



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **1**
 to
 Contract Number **210000000896**

CONTRACTOR	E.F. Johnson Company
	1440 Corporate Drive
	Irving, TX 48933
	Timi Jackson
	972-819-2996
	tjackson@efji.com
	CV050201

STATE	Program Manager	Various	SW
	Contract Administrator	Valerie Hiltz (517) 249-0459 hiltzv@michigan.gov	DTMB

CONTRACT SUMMARY

TWO-WAY RADIO AND RADIO SYSTEMS SALES AND SERVICE - STATEWIDE

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
May 1, 2021	April 30, 2026	3 - 1 Year	April 30, 2026
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45 days		As per order	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input checked="" type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		April 30, 2026
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$1,000,000.00	\$0.00	\$1,000,000.00		

DESCRIPTION

Effective October 10, 2023, this contract is revising Schedule B, Attachment 1- Manufacturer List Price Catalog as attached. All other terms, conditions, specifications and pricing remain the same. Per agreement between the Contractor and DTMB Central Procurement and the approval of DTMB Central Procurement.

STATE OF MICHIGAN

Master Agreement No. 210000000896

Two-Way Radio and Radio Systems Sales and Service

SCHEDULE B, ATTACHMENT 1-MANUFACTURER LIST PRICE CATALOG

KENWOOD



Price Guide

EFJohnson

a JVCKENWOOD Company

Effective Date: 10.10.23

KENWOOD



Edition Date: March 1, 2023

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Portables

[Viking VP8000 Portable \(Preliminary\)](#)

[Viking VP6000 Portable](#)

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Mobiles

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[Viking VM5000 Mobile](#)

Vehicular Repeaters

[EVRS](#)

KENWOOD

VIKING[®]
P25 Mission Critical

VP8000

Multi-Band · Multi-Protocol
Mission Critical Portable Radio

The KENWOOD Viking 8000 series Multi-Band, Multi-Protocol 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

- Multi-Band operation (VHF, UHF, 700/800 MHz)
- Multi-Protocol
 - P25 Phase 1 & 2 Trunking
 - P25 Conventional
 - DMR[®]
 - Viking16 (SmartNet/SmartZone[™] Compatible)
 - FM Analog
- Mixed protocol zones (each channel in a zone can be from a different system)
- 1024 channels (2048 & 4096 options)
- Public safety ergonomics: Flare grip for control, large glove friendly knobs, large emergency button
- 3-Watt audio maximum output for high noise environments
- Voice announcement & custom announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G/H
- Full key models (with numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth[®] / Bluetooth Low Energy
- Wi-Fi[®] 2.4 & 5 GHz (802.11a/b/g/n/ac)
- Man Down
- Instant Recording Replay (IRR) and Voice Recording
- Text Messaging
- Radio Cloning
- FIRESafe[®] Fire Ground Commander and First Responder
- Encryption
 - ARC4[™] software encryption; compatible with Motorola ADP[™]
 - P25/TIA defined: AES-256
 - DES-OFB
 - Over-the-Air-Rekeying (OTAR)



User Selectable Color Themes

- Large full-color top LCD
- Multi-line text on both front and top displays
- Top flip display changes text orientation for viewing while in holster
- Multiple visual indicators including battery health & signal strength
- Day & night user selectable display options (8 themes available)



Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog [here](https://info.efjohnson.com/viking-accessory-catalog/):
<https://info.efjohnson.com/viking-accessory-catalog/>



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
VP8000BKF2	VP8000 Multiband Portable. Model 2 (standard keypad), Black. No Bands Enabled	\$ 2,455.00
VP8000BKF3	VP8000 Multiband Portable. Model 3 (full keypad), Black. No Bands Enabled	\$ 2,770.00
VP8000GRF2	VP8000 Multiband Portable. Model 2 (standard keypad), Hi-Viz Green. No Bands Enabled	\$ 2,710.00
VP8000GRF3	VP8000 Multiband Portable. Model 3 (full keypad) Hi-Viz Green. No Bands Enabled	\$ 3,020.00
Radio - Frequency Bands		List
832VP8000-VHF	VHF BAND ENABLE, VP8000	\$ 715.00
832VP8000-UHF	UHF BAND ENABLE, VP8000	\$ 715.00
832VP8000-7800	7/800 BAND ENABLE, VP8000	\$ 715.00
Model Options		List
250VP5000001	Intrinsically Safe (CSA) - CERT is pending for VP8000 <i>KNB-LS5 or KNB-LS7 battery required</i>	\$ 118.00
Antenna		List
KRA-47MB	Multi-Band Whip Antenna, 136-870 MHz	\$ 105.00
KRA-32K	700/800 MHz Whip Antenna	\$ 42.50
KRA-36	700/800 MHz Stubby Antenna	\$ 30.50
KRA-27M	UHF whip antenna 440-490 MHz	\$ 20.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 20.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 20.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 20.00
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 20.00
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 20.00
KRA-29	UHF whip antenna 380-430 MHz	\$ 44.80
KRA-26M	VHF helical antenna 146-162 MHz	\$ 20.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 20.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 20.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 20.00
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 20.00
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 20.00
KRA-25	VHF High gain helically loaded whip 148-162 MHz	\$ 41.80
KRA-28	VHF Wideband whip antenna 140-170 MHz	\$ 51.20
Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 169.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 218.70
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 254.50
KNB-LS7-IS	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 366.00
KNB-L11M	Li-ion 3900 mAh (High Capacity) Note: Requires the KSC-52AK single bay charger or KSC-526K charger equipped with KSC-52PAK A-Pocket charger insert.	\$ 219.25
KSC-32	Rapid rate single unit charger	\$ 97.30
KSC-326AK	Rapid rate 6-unit charger	\$ 888.80

Batteries & Chargers, Continued		List
KSC-52AK	Rapid rate single unit charger with A-Pocket charger insert. Compatible with KNB-L11M.	\$ 92.30
KSC-52BK	Rapid rate single unit charger with B-Pocket charger insert. Compatible with KNB-L2/L3/LS5/LS7 style batteries.	\$ 92.30
KSC-526K	Rapid rate 6-unit charger. Note: Requires insertion of 6 charger pockets of styles KSC-52PAK, KSC-52PBK or KSC-52CK	\$ 777.80
KSC-52PAW	Charger Pocket type A for KSC-526K 6-bay or as replacement pocket for KSC-52AK charger. Compatible with KNB-L11M battery.	\$ 10.80
KSC-52PBW	Charger Pocket type B for KSC-526K 6-bay or as replacement pocket for KSC-52BK charger. Compatible with KNB-L2/L3/LS5/LS7 batteries.	\$ 10.80
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 193.00
KVC-23V	Vehicular Charger. Supports KNB-L2/L3/LS7 batteries	\$ 366.00
Carrying Accessories		List
KBH-11	Spring action belt clip (2.5")	\$17.80
KW9130-LF	Leather Case, Fire service shoulder strap D-rings. Compatible with larger batteries: KNB-L3, KNB-LS7 and KNB-L11	\$ 80.00
KW9140-LF	Leather Case, Fire service shoulder strap D-rings. Compatible with smaller batteries: KNB-L2 and KNB-LS5.	\$ 80.00
KW9130-LP	Leather Case, Police style D-Swivel. Compatible with larger batteries: KNB-L3, KNB-LS7 and KNB-L11	\$ 80.00
KW9140-LP	Leather Case, Police style D-Swivel. Compatible with smaller batteries: KNB-L2 and KNB-LS5.	\$ 80.00
KW9130-NP	Nylon Case, Police style D-Swivel. Compatible with larger batteries: KNB-L3, KNB-LS7 and KNB-L11.	\$ 80.00
KW9140-NP	Nylon Case, Police style D-Swivel. Compatible with smaller batteries: KNB-L2 and KNB-LS5.	\$ 80.00

Microphones & Audio Accessories		List
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 450.00
KMC-70M	MIL-SPEC, IP67 (Immersion) Speaker Mic. Black. 3 Programmable Buttons	\$ 158.30
KMC-70GR	MIL-SPEC, IP67 (Immersion) Speaker Mic. Hi-Viz Green. 3 Programmable Buttons	\$ 168.50
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	\$ 67.70
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 67.70
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 177.70
Programming		List
KPG-236UM	Programming Cable. Compatible with VP5000/VP6000/VP8000. Required for VP8000 since KPG-36 cables do not support USB High Speed.	\$ 193.00
Protocol		List
8321050001	Analog FM (standard)	\$0
8321000002	P25 CAI AMBE+2 (standard)	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional	\$ 415.00
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)	\$ 145.00
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00

Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
8326000008	2048 Channels/Talkgroups	\$ 355.00
8326000009	4096 Channels/Talkgroups	\$ 710.00
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000001	DES-OFB (single-key)	\$0
8323000003	DES-OFB (multi-key)	\$0
8323000002	AES FIPS 140-2 (single-key)	\$ 180.00
8323000004	AES FIPS 140-2 (multi-key)	\$ 560.00
8323000005	ARC4 (ADP compatible)	\$0
	Programming & Data	
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode/Encode	\$ 120.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 890.00
8326000001	P25 Authentication	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8326000003	FIRESafe™ First Responder	\$ 300.00
8326000004	FIRESafe™ Command (includes First Responder)	\$ 415.00
8325000003	GPS	\$ 120.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 55.00
8326000023	EVRS, Portable	\$ 120.00
8326000026	Man Down	\$ 120.00
8326000028	Instant Recording Replay	\$ 120.00
8326000031	Radio Cloning	\$ 120.00
8326000032	Text Messaging	\$ 235.00
8326000025	Bluetooth * (no charge in initial offering of VP8000)	\$ -
8326000033	Bluetooth Low Energy * (no charge in initial offering of VP8000)	\$ -
8326000039	WiFi * (no charge in initial offering of VP8000)	\$ -
8324000004	OTIP (Programming over WiFi). Requires 8326000039	\$ 235.00
8326000034	Custom Transmit Power Levels	\$ 235.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See the Viking Accessory Catalog for list price when purchased separately.	

