Compatible With:** VM7000, VM5000

**Details:** Keypad mobile mic for KCH-19/20.

## Desk Mics



**P/N:** 5890012023

**List Price:** \$480.00

**Name:** DESKTOP MIC, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Control station desktop mic for Standard Control Head.



**P/N:** 589001202303

**List Price:** \$480.00

**Name:** DESKTOP MIC, VCH

**Compatible With:** VM6000, VM600/900 (VCH)

**Details:** Control station desktop mic for Viking Control Head.



**P/N:** KMC-59C

**List Price:** \$183.00

**Name:** DESKTOP MIC, 8-PIN, TDMA

**Compatible With:** VM7000,VM5000

**Details:** Control Station Desktop Mic with 8-PIN modular jack. Recommended for P25 Phase II, DMR TDMA, and other systems for superior noise rejection.



**P/N:** KMC-9C

**List Price:** \$88.00

**Name:** DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20

**Compatible With:** VM7000,VM5000

**Details:** Control station desktop mic for KCH-19. Please also see recommended KMC-59C Desktop Mic if system includes P25 Phase II or DMR TDMA channels.

## Speakers



**P/N:** 2500151005

**List Price:** \$80.00

**Name:** MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Standard remote speaker for Viking Control Head. Plugs into Pins 1 and 2 of the 8-pin JST connector that comes with every accessory cable.



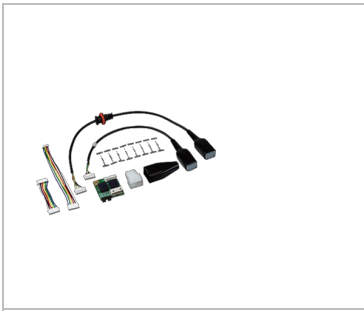
**P/N:** 2500151006

**List Price:** \$75.00

**Name:** MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Speaker for Viking Control Head with Crimp leads.



**List Price:** \$64.00

**P/N:** KAP-2

**Name:** HORN ALERT/P.A. RELAY OPTION, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:** The KAP-2 is an interface kit for VM5000, VM6000 and VM7000 series mobiles to allow certain accessory functions out of the rear of the radio via a "pigtail" cable. It is required to connect the KES-5A external speaker through the rear panel of the radio. It contains a small relay circuit board, and some wiring and connectors. For use with: External speaker (such as KES-5A) at rear of the radio Interfacing a police vehicle's Public Address system – provides relay control and audio Output of Horn Alert (can be used with unit call feature for fire stations/fire engines, for example) Other 3rd party accessories needing the audio and control pins at the rear of the radio (special headset interfaces, etc) It has a jumper setting for selecting the routing of audio (Internal or External Audio). If set to Internal, audio is routed through the speaker jack on the back of the radio. If set to external, audio is routed through the KAP-2 board pigtail. It is a common accessory for VM7000 multi-deck decks (included by default in the high-power VHF & Low band) if individual deck audio is desired This is almost always needed for the VM6000, because the Viking Control Head doesn't have an internal speaker. Some configuration via Armada may be needed to use an associated function (such as Horn Alert)



**List Price:** \$37.00

**P/N:** KCT-72M

**Name:** EXT ACCESSORY CONNECTION CABLE FOR KCH-19M, KCH-20

**Compatible With:** VM7000

**Details:** Required to connect the KES-5A external speaker with a VM7000 at the KCH-20 control head or a VM5000 remote mount at the KCH-19.



**List Price:** \$61.25

**P/N:** KES-5A

**Name:** MOBILE SPEAKER, 40W MAX INPUT, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:** MOBILE SPEAKER, 40W MAX INPUT, VM-T. Requires KAP-2 to connect to radio. Requires KCT-72M accessory cable when connecting to KCH-20 Control Head.



**List Price:** \$25.00

**P/N:** RPSP-15

**Name:** MOBILE SPEAKER, COMPACT, 5W, VM-T

**Compatible With:** VM5000

**Details:** MOBILE SPEAKER, COMPACT, 5W, VM-T



**P/N:** 5875700471

**List Price:** \$155.00

**Name:** L-ION BATTERY, 4500 MAH, NON-FM, VP-H

**Compatible With:** VP400/600/900

**Details:** High Capacity NON IS battery. IP67, MIL-STD



**P/N:** 835VBFM

**List Price:** \$205.00

**Name:** L-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H

**Compatible With:** VP400/600/900

**Details:** L-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H. This kit includes 5875700373 BATTERY, FM KEY AND CARABINER FOR FM KEY.



**P/N:** KBP-8M

**List Price:** \$120.00

**Name:** BATTERY CASE, AA ALKALINEX12,NO IP, ORANGE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included.



**P/N:** KNB-L2M

**List Price:** \$142.00

**Name:** L-ION BATTERY, 2600MAH, NON IS, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Standard L2 size battery. IP67, MIL-STD



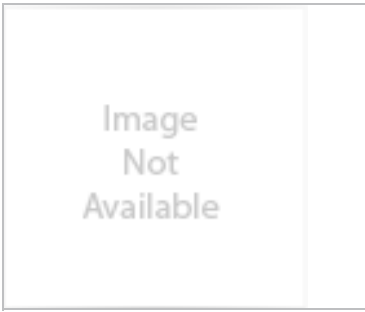
**P/N:** KNB-L3M

**List Price:** \$183.00

**Name:** L-ION BATTERY, 3400MAH, NON IS, VP-T

**Compatible With:** VP6000,VP5000

**Details:** High Capacity L3 size battery. IP67, MIL-STD



**P/N:** KNB-LS5

**List Price:** \$200.00

**Name:** LI-ION BATTERY, 2000MAH, CSA, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Please see KNB-LS5CU as replacement. Standard L2 size Intrinsically Safe battery for USA only. IP67, MIL-STD



**P/N:** KNB-LS5CU

**List Price:** \$200.00

**Name:** LI-ION BATTERY, 2000MAH, CSA, VP-T

**Compatible With:**

**Details:** Standard L2 size CSA rated Intrinsically Safe battery (USA only.) IP67, MIL-STD. Direct replacement for the KNB-LS5 battery



**P/N:** KNB-LS7

**List Price:** \$300.00

**Name:** LI-ION BATTERY, 3800MAH, CSA, VP-T

**Compatible With:** VP6000,VP5000

**Details:** LI-ION BATTERY, 3800MAH, CSA, VP-T



**P/N:** KNB-N4M

**List Price:** \$147.00

**Name:** NIMH BATTERY, 2500MAH, NON IS, IP RATED, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Standard Nickel Metal Hydride battery suited for low temperature environment.

## Chargers



**P/N:** 5630600237

**List Price:** \$125.00

**Name:** CHARGER, SINGLE BAY RAPID RATE, VP-H

**Compatible With:** VP400/600/900

**Details:** CHARGER, BATT, SINGLE BAY, RAPID





**P/N:** 5630600361

**List Price:** \$650.00

**Name:** CHARGER, SIX BAY MULTI-CHEM, VP-H

**Compatible With:** VP400/600/900

**Details:** Six Unit multi-chem charger. This charger works for ES models as well.



**P/N:** 836VVC10

**List Price:** \$400.00

**Name:** SINGLE BAY VEHICULAR CHARGER, VP-H

**Compatible With:** VP400/600/900

**Details:** This ultra-rugged product is designed for charging two-way radio batteries in any installation with a 12-24VDC power source. The vehicular charger 836VVC10 can charge batteries with lithium ion (Li-Ion) or lithium polymer (LiPo) chemistry. Please review this manual before installing or using the vehicular charger. 836VVC10 Features1. Product label showing charge status.2. Holes for fastening to dash or mounting bracket.3. Connection point for DC power cable.4. Battery charging contacts.5. Status LED (orange, red, green).6. Hook for connecting tie-down strap.7. Tie-down strap.8. Screws and spacers for fastening charger to vehicle.9. DC power cable with locking connector plug.



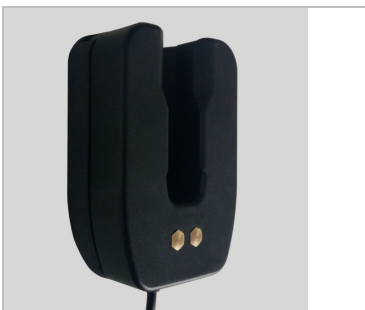
**P/N:** ADC1

**List Price:** \$79.00

**Name:** CHARGER CRADLE, DESKTOP, AINA BT PTT VR MIC

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** For use with the AINA PTT Voice Responder remote speaker mic, part number APTT1. Designed for use on desktops and counters. Connect to any standard 5V USB phone charger.



**P/N:** AVC1

**List Price:** \$49.00

**Name:** CHARGER CRADLE, VEHICLE, AINA BT PTT VR MIC

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** For use with the AINA PTT Voice Responder remote speaker mic, part number APTT1. The Vehicle Charger Cradle is compatible with most mount manufacturers, using standard AMPs hole pattern or male 1/4"-20 threaded stud. 5V male USB connector.



**P/N:** KMB-30A

**List Price:** \$61.00

**Name:** WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Wall Mount Bracket for KSC-326K/326AK/256K/256AK



**P/N:** KSC-32

**List Price:** \$82.00

**Name:** CHARGER, SINGLE BAY RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Single Unit tri-chemical rapid rate charger. Does not work with battery optimizing software. Kenwood KSC-32 Single-Unit Tri-Chemistry Rapid Rate Charger Includes 110/220VAC auto-switching AC Adapter with US-Style line cord plug. Charges Ni-Cd, Ni-MH and Li-Ion battery Types



**P/N:** KSC-326AK

**List Price:** \$745.00

**Name:** CHARGER, SIX UNIT RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** CHARGER, SIX UNIT RAPID RATE, VP-T. Width 21.9 inchDepth 8.0 inchHeight 4.1 inchInput 100-240V 50/60Hz 1.5-0.8AOutput: Li-ion: 9.4V 1.42A x 6, Ni-MH: 13.2V 1A x 6CEC: Yes



**P/N:** KSC-Y32K

**List Price:** \$130.00

**Name:** CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T

**Compatible With:** VP6000,VP5000

**Details:** Single Unit Intelligent tri-chemical rapid rate charger. Microprocessor controlled to prevent over-charging. Interchangeable adapter pods allow charging of a variety of battery models. Highly durable construction





**P/N:** KVC-15

**List Price:** \$162.00

**Name:** VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** The KVC-15 is a rapid rate vehicular charger adapter for the KSC-32 charger base, to adapt use of a Kenwood single pocket desk charger for vehicular use powered from a conventional 12V DC vehicle accessory socket or cigarette lighter socket. The KVC-15 is comprised of a steel mounting base & adjustable locking bracket to hold the charger, and a matching DC cable with a fused cigarette lighter plug. The KVC-15 is intended for under-dash, wall, or floor mounting, in a weather protected location in a vehicle, preferably in the cab or in an enclosed work or cargo space. This device is not intended for unprotected operation in wet locations. This unit is designed for 12V DC operation, only.



**P/N:** KVC-23

**List Price:** \$307.00

**Name:** VEHICULAR CHARGER, VP-T

**Compatible With:** VP6000,VP5000

**Details:** The KVC-23 has a rugged, heavy-duty design ideal for the demanding public safety and industrial sectors which require the charging of portables in the field during long shifts, in remote locations and during times of mass power outages. The KVC-23 Vehicular Charger includes an adjustable-angle steel bracket, D.C. power, ignition sense, and vehicular repeater control leads. 1. Three dedicated LED Status Indicator (Red : Charging, Green : Full, Repeater ON : Yellow)2. Operates in 12V vehicle power systems3. Overcharge protection prevents against reduced battery pack life caused by excessive charging4. Easy to use design allows charging to start by simply sliding the radio or battery into the charger slot5. Easily customized to support a variety of Kenwood radio types, batteries and customer options6. Easily accessible Repeater ON/OFF control button

## Portable Antennas



**P/N:** 5010017101

**List Price:** \$30.00

**Name:** ANTENNA VHF 136-151 MHZ HELICAL(YELLOW CORE),VP-H

**Compatible With:** VP400/600/900

**Details:** Single band VHF antenna. Works for both Viking & ES models



**P/N:** 5010017107

**List Price:** \$30.00

**Name:** ANTENNA UHF 403-512 MHZ ,1/4 WAVE WHIP SMA, VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking & ES models



**P/N:** 5010017110

**List Price:** \$45.00

**Name:** WIDE BAND VHF 136-174 MHz, MP ANTENNA

**Compatible With:** VP400/600/900

**Details:** Single band VHF antenna. Works for both Viking & ES models



**P/N:** 5010105012

**List Price:** \$30.00

**Name:** ANTENNA 800 MHz, 1/4 WAVE, WHIP, PORTABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and 5100 ES



**P/N:** 5010105013

**List Price:** \$30.00

**Name:** ANTENNA 800 MHz HALF-WAVE WHIP(REDCORE), VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and ES



**P/N:** 5010105073

**List Price:** \$30.00

**Name:** ANTENNA 7/800MHZ ,1/2 WAVE WHIP(GREEN CORE),VP-H

**Compatible With:** VP400/600/900

**Details:** Both Viking and ES



**P/N:** 5010900300

**List Price:** \$105.00

**Name:** ANTENNA 7/800/VHF/GPS MULTIBAND FLEXIBLE, VP-H

**Compatible With:** VP400/600/900

**Details:** ANTENNA, MULTIBAND 7/800/VHF/GPS, FLEXIBLE, VP9xx  
Electrical Specifications: Frequency: 136-174 / 763-869 / 1575.42 MHz  
Gain (by band): > -10 dBi / -3 Typical dBi / -3 Peak dBi  
VSWR: 3.2:1 Max  
Connector Type: SMA(F)  
Polarization: Linear, Vertical  
Impedance 50 Ohm  
Power Max: 6 Watt minimum  
Mechanical Specifications: Operating Temperature -30°C to 63°C MIL-STD-810G, Methods 501.5 & 502.5, Procedure II  
Storage Temperature -40°C to 71°C MIL-STD-810G, Methods 501.5 & 502.5, Procedure I  
Immersion: 2 Meters 30 minutes MIL-STD-810G, Methods 512.5, Procedure I  
Antenna Weight: 1.5 oz maximum  
Antenna Flexibility: +/- 180°, 500 Cycles  
Length: 8.325 inches nominal (211 mm), 8.5 inches max (216 mm)



**P/N:** 5010900400

**List Price:** \$70.00

**Name:** ANTENNA 7/800/VHF MULTIBAND, GPS, WHITE CORE, VP-H

**Compatible With:** VP400/600/900

**Details:** ANTENNA, MULTIBAND, 700-800/VHF, GPS, LOGO, WHITE CORE  
Electrical Specifications: Frequency Bands: 136-174 MHz / 762-870 MHz / 1573-1577 MHz  
Return Loss Typical by band: -3dB Max / -6dB Max / -6dB Max  
Gain Peak Typical -7 dBi / 0 dBi / -1 dBi  
Connector Type SMA(F)  
Polarization Linear, Vertical  
Impedance 50 Ohm  
Power (Maximum) 10 Watt  
Mechanical Specifications: Operating Temperature -30°C to 70°C  
Storage Temperature -40°C to 85°C  
Environmental Conditions Indoor / Outdoor  
Antenna Weight 40g maximum  
Antenna Flexibility: +/- 70°, 720 cycles  
Length: 8.2 inches (208mm)



**P/N:** KRA-22M

**List Price:** \$16.67

**Name:** ANTENNA VHF 148-162 MHz LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000, VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-22M2

**List Price:** \$16.67

**Name:** ANTENNA VHF 162-174 MHz LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000, VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-22M3

**List Price:** \$16.67

**Name:** ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M

**List Price:** \$16.67

**Name:** ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M2

**List Price:** \$16.67

**Name:** ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-23M3

**List Price:** \$16.67

**Name:** ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF stubby short profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-25

**List Price:** \$35.00

**Name:** ANTENNA VHF 148-162 MZ, WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is HIGH GAIN VHF HELICALLY LOADED VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M

**List Price:** \$16.67

**Name:** ANTENNA VHF 146-162 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M2

**List Price:** \$16.67

**Name:** ANTENNA VHF 162-174 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-26M3

**List Price:** \$16.67

**Name:** ANTENNA VHF 136-150 MHZ HELICAL, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is VHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M

**List Price:** \$16.67

**Name:** ANTENNA UHF 440-490 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M2

**List Price:** \$16.67

**Name:** ANTENNA UHF 470-520 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-27M3

**List Price:** \$16.67

**Name:** ANTENNA UHF 400-450 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is UHF whip long profile antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-28

**List Price:** \$43.00

**Name:** ANTENNA VHF 140-170 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is BROAD-BAND HELIC LOADED VHF whip long profile, wide band coverage antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-29

**List Price:** \$38.00

**Name:** ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is BROAD BAND VHF whip long profile, wide band coverage antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-32K

**List Price:** \$36.00

**Name:** ANTENNA 700/800 MHZ WHIP, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is 700/800 Whip antenna. Works with VP5000/6000 and almost all of current Kenwood products.



**P/N:** KRA-36

**List Price:** \$26.00

**Name:** ANTENNA 700/800 MHZ STUB, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This is 700/800 Stubby antenna. Works with VP5000/6000 and almost all of current Kenwood products.



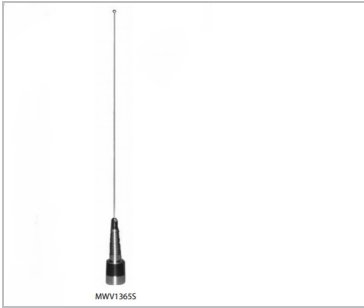
**P/N:** 5010012060

**List Price:** \$315.00

**Name:** ANTENNA 136-960MHZ, WHIP, W/O BASE, TNC-MA, VM-H

**Compatible With:** VM600/900 (VCH), VM400/600/900 (SCH)

**Details:** "Wide Spectrum Multiband Antenna. IP67 compliant design, when installed on the roof or trunk of a vehicle. No tune, multiband coverage of full spectrum VHF, TETRA/UHF and 700/800/900 MHz frequencies"



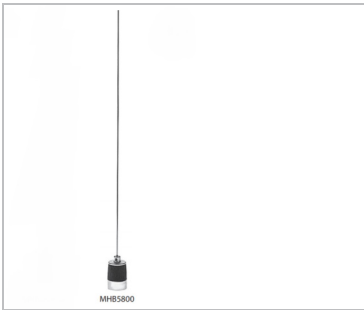
**P/N:** 836VRA10

**List Price:** \$100.00

**Name:** ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T

**Compatible With:** VM7000, VM6000, VM5000

**Details:** ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T These PCTEL antennas address equipment inter-operability challenges by providing superior bandwidth coverage without sacrificing antenna performance. Features • 136-174 MHz. • no tune design for seamless operation and installation ease across multiple frequency bands. • Rugged stainless steel spring and wideband tube assembly for maximum durability and shock absorption. • Thick-wall housing, double-sealed for maximum weatherproofing • Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts.



**P/N:** 836VRA11

**List Price:** \$80.00

**Name:** ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T

**Compatible With:**

**Details:** ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T These 5/8 Wave antennas utilize a chrome coil design with the enhancement of a heavy-duty tapered rod for maximum durability in tough environments. Features • Frequency Range 144-174 MHz. • The matching coil is supported by a low loss coil for superior performance in heavy duty applications. • The tapered coil housing design enhances appearance and prevents moisture from entering the load. • Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts.



**P/N:** 836VRA12

**List Price:** \$280.00

**Name:** ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T

**Compatible With:**

**Details:** ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T The patent-pending WPD136M6C-001 multi-band mobile antenna is a commercial, heavy-duty vehicular antenna. It has an omnidirectional pattern and is vertically polarized with a 50 ohm match. It also has excellent quality & RF performance, and is specifically designed as a full spectrum public safety voice & data communications antenna.



**P/N:** BB3803WS

**List Price:** \$120.00

**Name:** ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP

**Compatible With:** VM7000,VM6000,VM5000

**Details:** ANTENNA, MOBILE, UHF 380-420 MHZ, 3DBI WHIP \*NMO Mount - requires mounting base for installation\*Frequency Range 380-520 MHZ



**P/N:** KRA-40GM

**List Price:** \$43.00

**Name:** GPS ANTENNA, VM-T

**Compatible With:** VM7000,VM6000,VM5000

**Details:**

## Mobile Antenna Kits



**P/N:** 5010012011

**List Price:** \$90.00

**Name:** ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA KIT, MOBILE MAGNETIC MOUNT.



**P/N:** 5010012020

**List Price:** \$85.00

**Name:** ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA KIT 760-870 MHz LO-PROFILE BLACK BMLPV700. Designed for overhead clearance.Kit contains:\* Antenna: MAXRAD 740-870 MHz Low Profile Vertical 2 dB gain\* Brass 3/4" hole mount with 17' ML195 Cable (unterminated)\* N-type ConnectorCompatible with the 700/800 Mhz models of VMx00 and VM5000/6000/7000 mobile radios.