KENWOOD

VIKING
P25 Mission Critical

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 and 4096 options)
- 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 announcement creation
- Fully ruggedized - IP67/68 & MIL-STD-883C/D/E/F/G
- Full key models (w/ numeric keypad)
- Built-in GPS receiver/antenna for enhanced awareness*
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Bluetooth*
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Radio Cloning
- Bluetooth Low Energy
- Encryption
 - ARC4™ software encryption; compatible w/Motorola ACP™
 - P25/TIA defined: AES-256
 - DES-CFB
 - Over-the-Air-Relaying (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 <https://info.efjohnson.com/viking-accessory-catalog/>

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). Effortless 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.



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™ Radio - P25 Phase 1 & Phase 2

Radio - Base Model		List
VP6230BKF2	VHF, 136-174 MHz, Model 2 (standard keypad), Black	\$ 2,830.00
VP6330BKF2	UHF, 450-520 MHz, Model 2 (standard keypad), Black	\$ 2,830.00
VP6330BKF5	UHF, 380-470 MHz, Model 2 (standard keypad), Black	\$ 2,830.00
VP6430BKF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 2 (standard keypad)	\$ 2,830.00
VP6230BKF3	VHF, 136-174 MHz, Model 3 (full keypad), Black	\$ 3,145.00
VP6330BKF3	UHF, 450-520 MHz, Model 3 (full keypad), Black	\$ 3,145.00
VP6330BKF6	UHF, 380-470 MHz, Model 3 (full keypad), Black	\$ 3,145.00
VP6430BKF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 3,145.00
VP6230GRF2	VHF, 136-174 MHz, Model 2 (standard keypad), Green	\$ 3,080.00
VP6330GRF2	UHF, 450-520 MHz, Model 2 (standard keypad), Green	\$ 3,080.00
VP6330GRF5	UHF, 380-470 MHz, Model 2 (standard keypad), Green	\$ 3,080.00
VP6430GRF2	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 2 (standard keypad)	\$ 3,080.00
VP6230GRF3	VHF, 136-174 MHz, Model 3 (full keypad), Green	\$ 3,400.00
VP6330GRF3	UHF, 450-520 MHz, Model 3 (full keypad), Green	\$ 3,400.00
VP6330GRF6	UHF, 380-470 MHz, Model 3 (full keypad), Green	\$ 3,400.00
VP6430GRF3	700/800 MHz, 762-806 MHz and 806-870 MHz, Green, Model 3 (full keypad)	\$ 3,400.00
Model Options		List
250VP5000001	Intrinsically Safe (CSA) <i>KNB-LS5 or -LS7 battery required</i>	\$ 118.00
Antenna		List
KRA-32K	700/800 MHz Whip Antenna	\$ 42.50
KRA-36	700/800 MHz Stubby Antenna	\$ 30.50
KRA-27M	UHF whip antenna 440-490 MHz	\$ 20.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 20.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 20.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 20.00
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 20.00
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 20.00
KRA-29	UHF whip antenna 380-430 MHz	\$ 44.80
KRA-26M	VHF helical antenna 146-162 MHz	\$ 20.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 20.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 20.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 20.00
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 20.00
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 20.00
KRA-25	VHF High gain helically loaded whip 148-162 MHz	\$ 41.80
KRA-28	VHF Wideband whip antenna 140-170 MHz	\$ 51.20

Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 169.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 218.70
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 254.50
KNB-LS7-IS	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 366.00
KNB-L11M	Li-ion 3900 mAh (High Capacity) Note: Requires the KSC-52AK single bay charger or KSC-526K charger equipped with KSC-52PAK A-Pocket charger insert.	\$ 219.25
KSC-32	Rapid rate single unit charger	\$ 97.30
KSC-326AK	Rapid rate 6-unit charger	\$ 888.80
KSC-52AK	Rapid rate single unit charger with A-Pocket charger insert. Compatible with KNB-L11M.	\$ 92.30
KSC-52AK	Rapid rate single unit charger with A-Pocket charger insert. Compatible with KNB-L11M.	\$ 92.30
KSC-52BK	Rapid rate single unit charger with B-Pocket charger insert. Compatible with KNB-L2/L3/LS5/LS7 style batteries.	\$ 92.30
KSC-52PAW	Charger Pocket type A for KSC-526K 6-bay or as replacement pocket for KSC-52AK charger. Compatible with KNB-L11M battery.	\$ 10.80
KSC-52PBW	Charger Pocket type B for KSC-526K 6-bay or as replacement pocket for KSC-52BK charger. Compatible with KNB-L2/L3/LS5/LS7 batteries.	\$ 10.80
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 193.00
KVC-23V	Vehicular Charger. Supports KNB-L2/L3/LS7 batteries	\$ 366.00
Carrying Accessories		List
KBH-11	Spring action belt clip (2.5")	\$ 17.80
R50843LF3001	Leather Case, L3 battery, VP6000 Fire. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	\$ 80.00
R50843LP3001	Leather Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	\$ 80.00
R50843NP3001	Nylon Case, L3 battery, VP6000 Police. Fits L3 model batteries plus L2 and LS5 batteries with optional spacer.	\$ 76.00
KW9110-LF	LEATHER CASE FIRE, LS7 MODEL, VP6000	\$ 80.00
KW9110-LP	LEATHER CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 80.00
KW9110-NP	NYLON CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 76.00
R50840000L20	2" Belt Loop for Leather Cases R50843Lx3001	\$ 27.00
R50840000N20	2" Belt Loop for Nylon Cases R50843Nx3001	\$ 27.00
R50840000L30	3" Belt Loop for Leather Cases R50843Lx3001	\$ 27.00

Microphones & Audio Accessories		List
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 450.00
KMC-70M	MIL-SPEC, IP67 (Immersion) Speaker Mic. Black. 3 Programmable Buttons	\$ 158.30
KMC-70GR	MIL-SPEC, IP67 (Immersion) Speaker Mic. Hi-Viz Green. 3 Programmable Buttons	\$ 168.50
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	\$ 67.70
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 67.70
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 177.70
Programming		List
KPG-36XM	Programming Cable. Compatible with VP5000/VP6000	\$ 193.00
KPG-236UM	Programming Cable. Compatible with VP5000/VP6000/VP8000.	\$ 193.00
Protocol		List
8321050001	Analog FM (standard)	\$0
8321000002	P25 CAI AMBE+2 (standard)	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional	\$ 415.00
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)	\$ 145.00
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00

Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
8326000008	2048 Channels/Talkgroups	\$ 355.00
8326000009	4096 Channels/Talkgroups	\$ 710.00
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000003	DES-OFB (multi-key)	\$0
8323000002	AES FIPS 140-2 (single-key)	\$ 180.00
8323000004	AES FIPS 140-2 (multi-key)	\$ 560.00
8323000005	ARC4 (ADP compatible)	\$0
	Programming & Data	
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode	\$ 120.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 890.00
8326000001	P25 Authentication	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8326000003	FIRESafe™ First Responder	\$ 300.00
8326000004	FIRESafe™ Command (includes First Responder)	\$ 415.00
8325000003	GPS	\$ 120.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 55.00
8326000023	EVRS, Portable	\$ 120.00
8326000025	Bluetooth	\$ 120.00
8326000033	Bluetooth Low Energy	\$ 120.00
8326000026	Man Down	\$ 120.00
8326000028	Instant Recording Replay	\$ 120.00
8326000031	Radio Cloning	\$ 120.00
8326000032	Text Messaging	\$ 235.00
8326000034	Custom Transmit Power Levels	\$ 235.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See the Viking Accessory Catalog for list price when purchased separately.	

KENWOOD



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/IP68 & 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®
- Man Down
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Radio Cloning
- Bluetooth Low Energy
- Encryption
 - ARC4™ software encryption; compatible w/Motorola ADP™
 - DES-OFB
 - AES-256 (FIPS 140-2) Single and Multi-Key
 - Over-the-Air-Relaying (OTAR)
 - VK5000 or Motorola KVL3000/KVL4000 Keyloader

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 VIDM® - 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 <https://info.efjohnson.com/viking-accessory-catalog/>

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)	\$ 1,850.00
VP5430F3	P25 Portable, 700/800 MHz band, 762-806 MHz and 806-870 MHz, Black, Model 3 (full keypad)	\$ 1,910.00
VP5330F2	P25 Portable, UHF Hi, 450-520 MHz, Model 2 (standard keypad)	\$ 1,850.00
VP5330F5	P25 Portable, UHF Lo, 380-470 MHz, Model 2 (standard keypad)	\$ 1,850.00
VP5330F3	P25 Portable, UHF Hi, 450-520 MHz, Model 3 (full keypad)	\$ 1,910.00
VP5330F6	P25 Portable, UHF Lo,, 380-470 MHz, Model 3 (full keypad)	\$ 1,910.00
VP5230F2	P25 Portable, VHF, 136-174 MHz, Model 2 (standard keypad)	\$ 1,850.00
VP5230F3	P25 Portable, VHF, 136-174 MHz, Model 3 (full keypad)	\$ 1,910.00
Model Options		List
250VP5000001	Intrinsically Safe (CSA) <i>KNB-LS5 or -LS7 battery required</i>	\$ 108.00
Antenna		List
KRA-32K	700/800 MHz Whip Antenna	\$ 42.50
KRA-36	700/800 MHz Stubby Antenna	\$ 30.50
KRA-27M	UHF whip antenna 440-490 MHz	\$ 20.00
KRA-27M2	UHF whip antenna 470-520 MHz	\$ 20.00
KRA-27M3	UHF whip antenna 400-450 MHz	\$ 20.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	\$ 20.00
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	\$ 20.00
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	\$ 20.00
KRA-29	UHF whip antenna 380-430 MHz	\$ 44.80
KRA-26M	VHF helical antenna 146-162 MHz	\$ 20.00
KRA-26M2	VHF helical antenna 162-174 MHz	\$ 20.00
KRA-26M3	VHF helical antenna 136-150 MHz	\$ 20.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	\$ 20.00
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	\$ 20.00
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	\$ 20.00
KRA-25	VHF High gain helically loaded whip 148-162 MHz	\$ 41.80
KRA-28	VHF Wideband whip antenna 140-170 MHz	\$ 51.20

Batteries & Chargers		List
KNB-L2M	Li-ion 2600mAh (Standard)	\$ 169.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	\$ 218.70
KNB-LS5CU	Li-ion Intrinsically Safe 2000 mAh	\$ 254.50
KNB-LS7-IS	Li-ion Intrinsically Safe 3800mAh (High Capacity)	\$ 366.00
KNB-L11M	Li-ion 3900 mAh (High Capacity) Note: Requires the KSC-52AK single bay charger or KSC-526K charger equipped with KSC-52PAK A-Pocket charger insert.	\$ 219.25
KSC-32	Rapid rate single unit charger	\$ 97.30
KSC-326AK	Rapid rate 6-unit charger	\$ 888.80
KSC-52AK	Rapid rate single unit charger with A-Pocket charger insert. Compatible with KNB-L11M.	\$ 92.30
KSC-52BK	Rapid rate single unit charger with B-Pocket charger insert. Compatible with KNB-L2/L3/LS5/LS7 batteries.	\$ 92.30
KSC-526K	Rapid rate 6-unit charger. Note: Requires insertion of 6 charger pockets of styles KSC-52PAK, KSC-52PBK or KSC-52CK	\$ 777.80
KSC-52PAW	Charger Pocket type A for KSC-526K 6-bay or as replacement pocket for KSC-52AK charger. Compatible with KNB-L11M battery.	\$ 10.80
KSC-52PBW	Charger Pocket type B for KSC-526K 6-bay or as replacement pocket for KSC-52BK charger. Compatible with KNB-L2/L3/LS5/LS7 batteries.	\$ 10.80
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	\$ 193.00
KVC-23V	Vehicular Charger. Supports KNB-L2/L3/LS7 batteries	\$ 366.00
Carrying Accessories		List
KBH-11	Spring action belt clip (2.5")	\$ 17.80
KBH-8DS	Leather Belt Loop with D-swivel	\$ 32.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back for KLH-200K3	\$ 26.80
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	\$ 44.80
KLH-200K3	Heavy duty leather carrying case for VP5000 series with KNB-L2/L3/LS5CU batteries (for both keypad models)	\$ 53.80
KLH-201K3	Nylon carrying case for VP5000 series with KNB-L2/L3/LS5CU battery (for both keypad models)	\$ 32.00
Special Color Housing		List
835VP5000YH	Yellow Housing, VP5000, Model 2, Factory Installed	\$ 225.00

Microphones & Audio Accessories		List
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included.)	\$ 450.00
KMC-70M	MIL-SPEC, IP67 (Immersion) Speaker Mic. 3 Programmable Buttons	\$ 158.30
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M Speaker Mics	\$ 67.70
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic	\$ 67.70
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	\$ 202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	\$ 257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	\$ 177.70
Programming		List
KPG-36XM	Programming Cable. Compatible with VP5000/VP6000	\$ 193.00
KPG-236UM	Programming Cable. Compatible with VP5000/VP6000/VP8000.	\$ 193.00
Protocol		List
8321050001	Analog FM	\$0
8321000002	P25 CAI AMBE+2	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional *	\$0
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)*	\$0
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00
Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000003	DES-OFB (multi-key) NOTE: Requires addition of KWD-DE31F or KWD-AE30K module to VP5000 if the radio was initially purchased without any DES, AES, or P25 Authentication encryption options.	\$0
8323000002	AES FIPS140-2 (single key) (DES-OFB single key included) NOTE: Requires addition of KWD-AE30K module to VP5000 if the radio was initially purchased without any AES or P25 Authentication encryption option.	\$ 180.00
8323000004	AES FIPS140-2 (multi key) (DES-OFB multi-key included) NOTE: Requires addition of KWD-AE30K module to VP5000 if the radio was initially purchased without any AES, or P25 Authentication encryption option.	\$ 560.00

Encryption options - Continued		
8323000005	ARC4 (ADP compatible)	\$0
KWD-DE31F	Encryption Module required for-DES OFB (multi-key). Does not support AES.	\$236.70
KWD-AE30K *	Encryption Module required for AES FIPS 140-2 or P25 Authentication. Also supports DES-OFB. List price shown if the module and the encryption option is purchased together with Radio at initial order. *	\$ 330.00
KWD-AE30K	Encryption Module required for AES FIPS 140-2 or P25 Authentication. Also supports DES-OFB. List price shown is if the module and encryption option is purchased separately from radio.	\$ 1,034.00
Programming & Data		
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode	\$ 120.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 890.00
8326000001	P25 Authentication <i>NOTE : Requires the addition of a KWD-AE30K module to VP5000 if the radio was initially purchased without AES or P25 Authentication encryption options.</i>	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8326000003	FIRESafe™ First Responder	\$ 300.00
8326000004	FIRESafe™ Command (includes First Responder)	\$ 415.00
8325000003	GPS	\$ 120.00
8324000005	Keypad Programming (U.S. Federal Government Only)	\$ 55.00
8326000023	EVRS, Portable	\$ 120.00
8326000025	Bluetooth	\$ 120.00
8326000033	Bluetooth Low Energy	\$ 120.00
8326000026	Man Down	\$ 120.00
8326000028	Instant Recording Replay	\$ 120.00
8326000031	Radio Cloning	\$ 120.00
8326000032	Text Messaging	\$ 235.00
8326000034	Custom Transmit Power Levels	\$ 235.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See notes or the Viking Accessory Catalog for list price when purchased separately.	

KENWOOD



P25 Mission Critical

VM7000

Low Band High Power² - VHF (with High Power option)

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)¹
- 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-Relaying (OTAR)
 - VK5000 or Motorola KVL3000/KVL4000 Keyloaders
- WiFi
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Bluetooth Low Energy
- Custom Transmit Power Levels

¹Refer 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 <https://info.efjohnson.com/viking-accessory-catalog/>

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.

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

- The VM7000 can also use the KCH-21RV Handheld Control Head (HHCH)



Compatible With P25 Systems²

- ATLAS[®] P25 Phase 1 and Phase 2 System
- Motorola Astro[®] 25 - P25 Phase 1 & Phase 2
- L3Harris VIDA[®] - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA[™] Radio - P25 Phase 1 & Phase 2

Primary Radio - (First Deck, Choose one)		List
VM7630HBF-P	VM7000 39-50 MHZ Hi Power Low Band Primary	\$ 3,885.00
VM7730HBF-P	VM7000 136-174 MHZ Hi Power Primary	\$ 3,885.00
VM7730BF-P	VM7000 136-174 MHZ Primary	\$ 3,005.00
VM7830BF-P	VM7000 450-520 MHZ Primary	\$ 3,005.00
VM7830BF2-P	VM7000 380-470 MHZ Primary	\$ 3,005.00
VM7930BF-P	VM7000 700/800 MHZ Primary	\$ 3,005.00
Secondary Radio - (2nd-4th Deck, Choose up to 3)		List
VM7730HBF-S	VM7000 136-174 MHZ Hi Power Secondary	\$ 2,255.00
VM7630HBF-S	VM7000 39-50 MHZ Hi Power Low Band Secondary	\$ 2,255.00
VM7730BF-S	VM7000 136-174 MHZ Secondary	\$ 1,380.00
VM7830BF-S	VM7000 450-520 MHZ Secondary	\$ 1,380.00
VM7830BF2-S	VM7000 380-470 MHZ Secondary	\$ 1,380.00
VM7930BF-S	VM7000 700/800 MHZ Secondary	\$ 1,380.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 17.20
KMB-36	Hi Power Deck Mounting Bracket	\$ 91.70
836VMB10	Mounting Bracket, Dual Deck, VM7000	\$ 180.00
KCT-46	Ignition Sense Cable	\$ 16.70
KCT-18	Hi Power Ignition Sense Cable	\$ 24.00
KCT-23M3	DC Cable-Remote, 23'	\$ 65.70
KCT-23M4	Hi Power Deck DC Cable	\$ 65.70
Control head		List
KCH-20RV	KCH-20 Enhanced control head	\$ 729.70
KCH-21RVM	KCH-21 Hand Held control head	\$ 1,211.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 170.00
KCT-77M2	Hand Held Control Head remote cable	\$ 222.80
KCT-71M2	17 Ft remote cable, KCH-20	\$ 85.50
KCT-71M3	25 Ft remote cable, KCH-20	\$ 97.30
KCT-71A50	Remote Cable up to 50 Ft, KCH-20	\$ 226.80
KCT-71A100	Remote Cable up to 100 Ft, KCH-20	\$ 292.30
KCT-71M4	1.6 Ft Remote Cable / Multi-deck Control Cable	\$ 54.70
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 63.50
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 115.20
597539077901	USB Micro A-B Cable	\$ 22.00
Speaker		List
KCT-72M	External Accessory Connection Cable for KCH-20RV/KCH-21RV remote control heads	\$ 44.70
KAP-2	Horn Alert / PA Relay Option Kit	\$ 76.70
KES-5A	40W External Speaker. Requires KAP-2 kit to connect to radio. Requires KCT-72M cable to connect to KCH-20/21 Control Head.	\$ 73.00
KES-8K	10W External Speaker, 3.5 mm audio plug	\$ 59.30

Power Supply		List
EH-30	VM7000 30 Amp DC Power Supply for Hi-Power decks	\$ 430.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 210.80
Protocol		List
8321050001	Analog FM (standard)	\$0
8321000002	P25 CAI AMBE+2 (standard)	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional	\$ 415.00
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)	\$ 145.00
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00
Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
8326000008	2048 Channels/Talkgroups	\$ 355.00
8326000009	4096 Channels/Talkgroups	\$ 710.00
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000003	DES-OFB (multi-key)	\$0
8323000002	AES FIPS 140-2 (single-key)	\$ 180.00
8323000004	AES FIPS 140-2 (multi-key)	\$ 560.00
8323000005	ARC4 (ADP compatible)	\$0
	Programming & Data	
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8326000001	P25 Authentication	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8325000003	GPS	\$ 120.00
KRA-40GM	GPS Antenna. Required for GPS option 8325000003. Automatically selected when GPS option is selected in CEvo Radio Configurator	\$ 50.80
8326000024	EVRS Mobile	\$ 120.00
8326000013	Third-Party Interface Protocol	\$ 180.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See the Viking Accessory Catalog for list price when purchased separately.	