**List Price:** \$80.00

**P/N:** 5010012021

**Name:** ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** 760-870 MHz whip antenna (3db) mobile kit, through hole, roof mount.Kit includes:\* Mobile Antenna\* 3/4" hole Brass Mount with 17' RG8X cable (unterminated)\* N-type Male connector (Solder pin, clamp-on braid)\* Allen key and gasket partsCompatible with the 700/800 Mhz models of VMx00 and VM5000/6000/7000 mobile radios.



**List Price:** \$80.00

**P/N:** 5010012037

**Name:** ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** ANTENNA BASE,HOLE MOUNT,17FT,RG8X CBL,N-MALE NMO. Corrosion Resistant, Eliminates RF noise or static



**List Price:** \$220.00

**P/N:** 5010012070

**Name:** ANTENNA BASE,MAG MOUNT,15 FT,TNC-MALE, VM-H

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** "BASE,ANTENNA,MOBILE,MAG,15 FT CABLE,TNC- DUAL BAND BASE,ANTENNA,MOBILE,MAG,15 FT CABLE,TNC-FEMALE "



**List Price:** \$105.00

**P/N:** G8PI

**Name:** MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI

**Compatible With:** VM7000,VM6000,VM5000

**Details:** This mount is compatible with Viking VMx000 series radio models in the VHF and UHF bands which have an PL259 UHF-Style female connector. This includes models: VM5730BF VM5000 136-174 MHZ VHFVM5830BF VM5000 450-520 MHZ UHF HiVM5830BF2 VM5000 380-470 MHZ UHF LoVM6730BF VM6000 136-174 MHZVHFVM6830BF VM6000 450-520 MHZ UHF HiVM6830BF2 VM6000 380-470 MHZ UHF LoVM7630HBF-x VM7000 39-50 MHZ Low Band (Hi Power 110W)VM7730HBF-x VM7000 136-174 MHZ VHF (Hi Power 110W)VM7730BF-x VM7000 136-174 MHZ VHFVM7830BF-x VM7000 450-520 MHZ UHF HiVM7830BF2-P VM7000 380-470 MHZ UHF LoThe GR8PI magnetic antenna mount is a mobile antenna mount that offers removability. No drilling into the vehicle is required for installation making the location of the magnetic mount easy to adjust.The vehicle antenna mount thread size is 1-1/8 inch - 18. A rubber boot is included to prevent damage to your vehicle. The chrome-plated NMO mount includes 12 feet of RG58A/U cable. A PL259 connector is installed.The Laird chrome vehicle magnet mount is designed for use with NMO mount mobile antennas up to 1000 MHz. \* Frequency range 0-1000 MHz\* Magnetic Mount Base\* 12' Cable RG-58A/U\* PL259 UHF-type female connector\* Compatible with standard NMO mount antennas.Antenna not included.



**P/N:** G8XNI

**List Price:** \$115.00

**Name:** MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** This mount is compatible with Viking VMx000 series radio models in the 700/800 MHz band which have an N-Style female connector, this includes models: VM7930BF-x VM6930BFVM5930BF Also, compatible with the VM900/VM600 series of radios. The G8XNI magnetic antenna mount is a mobile antenna mount that offers removability. No drilling into the vehicle is required for installation making the location of the magnetic mount easy to adjust. The vehicle antenna mount thread size is 1-1/8 inch - 18. The chrome NMO mount includes 12 feet of RG8X cable. An N male crimp style connector is installed. This chrome vehicle magnet mount is designed for use with mobile antennas within 27-1000 MHz \* 27-1000 MHz\* Magnet Mount base\* 12'cable\* N-type Male connector \* Compatible with standard NMO mount antennas. Antenna not included.

## Mobile Antenna Accs



**P/N:** 000-14000

**List Price:** \$150.00

**Name:** CONN, ADAPT, N JACK TO UHF PLUG, 000-14000

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH)

**Details:** Adapter Connector with an N-type male jack to PL289 UHF female plug. May be used with the VMx00 series and the VMx000 series 7/800 mobiles to adapt to PL289 UHF style connections like on the VMx000 UHF and VHF mobiles. Amphenol part number 000-14000



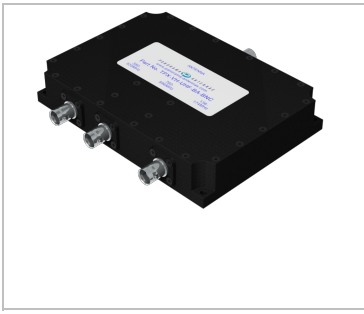
**P/N:** 000-34125

**List Price:** \$140.00

**Name:** CONN, ADAPT, UHF JACK TO N PLUG, 000-34125

**Compatible With:** VM7000,VM6000,VM5000

**Details:** Adapter Connector for UHF Jack (Male) to N-Type Female (Plug) Amphenol P/N 000-34125 May be used to adapt from the PL-289 connector on the back of UHF and VHF VMx000 radios to an N-Type connector on the antenna cable.



**List Price:** \$525.00

**P/N:** 8361125006

**Name:** TRIPLEXER, MOBILE, VHF UHF 7/800, PANORAMA

**Compatible With:** VM7000

**Details:** Triplexer TPX-VH-UHF-BA-TNC from Panorama Antennas can split the signal from a tri-band antenna to three separate radios, such as a VM7000 tri-deck configuration. The Triplexer is also bidirectional, and can also combine the signals from three antennas to a single wideband input. There is no need for switching or matching as the TPX-VH-UHF-BA-TNC will automatically split or combine UHF and VHF to route them to their separate radios. The compact unit requires no power cables and can easily be installed in the roof lining of any vehicle or mounted next to the radio. The TPX-VH-UHF-BA-TNC is ideal for tri-band multifrequency installations. For use with multi-band antennas 5010012060 or 836VRA12 for VM7000 tri-deck configurations where a single antenna is desired for the application. Equipped with 4 TNC-female (socket) connections, with identification of frequency ranges marked. Not for use with VM7000 Hi-power RF decks. Complete rejection of certain specific harmonics of Tx channels to prevent Rx desense to other bands is not guaranteed, depending on channel configuration and the exact frequencies in use. These limited cases may result in missed receptions or temporary loss of control channel on other decks.

## Carry Cases



**List Price:** \$65.00

**P/N:** 5084600609

**Name:** LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, leather belt flap, rings for shoulder strap attachment, and an elastic retaining cord. Designed to fit the Model 1. Designed to fit the VP600/900.



**List Price:** \$70.00

**P/N:** 5084600610

**Name:** LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, detachable swivel belt loop, and an elastic retaining cord. Designed to fit the Model 1. Designed to fit the VP600/900.



**List Price:** \$70.00

**P/N:** 5084600611

**Name:** LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, leather belt flap, rings for shoulder strap attachment, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$70.00**

**P/N:** 5084600612

**Name:** LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets, nickel-plated brass snaps, detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$60.00**

**P/N:** 5084600652

**Name:** NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H

**Compatible With:** VP400/600/900

**Details:** 1000-denier nylon, an impact absorbing firm foam to hold its shape, stainless steel rivets and nickel-plated brass snaps, a detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$60.00**

**P/N:** 5084600655

**Name:** NYLON CASE, BELT LOOP, MODEL 1, VP-H

**Compatible With:** VP400/600/900

**Details:** 1000-denier nylon, an impact absorbing firm foam to hold its shape, stainless steel rivets and nickel-plated brass snaps, a detachable swivel belt loop, and an elastic retaining cord. Designed to fit the VP600/900.



**List Price: \$45.00**

**P/N:** KLH-200K3

**Name:** LEATHER CASE, L2 & L3 MODEL, VP5000

**Compatible With:** VP5000

**Details:** Works with this swivel belt loop: KLH-6SW.



**List Price: \$27.00**

**P/N:** KLH-201K3

**Name:** NYLON CASE, L2 & L3 MODEL, VP5000

**Compatible With:** VP5000

**Details:** Works with this swivel belt loop: KLH-6SW.



**P/N:** R50843LF2001

**List Price:** \$70.00

**Name:** LEATHER CASE FIRE L2, VP6000

**Compatible With:**

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. This case includes Metal D-rings, with the ability to accept an optional shoulder strap. Includes a one-snap release leather retaining strap for secure hold.



**P/N:** R50843LF3001

**List Price:** \$70.00

**Name:** LEATHER CASE FIRE L3, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with a high abrasion resistant finish, stainless steel rivets, nickel plated brass snaps, metal D-rings, for a shoulder strap, and a one-snap release leather retaining strap. Designed to fit the L3 battery and also L2 battery with spacer.



**P/N:** R50843LP2001

**List Price:** \$70.00

**Name:** LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. It Includes a one-snap release leather-retaining strap. Works with L2 size battery. D-Swivel male post. May be matched with a belt loop, with options being: R50840000L30 - Leather 3 inch Belt Loop R50840000L20 - Leather 2 inch Belt loop R50840000S40 - Leather 4.25 inch Slot Belt Loop



**P/N:** R50843LP3001

**List Price:** \$70.00

**Name:** LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Top grain leather with high abrasion resistant finish, stainless steel rivets and nickel-plated brass snaps. It Includes a one-snap release leather-retaining strap for secure hold. Designed to fit the L3 battery and also L2 battery with spacer. May be matched with a belt loop, with options being: R50840000L30 - Leather 3 inch Belt Loop R50840000L20 - Leather 2 inch Belt loop R50840000S40 - Leather 4.25 inch Slot Belt Loop



**P/N:** R50843NP2001

**List Price:** \$70.00

**Name:** NYLON CASE POLICE, L2 MODEL, VP6000

**Compatible With:** VP6000

**Details:** Specially designed tightly woven 1000 denier nylon for high abrasion resistance, stainless steel rivets and nickel plated brass snaps. Includes a one-snap release leather retaining strap.



**P/N:** R50843NP3001

**List Price:** \$70.00

**Name:** NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000

**Compatible With:** VP6000

**Details:** Specially designed tightly woven 1000 denier nylon for high abrasion resistance, stainless steel rivets and nickel plated brass snaps. Includes a one-snap release leather retaining strap. Designed to fit the L3 battery and also L2 battery with spacer. Compatible with belt loop part number R50840000N20.

## Belt Loop and Straps



**P/N:** 5084600100

**List Price:** \$65.00

**Name:** SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-HVP-T

**Compatible With:** VP6000,VP400/600/900

**Details:** Top grain leather, 1 3/36 inches wide adjustable from approximately 52 to 60 inches long. It has multiple length settings and a forged belt buckle.



**P/N:** 5084600612-AR

**List Price:** \$12.00

**Name:** TOP RESTRAINING STRAP REPLACEMENT, CASE 5084600612

**Compatible With:** VP400/600/900

**Details:** Elastic top restraining strap replacement for the VP900 leather carrying case #508460061.



**P/N:** 585510015101

**List Price:** \$40.00

**Name:** BELT LOOP LEATHER, W/D-SWIVEL , 3", VP-H

**Compatible With:** VP400/600/900

**Details:** Top grain high abrasion leather belt loop is designed to fit belts up to 3 inches wide. Leather reinforcements, stainless steel rivets and an all metal swivel receptacle. Comes with case mounting bracket.



**P/N:** KBH-8DS

**List Price:** \$27.00

**Name:** BELT LOOP LEATHER WITH PORTABLE D RING, VP5000

**Compatible With:** VP5000

**Details:** Attached to VP5000 Radio Directly. Attached to the radio directly to swivel



**P/N:** KLH-137ST

**List Price:** \$38.00

**Name:** SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000

**Compatible With:** VP5000

**Details:**



**P/N:** KLH-6SW

**List Price:** \$23.00

**Name:** BELT LOOP LEATHER /DETACHABLE SWIVEL D-RING,VP5000

**Compatible With:** VP5000

**Details:** Used for KLH leather Cases(KLH-200K3) to Swivel.



**P/N:** R5084000003

**List Price:** \$12.00

**Name:** LEATHER RETAINING STRAP, VP6000

**Compatible With:** VP6000

**Details:** This all leather retaining strap was designed for one-snap release with the ability to hold the unit securely, and have long life. Made with 4 ounce (1/16 inch) top grain leather, nickel plated brass snaps, and stainless steel rivets.



**P/N:** R5084000004

**List Price:** \$12.00

**Name:** RETAINING STRAP, PS MIC- KMC 49, VP-T

**Compatible With:** VP6000,VP5000

**Details:** This all leather retaining strap was designed for use with the KMC-49 speaker mic, to hold the unit securely, and have long life. Made with 4 ounce (1/16 inch) top grain leather, nickel plated brass snaps, and stainless steel rivets. Remove the regular strap from the VP6000 cases and insert this strap for use with KMC-49 mic.





**P/N:** R50840000L20

**List Price:** \$25.00

**Name:** BELT LOOP LEATHER, 2", VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 2 inches wide. It measures approximately 3 and 5/8 inches tall and 2 and 7/16 inches wide.



**P/N:** R50840000L30

**List Price:** \$25.00

**Name:** BELT LOOP LEATHER, 3", VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 3 inches wide. It measures approximately 4 and 1/2 inches tall and 2 and 3/4 inches wide.



**P/N:** R50840000N20

**List Price:** \$25.00

**Name:** BELT LOOP, NYLON 2", VP6000

**Compatible With:** VP6000

**Details:** This heavy duty nylon web belt loop is designed to fit belts up to 2 and 1/2 inches wide. It measures approximately 3 and 5/8 inches tall and 2 inches wide. Compatible with nylon case R50843NP3001.



**P/N:** R50840000S40

**List Price:** \$25.00

**Name:** BELT LOOP, LEATHER 4.25" SLOT , VP6000

**Compatible With:** VP6000

**Details:** Top grain leather belt loop is designed to fit belts up to 2 inches wide. It measures approximately 3 inches tall and 4 and 1/2 inches wide.



**P/N:** R50840000SS0

**List Price:** \$100.00

**Name:** SHOULDER STRAP, VP-H/VP-T

**Compatible With:** VP6000, VP5000, VP400/600/900

**Details:** Boston leather (English Bridle) leather, 1 1/4 inches wide adjustable from approximately 67 to 75 inches long. It has multiple length settings, 2 swiveling cross holding snap hooks, and 2 microphone holding loops for a high degree adjustability.





**P/N:** R50841000003

**List Price:** \$12.00

**Name:** LEATHER RETAINING STRAP VP600/900

**Compatible With:** VP400/600/900

**Details:** LEATHER RETAINING STRAP VP600/900

## Belts



**P/N:** R50840000AS0

**List Price:** \$20.00

**Name:** ANTI SWAY BELT, VP-H/VP-T

**Compatible With:** VP6000,VP5000,VP400/600/900

**Details:** Boston leather (English Bridle) leather for ultimate comfort and long life. Designed to increase unit stability, it measures approximately 11, 1/2 inches long and 1 inch wide.



**P/N:** R50840000UB0

**List Price:** \$75.00

**Name:** UTILITY BELT, VP-H/VP-T

**Compatible With:** VP6000,VP5000,VP400/600/900

**Details:** Boston Leather (English Bridle) leather for ultimate comfort and long life. It has multiple length settings and a forged belt buckle.

## Belt Clips and Brackets



**P/N:** 5855100600

**List Price:** \$15.00

**Name:** BELT CLIP 2.25" SPRING LOADED, VP-H

**Compatible With:** VP400/600/900

**Details:** Removable portable belt clip



**P/N:** KBH-11

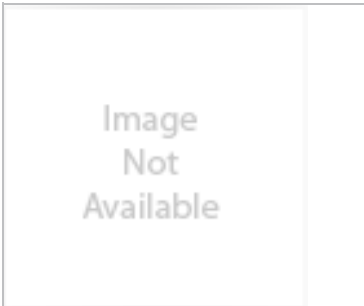
**List Price:** \$15.00

**Name:** BELT CLIP 2.5" SPRING ACTION, VP-T

**Compatible With:** VP6000,VP5000

**Details:**

## Mobile Accessories



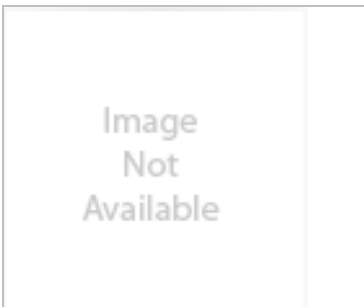
**P/N:** 2500600016

**List Price:** \$535.00

**Name:** DASH TO REMOTE CONVERSION KIT - EXISTING VCH

**Compatible With:** VM600/900 (VCH)

**Details:** DASH TO REMOTE CONVERSION KIT - EXISTING VCH



**P/N:** 2505300003

**List Price:** \$650.00

**Name:** KIT, ADD REMOTE TO DASH, SCH,VM-H

**Compatible With:**

**Details:**



**P/N:** 2505300012

**List Price:** \$535.00

**Name:** KIT, CONVERT DASH TO REMOTE,VM-H

**Compatible With:**

**Details:** This kit is needed to add a second control head. It can be SCH or VCH.



**P/N:** 2515000007

**List Price:** \$400.00

**Name:** GPS MODULE AND LMR-GPS ANTENNA MOUNT

**Compatible With:** VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** GPS MODULE AND LMR-GPS ANTENNA MOUNT. This also Requires 8325000003 GPS Software option.



**List Price:** \$40.00

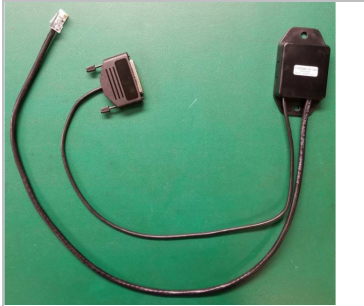
**P/N:** 5975357792

**Name:** Y CABLE, FIRECOM INTEGRATION, VM-H

**Compatible With:** VP400/600/900

**Details:** DB15 MALE TO 2 DB15 FEMALES JOYSTICK SHARING CABLE.

004FIRECOM5000D100: This is the part number of Firecom intercom installation manual. If an installation requires single or dual remote control heads along with Firecom's Intercom, then a Y cable is required. The male end of the cable connects to a remote control head DB15 female port in the back of the radio, and the two female DB15 connectors of the Y cable are used for the remote control heads and the intercom.



**List Price:** \$170.00

**P/N:** 835VMSIB

**Name:** SERIAL INTERFACE BOX RS232-RS485 VM-T

**Compatible With:** VM6000,VM5000

**Details:** UART(RS232) to RS485 converter. Intended for VM-T series radio to interface to a Smart Siren Platinum model SSP2000B



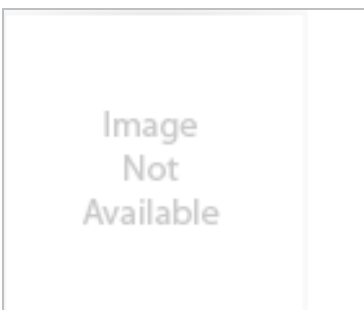
**List Price:** \$12.00

**P/N:** 8360600156

**Name:** MICRO USB MALE TO USB FEMALE ADAPTER CABLE

**Compatible With:** VM7000,VM6000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Requires when OTIP is ordered. Works on all mobile with exception of VM5000 dash mount



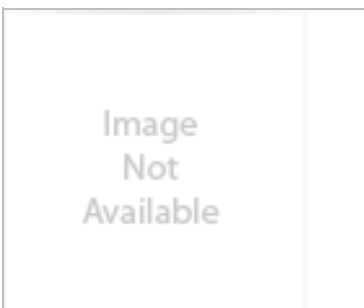
**List Price:** \$165.00

**P/N:** 836VMB10

**Name:** MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000

**Compatible With:** VM7000

**Details:** MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000



**List Price:** \$550.00

**P/N:** EH-30

**Name:** VM7000 DC POWER SUPPLY

**Compatible With:** VM7000

**Details:** DC power supply to be used with VM7000 in a multideck configuration operating as a control station. For single deck a KPS-15 is sufficient.