KENWOOD

VIKING®
P25 Mission Critical

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 and 4096 options)
- 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 (KCH-20RV Control Head)
- Dual Control Heads (option)
- External speaker
- Fixed control station
- WIFI
- Bluetooth
- Instant Recording Replay (IRR)
- Voice Recording
- Text Messaging
- Bluetooth Low Energy
- Custom Transmit Power Levels
- 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.



Enhanced Control Head

- Large 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 and channel/volume control knobs
- Replaceable A/B/C button labels
- 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

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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	\$ 2,690.00
VM6830BF	VM6000 450-520 MHZ	\$ 2,690.00
VM6830BF2	VM6000 380-470 MHZ	\$ 2,690.00
VM6930BF	VM6000 700/800 MHZ	\$ 2,690.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 17.20
KMB-34	Mounting Case for Control Station with KPS-15	\$ 65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 210.80
KCT-46	Ignition Sense Cable	\$ 16.70
KCT-23M3	DC Cable-Remote, 23'	\$ 65.70
Control head		List
KCH-20RV	KCH-20 Enhanced control head	\$ 729.70
KCH-21RVM	KCH-21 Hand Held control head	\$ 1,211.00
KRK-17BF	Remote Kit for KCH Control Head	\$ 170.00
KCT-71M2	17 Ft remote cable, KCH-20	\$ 85.50
KCT-71M3	25 Ft remote cable, KCH-20	\$ 97.30
KCT-71A50	Remote Cable up to 50 Ft, KCH-20	\$ 226.80
KCT-71A100	Remote Cable up to 100 Ft, KCH-20	\$ 292.30
KCT-71M4	1.6 Ft Remote Cable, KCH-20 (Control Station)	\$ 54.70
KCT-77M2	Hand Held Control Head remote cable	\$ 222.80
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 63.50
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 115.20
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	\$ 104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Improved noise response for Phase 2 TDMA systems	\$ 232.30
597539077901	USB Micro A-B Cable	\$ 22.00
Speaker		List
KCT-72M	External Accessory Connection Cable for KCH-20RV/KCH-21RV remote control heads	\$ 44.70
KAP-2	Horn Alert / PA Relay Option Kit	\$ 76.70
KES-5A	40W External Speaker. Requires KAP-2 kit to connect to radio. Requires KCT-72M cable to connect to KCH-20/21 Control Head.	\$ 73.00
KES-8K	10W External Speaker, 3.5 mm audio plug	\$ 59.30

Protocol		List
8321050001	Analog FM (standard)	\$0
8321000002	P25 CAI AMBE+2 (standard)	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional	\$ 415.00
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)	\$ 145.00
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00
Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
8326000008	2048 Channels/Talkgroups	\$ 355.00
8326000009	4096 Channels/Talkgroups	\$ 710.00
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000003	DES-OFB (multi-key)	\$0
8323000002	AES FIPS 140-2 (single-key)	\$ 180.00
8323000004	AES FIPS 140-2 (multi-key)	\$ 560.00
8323000005	ARC4 (ADP compatible)	\$0
	Programming & Data	
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode	\$ 120.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 890.00
8326000001	P25 Authentication	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8325000003	GPS	\$ 120.00
KRA-40GM	GPS Antenna. Required for GPS option 8325000003. Automatically selected when GPS option is selected in CEvo Radio Configurator	\$ 50.80
8326000024	EVRS Mobile	\$ 100.00
8326000013	Third-Party Interface Protocol	\$ 180.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See the Viking Accessory Catalog for list price when purchased separately.	

KENWOOD



P25 Mission Critical

VM5000

VHF - UHF (High & Low) - 700/800 MHz
P25 Phase 1 & 2 - Viking16

With uncompromised quality and performance, the VM5000 has built-in speakers to take the complexities out of mission-critical communications.



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
- Text Messaging
- Bluetooth Low Energy
- Custom Transmit Power Levels
- Encryption
 - ARC4™ software encryption; compatible w/Motorola ADP™
 - DES-OFB
 - AES-256 (FIPS 140-2) Single and Multi-Key
 - Over-the-Air-Relaying (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 <https://info.efjohnson.com/viking-accessory-catalog/>

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.

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

Radio - Base Model		List
VM5730BF	VM5000 136-174 MHZ	\$ 2,550.00
VM5830BF	VM5000 450-520 MHZ	\$ 2,550.00
VM5830BF2	VM5000 380-470 MHZ	\$ 2,550.00
VM5930BF	VM5000 700/800 MHZ	\$ 2,550.00
Mounting Accessories		List
KMB-33M	Mounting Bracket	\$ 17.20
KMB-34	Mounting Case for Control Station with KPS-15	\$ 65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	\$ 210.80
KCT-46	Ignition Sense Cable	\$ 16.70
Control head		List
KCH-19VM	Dash - KCH-19	\$ 218.70
KCT-23M	DC Cable-Dash 10'	\$ 47.70
KCT-23M3	DC Cable-Remote, 23'	\$ 65.70
KRK-17BF	Remote Kit for KCH Control Head	\$ 170.00
KCT-71M2	17 Ft remote cable, KCH-19	\$ 85.50
KCT-71M3	25 Ft remote cable, KCH-19	\$ 97.30
KCT-71A50	Remote Cable up to 50 Ft, KCH-19	\$ 226.80
KCT-71A100	Remote Cable up to 100 Ft, KCH-19	\$ 292.30
KMC-65M	Standard Mobile Mic for KCH Control Head	\$ 63.50
KMC-66M	12 Button Keypad Mic for KCH Control Head	\$ 115.20
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	\$ 104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Improved noise response for Phase 2 TDMA systems	\$ 232.30
Speaker		List
KAP-2	Horn Alert / PA Relay Option Kit	\$ 76.70
KES-5A	40W External Speaker. Requires KAP-2 kit to connect to radio.	\$ 73.00
KES-8K	10W External Speaker, 3.5 mm audio plug	\$ 59.30

Protocol		List
8321050001	Analog FM (standard)	\$0
8321000002	P25 CAI AMBE+2 (standard)	\$0
System Options		List
8322000001	Analog Conventional	\$0
8322000002	P25 Conventional *	\$0
8322000005	P25 Phase 1 Trunking (Requires option 8322000002)*	\$0
8322000006	P25 Phase 2 TDMA (Requires option 8322000005)	\$ 475.00
8322000104	Viking16	\$ 920.00
Optional Features		List
	Channels/Talkgroups	
8326000006	1024 Channels/Talkgroups (standard)	\$0
	Encryption (requires Protocol Option 8322000002 - Digital/Project 25 CAI AMBE+2)	
8323000003	DES-OFB (multi-key)	\$0
8323000002	AES FIPS 140-2 (single-key)	\$ 180.00
8323000004	AES FIPS 140-2 (multi-key)	\$ 560.00
8323000005	ARC4 (ADP compatible)	\$0
	Programming & Data	
8326000014	TrueVoice™ Noise Cancellation (standard)	\$0
8326000005	P25 Conventional Voting Scan (standard)	\$0
8326000002	MDC1200/GE-Star Signaling	\$ 60.00
8325000002	P25 Data Conventional Packet Data	\$ 165.00
8325000001	P25 Data Trunking (Conventional included)	\$ 235.00
8326000027	P25 Paging Decode	\$ 120.00
8324000002	OTAR (Over-The-Air-Rekeying)	\$ 890.00
8326000001	P25 Authentication	\$ 120.00
8324000003	OTAP (Over-the-Air Programming)	\$ 235.00
8325000003	GPS	\$ 120.00
KRA-40GM	GPS Antenna. Required for GPS option 8325000003. Automatically selected when GPS option is selected in CEvo Radio Configurator	\$ 50.80
8326000024	EVRS Mobile	\$ 100.00
8326000013	Third-Party Interface Protocol	\$ 180.00
	* prices shown are when configured with radio. The list price may be higher when purchased separately. See the Viking Accessory Catalog for list price when purchased separately.	