**List Price:** \$995.00

**P/N:** KCH-21RVM

**Name:** VIKING HAND HELD CONTROLLER BODY

**Compatible With:**

**Details:** The Viking Handheld Control Head (KCH-21) is a full featured control head to work with the Viking VM6000 Mobile and VM7000 Multideck Mobile Radios. Handheld design allows one-handed operation of PTT, volume, and channel selection. Requires the Control Head Remote Kit KRK-17BF for the mobile radio and the KCT-77M2 remote control head cable.



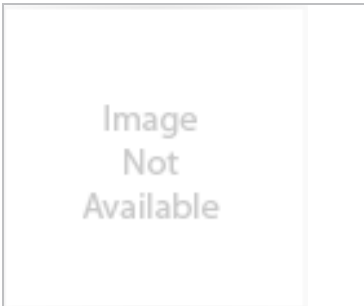
**List Price:** \$72.00

**P/N:** KCT-71M2

**Name:** REMOTE CONTROL CABLE (17 FEET)

**Compatible With:**

**Details:** REMOTE CONTROL CABLE (17 FEET)FOR TK-5X30 SERIES MOBILE RADIOS



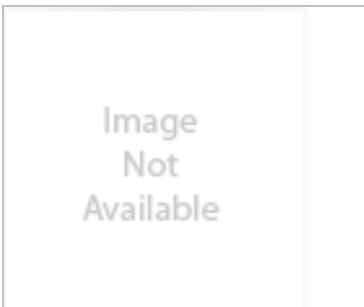
**List Price:** \$177.00

**P/N:** KPS-15

**Name:** DC SWITCHG P/S 117/230 VAC; Power Supply

**Compatible With:** VM7000,VM6000,VM5000

**Details:** DC SWITCHG P/S 117/230 VAC; 23A MAX CONT, 25A PEAK



**List Price:** \$536.00

**P/N:** R597535774401

**Name:** CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD

**Compatible With:** VM600/900 (VCH)

**Details:** CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD



**List Price:** \$2,500.00

**P/N:** SSP2000B

**Name:** FEDERAL SIGNAL BOX, VM-T

**Compatible With:**

**Details:** FEDERAL SIGNAL BOX, VM-T THE SSP2000B IS A PROGRAMMABLE SIREN/LIGHT CONTROLLER WITH A REMOTE-MOUNT AMPLIFIER AND NOISE CANCELLING MICROPHONE. THE SSP2000B IS COMPATIBLE WITH THE FS CONVERGENCE NETWORK FEATURES: WAIL, YELP, HI/LO AND PRIORITY TONES PUBLIC ADDRESS AND AIR HORN. FOUR PORTS FOR SERIAL COMMUNICATION DEVICES. PROGRAMMING CAN BE DONE OUTSIDE THE VEHICLE WITHOUT THE AMPLIFIER. ELEVEN SOLID STATE AUXILIARY RELAYS. PROGRAMMABLE INPUT CIRCUITS (6 ON AMPLIFIER) 100 WATTS. To connect it with VM-T radios buy 835VMSIB together with this equipment.



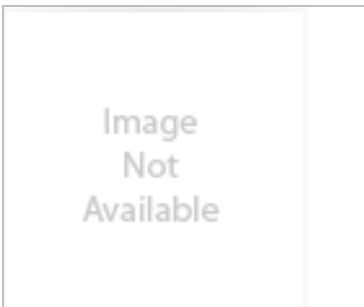
**List Price:** \$750.00

**P/N:** UPORT 404

**Name:** USB HUB, VM7000

**Compatible With:**

**Details:** USB HUB, VM7000 This is a USB HUB for VM7000. It can connect all four decks in single go for programming. Hi-Speed USB 2.0 hubs for up to 480 Mbps USB transmission. USB-IF certification. Dual power inputs (power jack and terminal block) 15 kV ESD Level 4 protection for all USB ports. Rugged metal housing. DIN-Rail and wall mountable. Comprehensive diagnostic LEDs. Choose bus power or external power (UPort 404). The UPort™ 404 are industrial-grade USB 2.0 hubs that expand 1 USB port into 4. The hub is designed to provide true USB 2.0 Hi-Speed 480 Mbps data transmission through each port, even for heavy-load applications. USB-IF certified and fully compliant with the USB Plug & Play specification, the UPort™ 404 USB hub provide a full 500 mA of power per port to ensure that your USB devices will function properly. Support for 12-40 VDC power also makes these USB hubs ideal for mobile applications.



**List Price:** \$85.00

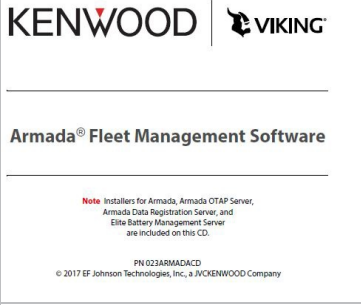
**P/N:** USB433WACDB

**Name:** DONGLE WI-FI, VM-T AND VM-H

**Compatible With:** VM7000, VM6000, VM5000, VM600/900 (VCH)

**Details:** DONGLE WI-FI, VM-T AND VM-H

**Programming/Manual**



**P/N:** 023ARMADACD

**List Price:** \$350.00

**Name:** VIKING ARMADA CD WITH OTIP/DRS/EBM SW

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 023VKFWCD

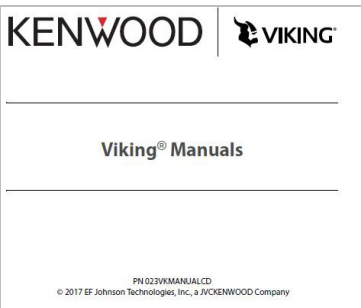
**List Price:** \$500.00

**Name:** VIKING FIRMWARE CD

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 023VKMANUALCD

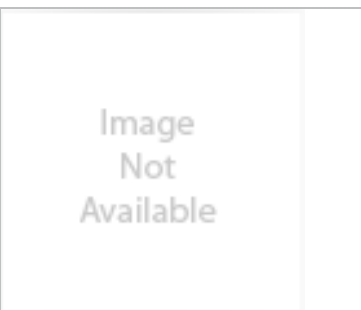
**List Price:** \$400.00

**Name:** VIKING MANUAL CD

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 2505000972

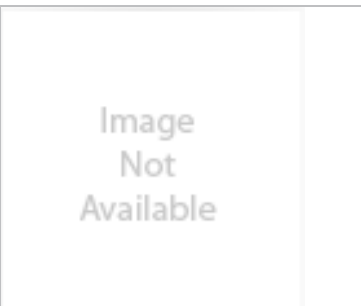
**List Price:** \$250.00

**Name:** VIKING RADIO SECURITY DEVICE - MASTER

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** VIKING RADIO SECURITY DEVICE - MASTER



**P/N:** 2505000974

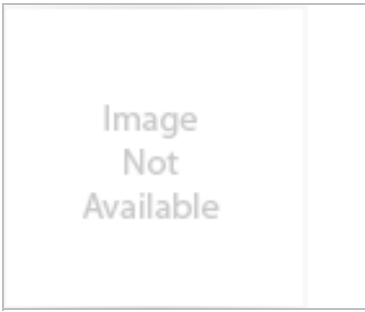
**List Price:** \$175.00

**Name:** VIKING RADIO SECURITY DEVICE - SLAVE

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** VIKING RADIO SECURITY DEVICE - SLAVE



**P/N:** 2990045094

**List Price:** \$500.00

**Name:** ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 5970600970

**List Price:** \$245.00

**Name:** PROGRAMMING CABLE, USB, VP-H

**Compatible With:** VP400/600/900

**Details:**



**P/N:** KPG-36XM

**List Price:** \$162.00

**Name:** PROGRAMMING CABLE, USB, VP-T

**Compatible With:** VP6000,VP5000

**Details:**



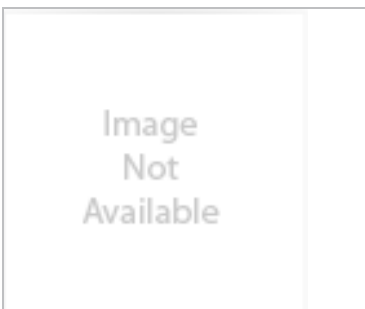
**P/N:** KPG-46XM

**List Price:** \$162.00

**Name:** PROGRAMMING CABLE, VM5000 KCH-19

**Compatible With:** VM5000

**Details:** The KPG-46XM programming cable interfaces to your VM5000 through the KCH-19 Control Head in dash mount configurations.



**P/N:** R5975357791

**List Price:** \$30.00

**Name:** PROGRAMMING CABLE, USB, VM-T RM AND VM-H

**Compatible With:** VM7000,VM6000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** USB Programming cable for Viking Series Mobile radios with Remote Mount control heads.Can be used withVM5000 with KCH-19 remote mount control headVM6000 with VCH remote mount control headVM6000 with KCH-21 hand held controllerVM7000 with KCH-20 remote mount control headVM7000 with KCH-21 hand held controllerAlso compatible with legacy VMx00 series radios with VCH or SCH control heads.



**List Price:** \$35.00

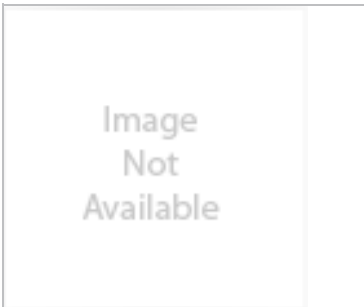
**P/N:** U026-016

**Name:** PROGRAMMING CABLE, 16-FEET USB, VM-T RM AND VM-H

**Compatible With:**

**Details:** PROGRAMMING CABLE, 16-FEET USB, VM-T RM AND VM-H 16 foot USB 2.0 Type A Male to Female Active Extension Cable extends a USB signal Supports data transfer rates up to 480 Mbps Premium double-shielded cables with tinned copper braid and aluminum mylar foil feature twisted 28/22 AWG data/power lines Gold-plated connectors with gold-plated copper contacts assure positive connectivity Regenerates USB signal for extra-long distances: daisy-chain up to 5 to extend the signal up to 80 feet

## Encryption Accessories



**List Price:** \$400.00

**P/N:** 0235000940

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect VK5000 keyloader kit to the VP X00 side port



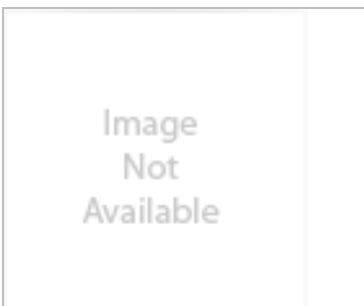
**List Price:** \$400.00

**P/N:** 023500095001

**Name:** VK5000 VOICE AND AUTH KEY CABLE, SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Cable required to connect VK5000 keyloader kit to the Standard Control head. Availability Note: this cable has limited inventory remaining, and is discontinued. Once inventory is depleted, this cable will no longer be offered. Caution: If order quantity exceeds inventory, the quantity will be limited to what is remaining or else the line cancelled.



**List Price:** \$400.00

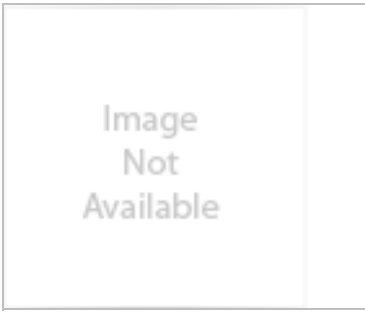
**P/N:** 023500095003

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VCH

**Compatible With:** VM6000, VM600/900 (VCH)

**Details:** Cable required to connect VK5000 keyloader kit to the Viking Control head





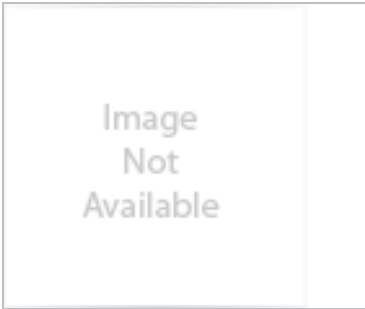
**P/N:** 023500095004

**List Price:** \$400.00

**Name:** VK5000 VOICE AND AUTH KEY CABLE, KCH

**Compatible With:** VM7000,VM5000

**Details:** Cable required to connect VK5000 keyloader kit to the KCH 19, KCH-21 or KCH 20



**P/N:** 023500095005

**List Price:** \$400.00

**Name:** VK5000 VOICE AND AUTH KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect VK5000 keyloader kit to the VP X000 side port



**P/N:** 250SK5000

**List Price:** \$2,400.00

**Name:** VK5000S SONIM KEYLOADER KIT

**Compatible With:**

**Details:** VK5000S SONIM KEYLOADER KIT



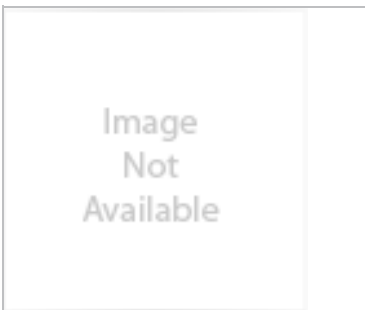
**P/N:** 5855000932

**List Price:** \$275.00

**Name:** KVL4000 VOICE KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect KVL4000 keyloader to theVPX00 sideport for voice keyloading



**P/N:** 5855000938

**List Price:** \$300.00

**Name:** KVL4000 VOICE KEY CABLE, VM-H-SCH

**Compatible With:** VM400/600/900 (SCH)

**Details:** Cable required to connect KVL4000 keyloader kit to the Standard Control head for voice keyloading. For authentication keyloading, use an off-the-shelf DB9 cable for VMX00

Image  
Not  
Available

**P/N:** 585500094001

**List Price:** \$300.00

**Name:** KVL4000 VOICE KEY CABLE, VCH

**Compatible With:** VM6000,VM600/900 (VCH)

**Details:** Cable required to connect KVL4000 keyloader to the Viking Control head for voice keyloading. For authentication keyloading, use an off-the-shelf DB9 cable for VMX00 and off-the-shelf DB25-DB9 cable for VMX000



**P/N:** KPG-115

**List Price:** \$268.00

**Name:** KVL4000 VOICE KEY CABLE, VM-T-KCH

**Compatible With:** VM7000,VM5000

**Details:** Cable required to connect KVL4000 keyloader to the KCH-19, KCH-21 or KCH-20 for voice keyloading. For authentication keyloading, use an off-the-shelf DB25-DB9 cable for VMX000

Image  
Not  
Available

**P/N:** KPG-115AUT

**List Price:** \$337.00

**Name:** KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)

**Compatible With:**

**Details:** KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)

Image  
Not  
Available

**P/N:** KPG-93

**List Price:** \$268.00

**Name:** KVL4000 VOICE KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect KVL3000/4000/5000 keyloader to the VPX000 sideport for voice keyloading of DES/AES.

Image  
Not  
Available

**P/N:** KPG-93AUT

**List Price:** \$337.00

**Name:** KVL4000 AUTH KEY CABLE, VP-T

**Compatible With:** VP6000,VP5000

**Details:** Cable required to connect KVL4000 keyloader to theVPX000 sideport for authentication keyloading

Image  
Not  
Available

**P/N:** KWD-AE30K

**List Price:** \$867.00

**Name:** AES FIPS140-2 DES ENCRYPTION MODULE (MULTI-KEY)

**Compatible With:**

**Details:** AES FIPS140-2 & DES ENCRYPTION MODULE (MULTI-KEY) FOR VP-5x30 SERIES RADIOS

Image  
Not  
Available

**P/N:** R597570006701

**List Price:** \$300.00

**Name:** KVL4000 AUTH KEY CABLE, VP-H

**Compatible With:** VP400/600/900

**Details:** Cable required to connect KVL4000 keyloader to the VPH00 sideport for authentication keyloading

## Software Options

Image  
Not  
Available

**P/N:** 8321000002

**List Price:** \$500.00

**Name:** DIGITAL (P25 CAI AMBE +2), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8322000001

**List Price:** \$550.00

**Name:** ANALOG CONVENTIONAL, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8322000002

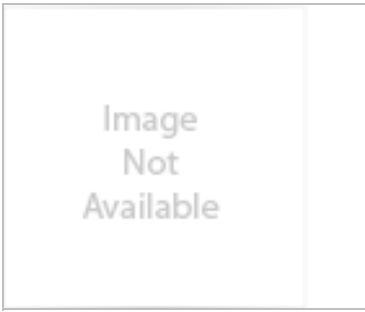
**List Price:** \$550.00

**Name:** P25 CONVENTIONAL , VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8322000005

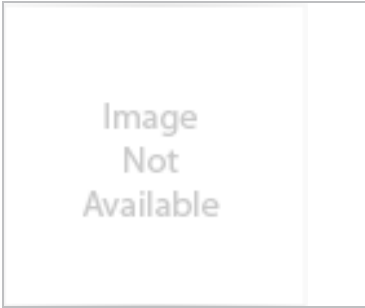
**List Price:** \$550.00

**Name:** P25 PHASE 1 TRUNKING, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8322000006

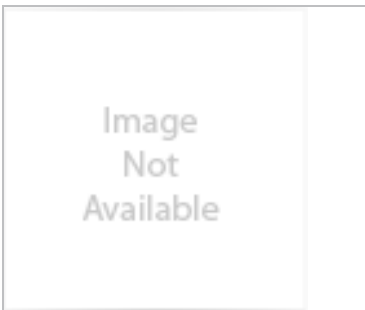
**List Price:** \$550.00

**Name:** P25 PHASE 2 TDMA, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



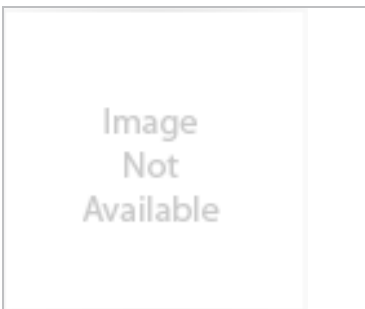
**P/N:** 8322000104

**List Price:** \$775.00

**Name:** VIKING16

**Compatible With:**

**Details:** VIKING16



**P/N:** 8323000002

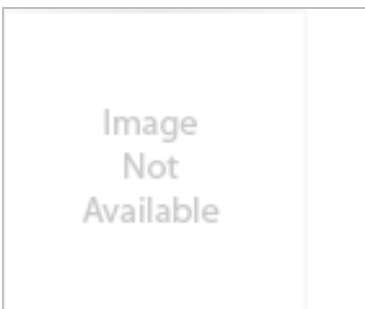
**List Price:** \$500.00

**Name:** AES FIPS SINGLE KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000003

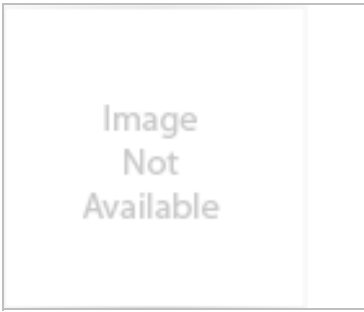
**List Price:** \$550.00

**Name:** DES-OFB MULTI-KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000004

**List Price:** \$750.00

**Name:** AES FIPS MULTI-KEY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8323000005

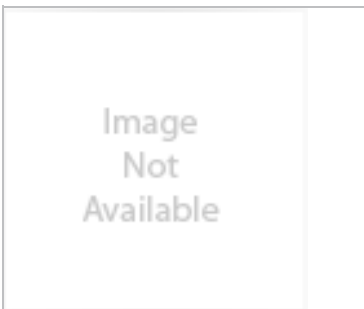
**List Price:** \$50.00

**Name:** ARC4 (ADP COMPATIBLE), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The ARC4 (Alleged Rivest Cipher 4) software encryption option for Kenwood Viking VP/VM series radios uses software keys created in the Viking Armada radio programming software and is compatible with Motorola's ADP encryption.



**P/N:** 8324000002

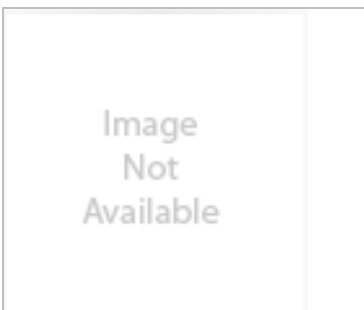
**List Price:** \$800.00

**Name:** P25 OTAR (OVER THE AIR REKEYING), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Over-The Air-Rekeying (OTAR) is the process of sending encryption keys and related key management messages over-the-air to specific radios. OTAR is available only on P25 conventional and trunked channels, and only to program DES-OFB and AES keys.



**P/N:** 8324000003

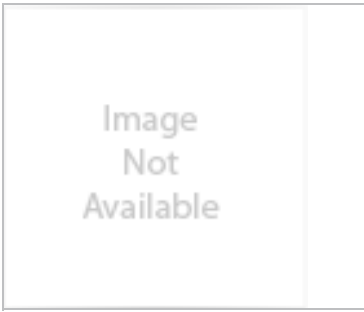
**List Price:** \$250.00

**Name:** OTAP (OVER-THE-AIR PROGRAMMING), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Over the Air Programming (OTAP) option enables you to program radios without connecting them to a computer. For P25 trunking and Conventional P25 only



**P/N:** 8324000004

**List Price:** \$200.00

**Name:** OTIP, VM-H/VM-T

**Compatible With:** VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** OTIP allows programming of mobile radios over W-Fi. available on all mobiles. On VM5000, it is available in remote mount configuration. Please make sure to order the hardware required for mobile. These are available under mobile accessories: USB433WACDB: Dongle W-Fi, VM-T and VM-H



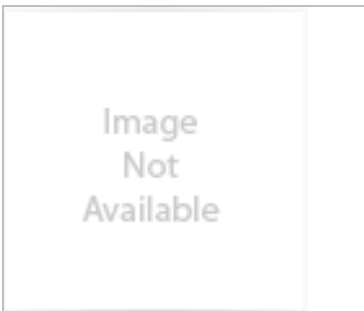
**P/N:** 8324000005

**List Price:** \$300.00

**Name:** KEYPAD PROGRAMMING (US FED GOVT), VIKING

**Compatible With:**  
VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



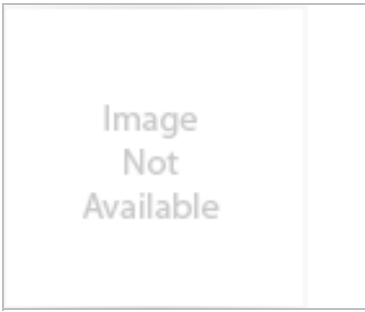
**P/N:** 8325000001

**List Price:** \$250.00

**Name:** P25 DATA TRUNKING (PACKET DATA), VIKING

**Compatible With:**  
VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The P25 Packet Data mode allows a subscriber unit to act as a packet data modem for a remote application connected to the radio via RS-232 port. For example, the subscriber unit could communicate with a mobile computer through a PPP connection on the radio port to send/retrieve data to a police incident reporting app or state databases on the wide area network. This option is for enabling External Data on P25 Trunking systems only. See also: software option 8325000002 for Data on P25 Conventional systems. However, please note that when configured along with the purchase of a new a radio, the data option for P25 Conventional is also included by default. This option is not needed for data applications which are internal to the radio, such as OTAP, OTAR, or GPS location reporting.



**P/N:** 8325000002

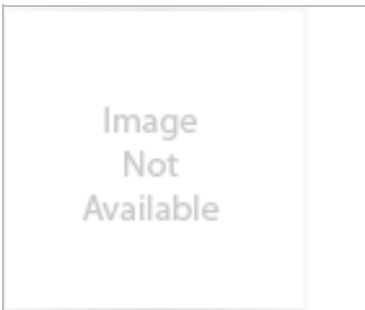
**List Price:** \$250.00

**Name:** P25 DATA CONVENTIONAL (PACKET DATA), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The P25 Packet Data mode allows a subscriber unit to act as a packet data modem for a remote application connected to the radio via RS-232 port. For example, the subscriber unit could communicate with a mobile computer through a PPP connection on the radio port to send/retrieve data to a police incident reporting app or state databases on the wide area network. This option is for enabling External Data on P25 Conventional systems only. See also: software option 8325000001 for Data on P25 Trunking systems. This option is not needed for data applications which are internal to the radio, such as OTAP, OTAR, or GPS location reporting.



**P/N:** 8325000003

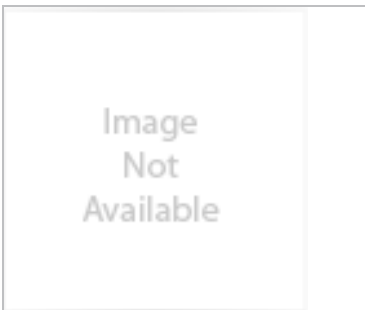
**List Price:** \$200.00

**Name:** GPS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** For Mobiles, you will need GPS Hardware. Please order these items in addition to 8325000003:VMH00: Order the GPS hardware module(2515000007)VMT000: Order only the GPS antenna(KRA-40GM)



**P/N:** 8326000001

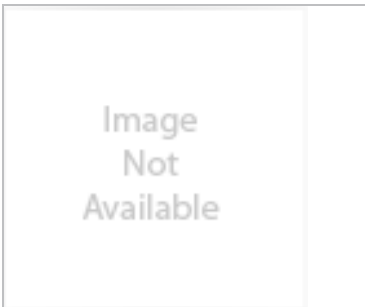
**List Price:** \$100.00

**Name:** P25 AUTHENTICATION, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Link Layer Network Security. Note: For VP5000 series radios, requires KWD-AE30K hardware module if not already installed.



**P/N:** 8326000002

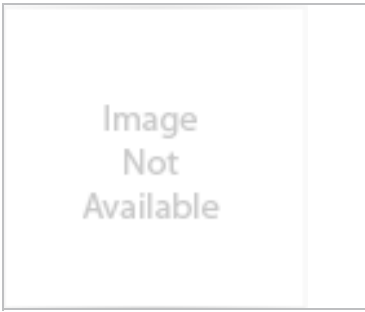
**List Price:** \$100.00

**Name:** MDC1200 / GE-STAR SIGNALING, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000003

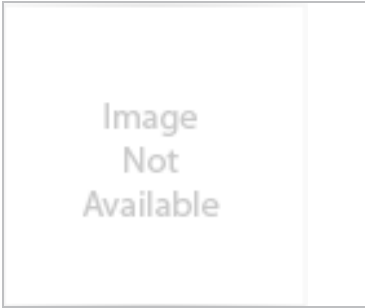
**List Price:** \$300.00

**Name:** FIRESAFE™ FIRST RESPONDER, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000004

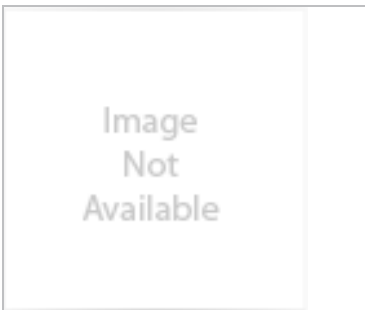
**List Price:** \$400.00

**Name:** FIRESAFE™ COMMAND, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000005

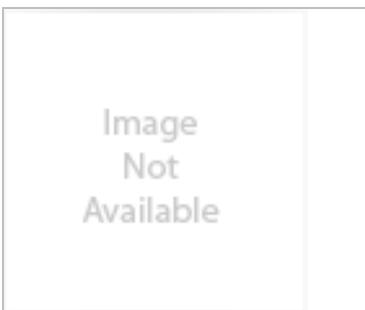
**List Price:** \$0.00

**Name:** P25 CONV VOTE SCAN, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000008

**List Price:** \$300.00

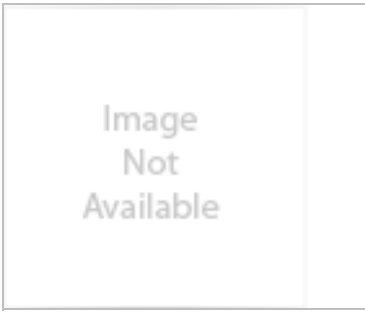
**Name:** 2048 CHANNELS/TALKGROUPS, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**





**P/N:** 8326000013

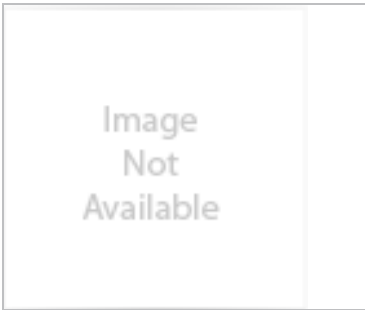
**List Price:** \$600.00

**Name:** THIRD PARTY INTERFACE, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** The Third-Party Interface software option for Kenwood Viking VM/VP Series Radios is an optional data interface for third party network devices, consoles, or other control equipment. Data is transmitted via IP Packets over USB or Serial Packets over RS232, depending on physical connection. The attached equipment must be capable of supporting the Kenwood Viking Third-Party Interface protocol.



**P/N:** 8326000015

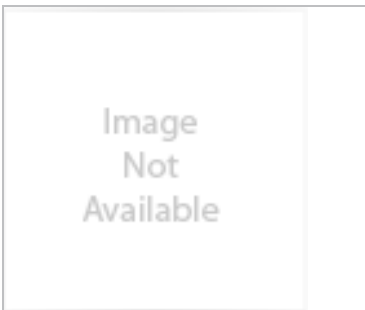
**List Price:** \$0.00

**Name:** 25KHz DISABLED

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** 25KHz DISABLED



**P/N:** 8326000019

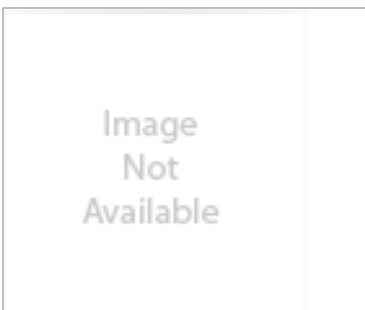
**List Price:** \$110.00

**Name:** REBANDING (NEXTEL), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**



**P/N:** 8326000020

**List Price:** \$110.00

**Name:** REBANDING (NON-NEXTEL), VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:**

Image  
Not  
Available

**P/N:** 8326000023

**List Price:** \$200.00

**Name:** ENHANCED VRS PORTABLE

**Compatible With:**

**Details:** ENHANCED VRS PORTABLE

Image  
Not  
Available

**P/N:** 8326000024

**List Price:** \$200.00

**Name:** ENHANCED VRS MOBILE

**Compatible With:**

**Details:** ENHANCED VRS MOBILE

Image  
Not  
Available

**P/N:** 8326000025

**List Price:** \$200.00

**Name:** BLUETOOTH

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** BLUETOOTH

Image  
Not  
Available

**P/N:** 8326000026

**List Price:** \$200.00

**Name:** MAN DOWN

**Compatible With:** VP6000,VP5000

**Details:** MAN DOWN

Image  
Not  
Available

**P/N:** 8326000027

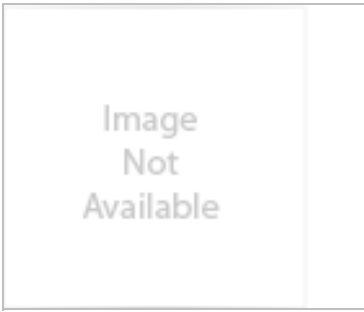
**List Price:** \$200.00

**Name:** P25 PAGING DECODE

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900  
(VCH),VM400/600/900 (SCH)

**Details:** P25 PAGING DECODE



**P/N:** 8326000028

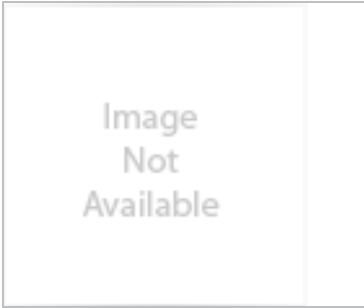
**List Price:** \$200.00

**Name:** INSTANT RECORDING REPLAY

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** INSTANT RECORDING REPLAY



**P/N:** 8326000029

**List Price:** \$100.00

**Name:** VOICE RECORDING

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** The Voice Audio Recording feature allows received and transmitted audio to be logged for future retrieval in Armada. The radio can be configured in Armada to save either Rx Audio only or Rx+Tx Audio.



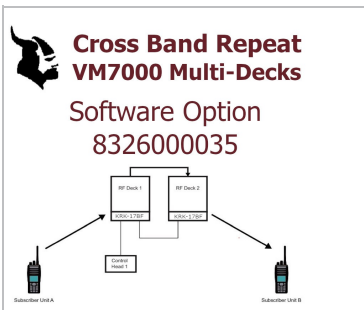
**P/N:** 8326000033

**List Price:** \$200.00

**Name:** BLUETOOTH LOW ENERGY

**Compatible With:** VP6000,VP5000,VM7000,VM6000,VM5000

**Details:** Bluetooth Low Energy (BLE) is an extension of the Bluetooth protocol for small data payload applications requiring limited, infrequent connections. Select this option for use with iBeacon/BlueCats Beacon or the AID vest insert available from Select Engineering. If using the Pryme, Savox, AINA, or OTTO Bluetooth speaker mics or other Bluetooth headsets and earpieces, please select the standard Bluetooth option, part number 8326000025.



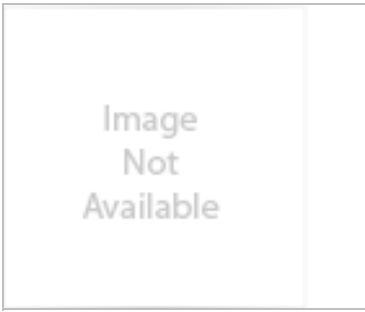
**P/N:** 8326000035

**List Price:** \$300.00

**Name:** CROSS BAND REPEAT

**Compatible With:**

**Details:** The Cross Band Repeater function for VM7000 multi-decks allows the received signal from an RF deck to be transmitted on a second RF deck. Available across analog or digital conventional channels, either same type or mixed. (Does not support trunked channels.) Cable required: DB25M null modem cable for digital-only channels or custom DB25 cable for analog or mixed analog/digital channel types. See installation manual for cable details.



**P/N:** 8327000911

**List Price:** \$1,000.00

**Name:** ENABLE VHF, VIKING

**Compatible With:** VP400/600/900,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Enables VHF band in a VP900 or VM900.



**P/N:** 8327000912

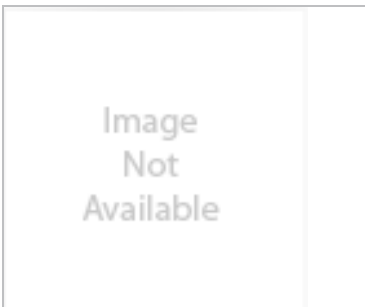
**List Price:** \$1,000.00

**Name:** ENABLE 7/800, VIKING

**Compatible With:** VP400/600/900,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Enables 7/800 band on a VP900 or VM900 radio

## HW/SW Warranty



**P/N:** 2990600013

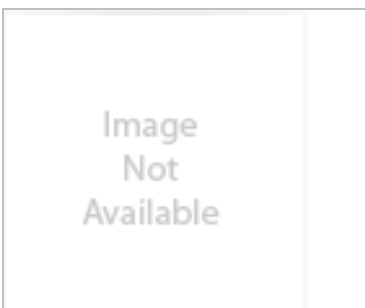
**List Price:** \$175.00

**Name:** 2-YR EXTENDED WARRANTY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Extended standard warranty can be bought within the first three yeras when the radio is under warranty. 2-YEAR EXTENDED WARRANTY Applies to VIKING and KENWOOD TK subscribers. Do NOT use with ES subscribers. Please order one unit of this item for each RF Deck in VM7000. For example, a 3 deck VM7000 will require 3 units of extended warranty as warranty is tied to a RF Deck.



**P/N:** 2990600017

**List Price:** \$100.00

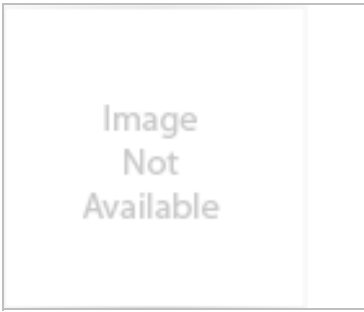
**Name:** 1-YR EXTENDED WARRANTY, VIKING

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Extended Standard Warranty can be bought within the first three years when the radio is under warranty. 1-YEAR EXTENDED WARRANTY Applies to VIKING and KENWOOD TK radios. Do NOT use with ES radios. Please order one unit of this item for each RF Deck in VM7000. For example, a 3 deck VM7000 will require 3 units of extended warranty as warranty is tied to a RF Deck.

## Training and Services



**P/N:** 299PRGM001

**List Price:** \$4,000.00

**Name:** RADIO PROFILE CREATION FOR PROGRAMMING \*\*AIR\*\*

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ conversion of existing radio codeplugs to Armada Templates



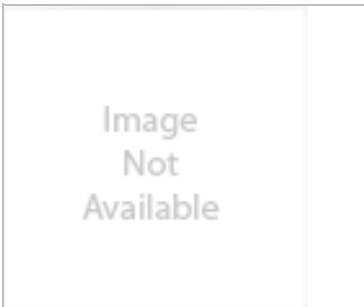
**P/N:** 3396100001

**List Price:** \$4,515.00

**Name:** ONSITE USER TRAINING AND CONSULTATION - 1 DAY

**Compatible With:**

**Details:** Customized Performance+Expert™ consultation(dedicated subscriber trainer), review of radio basic functionality and customized client templates at Dealer or Customer determined location.Price is per day.Order multiple units for multiple day training. Price does not include: travel outside continental USA/shipping of demo equipment/material cost.



**P/N:** 3396101001

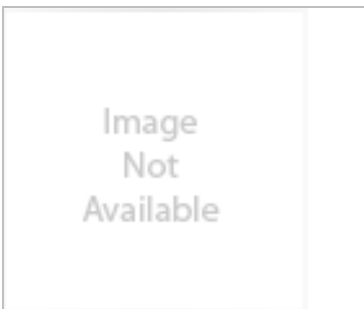
**List Price:** \$4,515.00

**Name:** ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396102001

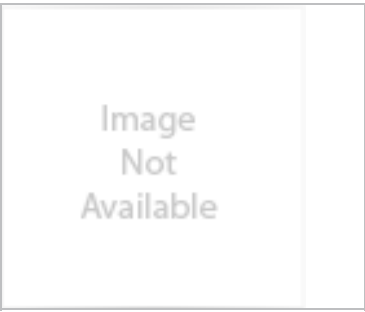
**List Price:** \$6,615.00

**Name:** ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396103001

**List Price:** \$8,715.00

**Name:** ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396104001

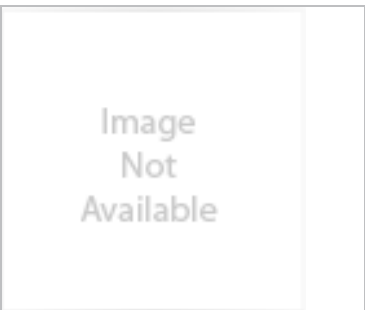
**List Price:** \$10,815.00

**Name:** ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396105001

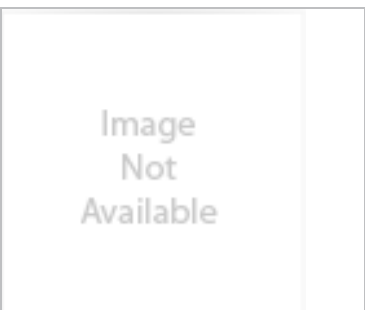
**List Price:** \$12,915.00

**Name:** ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396106001

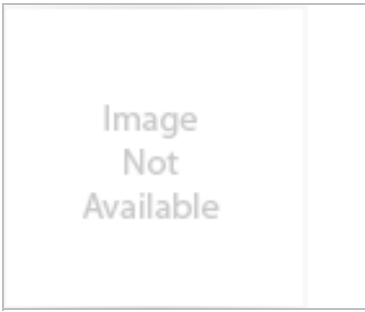
**List Price:** \$16,485.00

**Name:** ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396107001

**List Price:** \$18,585.00

**Name:** ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396108001

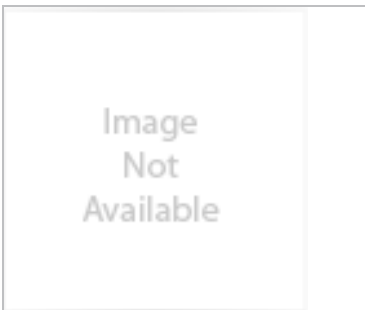
**List Price:** \$20,685.00

**Name:** ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396109001

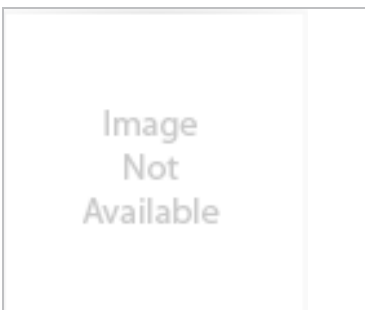
**List Price:** \$22,785.00

**Name:** ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396110001

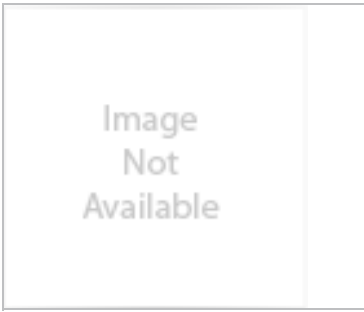
**List Price:** \$24,885.00

**Name:** ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ at Dealer or Customer determined location to provide required training content. Price does not include: travel outside continental USA/shipping of demo equipment/material cost, and course customization where applicable. Please contact our training manager for a quote today.