Enhanced Vehicular Repeater Systems

EVRS Models		List
SVR-P255M-W3K	Vehicular Repeater 764-870 MHz P25	\$ 6,865.00
SVR-P255UA-W3K	Vehicular Repeater 405-470 MHz P25	\$ 6,865.00
SVR-P255V-W3K	Vehicular Repeater 136-174 MHz P25	\$ 6,865.00
SVR-P252MA-W3K	SVR Full Duplex 700MHz P25 Vehicle Repeater	\$ 10,455.00
Standard VRS Models		List
SVR-250MA-W3K	Vehicular Repeater 850-870MHz 12.5	\$ 2,455.00
ARS-250V-W3K	Auxiliary Receiver for SVR-250	\$ 655.00
Cables		List
SMX-350-W3K	VM7000 Multideck Interface MUX Cable	\$ 1,200.00
7502-10-1245-W3K	SVR VMx000 Interface Cable	\$ 220.00
7555-10-1245-W3K	SVR VM900 Interface Cable	\$ 220.00
TCK-203-W3K	SVR 3' TNC Cable Kit For Use With BPF/BRF Filters	\$ 110.00
TCK-206-W3K	SVR 6' TNC Cable Kit For Use With BPF/BRF Filters	\$ 140.00
TCK-252-W3K	SVR 3' TNC Cable Kit For Full Duplex Repeaters	\$ 220.00
Filters and Pre-Selectors		List
BRF-1601-W3K	Notch Filter, 150-174 MHz, (5M Separation)	\$ 275.00
BRF-1602-W3K	Dual Notch Filter, 150-174 MHz (2M Separation)	\$ 460.00
BRF-4601-W3K	Notch Filter, 450-470 MHz (10M Separation)	\$ 275.00
BRF-4602-W3K	Dual Notch Filter, 450-470 MHz (5M Separation)	\$ 460.00
BPF-1604-W3K	Pre-Selector, 150-174 MHz (Factory Tuned)	\$ 460.00
BPF-7704-W3K	Pre-Selector, 770 MHz, (Factory Tuned)	\$ 460.00
MD-7706-W3K	SVR Mobile Duplexer, 700 MHz, 6 Cavity, (Factory Tuned)	\$ 790.00
BPF-8604-W3K	Pre-Selector, 860 MHz, (Factory Tuned)	\$ 460.00
Accessories		List
KLA-250-W3K	SVR-P250 Key Loader Adapter	\$ 1,205.00
FY-4-W3K	SVR Programming Cable & Software	\$ 80.00
FY-5-W3K	SVR Programming Cable & Software SVR-D-300, -N300	\$ 80.00
DS-255-W3K	SVR DS-255 Serial Door Switch Module for SVR-P255	\$ 220.00
Options		List
9300-11-0058-W3K	SVR AES & DES Encryption for SVR-P250	\$ 1,385.00
9300-11-0258-W3K	SVR AES & DES Encryption for SVR-P252	\$ 1,950.00

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Part Number	Description	List Price
3361212101	ATLAS 1200 P25 STATION 100W VHF 148-174MHz Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode VHF station.	\$ 16,200.00
3361224101	ATLAS 1200 P25 STATION 100W UHF 450-485MHz Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station.	\$ 16,200.00
3361241101	ATLAS 1200 P25 STATION 100W 800 MHz Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode 800 MHz station.	\$ 18,300.00
3361224102	ATLAS 1200 P25 STATION 100W UHF (450-485MHz) 1PPM STAB Includes one standalone 100W, 12.5/25Khz, Analog/P25 multimode UHF station with high stability.	\$ 19,770.00
3361200082	ATLAS 1200 P25 BASE STATION DFSI LICENSE KEY Includes one license key for P25 DFSI (Digital Fixed Station Interface).	\$ 1,980.00
3361200000	ATLAS 1200 TOOLS PROGRAMMING KIT Includes programming software and cable.	\$ 354.00
3361200091	ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION VHF/UHF 120/240VAC Includes single power supply, rack mount kit and power cable.	\$ 1,080.00
3361200092	ATLAS 1200 POWER SUPPLY KIT ATLAS 1-STATION 700/800 120/240VAC	\$ 1,860.00

Viking Accessory Catalog

Audio Accessories > Speaker Mics		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
589360010018	SPEAKER MIC BASIC, 18", VP-H	\$ 125.00			✓						
GEM-ML56PRM-C	VIKING SPEAKER MIC, BLACK, 24", VP-H	\$ 215.00			✓						
GEM-ML56PRMH	VIKING SPEAKER MIC, HI VIZ, 24", VP-H	\$ 270.00			✓						
KMC-54WDM	SPEAKER MIC, 2 BUTTON, MIL-SPEC, IP67, VP-T	\$ 158.30	✓	✓						✓	
KMC-70GR	SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T	\$ 168.50	✓	✓						✓	
KMC-70M	SPEAKER MIC, 3PF KEYS, BLACK, VP-T	\$ 158.30	✓	✓						✓	
KMC-72W	SPEAKER MIC, 2PF KEYS, NX	\$ 121.70	✓	✓						✓	
R5893210G30	SPEAKER MIC PREMIUM HI VIZ, 30", VP-H	\$ 300.00			✓						
R597290003000	DETACHABLE CABLE, 30", FOR R5893210XXX MICS	\$ 98.00			✓						
Audio Accessories > Specialty Speaker Mics		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
589360005625	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H	\$ 345.00			✓						
589360005630	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H	\$ 345.00			✓						
KMC-49	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T	\$ 450.00	✓	✓						✓	
V2-G4JD221	FIRE SPEAKER MIC, OTTO, 500°F, VP-H	\$ 545.00			✓						
V2-G4KC221-S	FIRE SPEAKER MIC, OTTO, 500°F, IS, VP-T	\$ 545.00	✓	✓						✓	
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00	✓	✓		✓	✓	✓		✓	
Audio Accessories > Earpieces		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
KEP-1	EARPHONE KIT 3.5MM, VP-T/TK	\$ 67.70	✓	✓						✓	
KEP-2	EARPHONE KIT 2.5 MM , VP-T/TK	\$ 67.70	✓	✓						✓	
Audio Accessories > Surveillance		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5895100055	2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H	\$ 152.00			✓						
5895100056	3 WIRE LAPEL MIC KIT, VP-H	\$ 195.00			✓						
589580012401	SURVEILLANCE KIT, BLACK, 2-WIRE, VP-T	\$ 490.00	✓	✓						✓	
589580012402	SURVEILLANCE KIT, BEIGE, 2-WIRE, VP-T	\$ 490.00	✓	✓						✓	
BTH-300KIT1	BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T	\$ 164.00	✓	✓						✓	
EH-1189SC	EARPHONE, BUD STYLE, FOR BTH-300, VP-T	\$ 11.00	✓	✓						✓	
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 202.80	✓	✓						✓	
Audio Accessories > Headsets		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5895100051	ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H	\$ 85.00			✓						
BTH-900	BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T	\$ 450.00	✓	✓				✓		✓	
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 177.70	✓	✓						✓	
KHS-15D-BH	HEADSET, BH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 542.80	✓	✓						✓	
KHS-15D-OH	HEADSET, OH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 475.30	✓	✓						✓	
Audio Accessories > Mobile Mics		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
250074031001	MOBILE MIC, STANDARD, SCH	\$ 152.00									✓
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 158.00					✓		✓		
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 490.00					✓		✓		
589001603605	MOBILE MIC, KEYPAD, COLD,12 PIN, VCH	\$ 490.00							✓		
KMC-65M	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 63.50				✓		✓			
KMC-66M	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 115.20				✓		✓			
Audio Accessories > Desk Mics		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5890012023	DESKTOP MIC, SCH	\$ 525.00									✓
589001202303	DESKTOP MIC, VCH	\$ 525.00					✓		✓		
KMC-59C	DESKTOP MIC, 8-PIN, TDMA	\$ 232.30				✓		✓			
KMC-9C	DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20	\$ 104.80				✓		✓			
Audio Accessories > Speakers		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 85.00					✓		✓		
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 85.00					✓		✓		
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 76.70				✓	✓	✓			
KCT-72M	EXT ACCESSORY CONNECTION CABLE FOR KCH-19M, KCH-20	\$ 44.70				✓					
KES-5A	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 73.00				✓	✓	✓			
KES-8K	SPEAKER, EXTERNAL, 10W, VM-T	\$ 59.30				✓	✓	✓			

Antenna/Kits/Accs > Portable Antennas		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5010017107	ANTENNA UHF 403-512 MHZ ,1/4 WAVE WHIP SMA, VP-H	\$ 33.00			✓						
5010017110	WIDE BAND VHF 136-174 MHz, MP ANTENNA	\$ 49.00			✓						
5010105012	ANTENNA 800 MHZ, 1/4 WAVE, WHIP, PORTABLE, VP-H	\$ 33.00			✓						
5010105013	ANTENNA 800 MHZ HALF-WAVE WHIP(REDCORE), VP-H	\$ 33.00			✓						
5010105073	ANTENNA 7/800MHZ ,1/2 WAVE WHIP(GREEN CORE),VP-H	\$ 33.00			✓						
5010900400	ANTENNA 7/800/VHF MULTIBAND,GPS, WHITE CORE, VP-H	\$ 75.00			✓						
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 41.80	✓	✓						✓	
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 20.00	✓	✓						✓	
KRA-27M	ANTENNA UHF 440-490 MHZ WHIP, VP-T	\$ 20.00	✓	✓						✓	
KRA-27M2	ANTENNA UHF 470-520 MHZ WHIP, VP-T	\$ 20.00	✓	✓						✓	
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 20.00	✓	✓						✓	
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 51.20	✓	✓						✓	
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 44.80	✓	✓						✓	
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 42.50	✓	✓						✓	
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 30.50	✓	✓						✓	
KRA-47MB	ANTENNA, MULTIBAND 136-870MHZ, VP8000	\$ 105.00								✓	
Antenna/Kits/Accs > Mobile Antennas		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5010012060	ANTENNA 136-960MHZ, WHIP, W/O BASE,TNC-MA, VM-H	\$ 342.00							✓		✓
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ 109.00				✓	✓	✓			
836VRA11	ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T	\$ 85.00				✓	✓	✓			
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00				✓	✓	✓	✓		
BB3803WS	ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP	\$ 130.00				✓	✓	✓			
KRA-40GM	GPS ANTENNA, VM-T	\$ 50.80				✓	✓	✓			
NMO440CHW	ANTENNA, MOBILE, UHF 440-460, 1/2 WAVE 5.5 DB NMO	\$ 160.00				✓	✓	✓			
Antenna/Kits/Accs > Mobile Antenna Kits		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00				✓	✓	✓	✓		✓
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT	\$ 113.00				✓	✓	✓	✓		✓
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR VM-H	\$ 85.00				✓	✓	✓	✓		✓
G8PI	MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI	\$ 115.00				✓	✓	✓	✓		
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00				✓	✓	✓	✓		✓
NMO58AUCP	ANTENNA BASE, HOLE MOUNT, 17FT, UHF/PL-259 MALE	\$ 35.00				✓	✓	✓	✓		
Antenna/Kits/Accs > Mobile Antenna Accs		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00				✓	✓	✓	✓		
000-34125	CONN, ADAPT, UHF JACK TO N PLUG, 000-34125	\$ 152.00				✓	✓	✓	✓		
836125006	TRIPLEXER, MOBILE, VHF UHF 7/800, PANORAMA	\$ 570.00				✓					
Carrying Accessories > Carry Cases		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
5084600609	LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H	\$ 80.00			✓						
5084600610	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H	\$ 76.00			✓						
5084600611	LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H	\$ 80.00			✓						
5084600612	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 80.00			✓						
5084600652	NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 76.00			✓						
5084600655	NYLON CASE, BELT LOOP, MODEL 1, VP-H	\$ 65.00			✓						
KLH-200K3	LEATHER CASE, L2 & L3 MODEL, VP5000	\$ 53.80		✓							
KLH-201K3	NYLON CASE , L2 AND L3 MODEL, VP5000	\$ 32.00		✓							