**P/N:** 3396205001

**List Price:** \$2,400.00

**Name:** EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.



**P/N:** 3396214001

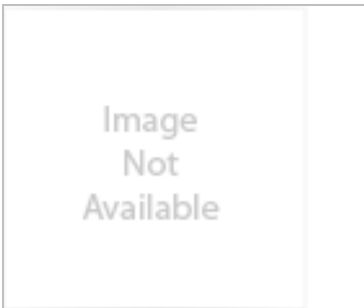
**List Price:** \$525.00

**Name:** EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.



**P/N:** 3396269001

**List Price:** \$400.00

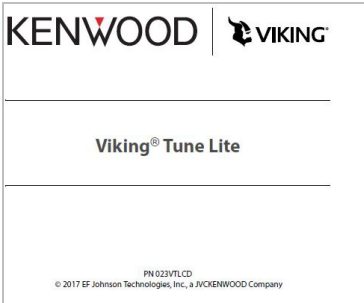
**Name:** EFJ TRAINING CENTER 1 DAY (6 TO 9 STUDENTS)

**Compatible With:**

VP6000,VP5000,VP400/600/900,VM7000,VM6000,VM5000,VM600/900 (VCH),VM400/600/900 (SCH)

**Details:** Performance+ Expert™ will to provide required training content at EFJohnson's Irving Training Facility. Students are responsible for the cost of travel and lodging. EFJohnson is not liable for the cost of student airfare, car rental, other travel expenses or meals and incidentals, unless specifically included in a purchase order for services or other legally binding agreement.

## Radio Application/Kits



**P/N:** 023VTLCD

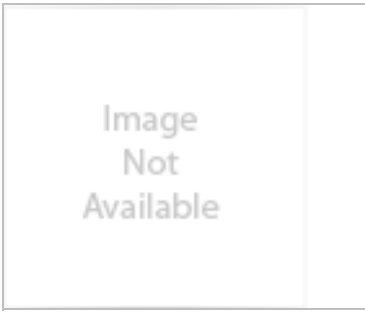
**List Price:** \$100.00

**Name:** VIKING TUNE LITE CD \*\*AIR\*\*

**Compatible With:**

**Details:** VikingTuneLite software will allow TCXO (reference oscillator) tuning for your Viking subscriber radios. VikingTuneLite can also be used to perform standard digital Phase 1 and Phase 2 TX/RX specification tests. A calibrated radio frequency service monitor is required.





**P/N:** 835VTKVMH00

**List Price:** \$170.00

**Name:** VIKING TUNE, HW KIT, VM-H

**Compatible With:**

**Details:**



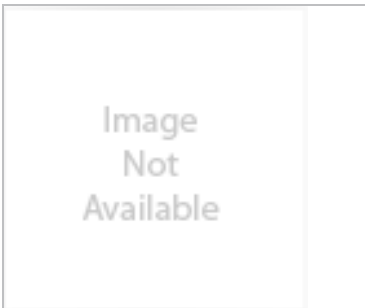
**P/N:** 835VTKVMX000

**List Price:** \$180.00

**Name:** VIKING TUNE, HW KIT, VM-T

**Compatible With:**

**Details:**



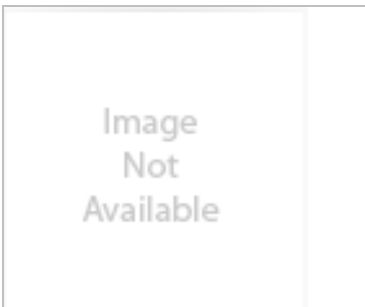
**P/N:** 835VTKVPH00

**List Price:** \$400.00

**Name:** VIKING TUNE, HW KIT, VP-H

**Compatible With:**

**Details:**



**P/N:** 835VTKVPX000

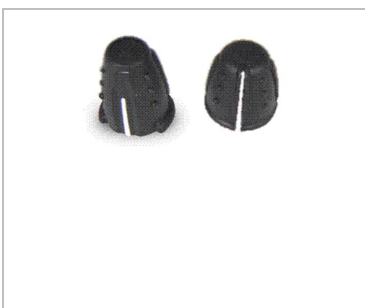
**List Price:** \$160.00

**Name:** VIKING TUNE, HW KIT, VP-T

**Compatible With:**

**Details:**

## Upgrade Kits



**P/N:** 2500600001

**List Price:** \$15.00

**Name:** KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H

**Compatible With:** VP400/600/900

**Details:** KNOB KIT, #1 VIKING, ROUND CHANNEL/ROUND VOLUME

Image  
Not  
Available

**P/N:** 2500600002

**List Price:** \$15.00

**Name:** KNOB KIT,FIRE CHANNEL/ROUND VOLUME, VP-H

**Compatible With:** VP400/600/900

**Details:** KNOB KIT, #2 VIKING, FIRE CHANNEL/ROUND VOLUME



**P/N:** 835VP5000OH

**List Price:** \$200.00

**Name:** ORANGE HOUSING, VP5000

**Compatible With:** VP5000

**Details:** VP5000 Model 2 Upgrade kit to convert black housing into orange housing. Pricing includes all services required to install the colored housing.(Also order L-5025 to indicate Factory Installation needed, and to be eligible for warranty of IP67/68 immersion)



**P/N:** 835VP5000YH

**List Price:** \$200.00

**Name:** YELLOW HOUSING, VP5000

**Compatible With:** VP5000

**Details:** VP5000 Model 2 Upgrade kit to convert black housing into orange housing.Pricing includes all services required to install the colored housing

Image  
Not  
Available

**P/N:** B0K-0002-00

**List Price:** \$4.00

**Name:** DUST COVER CAP FOR VP5000

**Compatible With:** VP6000,VP5000

**Details:** Please order all three part numbers for the VP5000 Dust Cover Kit:B0K-0002-00: DUST COVER CAP FOR VP5000G5D-0027-00: DUST COVER PACKING RUBBERN08-0571-04: DUST COVER SCREW

Image  
Not  
Available

**P/N:** B0K-0078-00

**List Price:** \$2.00

**Name:** DUST COVER CAP FOR VP6000

**Compatible With:** VP6000,VP5000

**Details:** Please, order all three part numbers for the Dust Cover Kit: B0K-0078-00: DUST COVER CAP FOR VP6000G5D-0027-00: DUST COVER PACKING RUBBERN08-0571-04: DUST COVER SCREW



**P/N:** K2K-0012-00

**List Price:** \$6.00

**Name:** CHANNEL SELECTOR KNOB, VP5000/TK5X30

**Compatible With:** VP5000

**Details:** CHANNEL SELECTOR KNOB FOR VP5000/TK5X30



**P/N:** K2K-0263-00

**List Price:** \$8.00

**Name:** FIRE CHANNEL KNOB, VP6000

**Compatible With:** VP6000

**Details:** KNOB 16 CHANNEL MUSHROOM VP6000

Part Number	Description	List Price
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**Repeaters**

**Individual Repeaters**

<b>3361241101</b>	<b>1200 P25 STATION 100W 800 MHZ</b>	\$15,250.00
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1200 P25 Repeater for 800 Mhz band. Repeater only. No Power Supply.



<b>3361200082</b>	<b>1200 P25 BASE STATION DFSI LICENCE KEY</b>	\$1,650.00
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Licence Key needed to support DFSI connectivity

<b>3361200091</b>	<b>POWER SPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC</b>	\$900.00
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<b>3361200092</b>	<b>POWER SPLY KIT ATLAS 1-STATION 700/800 120/240VAC</b>	\$1,550.00
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<b>3361212101</b>	<b>1200 P25 STATION 100W VHF (148-174MHz)</b>	\$13,500.00
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1200 P25 Repeater for bands (148-174MHz). Repeater only. No Power Supply.



<b>3361212102</b>	<b>1200 P25 STATION 100W VHF (148-174MHz) HISTAB</b>	\$16,475.00
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1200 P25 Repeater for VHF bands (148-174MHz) for High Stability requirements. Repeater only. No Power Supply.



<b>3361224101</b>	<b>1200 P25 STATION 100W UHF (450-485MHz)</b>	\$13,500.00
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1200 P25 Repeater for UHF bands (450-485MHz). Repeater only. No Power Supply.



Part Number	Description	List Price
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**3361224102**      **1200 P25 STATION 100W UHF (450-485MHz) HISTAB**  
 1200 P25 Repeater for UHF bands (450-485MHz) for High Stability requirements. Repeater only. No Power Supply.



\$16,475.00

**3361200000**      **ATLAS TOOLS PROGRAMMING KIT**  
 Use with Atlas 1200 Repeaters only



\$295.00



# NX-5200/5300

Table of Contents

## VHF/UHF Digital & FM Analog Portable Radios



<Standard Key Model >   <Full Key Model >

**All NX-5000 series portables include:**

- Belt Clip (KBH-11)
- Universal Connector Cap
- User Guide
- Premium Warranty: 3 Years\*

All Accessories / options: 1 Year

*Purchase Battery, Charger, Antenna separately*

**\*Note:**

1. To meet IP grades and MIL, the universal connector cap or KENWOOD official accessory must be installed/connected.
2. To maintain immersion specs (IP67/68), all warranty service must be done by one of the three National Kenwood Authorized Service Centers. IP67/68 Certification is valid under the 3 year premium warranty. No re-certification is available.

**Because of spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed;**

- |            |            |            |
|------------|------------|------------|
| • 144.0000 | • 384.0000 | • 460.8000 |
| • 147.4560 | • 403.2000 | • 480.0000 |
| • 153.6000 | • 422.4000 | • 499.2000 |
| • 172.0325 | • 432.0000 | • 518.4000 |
| • 172.8000 | • 441.6000 |            |

Approved by CSA-us International Inc. for Classes I, II & III, Div. 1, Groups D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C hazardous locations.

**Note:** Environmental conditions are less than 32°F (0°C), KENWOOD carrying cases must be used.

### STANDARD

#### ■ GENERAL FEATURES

- 6 W (136-174 MHz) Models
- 5 W (380-470, 450-520 MHz) Models
- 1024 CH-GID / 128 Zones
- Standard Key Models (w/o numeric keypad)
- Full Key Models (w/ numeric keypad)
- Full Color 1.74" (240 x 180 pixels) Transflective TFT Display
- Multi-line Text Display
- Function/Status Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- 16-Position Mechanical Selector (w/ a stopper)
- 4-way Directional-pad (D-pad)
- 2 Position Lever Switch
- Emergency/AUX Key
- 3 Side PF Keys
- 1W Speaker Audio
- Multi Digital Protocol 1
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP67/68 Immersion
- Color Housing Option
- Digital Encode/Decode Format

*1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.*

#### ■ DIGITAL – NXDN® MODE

- NXDN® Conventional / TYPE-C (Gen1/Gen2) Trunking
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

#### ■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Programming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

#### ■ ANALOG MODE

- Conventional Zones
- LTR® Zones
- FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)

### OPTIONAL FEATURES

#### ■ GENERAL FEATURES

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control Commands by Subscriber Units (KWD-5007RC)
- 256-bit AES Encryption (KWD-AE30K/31K Encryption Module required)
- Battery Management Solution (KSC-Y32K Charger & KAS-12K Software License Key required)

#### ■ DIGITAL – P25 MODE

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

#### ■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional & S-Trunking Features (KWD-5300CV)
- DMR Tier 3 Trunking Features (KWD-5300CV & KWD-5301TR)

	<h1 style="margin: 0;">NX-5200/5300</h1> <h2 style="margin: 0;">VHF/UHF Digital &amp; FM Analog Portable Radios</h2>	<a href="#">Table of Contents</a>
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<b>RADIO</b>		<b>LIST</b>
<i>Standard Key Models</i>		
NX-5300K2	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	842.00
<b>FIELD PROGRAMMING UNIT (FPU)</b>		
<i>LIST</i>		
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8/8.1/10) <i>Note: Requires KPT-300LMC for authentication</i>	155.00
<b>P25 Radio Features</b>		
<i>LIST</i>		
KWD-5100CV	License Key for P25 Conventional	575.00
<b>DMR Radio Features</b>		
<i>LIST</i>		
KWD-5300CV	License Key for DMR Tier 2 Conventional & S-Trunking	60.00
<b>ANTENNAS</b>		
<i>LIST</i>		
KRA-17M2	UHF STUBBY ANTENNA 470-512 MHZ	13.70
<b>BATTERIES AND CHARGERS</b>		
<i>LIST</i>		
KNB-L3M	Li-ion 3400mAh (High Capacity)	183.00
KSC-32	Rapid rate single unit charger	82.00
KSC-326AK	Rapid rate 6-unit charger CEC Compliant	745.00
<b>MICROPHONES &amp; AUDIO ACCESSORIES</b>		
<i>LIST</i>		
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <i>Note: 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]</i>	332.00
<b>SERVICE RELATED ACCESSORIES</b>		
<i>LIST</i>		
KPG-36XM	Full Speed USB Programming interface cable <i>Note: This cable with USB mode may used for SD Card Direct Access.</i>	162.00

**NEXEDGE®**  
**P25 DMR**  
**NX-5700/5800/5900**  
 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios

Table of Contents



**NX-5000(K-version\*) Mobiles include:**

- Standard Microphone (KMC-65M)
- Mounting Bracket (KMB-33M)
- DC Cable
- Blade Fuse
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

\*BK-version comes with a RF deck only

**STANDARD**

**GENERAL FEATURES**

- 50 W (136-174 MHz) Models
- 45 W (380-470, 450-520 MHz) Models
- 35 W (700/800 MHz) Models
- 1024 CH-GID / 128 Zones
- Full Color 2.55" (154 x 422 pixels) TFT Display
- Multi-line Text Display
- Function/Status Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- Emergency/AUX Key
- 4W Speaker Audio
- DB-25 Accessory Connector
- Multi Digital Protocol <sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Mobile Relay Station<sup>2</sup> (DMR Mode<sup>3</sup>)
- Cross Band Repeater (Only)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- ML-STD-810 C/D/E/F/G
- IP54/55

1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.

2. Requires **L-5023** DB25 Cable between Decks.

**DIGITAL – NXDN® MODE**

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking (except 700MHz)
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming (requires KPG-180AP OTAP Manager Software)
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

**DIGITAL – DMR MODE**

- DMR Tier 2 Conventional Option
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

**ANALOG MODE**

- Conventional Zones
- LTR® Zones
- FleetSync®II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)
- DTMF

**Multi-Deck Compatible Models & Modes**

Models	Bands	Power	Operable Modes
NX-5600H	Lowband VHF (39-50)	110 Watts	Analog/NXDN
NX-5700	VHF (136-174)	50 Watts	Analog/NXDN/DMR/P25
NX-5700H	VHF (136-174)	110 Watts	Analog/NXDN/P25
NX-5800H	UHF (380-470, 450-520)	100 Watts	Analog/NXDN/P25
NX-5800	UHF (380-470, 450-520)	50 Watts	Analog/NXDN/DMR/P25
NX-5900	7/800	35 Watts	Analog/NXDN/DMR/P25

**OPTIONAL FEATURES & CONFIGURATIONS**

**GENERAL FEATURES**

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control by Subscriber Units (KWD-5007RC)

**DIGITAL – P25 MODE**

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)

**DIGITAL – DMR MODE**

- DMR Tier 2 Conventional & S-Trunking Features (KWD-5300CV)
- DMR Tier 3 Trunking Features (KWD-5300CV & KWD-5301TR)

**MOUNTING & REMOTE CONFIGURATIONS**

(See NX-5000 Accessory page for details)

- KCH-20R Featured Control Head
  - KCH-21R Handheld Control Head
  - Single Remote Control Head (KRK Kit & KCT-71 or KCT-77 Cable required)
  - Dual Remote Control Heads (KCH-19/20R/21R & KRK Kit & KCT-71 or KCT-77 Cables required)
  - Multiple RF Decks (KRK Kit & KCT-71 or KCT-77 Control Cable + KWD-5004MR License Key Activation required\*)
- \* ONLY for the radios with S/N: B5900000 or earlier.





	<h1 style="margin: 0;">NX-5700/5800/5900</h1> <p style="margin: 0;">VHF/UHF/700/800MHz Digital &amp; FM Analog Mobile Radios</p>	<a href="#" style="color: white; text-decoration: none;">Table of Contents</a>
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<b>RADIO</b>	<b>LIST</b>
NX-5800K      UHF (450-520MHz), 45 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	1000.00
<b>DMR Features</b>	<b>LIST</b>
KWD-5300CV      License Key for DMR Tier 2 Conventional & S-Trunking	60.00
<b>OVER THE AIR PROGRAMMING (OTAP)</b>	<b>LIST</b>
KPG-180AP <b>OTAP Manager Software (Windows® Vista/7/8/8.1/10)</b> License includes: Software manages up to fifty(50) radio program files, one communication profile for each NXDN serial connection, DMR serial connection, NXDN Type-C IP, and DMR AIS IP connection <b>Note:</b> For each serial or IP connection to radio or base station, one applicable communication profile is required. <b>Note:</b> Requires KPT-300LMC for license authentication	884.00
KWD-AP5500      Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	4167.00
<b>OTHER ACCESSORIES</b>	<b>LIST</b>
5010012011      ANTENNA KIT, MOBILE MAGNETIC MOUNT, VM-H	90.00
KPS-15      DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	177.00

# NXR-710/810

## UHF/VHF Low Power Base Stations and Repeaters



BASE STATION		CONTRACT	LIST
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION		CONTRACT	LIST
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	\$ 1,924.00	2,405.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	\$ 1,924.00	2,405.00

REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher.

NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	\$ 2,480.00	3,100.00

REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	\$ 2,136.00	2,670.00

REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-3M are mounted inside the Repeater; a separate Rack-Mount Power Supply is provided

NXR7100PSDI	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20201, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	\$ 2,832.00	3,540.00

BASIC ACCESSORIES		CONTRACT	LIST
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KPG-46UM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Programming Software (NXR-710/810)	\$ 82.60	103.25

B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	\$ 160.00	200.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	\$ 172.00	215.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00

<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order.	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KTI-3M	Network Interface Unit	\$ 212.00	265.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00

# NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 System
- NEXEDGE Gen2 System
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

NXR-5700 REPEATER		CONTRACT	LIST
NXR-5700K	Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
LICENSING SYSTEM		CONTRACT	LIST



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

<b>SOFTWARE LICENSE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7216-10	NXR-5700 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity

		<b>CONTRACT</b>	<b>LIST</b>
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00

<b>Gen1 TRUNKING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ - \$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# NXR-5800

## UHF Digital & FM Base Repeaters - 400-520MHz



### GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network
- Occupies 1 RU
- Wideband Coverage
- 25/5/0.5 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

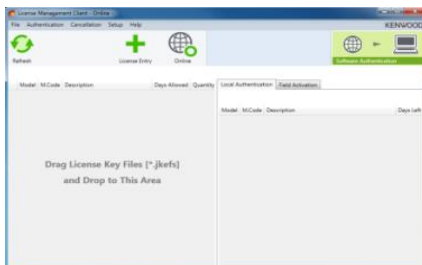
### GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

### TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5800 REPEATER		CONTRACT	LIST
NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00
NXR-5800K3	Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 4,266.40	5,333.00



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS	CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Software License Key Discount Structure**

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

**RADIO FEATURE LICENSE OPTIONS**

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

- Complete the attached Radio Feature Request Form.
- Submit along with your PO to the SYSTEMS Order Desk via:
  - E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - Fax: (678) 957-1880
- License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7217-10	NXR-5800 Service Manual	\$ 40.00	50.00

**RF BASE STATION AMPLIFIER OPTIONS**

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

**RF REPEATER STATION AMPLIFIER OPTIONS**

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
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KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRES REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00

KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>Gen2 TRUNKING CONFIGURATIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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[Please see the NEXEDGE Gen2 Page.](#)

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>	<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00

KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGCB20112	Coaxial BNC 12" Canble	\$ 22.40	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5900

800MHz Digital & FM Base Repeaters - 806-825, 851-870 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

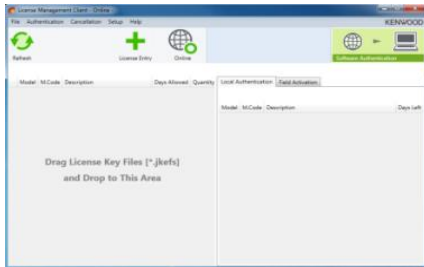
## GENERAL OPTIONS:

- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially

NXR-5900 REPEATER		CONTRACT	LIST
NXR-5900K	Repeater, Digital, RX 806-825 MHz, TX 821-870 MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
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### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure



1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5900 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

### MOUNTING CONFIGURATIONS

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00

KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINEREMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>Gen1 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site.	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	
CONSTRUCT OR ADD NEW SITES		√	
<b>Gen2 TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<a href="#">Please see the NEXEDGE Gen2 Page.</a>			
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT1000) sold separately.	\$ 300.00	375.00
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00



KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-5901

900MHz Digital & FM Base Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Conventional / Conventional IP Network
- NEXEDGE Gen1 Network
- NEXEDGE Gen2 Network \*
- Occupies 1 RU
- Wideband Coverage
- 0.36 W RF Output Power
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Built-in 0.5 ppm TCXO
- LED Status Indicators
- USB 2.0 Type-B Interface
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

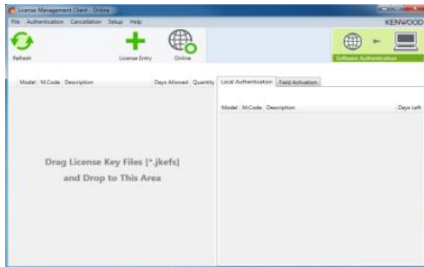
- External amplifier with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is available
- Multi-channel combining systems quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are available; contact your Kenwood Systems Regional Sales Manager for details.

## TRUNKING OPTIONS

- Enabling of Trunking feature
- Secondary, restricted-level service keys for management of less critical system parameters available. Each trunking system requires an Ethernet switch per site. Routers are optional for a single-site system but required for multi-site systems.
- System switches and routers are recommended, but most commercially available network equipment is compatible.

## NXR-5901 REPEATER

		CONTRACT	LIST
NXR-5901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

## KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

## SOFTWARE LICENSE OPTIONS

CONTRACT LIST

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	10% OFF
5 ~ 14 License Keys	35% OFF
15 ~ 24 License Keys	40% OFF

SOFTWARE LICENSE OPTIONS		CONTRACT	LIST
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	\$ 82.60	103.25

### RADIO FEATURE LICENSE OPTIONS

PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

**\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:**

1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvckenwood.com](mailto:systemsorderdesk@us.jvckenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

*Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.*

KWD-NX50VTR	License Key for NXR-5000 Vote System	\$ 400.00	500.00
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BASIC ACCESSORIES		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5kHa and 6.25KHz operation.	\$ 2,666.40	3,333.00
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KSGCB10206	Programming USB A/B Cable	\$ 13.60	17.00
B5B-7278-00	NXR-5901 Service Manual	\$ 40.00	50.00

### RF REPEATER STATION AMPLIFIER OPTIONS

Note: Includes One Cable for Radio Connectivity.

KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00

KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00

USB KEY FUNCTION OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL SYSTEM PARAMETERS	√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES	√	
ADD NEW REPEATER CHANNEL(S)	√	
SWAP OUT SPARE REPEATERS	√	
CONSTRUCT OR ADD NEW SITES	√	

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00

<b>MISC STATION OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-710

## VHF High Performance Base Stations and Repeaters - High Band 136-174MHz



### GENERAL:

- Occupies 2 RU.
- May be used as a standalone 25 W continuous or 50W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-710 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	\$ 1,720.00	2,150.00
<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8901-00	NXR-710 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.			
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00



KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
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KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 752.00	940.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only <b>6.25kHz</b> operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C

<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00

<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00



KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-810

## UHF Base Stations and Repeaters - 400-520 MHz



### GENERAL:

- Integrated Systems
- Occupies 2 RU
- May be used as a standalone 25 W continuous or 40W intermittent duty station or in conjunction with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>NXR-810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
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NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	\$ 1,720.00	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	\$ 1,720.00	2,150.00

<b>BASIC ACCESSORIES</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-129DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8902-00	NXR-810 Service Manual	\$ 40.00	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	\$ 212.00	265.00
KWD-NX10VTR	Voting System Option	\$ 400.00	500.00

<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00

KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>WIRELINER REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of 600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	\$ 328.00	410.00
KSGTALD1	<b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
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KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>TYPE-D TRUNKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-10DTR	<b>Type-D Single Site</b> Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	\$ 200.00	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <b>Note:</b> For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	\$ 345.60	432.00
L-1794	Instllation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C	N/C
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 2,832.00	3,540.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface	\$ 1,420.00	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	\$ 272.00	340.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00

KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# NXR-900

800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz



## GENERAL:

- Integrated Systems.
- Occupies 1 RU.
- 360 mW transceiver unit used with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Enabling of the NXR-900 trunking feature.
  - System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
  - Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems.
- NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible.

NXR-900 REPEATER (K Model)		CONTRACT	LIST
NXR-900K	Repeater, Digital, RX 806-825 MHz, TX 851-870 MHz	\$ 4,600.00	5,750.00
BANDWIDTH OPTION:		CONTRACT	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for each 6.25KHz operation.	\$ 2,666.40	3,333.00
BASIC ACCESSORIES		CONTRACT	LIST
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B51-8946-00	NXR-900 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
RF REPEATER STATION AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA24181	764-870MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>TRUNKING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	
ADD NEW REPEATER CHANNEL(S)		√	
SWAP OUT SPARE REPEATERS		√	



CONSTRUCT OR ADD NEW SITES

v

**ETHERNET SWITCH & ROUTER OPTIONS****CONTRACT****LIST**

Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

**EXTERNAL TRUNKING CONTROLLER OPTIONS****CONTRACT****LIST**

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00

**MISC STATION OPTIONS****CONTRACT****LIST**

KSGDX14644	4 Cavity 800MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00

**COMPONENTS****CONTRACT****LIST**

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# NXR-901

900 MHz High Performance Repeaters - 896-902, 935-941 MHz



## GENERAL:

- Integrated Systems
- Occupies 1 RU
- 360 mW transceiver unit used with an external power amplifier
- Operates in analog mode at 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

## GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 cavity BpBr duplexer is also available
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 75W and 130W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

## TRUNKING OPTIONS

- Trunking options include enabling of the NXR-901 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available.
- Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. NOTE: Recommended models are listed herein, but most commercially available IP

NXR-901 REPEATER (K Model)		CONTRACT	LIST
NXR-901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	\$ 4,600.00	5,750.00
BANDWIDTH OPTION:		CONTRACT	LIST
KXK-3M3	"Very Narrow Band" Option High Stability Reference Oscillator <b>Note:</b> Only one KXK-3M3 required per site for 12.5KHz or 6.25KHz operation.	\$ 2,666.40	3,333.00
BASIC ACCESSORIES		CONTRACT	LIST
KSGCB60004	NXR-Series Programming Cable	\$ 20.00	25.00
KPG-109DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
B53-7004-00	NXR-901 Service Manual	\$ 40.00	50.00
KMC-9C	Desktop Microphone	\$ 68.80	86.00
KMC-35	Standard Mobile Microphone	\$ 42.00	52.50
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>	\$ 144.00	180.00
RF REPEATER STATION AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA25172	928-943MHz, 250mW Input, 75W Output	\$ 2,320.00	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	\$ 3,064.00	3,830.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 130W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 130W amplifier option.	\$ 1,084.00	1,355.00

KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
<b>MOUNTING CONFIGURATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>INTERNAL TRUNKING AND NETWORKING OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPG91800	Repeater Trunking Feature <b>Note:</b> One Feature required for each trunking repeater.	\$ 1,200.00	1,500.00
KSGPG91810	Multi-Site Networking Feature <b>Note:</b> One required for each networked site	\$ 9,333.60	11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <b>Note:</b> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	\$ 466.40	583.00
KPG-110SMK	System Manager Trunking Software <b>Note:</b> Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	\$ 367.20	459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	\$ 133.60	167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	\$ 133.60	167.00
USB KEY FUNCTION OR CAPABILITY		<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
PROGRAM GENERAL SYSTEM PARAMETERS		√	√
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		√	√
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		√	

ADD NEW REPEATER CHANNEL(S)		v	
SWAP OUT SPARE REPEATERS		v	
CONSTRUCT OR ADD NEW SITES		v	
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	\$ 1,236.00	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	\$ 1,896.00	2,370.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX15044	4 Cavity 900MHz BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	\$ 1,860.00	2,325.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <b>Note:</b> Modem 2400 bps to be used with LTR controllers, includes interface cable.	\$ 204.00	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <b>Note:</b> Modem 2400 bps, extra stability in high RF environments, includes interface cable.	\$ 972.00	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	\$ 32.00	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	\$ 1,212.00	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	\$ 1,872.00	2,340.00
KSGMD10001	Modem, USR	\$ 172.00	215.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male(Modem)	\$ 32.00	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	\$ 940.00	1,175.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D710

## DMR VHF Repeaters\* - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

### OPTIONS:

- External amplifier with built-in antenna T/R switch for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00

BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00

RF BASE STATION AMPLIFIER OPTIONS		CONTRACT	LIST
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Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	\$ 3,680.00	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	\$ 1,592.00	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00

KSGPA22510	144-152MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	\$ 2,004.00	2,505.00
KSGPA22551	136-144MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22553	152-162MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	\$ 2,976.00	3,720.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPA22412	144-152MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00

Note: Includes One Cable for Radio Connectivity.

KSGPA22442	144-152MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	\$ 3,248.00	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	\$ 1,332.00	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	\$ 1,728.00	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	\$ 2,448.00	3,060.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D710

## DMR VHF Low Power Repeaters - 136-174MHz

\* Base Operations are not available.



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D710 REPEATER		CONTRACT	LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D710 REPEATER PACKAGE		CONTRACT	LIST
TKR-D710KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 136-174MHz Repeater 5-50W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D710KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.			
TKR-D710KPSD	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		CONTRACT	LIST
Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-			
TKR-D710KPSDI	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply, KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable. <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
BASIC ACCESSORIES and LABOR		CONTRACT	LIST
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25

KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7228-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00
<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.			
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00





# TKR-D810

## DMR UHF Repeaters - 400-520MHz

**GENERAL:**

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

**OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

<b>TKR-D810 REPEATER</b>		<b>CONTRACT</b>	<b>LIST</b>
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instllation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Includes Two Cables for Radio Connectivity.			
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	\$ 1,560.00	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	\$ 2,080.00	2,600.00

KSGPA23551	406-450MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	\$ 3,648.00	4,560.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00

<b>RF REPEATER STATION AMPLIFIER OPTIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Includes One Cable for Radio Connectivity.

KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	\$ 1,332.00	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	\$ 1,732.00	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	\$ 3,152.00	3,940.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00

<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
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KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	\$ 1,420.00	1,775.00
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<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00



# TKR-D810

## DMR UHF Repeaters - 400-520MHz



### GENERAL:

- Occupies 2 RU
- Digital 12.5 kHz
- Analog FM 25/12.5 kHz
- 2 slot TDMA
- Mixed Mode
- Call Interruption
- Conventional and Conventional IP\* Network

\* Requires KTI-5

### OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexer are also available.
- Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

TKR-D810 REPEATER		CONTRACT	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,780.00	2,225.00
TKR-D810 REPEATER PACKAGE		CONTRACT	LIST
TKR-D810KPS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-520MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
TKR-D810K2PS	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-470MHz Repeater 5-40W <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 1,954.40	2,443.00
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		CONTRACT	LIST
TKR-D810KPSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
TKR-D810K2PSI	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,316.00	2,895.00
REPEATER STATION WITH DUPLEXER		CONTRACT	LIST
<small>Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be provided with an order.</small>			
TKR-D810KPSD	Repeater Station 5-40W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00

TKR-D810K2PSD	Repeater Station 5-40W, 400-470MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,431.20	3,039.00
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<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: Duplexers are not available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a 5MHz split between TX and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by special order (non-returnable and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

<b>REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY</b>		<b>CONTRACT</b>	<b>LIST</b>
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TKR-D810KPSDI	Repeater Station 5-40W, 450-520MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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TKR-D810K2PSDI	Repeater Station 5-40W, 400-470MHz Includes KSGPS20201 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable <b>Note:</b> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	\$ 2,776.00	3,470.00
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<b>BASIC ACCESSORIES and LABOR</b>		<b>CONTRACT</b>	<b>LIST</b>
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KPG-46XM	Programming Cable	\$ 126.80	158.50
KPG-174DNK	Repeater Programming Software	\$ 82.60	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	\$ 200.00	250.00
KTI-5M	Network Adapter Device - Required for Conv. IP Networking Functionality <b>Note:</b> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	\$ 345.60	432.00
L-1806	Instillation KPG-1010DMR Firmware and Option for KTI-5M	\$ 16.00	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	\$ 16.00	20.00
B5B-7229-00	TKR-D710 Service Manual	\$ 40.00	50.00

<b>POWER SUPPLY OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGPS20200	DC Switching Power Supply 13.8VDC 20A	\$ 204.00	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 150W or 250W amplifier option.	\$ 1,084.00	1,355.00

<b>MOUNTING CONFIGURATIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00

<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available.

KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 200.00	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	\$ 300.00	375.00
KSGRT10004	4-Port Managed VPN Router <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.	\$ 300.00	375.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX12556	6 Cavity VHF BpBr Duplexer <b>Note:</b> Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	\$ 2,476.00	3,095.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F <b>Note:</b> This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	\$ 476.00	595.00
<b>COMPONENTS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	\$ 40.00	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	\$ 40.00	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	\$ 344.00	430.00
KSGPS20200	DC Switching Power Supply	\$ 204.00	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00

# TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



## GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

## OPTIONS:

- Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7") open equipment racks.
- T-R simplex antenna switching is included in the basic unit as well as in all external amplifiers.
- Other configurations are also available on a special order basis; please contact your Kenwood Systems Regional Sales Manager for more details.

RADIO PACKAGES		CONTRACT	LIST
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)	\$ 1,069.40	1,336.75
BASIC ACCESSORIES		CONTRACT	LIST
KPG-43UM	Programming Cable	\$ 126.80	158.50
KPG-44DNK	Programming Software	\$ 54.80	68.50
B51-8460-10	TK-690 Service Manual	\$ 40.00	50.00
RF AMPLIFIER OPTIONS		CONTRACT	LIST
Note: Includes One Cable for Radio Connectivity.			
KSGPA21101	30-36MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21102	36-42MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21103	42-50MHz, 50W Input, 100W Output	\$ 2,180.00	2,725.00
KSGPA21251	30-36MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21252	36-42MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
KSGPA21253	42-50MHz, 50W Input, 250W Output	\$ 3,740.00	4,675.00
POWER SUPPLY OPTIONS		CONTRACT	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 250W amplifier option.	\$ 380.00	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <b>Note:</b> Incompatible with 250W amplifier option.	\$ 1,084.00	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	\$ 1,084.00	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	\$ 1,392.00	1,740.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00



KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
<b>WIRESLINE REMOTE CONTROL OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 524.00	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	\$ 536.00	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 736.00	920.00
KSGTM20016	16 Channel Tone Termination Panel <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor.	\$ 759.00	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <b>Note:</b> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	\$ 328.00	410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <b>Note:</b> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	\$ 288.00	360.00
<b>MISC STATION OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGSNV12	Signal-to-Noise Modular Voting Comparator <b>Note:</b> 19" rack mount; occupies 3RU. Order Station Module Cards below.	\$ 6,400.00	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	\$ 1,224.00	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <b>Note:</b> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	\$ 708.00	885.00
KSGOCWID	CWID Morse Code Generator <b>Note:</b> Specify call sign at time of order.	\$ 108.00	135.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)	\$ 856.80	1,071.00
KCH-10	Basic Control Panel, 90-Series	\$ 117.60	147.00
KCT-23M2	10' Cable, DC for High-Power Mobile	\$ 31.00	38.75
KMB-5	Mounting Bracket for TK-690 Mobile Radio	\$ 11.20	14.00
KSGUT50002	2RU Utility Tray for Equipment Mounting	\$ 64.00	80.00
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 448.00	560.00
KSGTM10TCS	Case, Tone Term Panel	\$ 52.00	65.00
KSGCB32801	Cable, Interface, Tone to '50	\$ 24.00	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	\$ 456.00	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	\$ 56.00	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	\$ 656.00	820.00
KSGBCDCASE	Case, Tone Term Panel	\$ 56.00	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	\$ 252.00	315.00
KSGTM10021	600 Ohm Balanced Line Driver	\$ 212.00	265.00



KSGUT10001

1RU Mounting Tray

Note: Provides mounting space for up to two accessories.

\$ 40.00
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50.00

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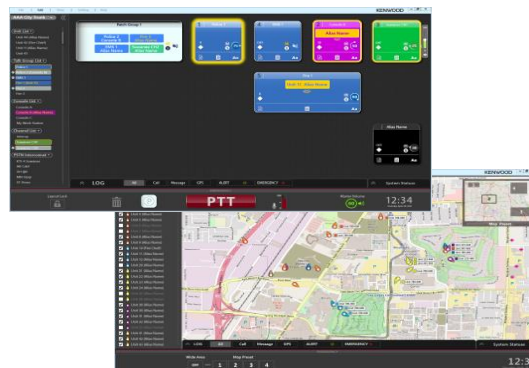
# KAS-20

## STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

The KAS-20 Software provides AVL and Dispatch capability compatible with Kenwood digital radio systems. With the capability to run under Windows and Windows Server operating systems, it provides a cost effective package for AVL and Dispatch for business, supporting both the NXDN and DMR digital protocols.

### FEATURES AND HIGHLIGHTS:

- Low-Cost Initial Investment with Upgrade licenses
  - Enhanced Scalability – Standalone PC / Multi-Client Server
  - Enhanced User Interface Design for ease of use
  - Supports multiple digital radio protocols
  - User-Selectable Options – Location, Dispatch, Voice Path, Multiple Client, and Voice Recording
  - Location Management – 1,000 subscribers
  - Definable Call Dispatch Windows
  - Embedded AMBE+2 Vocoder
  - System to System Patching\*
    - DMR Conventional
    - NXDN Conventional
    - NXDN Type-C Gen1 System
    - NXDN Type-C Gen2 System
- \*System type and bandwidth must match in order to patch calls from different system ID.



### COMPATIBLE IP CONSOLE INTERFACE\*

- Kenwood DMR Conventional
- Kenwood NXDN Conventional
- Kenwood NXDN Type-C
- Kenwood NXDN Gen2

\* KAS-20 does not support serial base connection

### SYSTEM REQUIREMENTS\*

- Windows 7, 8.1, 10 (32/64 bit OS)
- 3.0 GHz Intel Core i5 or faster CPU
- 4 GB RAM or more
- 50GB free space or more
- Internet Connection for AVL

\* Refer to KAS-20 brochure for details

SAMPLE LICENSE		CONTRACT	LIST
KAS-20K2	SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION Following features are enabled for 30 days after activation: - AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	\$ 16.00	20.00
BASE LICENSE		CONTRACT	LIST
KAS-20K	AVL & DISPATCH SOFTWARE BASE LICENSE	NC	NC

#### Notes:

1. KAS-20K base license is required per individual PC or Server. Works on both KAS-20C (Client) and KAS-20S (Server).
2. Application Software for KAS-20C (Client) and KAS-20S (Server) is available on Kenwood CONTRACT Tools.
3. Base license does not contain any of the feature licenses. Must purchase additional software upgrades to enable desired functions.
4. One KAS-20K base license allows a single connection to the RF system.