KW9110-LF	LEATHER CASE FIRE, LS7 MODEL, VP6000	\$ 80.00	✓									
KW9110-LP	LEATHER CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 80.00	✓									
KW9110-NP	NYLON CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 76.00	✓									
KW9130-LF	VP8000 LEATHER CASE, FIRE, LARGE BATTERY L3/LS7/L11	\$ 80.00									✓	
KW9130-LP	VP8000 LEATHER CASE, POLICE, D-SWIVEL, L3/LS7/L11 LG BATT	\$ 80.00									✓	
KW9130-NP	VP8000 NYLON CASE, POLICE, D-SWIVEL, L3/LS7/L11 LG BATT	\$ 80.00									✓	
KW9140-LF	VP8000 LEATHER CASE, FIRE, L2/LS5 SM BATT	\$ 80.00									✓	
KW9140-LP	VP8000 LEATHER CASE, POLICE, D-SWIVEL, L2/LS5 SM BATT	\$ 80.00									✓	
KW9140-NP	VP8000 NYLON CASE, POLICE, D-SWIVEL, L2/LS5 SM BATT	\$ 80.00									✓	
KW9150-LP	VP5000 LEATHER CASE, D-SWIVEL (LARGE BATTERY)	\$ 80.00		✓								
KW9150-NP	VP5000 NYLON CASE, D-SWIVEL (LARGE BATTERY)	\$ 76.00		✓								
R50843LF2001	LEATHER CASE FIRE L2, VP6000	\$ 80.00	✓									
R50843LF3001	LEATHER CASE FIRE L3, VP6000	\$ 80.00	✓									
R50843LP2001	LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 80.00	✓									
R50843LP3001	LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 80.00	✓									
R50843NP2001	NYLON CASE POLICE, L2 MODEL, VP6000	\$ 76.00	✓									
R50843NP3001	NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 76.00	✓									
Carrying Accessories > Belt Loops and Straps		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)	
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 76.00	✓		✓					✓		
5084600612-AR	TOP RESTRAINING STRAP REPLACEMENT, CASE 5084600612	\$ 13.00			✓							
585510015101	BELT LOOP LEATHER, W/D-SWIVEL , 3", VP-H	\$ 60.00			✓							
KBH-8DS	LEATHER BELT LOOP WITH D-SWIVEL, VP5000	\$ 32.00		✓								
KLH-137ST	SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000	\$ 44.80		✓								
KLH-6SW	BELT LOOP LEATHER DETACHABLE D-SWIVEL ,VP5000	\$ 26.80		✓								
R50840000003	LEATHER RETAINING STRAP, VP6000	\$ 13.00	✓									
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 13.00	✓	✓								
R50840000L20	BELT LOOP LEATHER, 2", VP6000/VP8000	\$ 27.00	✓							✓		
R50840000L30	BELT LOOP LEATHER, 3", VP6000/VP8000	\$ 27.00	✓							✓		
R50840000N20	BELT LOOP, NYLON 2", VP6000/VP8000	\$ 27.00	✓							✓		
R50840000S40	BELT LOOP, LEATHER 4.25" SLOT , VP6000/VP8000	\$ 27.00	✓							✓		
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 109.00	✓	✓	✓					✓		
R50841000003	LEATHER RETAINING STRAP VP600/900	\$ 13.00			✓							
Carrying Accessories > Belts		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)	
R50840000A50	ANTI SWAY BELT, VP-H/VP-T	\$ 22.00	✓	✓	✓					✓		
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 80.00	✓	✓	✓					✓		
Carrying Accessories > Belt Clips and Brackets		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)	
5855100600	BELT CLIP 2.25" SPRING LOADED, VP-H	\$ 16.00			✓							
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 17.80	✓	✓						✓		
Batteries		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)	
5875700471	LI-ION BATTERY, 4500 MAH, NON-FM, VP-H	\$ 185.00			✓							
835VBFM	LI-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H	\$ 225.00			✓							
KBP-8M2	BATTERY CLAMSHELL CASE, AA ALKALINEX12,ORANGE,VP-T	\$ 143.20	✓	✓						✓		
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 169.00	✓	✓						✓		
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 218.70	✓	✓						✓		
KNB-LS5CU	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 254.50	✓	✓						✓		
KNB-LS7	LI-ION BATTERY, 3800MAH, CSA, VP-T	\$ 338.80	✓	✓						✓		
KNB-LS7-IS	LI-ION BATTERY, 3800MAH, LABELED CSA US INTRINSICALLY SAFE	\$ 366.00	✓	✓						✓		
Chargers		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)	
5630600237	CHARGER, SINGLE BAY RAPID RATE, VP-H	\$ 165.00			✓							
5630600365	CHARGER, 6-BAY MULTI-CHEM, 4-PIN, VP-H	\$ 710.00			✓							
836VVC10	SINGLE BAY VEHICULAR CHARGER, VP-H	\$ 435.00			✓							
KMB-30A	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$ 72.80	✓	✓						✓		
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$ 97.30	✓	✓						✓		
KSC-326AK	CHARGER, SIX UNIT RAPID RATE, VP-T	\$ 888.80	✓	✓						✓		

KSC-526K	CHARGER, SIX UNIT, REQUIRES CHARGER POCKETS, VP-T	\$ 777.80	✓	✓						✓	
KSC-52AK	CHARGER, SINGLE BAY RAPID RATE, A-POCKET, VP-T	\$ 92.30	✓	✓						✓	
KSC-52BK	CHARGER, SINGLE BAY RAPID RATE, B-POCKET, VP-T	\$ 92.30	✓	✓						✓	
KSC-52PAW	CHARGER POCKET A, KSC-52/526, KNB-L11, VP-T	\$ 10.80	✓	✓						✓	
KSC-52PBW	CHARGER POCKET B, KSC-52/526, KNB-L2/L3/LS7, VP-T	\$ 10.80	✓	✓						✓	
KSC-52PCW	CHARGER POCKET C, KSC-52/526, KNB-78/57/55 NX-3000	\$ 10.80								✓	
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$ 155.20	✓	✓						✓	
KVC-15	VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T	\$ 193.00	✓	✓						✓	
KVC-23-C-CLIP	CLIP, KVC-23 CHARGER, HIGH-CAP BATTERY KNB-L3/LS7	\$ 8.00	✓	✓						✓	
KVC-23V	VEHICULAR CHARGER WITH HI-CAP BATTERY C-CLIP, VP-T	\$ 338.80	✓	✓						✓	
R35-WELLSH1140	AC CABLE FOR KSC-326AK	\$ 25.00									
Mobile Accessories		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
0235500905	CONVERSION KIT, DASH TO REMOTE, VCH/LCH	\$ 490.00									
2515000007	GPS MODULE AND LMR-GPS ANTENNA MOUNT (DISCONTINUED)	\$ 435.00							✓		✓
5975357792	Y CABLE, FIRECOM INTEGRATION, VM-H	\$ 43.00							✓		
835VMSIB	SERIAL INTERFACE BOX RS232-RS485 VM-T	\$ 185.00					✓	✓			
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00				✓	✓	✓	✓		✓
836VMB10	MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000	\$ 180.00				✓					
EH-30	VM7000 DC POWER SUPPLY	\$ 430.00				✓					
KCH-21RVM	VIKING HAND HELD CONTROLLER BODY	\$1,211.00				✓	✓				
KCT-71A50	VM5000/7000 Remote Cable up to 50 Ft	\$ 226.80									
KCT-71M2	REMOTE CONTROL CABLE (17 FEET) VM-T	\$ 85.50									
KCT-77M2	HAND HELD CONTROLLER CABLE	\$ 222.80				✓	✓				
KPS-15	DC SWITCHG P/S 117/230 VAC; Power Supply	\$ 210.80				✓	✓	✓			
KRK-17BF	CONTROL HEAD REMOTE KIT FOR KCH	\$ 170.00				✓		✓			
R597535774401	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD	\$ 585.00							✓		
SSP2000B	FEDERAL SIGNAL BOX, VM-T	\$2,725.00						✓			
UPOINT 404	USB HUB, VM7000	\$ 820.00									
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00				✓	✓	✓	✓		
Portable Accessories		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
G0K-0012-10	KNOB SPRING VP6000	\$ 4.00	✓								
K2K-0255-00	VOLUME KNOB, VP6000	\$ 8.00	✓								
W3F-0001-00	BATTERY JIG - VPX000 BATTERY ELIMINATOR	\$ 275.00	✓	✓						✓	
Programming/Manual		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 595.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
5970600970	PROGRAMMING CABLE, USB, VP-H	\$ 265.00			✓						
832VM7000M001	VM7000 PRIMARY LICENSE	\$1,000.00				✓					
832VM7000MBMI	VM7000 MULTIBAND MULTIDECK MODE	\$ -				✓					
832VM7000S001	VM7000 SECONDARY LICENSE	\$1,000.00				✓					
833ARMADASVR	ARMADA SERVER	\$8,750.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
E30-3325-05	CLONE CABLE, VP/NX PORTABLE	\$ 230.00	✓	✓						✓	
KPG-236UM	PROGRAMMING CABLE, USB HI-SPEED, VP-T	\$ 193.00	✓	✓						✓	
KPG-36XM	PROGRAMMING CABLE, USB, VP-T	\$ 193.00	✓	✓							
KPG-46XM	PROGRAMMING CABLE, VM5000 KCH-19	\$ 193.00						✓			
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 32.00				✓	✓	✓	✓		✓
U026-016	H PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM AND VM-	\$ 38.00				✓	✓	✓	✓		
Encryption Accessories		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
0235000940	VK5000 VOICE AND AUTH KEY CABLE, VP-H	\$ 435.00			✓						

023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$ 435.00																		
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$2,615.00	✓	✓		✓					✓							✓		
5855000932	KVL4000 VOICE KEY CABLE, VP-H	\$ 325.00			✓															
5855000938	KVL4000 VOICE KEY CABLE, VM-H-SCH	\$ 325.00																		✓
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$ 325.00																		
KPG-115	KVL4000 VOICE KEY CABLE, VM-T-KCH	\$ 340.20				✓				✓										
KPG-115AUT	KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)	\$ 426.80				✓		✓	✓											
KPG-14P-KFD	KEYLOADER CABLE, USB, VP-T	\$ 648.00	✓	✓														✓		
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$ 340.20	✓	✓														✓		
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$ 426.80	✓	✓														✓		
KPG-RJ45-KFD	KEYLOADER CABLE, USB-C TO RJ45, VM-T	\$ 594.00				✓		✓	✓											
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$1,034.00	✓	✓		✓		✓	✓	✓										
R597570006701	KVL4000 AUTH KEY CABLE, VP-H	\$ 325.00			✓															

Software Options		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
299CONVVM7K	CONVERT VM7000 MULTIDECK MULTIBAND TECHSUPPORT	\$ 400.00									
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ -			✓				✓		✓
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -	✓	✓	✓	✓	✓	✓	✓	✓	✓
8322000002	P25 CONVENTIONAL, VIKING	\$ 415.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 145.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 475.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8322000104	VIKING16	\$ 920.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 180.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8323000003	DES-OFB MULTI-KEY, VIKING	\$ -	✓	✓	✓	✓	✓	✓	✓	✓	✓
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 560.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ -	✓	✓	✓	✓	✓	✓	✓	✓	✓
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 890.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 235.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8324000004	OTIP, VM-H/VM-T	\$ 235.00				✓	✓	✓	✓		✓
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 55.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 235.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 165.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8325000003	GPS, VIKING	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000001	P25 AUTHENTICATION, VIKING	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 300.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 415.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 355.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000009	4000 CHANNELS/TALKGROUPS	\$ 710.00	✓			✓	✓	✓	✓	✓	✓
8326000011	DISABLE VHF	\$ -				✓					
8326000012	DISABLE 7/800 MHz Band	\$ -				✓					
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 180.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000015	25KHz DISABLED	\$ -	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000019	REBANDING (NEXTTEL), VIKING	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000020	REBANDING (NON-NEXTTEL), VIKING	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000023	ENHANCED VRS PORTABLE	\$ 120.00	✓	✓	✓				✓		✓
8326000024	ENHANCED VRS MOBILE	\$ 120.00				✓	✓	✓	✓		✓
8326000025	BLUETOOTH	\$ 120.00	✓	✓		✓	✓	✓		✓	
8326000026	MAN DOWN	\$ 120.00	✓	✓						✓	
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000028	INSTANT RECORDING REPLAY	\$ 120.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
8326000029	VOICE RECORDING	\$ 110.00	✓	✓		✓	✓	✓		✓	
8326000031	RADIO TO RADIO CLONING	\$ 120.00	✓	✓						✓	
8326000032	TEXT MESSAGE	\$ 235.00	✓	✓						✓	

8326000033	BLUETOOTH LOW ENERGY	\$ 120.00	✓	✓		✓	✓	✓		✓	
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$ 235.00	✓	✓		✓	✓	✓		✓	
8326000035	CROSS BAND REPEAT	\$ 325.00				✓					
8326000036	DISABLE UHF 380	\$ -				✓					
8326000037	DISABLE UHF HIGH	\$ -				✓					
8326000039	WiFi	\$ -								✓	
832VP8000-7800	7/800 BAND ENABLE, VP8000	\$ 715.00								✓	
832VP8000-UHF	UHF BAND ENABLE, VP8000	\$ 715.00								✓	
832VP8000-VHF	VHF BAND ENABLE, VP8000	\$ 715.00								✓	
HW/SW Warranty		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 205.00	✓	✓		✓	✓	✓		✓	
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 120.00	✓	✓		✓	✓	✓		✓	
Training and Services		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$4,800.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
339TRNGV001	VIKING USER TRAINING	\$5,000.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$7,850.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	#####	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tuning & Maintenance		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
023VTLCD	VIKING TUNE LITE CD **AIR**	\$ 120.00									
835VTKVMH00	VIKING TUNE, HW KIT, VM-H	\$ 220.00									
835VTKVMX000	VIKING TUNE, HW KIT, VM-T, DM	\$ 280.00									
835VTKVPH00	VIKING TUNE, HW KIT, VP-H	\$ 435.00									
835VTKVPX000	VIKING TUNE, HW KIT, VP-T	\$ 700.00									
Upgrade Kits		List Price	VP6000	VP5000	VP400/600/900	VM7000	VM6000	VM5000	VM600/900 (VCH)	VP8000	VM400/600/900 (SCH)
2500600001	KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H	\$ 16.00			✓						
2500600002	KNOB KIT, FIRE CHANNEL/ROUND VOLUME, VP-H	\$ 16.00			✓						
835VP5000YH	YELLOW HOUSING, VP5000	\$ 225.00		✓							
B0K-0002-00	DUST COVER CAP FOR VP5000	\$ 5.40		✓							
B0K-0078-00	DUST COVER CAP FOR VP6000/VP8000	\$ 5.40	✓							✓	
G5D-0027-00	DUST COVER PACKING RUBBER VP-T	\$ 5.40	✓	✓						✓	
K2K-0012-00	CHANNEL SELECTOR KNOB, VP5000/TK5X30	\$ 7.00		✓							
K2K-0263-00	FIRE CHANNEL KNOB, VP6000/VP8000	\$ 9.00	✓							✓	
N08-0571-04	DUST COVER SCREW VP-T	\$ 4.40	✓	✓							

VP6000

Audio Accessories > Speaker Mics		List Price
KMC-54WDM	SPEAKER MIC, 2 BUTTON, MIL-SPEC, IP67, VP-T	\$ 158.30
KMC-70GR	SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T	\$ 168.50
KMC-70M	SPEAKER MIC, 3PF KEYS, BLACK, VP-T	\$ 158.30
KMC-72W	SPEAKER MIC, 2PF KEYS, NX	\$ 121.70
Audio Accessories > Specialty Speaker Mics		List Price
KMC-49	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T	\$ 450.00
V2-G4KC221-S	FIRE SPEAKER MIC, OTTO, 500°F, IS, VP-T	\$ 545.00
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Earpieces		List Price
KEP-1	EARPHONE KIT 3.5MM, VP-T/TK	\$ 67.70
KEP-2	EARPHONE KIT 2.5 MM , VP-T/TK	\$ 67.70
Audio Accessories > Surveillance		List Price
589580012401	SURVEILLANCE KIT, BLACK, 2-WIRE, VP-T	\$ 490.00
589580012402	SURVEILLANCE KIT, BEIGE, 2-WIRE, VP-T	\$ 490.00
BTH-300KIT1	BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T	\$ 164.00
EH-1189SC	EARPHONE, BUD STYLE, FOR BTH-300, VP-T	\$ 11.00
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 202.80
Audio Accessories > Headsets		List Price
BTH-900	BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T	\$ 450.00
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 177.70
KHS-15D-BH	HEADSET, BH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 542.80
KHS-15D-OH	HEADSET, OH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 475.30
Antenna/Kits/Accs > Portable Antennas		List Price
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 41.80
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 20.00
KRA-27M	ANTENNA UHF 440-490 MHZ WHIP, VP-T	\$ 20.00
KRA-27M2	ANTENNA UHF 470-520 MHZ WHIP, VP-T	\$ 20.00
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 20.00
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 51.20
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 44.80
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 42.50
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 30.50
Carrying Accessories > Carry Cases		List Price
KW9110-LF	LEATHER CASE FIRE, LS7 MODEL, VP6000	\$ 80.00
KW9110-LP	LEATHER CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 80.00
KW9110-NP	NYLON CASE POLICE, LS7 MODEL, D SWIVEL, VP6000	\$ 76.00