### TO PLACE AN ORDER FOR WINDOWS<sup>™</sup> SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:



**KPT-300LMC**



## License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows 7/8.1/10 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
<b>SOFTWARE UPGRADE LICENSES (FOR CLIENT)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20C-VDK	Voice Dispatch License for KAS-20 client <b>Note:</b> KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	\$ 533.60	667.00
KWD-20C-VPK	Voice Path License for KAS-20 client <b>Note:</b> Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	\$ 533.60	667.00
KWD-20C-LMK	Location Management License for KAS-20 client	\$ 533.60	667.00
<b>SOFTWARE UPGRADE LICENSES (FOR SERVER)</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20S-MCK	Server upgrade license to enable multi-client operation <b>Note:</b> Single KAS-20 server software holds up to ten KAS-20 clients.	\$ 1,800.00	2,250.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks <b>Note:</b> Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	\$ 1,800.00	2,250.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	\$ 1,800.00	2,250.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30202	Windows server	\$ 3,500.00	4,375.00
KSGCP30203	Standalone PC Opt3040	\$ 1,020.00	1,275.00
KSGCP40001	USB Desktop Microphone A0110399	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	\$ 40.00	50.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	22" LED Backlit LCD Monitor 1920 x 1080 resolution E2316H	\$ 300.00	375.00
KSGCP00014	24" Monitor Backlit LCD Monitor 1920 x 1080, resolution HDMI, VGA, Displayport P2417H	\$ 416.00	520.00

# KAS-10

## GPS AVL & Dispatch Messaging Software (Version 2.x)

### Product Enhancements:

- 999 Mobile ID Capacity
- NXDN® Scrambler included
- Up to 100 KAS-10 per system, 10 per site
- 100 Group Scan with four Priority Monitor IDs

### Notes:

- NEXEDGE Gen2, Type-D and DMR Systems not supported.

<b>GPS AVL &amp; DISPATCH</b>		<b>CONTRACT</b>	<b>LIST</b>
KAS-10	GPS AVL & Dispatch Messaging Software	\$ 347.20	434.00
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface <b>Note:</b> USB-3003™ multi pass Vocoder with USB does not compatible with KAS-10.	\$ 520.00	650.00
<b>COMPANION PRODUCTS COMPUTERS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30201	Windows Workstation PC	\$ 1,612.00	2,015.00
KSGCP40001	USB Desktop Microphone	\$ 60.00	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	\$ 40.00	50.00
KSGCP40002	USB Over the Head Headset with Microphone	\$ 72.00	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	\$ 60.00	75.00
<b>COMPUTER MONITORS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCP30101	17" Anti-Glare Black LCD Monitor	\$ 300.00	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	\$ 380.00	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	\$ 836.00	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	\$ 996.00	1,245.00

# KPG-150AP

## OTAP Manager

### General

- For NEXEDGE® digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and logging features ensure efficient and reliable data control.

### Main Features

- Accommodates multiple user-defined groups.
- Support for multiple serial ports facilitates transmission on different frequencies.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- KPG-150AP compares current and updated configurations, enabling transmission of only updated programming data to save on-air time.
- Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each

**Note:** NEXEDGE Type-D Trunking system and DMR System not supported.

OTAP MANAGER		CONTRACT	LIST
KPG-150AP	OTAP Manager <b>Note:</b> - Includes a license for one computer, one base radio (mobile or portable), and 10 subscriber radios (mobile or portable) - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 440.00	550.00

ADDITIONAL LICENSES		CONTRACT	LIST
<b>Note:</b> Includes a license for one additional subscriber radio (mobile or portable) attached to one computer running KPG-150AP software			
KWD-AP1	Additional Radio License for 1 PC <b>Note:</b> Price is per license on quantities of less than 100 licenses.	\$ 20.00	25.00
KWD-AP100	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 100 and 249 licenses at the same time.	\$ 20.00	25.00
KWD-AP250	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering between 250 and 499 licenses at the same time.	\$ 20.00	25.00
KWD-AP500	Additional Radio License for 1 PC <b>Note:</b> Price is per license when ordering 500 or more licenses at the same time.	\$ 20.00	25.00
KWD-SP1	Additional System License for 1 PC <b>Note:</b> Price is per license on quantities of less than 16 licenses.	\$ 266.40	333.00

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.

# KPG-180AP

## OTAP Manager for NX-5000 Series

### General

- For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 System.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming.
- Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease.
- Verification and loading features ensure efficient and reliable data control.

### Main Features

- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio.
- Multi-Protocol (NXDN/P25) capability.

### Note:

- NEXEDGE Type-D Trunking system and DMR System not supported.
- P25 OTAP is only available for Conventional Radio to Radio.

## LICENSING SYSTEM

## CONTRACT

## LIST



### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**.

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC

License Management Client

NC

NC

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: [systemsorderdesk@us.jvkenwood.com](mailto:systemsorderdesk@us.jvkenwood.com)
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

**Note:** A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

### Software License Key Discount Structure

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>

SOFTWARE LICENSING OPTIONS, CON'T		CONTRACT	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Fifty (50) radios / One(1) <b>NXDN</b> Conventional and Type-C <b>Air</b> Communication Profile and One(1) <b>NXDN</b> Conventional and Type-C <b>IP</b> Communication Profile  <b>Note:</b> - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. - NEXEDGE Type-D Trunking and DMR System not supported.	\$ 707.20	884.00

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**  
**Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.**

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	\$ 1,333.60	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	\$ 2,333.60	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	\$ 3,333.60	4167.00
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	\$ 200.00	250.00
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	\$ 333.60	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	\$ 640.00	800.00

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.

Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles

Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

# KTI-4

## Telephone Interconnect Adapter

### General

- Available only for NEXEDGE® digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE® digital trunking system and an analog telephone patch panel

### Main Features

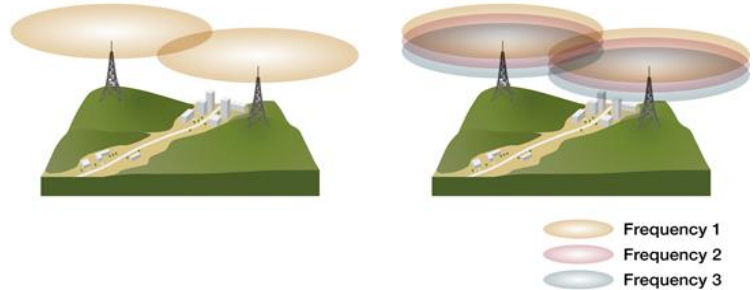
- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2™ vocoder for digital audio speech conversion.
- NXDN® encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

<i>Interconnect Adapter</i>		<i>CONTRACT</i>	<i>LIST</i>
KTI-4M	Telephone Interconnect Adapter	\$ 456.00	570.00
901-9416	Model 30 Worldpatch	\$ 641.00	801.25
KSGUT10001	1RU Mounting Tray <b>Note:</b> Provides mounting space for up to two accessories.	\$ 40.00	50.00
L-8005	KTI-4M Calibration (Required)	\$ 60.00	75.00



**General**

- Simple multi-site operation for extended coverage.
- Digital simulcast will offer the user the ability to use a single frequency pair over a coverage area larger than serviced by a single repeater site.
- No need for radios to be programmed to roam among sites, greatly simplifying operation for the end-user and system owner.

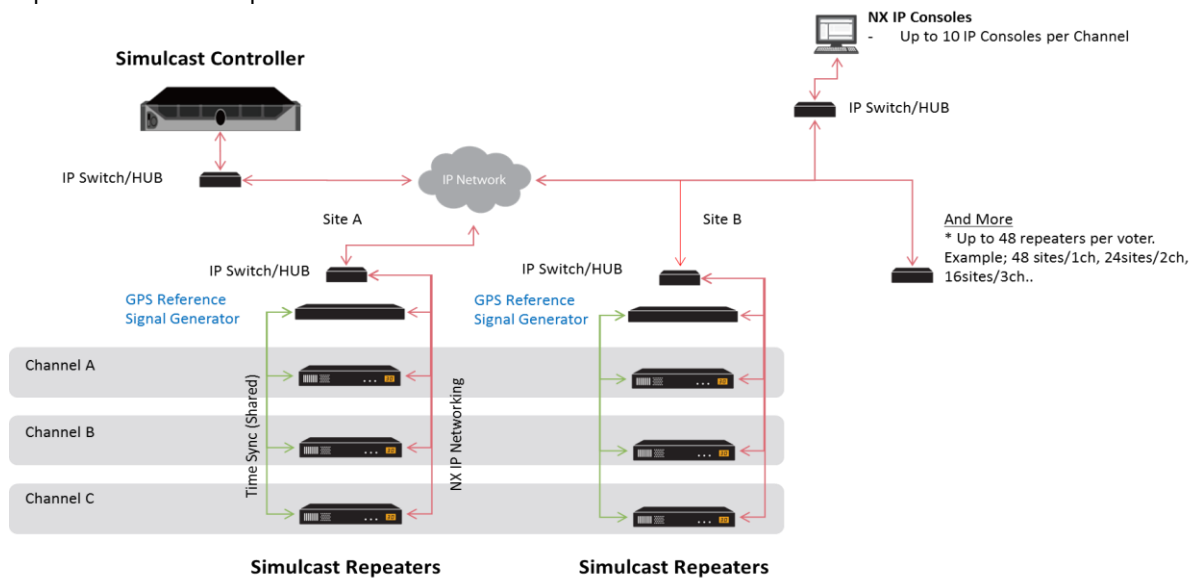


**Features and Highlights**

- 6.25 kHz NXDN Conventional
- VHF and UHF frequency models
- Up to 48 repeaters / Up to 3 channels per Controller  
*48 sites / 1CH, 24 sites / 2CH, 16sites/1CH*
- Up to 10 IP Consoles per Channel

**Applicable VHF/UHF Subscribers:**

- NX-5x00 Series
- NX-3x00/3x20 Series
- NX-x00G/x10G Series
- NX-x20 Series



<b>SIMULCAST CONTROLLER</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGCT13SIM	Simulcast Controller	\$ 11,200.00	14,000.00
<b>SIMULCAST REPEATERS</b>		<b>CONTRACT</b>	<b>LIST</b>
NXR-5700KSR	Simulcast Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800KSR	Simulcast Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
NXR-5800K3SR	Simulcast Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	\$ 11,466.40	14,333.00
<b>GPS REFERENCE</b>		<b>CONTRACT</b>	<b>LIST</b>
KSG-SIM-SG	Hi Performance GPS Receiver w/ Sync Cable <b>Note:</b> GPS reference is required per site	\$ 6,880.00	8,600.00
Includes GPS antenna, mounting hardware, antenna line surge suppressor. Antenna line should be ordered separately.			
<b>SERVICE</b>		<b>CONTRACT</b>	<b>LIST</b>

Custom

System Design, Onsite Consulting, and Coverage Testing are available. Contact the Regional Sales Manager for your area to obtain a custom quote based on specific site requirements, conditions, and environment.

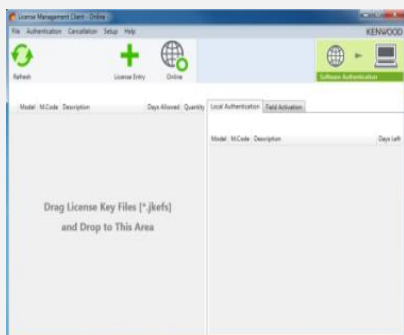
Custom

Custom

Notes:

1. Due to the complexity of the digital simulcast system, Kenwood will design, configure, and test the system.
2. IP Network and IP console is not included. CONTRACT should notify Kenwood Systems Group if required.

LICENSING SYSTEM	CONTRACT	LIST
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### KPT-300LMC License Management Client

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the "[Account Request Form](#)" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

KPT-300LMC	License Management Client	NC	NC
L-5000	Account Registration Key <b>Note:</b> specify the number of PC's used for Radio Feature License Activation.	NC	NC

PROGRAMMING SOFTWARE	CONTRACT	LIST
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KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <b>Note:</b> - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	\$ 82.60	103.25
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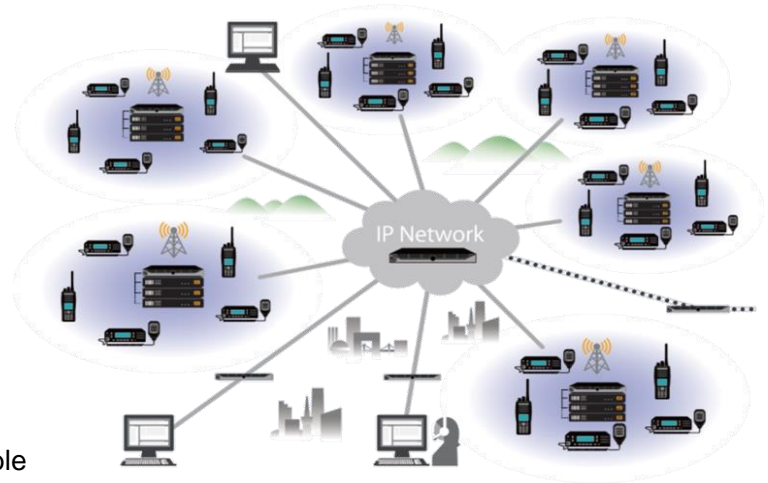
# NEXEDGE® Generation2 System

NEXEDGE Gen2

Gen2 is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. NXR-5000 and NXR-x00 series can be upgraded to Gen2 system. Key features and enhancements include: Direct Frequency Assignment (DFA), Call Pre-Emption for Console, GPS Report Channel, and an increase to the number of sites within a system.

## FEATURES AND HIGHLIGHTS:

- Up to 1,152 sites
- Up to 24 Wide Area Systems
- Up to 24 Multi System Roaming <sup>1</sup>
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel<sup>2</sup>
- SNMP Capability for Repeaters <sup>3</sup>
- Network Management and Monitoring
- NXR-700/800/900/901/5700/5800 Compatible



1. NX-x00/x10/x11/x20 series are available for 8 systems.  
 2. Requires Traffic Channel (Repeater) to use as a GPS Report Channel (GRCH).  
 3. NXR-x00 series requires to equip CF card that is installed of KPT-MIB10 software downloaded from Dealer Tools to use SNMP function.

SERVER SOFTWARE LICENSING		CONTRACT	LIST
KPG-1000SY	System Control Software <i>*Required</i> <b>Note:</b> - Required one per 48 site or per each system code - Includes NXR-5000/x00/x01 Firmware. They are automatically updated when KPG-1000SY is updated.	\$ 13,333.60	16,667.00
KPG-1001ST	Site Control Software <i>*Optional</i> <b>Note:</b> Required one per site of 10 channels or more.	\$ 2,000.00	2,500.00
KPG-1002GW	IP Gateway Software <i>*Optional</i> <b>Note:</b> Required for connecting NXIP Interface Software. One IP Gateway handles 100 interfaces and up to ten IP Gateways per system code	\$ 6,667.20	8,334.00
KPG-1003NS	Network Manager Server Software <i>*Optional</i> <b>Note:</b> Required for monitoring 101 to 1000 devices	\$ 4,000.00	5,000.00
KPG-1005RG	Roaming Gateway Server Software <i>*Optional</i> <b>Note:</b> - Required for subscriber roaming from one system to another. Roaming Gateway is required for the home system to each subscriber needing to roam. For example, subscriber from Sys A needs to roam to Sys B, Sys A needs the Roaming Gateway, Sys B doesn't need it unless Sys B subscriber needs to roam. - Roamer Subscriber must be set SKF that is issued by roamed system.	\$ 5,600.00	7,000.00

**Notes:**

1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.

SERVER HARDWARE	CONTRACT	LIST
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KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00

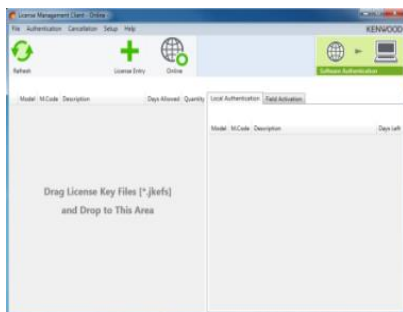
<b>WINDOWS® APPLICATION LICENSING</b>		<b>CONTRACT</b>	<b>LIST</b>
KPG-1004NC	Network Manager Client Software <b>Note:</b> Required for Network Management. <b>A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs. Requires KPT-300LMC for authentication.</b>	\$ 2,667.20	3,334.00

**TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
  - a) E-Mail: systemsorderdesk@us.jvckenwood.com
  - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.

***KPG-1004NC Software License Key Discount Structure***

1 License Key	---
2 ~ 4 License Keys	<b>10% OFF</b>
5 ~ 14 License Keys	<b>35% OFF</b>
15 ~ 24 License Keys	<b>40% OFF</b>



**Note:** KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.



**KPT-300LMC  
License Management Client**

KPT-300LMC is a required software package that is used to authenticate **software**

KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software.

**NOTE:** A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "**Account Request Form**" and return to the Kenwood Systems Order Desk.

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.

KPT-300LMC	License Management Client	NC	NC
<b>REPEATER TRUNKING AND MULTI SITE FEATURE</b>		<b>CONTRACT</b>	<b>LIST</b>
KWD-20CTR	Repeater Trunking Feature <b>Note:</b> Required for each Trunking Repeater.	\$ 1,200.00	1,500.00
KWD-20CNT	Repeater Multi-Site Feature <b>Note:</b> Only for Multi-Site Trunking System. Required for each Trunking Repeater.	\$ 1,333.60	1,667.00

**REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2**

1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.
2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)

# KPG-157SB

NEXEDGE® Generation1 Bridge



### General

- Connects up to eight NXR-700/800/900/901-based multi-site trunked networks.
- Subscribers from each network can make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere.

### Features and Highlights

- 100 Group Calls.
- 1000 GID Exchange Sets.
- Call Types - Voice/Short Data/Long Data.
- Cross Band Networks\*.
- IP Remote Control, Configuration and Maintenance.
- Multi-Level Access Control.
- Communication and System Logging.
- Data Backup and Restore.
- NXR-700/800/900/901 Compatible.

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

SOFTWARE		CONTRACT	LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	\$ 10,000.00	12,500.00
KSGPG92010	System Group Call Path License <b>Note:</b> License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	\$ 8,000.00	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key <b>Note:</b> Required for operation.	\$ 133.60	167.00
HARDWARE		CONTRACT	LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. <b>Note:</b> - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	\$ 4,400.00	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	\$ 600.00	750.00
MOUNTING CONFIGURATIONS		CONTRACT	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	\$ 864.00	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	\$ 960.00	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	\$ 2,140.00	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	\$ 1,600.00	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <b>Note:</b> Optional for situations where extra protection during transportation is required.	\$ 276.00	345.00
KSGMT20001	Cabinet Solid Top Panel	\$ 72.00	90.00
KSGMT20002	Cabinet Fan Top Assembly	\$ 348.00	435.00

KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	\$ 112.00	140.00
<b>COMPONENTS</b>		<b>CONTRACT</b>	<b>LIST</b>
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	\$ 576.00	720.00
KSGMT0C03R	Crate for 3' Rack	\$ 288.00	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	\$ 520.00	650.00
KSGMT0C07R	Crate for 7' Rack	\$ 440.00	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	\$ 1,724.00	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	\$ 416.00	520.00



**General**

- End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- Employs the latest, standards-based IP protocols and IT best practices.
- Offers highest levels of interoperability, scalability, and features.
- Designed to connect directly to a NEXEDGE® Trunking Repeater System (TRS) via IP connection.

MAX PRO WORKSTATIONS		CONTRACT	LIST
905-0410	Kenwood MAX Pro Workstation Bundle Position: One Operator Workstation PC, one Media Dock, two Speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals are included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0411	Kenwood MAX Pro Workstation Bundle, PC not included	\$ 16,975.00	21,218.75
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	\$ 14,855.00	18,568.75
930-0258	MAX Pro Software	\$ 14,320.00	17,900.00
905-0446	Kenwood MAX Pro Workstation Bundle with Rackmount Speakers Position: One Operator Workstation PC, one Media Dock, one 19" Rackmount Speaker Panel with two speakers, and Power Supply Licenses: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephony, Event Replay, Aux I/O Control Feature Sets All manuals included in softcopy format with the MAX software.	\$ 17,505.00	21,881.25
905-0512	1-Position 2 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 21,310.00	26,637.50
905-0513	1-Position 10 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls). All manuals included in softcopy format with the MAX software.	\$ 33,990.00	42,487.50
905-0514	1-Position 20 Channel NXDN with PC Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blocks (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 51,670.00	64,587.50
905-0515	1-Position 2 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: One MAX Digital Radio Gateway with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 2-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 19,295.00	24,118.75



905-0516	1-Position 10 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Five MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, one 10-channel License Block (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 32,250.00	40,312.50
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<b>MAX PRO WORKSTATIONS, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
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905-0517	1-Position 20 Channel NXDN without PC Position: One Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Backroom: Ten MAX Digital Radio Gateways with NXDN interface licenses, one MAX Central, one MAX Manager (non-redundant) Licenses: One MAX Base Software License, two 10-channel License Blockx (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 49,490.00	61,862.50
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905-0518	Max Standard with Laptop Position: Laptop, USB Headset Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls)	\$ 9,270.00	11,587.50
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950-1348	MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls	\$ 4,500.00	5,625.00
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905-0519	MAX Standard Workstation Bundle (with PC) Position: One Operator Workstation PC, one Media Dock, two Speakers, Footswitch, Desk Microphone, and Power Supply Licenses: One MAX Base Software License (does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls) All manuals included in softcopy format with the MAX software.	\$ 10,305.00	12,881.25
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905-0522	MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals	\$ 8,950.00	11,187.50
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905-0524	MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop	\$ 4,750.00	5,937.50
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<b>OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)</b>			
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930-0222	Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit	\$ 1,060.00	1,325.00
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930-0223	Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias	\$ 1,590.00	1,987.50
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930-0224	Tone Signaling/Paging Feature Set Includes: Manual paging operation, instant call and stacked paging, 2-tone 100, 1000, and Custom Calls (Mot & GE), Quick Call (2+2), DTMF, and Knox	\$ 1,590.00	1,987.50
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930-0225	Event Replay Short term audio playback at the console position	\$ 1,795.00	2,243.75
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930-0226	Aux I/O Software Feature Set	\$ 1,590.00	1,987.50
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<b>WORKSTATION HARDWARE OPTIONS</b>		<b>CONTRACT</b>	<b>LIST</b>
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950-0032	Headset, 6-wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 438.24	547.80
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950-0033	Headset 4-Wire, Noise Cancelling Dual-prong adapter which includes one headset top	\$ 329.34	411.68
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950-0454	Wireless Headset, 6-Wire, Noise Canceling (comes with two batteries) Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops	\$ 1,103.57	1,379.46
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802-0115	Headset Top, Noise Cancelling	\$ 147.41	184.26
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905-0414	Kenwood Desktop Microphone, Shure with Cable	\$ 615.00	768.75
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950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality	\$ 800.00	1,000.00
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950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	\$ 641.00	801.25
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950-9102	Footswitch, Single w/ 10' cable	\$ 122.00	152.50
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950-1190	Kenwood Speakers Single (cable separate)	\$ 450.00	562.50
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950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	\$ 917.00	1,146.25
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950-1251	2U Rackmount Gooseneck Microphone	\$ 535.00	668.75
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709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	\$ 21.25	26.56
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901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1237	Console Position Light Pole	\$ 584.32	730.40
<b>MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP)</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	\$ 2,695.00	3,368.75
930-0264	NEXEDGE Talkpath Interface (Conventional or Trunking) Requires license for each NEXEDGE Talkpath monitored at the console <i>Conventional: One Talkpath per Gateway</i> <i>Trunking: Two Talkpaths per Gateway</i>	\$ 530.00	662.50
<b>MAX SYSTEM HARDWARE/SOFTWARE</b>		<b>CONTRACT</b>	<b>LIST</b>
901-9719	Kenwood MAX Central Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway; includes five (5) 10 ft. shielded CAT5e cables for connectivity	\$ 3,395.00	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	\$ 3,290.00	4,112.50
930-0221	Block of 10 Radio Channels Licenses Up to 50 channels in the system; beyond 50 channels, please call Kenwood for pricing.	\$ 3,185.00	3,981.25
930-0376	Block of 2 Radio Channel Licenses	\$ 695.00	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	\$ 480.00	600.00
930-0273	MAX Dispatch Voice Logger License for Eventide NexLog™ Logging Recorders License applies when using Eventide NexLog™ recorder only; Eventide Recorder must have been purchased through Zetron to qualify; 930-0237 not needed	NC	NC
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	\$ 930.00	1,162.50
930-0233	MAX Portal Remote Radio License One remote Portal license is needed per Radio Gateway that is designated as remote device; may require additional Centrals	\$ 210.00	262.50
930-0234	MAX Portal Z-Node License One portal license is needed for each Z-Node that is required to operate in a multi-node system; may require additional Centrals	\$ 4,120.00	5,150.00
950-9351	Connectorized Punch down Block	\$ 116.86	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	\$ 891.00	1,113.75
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	\$ 875.00	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	\$ 783.52	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	\$ 410.00	512.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC@ 2A) 18-36VDC; power supply not included	\$ 2,729.04	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	\$ 258.96	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	\$ 33.20	41.50
<b>MAX TELEPHONY GATEWAY INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0235	Telephone Gateway Services (1 per Max Central)	\$ 2,120.00	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	\$ 65.00	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	\$ 805.00	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	\$ 2,450.00	3,062.50
<b>MAX DMR INTERFACE</b>		<b>CONTRACT</b>	<b>LIST</b>
905-0510	MAX Dispatch DMR AIS Gateway Bundle	\$ 6,200.00	7,750.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	\$ 9,795.00	12,243.75

930-0363	MAX Dispatch DMR 5 TalkPath License	\$ 5,000.00	6,250.00
930-0364	MAX Dispatch DMR 10 TalkPath License	\$ 9,100.00	11,375.00
930-0365	MAX Dispatch DMR 20 TalkPath License	\$ 16,100.00	20,125.00
<b>MAX DMR INTERFACE, CON'T</b>		<b>CONTRACT</b>	<b>LIST</b>
930-0366	MAX Dispatch DMR 30 TalkPath License	\$ 21,100.00	26,375.00
<b>RACK MOUNTING AND POWER EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 2,650.00	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	\$ 4,875.00	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	\$ 630.80	788.50
950-1135	DIN Rail Mounting Kit Generic rack mount kit that can be used for extra power supply mounting or other devices using DIN rail mounting	\$ 505.00	631.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	\$ 80.00	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	\$ 122.00	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	\$ 170.00	212.50
810-0142	19" Rack 2U Shelf	\$ 106.24	132.80
416-0043	Fuse, 3 Amp	\$ 6.64	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	\$ 14.61	18.26
<b>MONITORS AND NETWORK EQUIPMENT</b>		<b>CONTRACT</b>	<b>LIST</b>
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	\$ 358.56	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 3,217.74	4,022.18
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	\$ 710.48	888.10
950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	\$ 1,095.60	1,369.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	\$ 1,401.04	1,751.30
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 2,735.68	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	\$ 4,774.16	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	\$ 66.40	83.00
<b>SYSTEMS DOCUMENTATION</b>		<b>CONTRACT</b>	<b>LIST</b>
395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	\$ 25.00	31.25
025-9638-1	MAX System Overview Manual	\$ 50.00	62.50
025-9645-1	MAX System Installation Manual	\$ 50.00	62.50
025-9654-1	MAX Dispatch System Configuration Manual	\$ 50.00	62.50
025-9649-1	MAX Operation Manual	\$ 50.00	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	\$ 50.00	62.50
025-9647-1	MAX Central Product Manual	\$ 50.00	62.50
025-9650-1	MAX Dispatch Console Design Manual	\$ 50.00	62.50
025-9630	Model 6080 Manual	\$ 50.00	62.50
025-9658-1	Media Dock XS Manual	\$ 50.00	62.50
025-9693	MAX Dispatch CAD Interface Control Document API documentation for developing 3rd party applications to control the MAX Dispatch Console; Protocol License Agreement required to obtain documentation	\$ 785.00	981.25
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	\$ 50.00	62.50

025-9632	Headset Jackbox manual	\$ 50.00	62.50
<b>CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Factory Training in Redmond, WA			
X97-344F	MAX Dispatch Factory Technical Training, First Person	\$ 1,454.16	1,817.70
X97-344A	MAX Dispatch Factory Technical Training, Additional person	\$ 723.76	904.70
XMP-K344-OWE	MAX-PSP Operator Web Training extension	\$ 1,992.00	2,490.00
<b>ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OSO	MAX-PSP On-Site Operator Training, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-OST	MAX-PSP On-Site Technical Support, Per Day Price is per day and is for North America only; three weeks advance notice required	\$ 3,320.00	4,150.00
<b>UPGRADES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC	NC
<b>SPARES</b>		<b>CONTRACT</b>	<b>LIST</b>
950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	\$ 1,380.00	1,725.00
901-9727	Kenwood MAX Digital Radio Gateway	\$ 2,695.00	3,368.75
901-9719	Kenwood MAX Central	\$ 3,395.00	4,243.75
901-9695	Kenwood Media Dock XS Kit	\$ 4,030.00	5,037.50
950-1278-1	Kenwood MAX Solutions Workstation PC	\$ 2,629.44	3,286.80
802-0692	Power Supply, Desktop 60W	\$ 55.78	69.72
416-0012	AC Power Cord (North America)	\$ 14.61	18.26
<b>SERVICE PLANS</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plans are for North America only			
XMP-K344-EBS	MAX-PSP Extended Service Plan One year software services, one year hardware, after-hours phone support, and one year membership in the Zetron MAX Users Group; per position, per year	NC	NC
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	NC	NC
XMP-K344-APM	MAX-PSP After hours phone support 1 time Special needs - emergency and pre-scheduled service outside of regular business hours; per month	\$ 100.00	125.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	\$ 5,976.00	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	\$ 239.04	298.80
XMP-K344-MUG	MAX-PSP Zetron MAX Users Group Membership for one year into the ZMUG allows participation in MAX related webinars (must have software PSP)	NC	NC
<b>WARRANTY PACKAGE</b>		<b>CONTRACT</b>	<b>LIST</b>
Note: Plan is for North America only			
XMP-K344-BAS	MAX-PSP Base Service Plan One year software services, one year hardware services, one year of advance hardware replacement, operator web training (2-4 hour sessions), and one year membership in the Zetron MAX Users Group	NC	NC

# KENWOOD | KAIROS

## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz



### GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier 2 & 3 simulcast repeaters
- Kairos S-Trunk repeaters
- DMR Conventional IP Network
- Multi-mode Analog/Digital Repeater
- Optional Soft Diversity Reception
- Analog / Digital Simulcast Option
- System Redundancy

### GENERAL OPTIONS

- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available.
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45

<b>KAIROS REPEATER AND GATEWAY</b>		<b>LIST</b>
KA160	KAIROS DMR VHF (136-174 MHz) REPEATER, 1-25W	\$ 3,540
KA450	KAIROS DMR UHF LO (400-470 MHz) REPEATER, 1-25W	\$ 3,540
KA500	KAIROS DMR UHF HI (450-527 MHz) REPEATER, 1-25W	\$ 3,540
KA080	KAIROS 66-88MHz RF BACKHAUL REPEATER, 1-25W	\$ 3,800
<b>REPEATER MOUNT (Mandatory mount option for rack mounting)</b>		<b>LIST</b>
KA-RK1V2-BPM	19" MOUNT PANEL FOR 1 KAIROS REPEATER	\$ 435
KA-RK2-BPM	19" MOUNT PANEL FOR 2 KAIROS REPEATER	\$ 435
<b>Kairos Software Options</b>		<b>LIST</b>
<b>DMR Tier 2</b>		<b>LIST</b>
KA-SI-T2M	TIER 2 SIMULCAST LICENSE	\$ 4,000
<b>Alarm Monitoring and Other</b>		<b>LIST</b>
KA-NET-RCM	NETCONTROL - MONITORING AND REMOTE CONTROL SW	\$ 150
KA-1+1M	KIT AND SW FOR HOT STAND-BY CONFIGURATION <i>Note : Must purchase additional KA repeater.</i>	\$ 200
KA-MCTCSSM	MCTCSS SW LICENSE	\$ 200
KA-POCSAG	POCSAG KAIROS	\$ 610
<b>IP Gateway Software License</b>		<b>LIST</b>
IPGW-1013	IP GATEWAY WITH SERVER, SOFTWARE, INSTALLATION	\$ 5,000
KWD-1013T2	DMR TIER II LICENSE	\$ 1,500
KAGW-1013	KAIROS GATEWAY	\$ 3,340
<b>KAS-20 Console</b>		<b>LIST</b>
KAS-20K	DISPATCH CLIENT LICENSE	\$ -
KWD-20S-MCK	MULTI-CLIENT LICENSE	\$ 2,000
KWD-20S-RSK	RF SYSTEM LICENSE	\$ 2,500
KWD-20C-VDK	VOICE DISPATCH LICENSE	\$ 600
KWD-20C-VPK	VOICE PATH LICENSE	\$ 500
KWD-20S-VRK	VOICE RECORD LICENSE	\$ 1,750
KWD-20C-LMK	LOCATION MANAGEMENT LICENSE	\$ 500



# KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

<b>AMPLIFIER (OPTION) - ONE PER REPEATER</b>		<b>LIST</b>
Note: Includes One Cable for Radio Connectivity.		
KSGPA22403	AMP 136-174MHz, 3W INPUT, 25-50W OUTPUT	\$ 1,665
KSGPA22415	AMP, 136-174 MHz, 3W INPUT, 100W OUTPUT	\$ 2,160
KSGPA22723	AMP 152-162MHz, 3W INPUT, 100W OUTPUT <i>Note : KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 1,950
KSGPA22724	AMP 162-174MHz, 3W INPUT, 100W OUTPUT <i>Note : KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 1,950
KSGPA22441	AMP 136-144MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22442	AMP 144-152MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22443	AMP 152-162MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22444	AMP 162-174MHz, 3W INPUT, 150W OUTPUT	\$ 3,060
KSGPA22253	AMP 152-162MHz, 3W INPUT, 250W OUTPUT	\$ 4,060
KSGPA23401	AMP 406-450MHz, 3W INPUT, 20-40W OUTPUT	\$ 1,665
KSGPA23411	AMP 406-450MHz, 3W INPUT, 50-100W OUTPUT	\$ 2,165
KSGPA23702	AMP 403-450MHz, 3W INPUT, 100W OUTPUT <i>Note : KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 2,240
KSGPA23441	AMP 406-450MHz, 3W INPUT, 150W OUTPUT	\$ 3,940
KSGPA23413	AMP 450-512MHz, 3W INPUT, 50-100W OUTPUT	\$ 2,165
KSGPA23403	AMP 450-512MHz, 3W INPUT, 20-40W OUTPUT	\$ 1,665
KSGPA23703	AMP 450-512MHz, 3W INPUT, 100W OUTPUT <i>Note : KSGMT90005 cage is required; see Mounting Configurations section below</i>	\$ 2,240
KSGPA23443	AMP 450-512MHz, 3W INPUT, 150W OUTPUT	\$ 3,940
KSGMT90005	RACK, BLACK, 5-PACK <i>Note : Must be ordered when Vertical Mount (KSGPA22723 or KSGPA22724 is ordered. One rack can hold up to 5 amplifier</i>	\$ 675
<b>DUPLEXER (OPTION) - ONE PER REPEATER</b>		<b>LIST</b>
KSGDX12556	DUPLEXER 6 CAVITY VHF BPBR <i>Note : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable</i>	\$ 3,095
KSGDX13546	DUPLEXER 6 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 3,095
KSGDX23101	DUPLEXER 4 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 1,775
<b>HARDWARE OPTIONS</b>		<b>LIST</b>
KA-24BFSM	EXTENSION CONNECTOR FOR RX (MULTICOUPLER) <i>Note : Order if you want to not connect the cables directly to the repeater, instead you want to connect through a flexible cable</i>	\$ 45
KA-24NFSM	EXTENSION CONNECTOR FOR GPS, TX, RX (ANT/DUPLXR) <i>Note : Order if you want to not connect the cables directly to the repeater, instead you want to connect through a flexible cable</i>	\$ 45
KA-VOC-2M	ANALOG 4-WIRE TO DIGITAL (DMR/P25) CONVERTER <i>Note : Optional item, only if you want to convert analog 4-wire audio to P25</i>	\$ 650
3351557001	GPS ANTENNA SECURE SYNC KIT <i>Note : Order one per site. Provides antenna connection to the GPS receiver for simulcast repeaters</i>	\$ 550
3351558001	GPS ANTENNA SURGE SUPPRESSOR <i>Note : Optional, item. Protects the GPS receiver inside the repeater from surges</i>	\$ 550



# KENWOOD | KAIROS

## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

KA-GPSM	GPS RECEIVER	\$ 400
<b>POWER SUPPLY OPTIONS</b>		<b>LIST</b>
KSGPS20200	POWER SUPPLY, 20A, 13.8VDC <i>Note: when operating repeater without AMP - 25W - incompatible with amplifier</i>	\$ 255
KSGPS20400	POWER SUPPLY, 40A, 13.8VDC, 19" WIDE RACK MOUNTED <i>Note: upto 100W one per repeater, Incompatible with 150W or 250W amplifier option</i>	\$ 475
KSGPS20352	POWER SUPPLY, 35A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER <i>Note: Incompatible with 150W or 250W amplifier option. - one per repeater - up to 100W</i>	\$ 1,355
KSGPS20701	POWER SUPPLY, 70A, 13.8VDC, 19" WIDE RACK MOUNTED <i>Note: one 150/250W repeater or two 100 W</i>	\$ 1,355
KSGPS20702	POWER SUPPLY 70A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER <i>Note: one 150/250W repeater</i>	\$ 1,740
<b>MOUNTING RACK</b>		<b>LIST</b>
KSGMCAB4	77" (40RU) LOCKING CABINET WITH CRATE	\$ 2,943
KSGMRCK3	3' (17RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 1,080
KSGMRCK7	7' (45RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 1,200
KSGMT20020	42" (20RU) LOCKING CABINET	\$ 2,000
KSGMT0C20U	CRATE FOR 42" (20RU) LOCKING CABINET <i>Note: Optional for situations where extra protection during transportation is required.</i>	\$ 397
KSGMT20001	CABINET SOLID TOP PANEL	\$ 90
KSGMT20002	CABINET FAN TOP ASSEMBLY	\$ 435
KSGMT20003	CABINET SOLID FLOOR PANEL <i>Note: (INCLUDES FIVE PRE-DRILLED OPENINGS AND GROMMETS)</i>	\$ 140
VP-10-BPM	CLOSURE 10TE, FOR VERTICAL MOUNTING	\$ 100
VP-4-BPM	CLOSURE 4TE, FOR VERTICAL MOUNTING	\$ 60
KSGTM10TCS	CASE, TONE TERM PANEL	\$ 65
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>LIST</b>
<b>Note:</b> One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired		
KSGNS10008	8-PORT MANAGED NETWORK SWITCH <i>Note: 1RU Mounting Tray (KSGUT10001) sold separately.</i>	\$ 250
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	\$ 415
KSGRT-RV340	4-PORT MANAGED VPN ROUTER - RACK MOUNTABLE <i>Note: 1RU Mounting Tray (KSGUT10001) sold separately</i>	\$ 600
KSGUT10001	MOUNTING TRAY, 1RU <i>Note: Provides mounting space for up to two accessories</i>	\$ 50
KSGNS10024	RACK MOUNTED 24-PORT MANAGED NETWORK SWITCH	\$ 375
KSGRT20001	HP MSR2003 AC ROUTER <i>Note: For complex system, order this router instead of the KSGRT-RV340</i>	\$ 1,800
KSGMS100P1	15A POWER STRIP, 19" RACKMOUNT, 1RU <i>Note: One recommended per rack when including a switch and/or router</i>	\$ 91
<b>DESIGN SERVICE</b>		<b>LIST</b>
NTW-PROGM	COMPLEX NETWORK DESIGN AND PROGRAMMING <i>Contact the Regional Sales Manager for your area to obtain a custom quote based on specific requirements, conditions, and environment.</i>	Custom
SYS-PROGM	SYSTEM DESIGN AND PROGRAMMING <i>Contact the Regional Sales Manager for your area to obtain a custom quote based on specific requirements, conditions, and environment.</i>	Custom
<b>OTHER SERVICES</b>		<b>LIST</b>
3391105001	STAGING SERVICE	\$ 225.00



## KA160/KA450/KA500

Analog/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz

3391101001	PROGRAM MANAGEMENT	\$ 225.00
3391107001	REMOTE TECHNICAL SUPPORT	\$ 225.00
3391109001	ON SITE TECHNICAL SUPPORT	\$ 225.00
3391102001	SYSTEM ENGINEERING	\$ 225.00
3391202001	SYSTEM INSTALLATION	\$ 225.00
<b>OTHER ACCESSORIES</b>		<b>LIST</b>
637514990	2000 Ft AVA5-50 7/8 Inch Hardline Commscope	\$ 5.00
KSGMS00357	A5NM-S N-Male connector for Heliax 7/8In	\$ 68.00
637333438	AFNF-S N-Female Connector 7/8	\$ 78.53
3376850008	IS-B50LN-C2 Polyphaser	\$ 126.29
63785411	TPRD-4544 Duplexer Telewave (Factory Tuned)	\$ 4,293.32
637334384	SG78-12B2U SureGround Grounding Kit for 7/8	\$ 35.57
63765143	DB-408B antennas	\$ 1,608.75
637209220	PTP-670 Cambium Hops	\$ 6,288.75