R50843LF2001	LEATHER CASE FIRE L2, VP6000	\$ 80.00
R50843LF3001	LEATHER CASE FIRE L3, VP6000	\$ 80.00
R50843LP2001	LEATHER CASE POLICE, L2 MODEL, D SWIVEL, VP6000	\$ 80.00
R50843LP3001	LEATHER CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 80.00
R50843NP2001	NYLON CASE POLICE, L2 MODEL, VP6000	\$ 76.00
R50843NP3001	NYLON CASE POLICE, L3 MODEL, D SWIVEL, VP6000	\$ 76.00
Carrying Accessories > Belt Loops and Straps		List Price
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 76.00
R50840000003	LEATHER RETAINING STRAP, VP6000	\$ 13.00
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 13.00
R50840000L20	BELT LOOP LEATHER, 2", VP6000/VP8000	\$ 27.00
R50840000L30	BELT LOOP LEATHER, 3", VP6000/VP8000	\$ 27.00
R50840000N20	BELT LOOP, NYLON 2", VP6000/VP8000	\$ 27.00
R50840000S40	BELT LOOP, LEATHER 4.25" SLOT , VP6000/VP8000	\$ 27.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 109.00
Carrying Accessories > Belts		List Price
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 22.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 80.00
Carrying Accessories > Belt Clips and Brackets		List Price
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 17.80
Batteries		List Price
KBP-8M2	BATTERY CLAMSHELL CASE, AA ALKALINEX12,ORANGE,VP-T	\$ 143.20
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 169.00
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 218.70
KNB-LS5CU	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 254.50
KNB-LS7	LI-ION BATTERY, 3800MAH, CSA, VP-T	\$ 338.80
KNB-LS7-IS	LI-ION BATTERY, 3800MAH, LABELED CSA US INTRINSICALLY SAFE	\$ 366.00
Chargers		List Price
KMB-30A	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$ 72.80
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$ 97.30
KSC-326AK	CHARGER, SIX UNIT RAPID RATE, VP-T	\$ 888.80
KSC-526K	CHARGER, SIX UNIT, REQUIRES CHARGER POCKETS, VP-T	\$ 777.80
KSC-52AK	CHARGER, SINGLE BAY RAPID RATE, A-POCKET, VP-T	\$ 92.30
KSC-52BK	CHARGER, SINGLE BAY RAPID RATE, B-POCKET, VP-T	\$ 92.30
KSC-52PAW	CHARGER POCKET A, KSC-52/526, KNB-L11, VP-T	\$ 10.80
KSC-52PBW	CHARGER POCKET B, KSC-52/526, KNB-L2/L3/LS7, VP-T	\$ 10.80
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$ 155.20
KVC-15	VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T	\$ 193.00
KVC-23-C-CLIP	CLIP, KVC-23 CHARGER, HIGH-CAP BATTERY KNB-L3/LS7	\$ 8.00
KVC-23V	VEHICULAR CHARGER WITH HI-CAP BATTERY C-CLIP, VP-T	\$ 338.80
Portable Accessories		List Price
G0K-0012-10	KNOB SPRING VP6000	\$ 4.00
K2K-0255-00	VOLUME KNOB, VP6000	\$ 8.00
W3F-0001-00	BATTERY JIG - VPX000 BATTERY ELIMINATOR	\$ 275.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00

023VKMANUALCD	VIKING MANUAL CD	\$	475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$	295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$	205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$	595.00
833ARMADASRVR	ARMADA SERVER	\$	8,750.00
E30-3325-05	CLONE CABLE, VP/NX PORTABLE	\$	230.00
KPG-236UM	PROGRAMMING CABLE, USB HI-SPEED, VP-T	\$	193.00
KPG-36XM	PROGRAMMING CABLE, USB, VP-T	\$	193.00

Encryption Accessories		List Price
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00
KPG-14P-KFD	KEYLOADER CABLE, USB, VP-T	\$ 648.00
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$ 340.20
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$ 426.80
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$ 1,034.00

Software Options		List Price
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -
8322000002	P25 CONVENTIONAL, VIKING	\$ 415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 475.00
8322000104	VIKING16	\$ 920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ -
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ -
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 165.00
8325000003	GPS, VIKING	\$ 120.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 355.00
8326000009	4000 CHANNELS/TALKGROUPS	\$ 710.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 180.00
8326000015	25KHz DISABLED	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 120.00
8326000023	ENHANCED VRS PORTABLE	\$ 120.00
8326000025	BLUETOOTH	\$ 120.00
8326000026	MAN DOWN	\$ 120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$ 120.00
8326000028	INSTANT RECORDING REPLAY	\$ 120.00
8326000029	VOICE RECORDING	\$ 110.00

8326000031	RADIO TO RADIO CLONING	\$ 120.00
8326000032	TEXT MESSAGE	\$ 235.00
8326000033	BLUETOOTH LOW ENERGY	\$ 120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$ 235.00
HW/SW Warranty		List Price
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$ 205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$ 120.00
Training and Services		List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$ 4,800.00
339TRNGV001	VIKING USER TRAINING	\$ 5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$ 7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00
Upgrade Kits		List Price
B0K-0078-00	DUST COVER CAP FOR VP6000/VP8000	\$ 5.40
G5D-0027-00	DUST COVER PACKING RUBBER VP-T	\$ 5.40
K2K-0263-00	FIRE CHANNEL KNOB, VP6000/VP8000	\$ 9.00
N08-0571-04	DUST COVER SCREW VP-T	\$ 4.40

VP5000

Audio Accessories > Speaker Mics		List Price
KMC-54WDM	SPEAKER MIC, 2 BUTTON, MIL-SPEC, IP67, VP-T	\$ 158.30
KMC-70GR	SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T	\$ 168.50
KMC-70M	SPEAKER MIC, 3PF KEYS, BLACK, VP-T	\$ 158.30
KMC-72W	SPEAKER MIC, 2PF KEYS, NX	\$ 121.70
Audio Accessories > Specialty Speaker Mics		List Price
KMC-49	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T	\$ 450.00
V2-G4KC221-S	FIRE SPEAKER MIC, OTTO, 500°F, IS, VP-T	\$ 545.00
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Earpieces		List Price
KEP-1	EARPHONE KIT 3.5MM, VP-T/TK	\$ 67.70
KEP-2	EARPHONE KIT 2.5 MM , VP-T/TK	\$ 67.70
Audio Accessories > Surveillance		List Price
589580012401	SURVEILLANCE KIT, BLACK, 2-WIRE, VP-T	\$ 490.00
589580012402	SURVEILLANCE KIT, BEIGE, 2-WIRE, VP-T	\$ 490.00
BTH-300KIT1	BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T	\$ 164.00
EH-1189SC	EARPHONE, BUD STYLE, FOR BTH-300, VP-T	\$ 11.00
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 202.80
Audio Accessories > Headsets		List Price
BTH-900	BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T	\$ 450.00
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 177.70
KHS-15D-BH	HEADSET, BH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 542.80
KHS-15D-OH	HEADSET, OH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 475.30
Antenna/Kits/Accs > Portable Antennas		List Price
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 41.80
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 20.00
KRA-27M	ANTENNA UHF 440-490 MHZ WHIP, VP-T	\$ 20.00
KRA-27M2	ANTENNA UHF 470-520 MHZ WHIP, VP-T	\$ 20.00
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 20.00
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 51.20
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 44.80
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 42.50
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 30.50
Carrying Accessories > Carry Cases		List Price
KLH-200K3	LEATHER CASE, L2 & L3 MODEL, VP5000	\$ 53.80
KLH-201K3	NYLON CASE , L2 AND L3 MODEL, VP5000	\$ 32.00
KW9150-LP	VP5000 LEATHER CASE, D-SWIVEL (LARGE BATTERY)	\$ 80.00

KW9150-NP	VP5000 NYLON CASE, D-SWIVEL (LARGE BATTERY)	\$ 76.00
Carrying Accessories > Belt Loops and Straps		List Price
KBH-8DS	LEATHER BELT LOOP WITH D-SWIVEL, VP5000	\$ 32.00
KLH-137ST	SHOULDER STRAP LEATHER, FIRE HEAVY-DUTY, VP5000	\$ 44.80
KLH-6SW	BELT LOOP LEATHER DETACHABLE D-SWIVEL ,VP5000	\$ 26.80
R50840000004	RETAINING STRAP, PS MIC- KMC 49, VP-T	\$ 13.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 109.00
Carrying Accessories > Belts		List Price
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 22.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 80.00
Carrying Accessories > Belt Clips and Brackets		List Price
KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$ 17.80
Batteries		List Price
KBP-8M2	BATTERY CLAMSHELL CASE, AA ALKALINEX12,ORANGE,VP-T	\$ 143.20
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$ 169.00
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$ 218.70
KNB-LS5CU	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$ 254.50
KNB-LS7	LI-ION BATTERY, 3800MAH, CSA, VP-T	\$ 338.80
KNB-LS7-IS	LI-ION BATTERY, 3800MAH, LABELED CSA US INTRINSICALLY SAFE	\$ 366.00
Chargers		List Price
KMB-30A	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$ 72.80
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$ 97.30
KSC-326AK	CHARGER, SIX UNIT RAPID RATE, VP-T	\$ 888.80
KSC-526K	CHARGER, SIX UNIT, REQUIRES CHARGER POCKETS, VP-T	\$ 777.80
KSC-52AK	CHARGER, SINGLE BAY RAPID RATE, A-POCKET, VP-T	\$ 92.30
KSC-52BK	CHARGER, SINGLE BAY RAPID RATE, B-POCKET, VP-T	\$ 92.30
KSC-52PAW	CHARGER POCKET A, KSC-52/526, KNB-L11, VP-T	\$ 10.80
KSC-52PBW	CHARGER POCKET B, KSC-52/526, KNB-L2/L3/LS7, VP-T	\$ 10.80
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$ 155.20
KVC-15	VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T	\$ 193.00
KVC-23-C-CLIP	CLIP, KVC-23 CHARGER, HIGH-CAP BATTERY KNB-L3/LS7	\$ 8.00
KVC-23V	VEHICULAR CHARGER WITH HI-CAP BATTERY C-CLIP, VP-T	\$ 338.80
Portable Accessories		List Price
W3F-0001-00	BATTERY JIG - VPX000 BATTERY ELIMINATOR	\$ 275.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 595.00
833ARMADASVR	ARMADA SERVER	\$ 8,750.00
E30-3325-05	CLONE CABLE, VP/NX PORTABLE	\$ 230.00
KPG-236UM	PROGRAMMING CABLE, USB HI-SPEED, VP-T	\$ 193.00
KPG-36XM	PROGRAMMING CABLE, USB, VP-T	\$ 193.00
Encryption Accessories		List Price
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00

KPG-14P-KFD	KEYLOADER CABLE, USB, VP-T	\$	648.00
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$	340.20
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$	426.80
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$	1,034.00

Software Options		List Price
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8322000001	ANALOG CONVENTIONAL, VIKING	\$	-
8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000023	ENHANCED VRS PORTABLE	\$	120.00
8326000025	BLUETOOTH	\$	120.00
8326000026	MAN DOWN	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00
8326000029	VOICE RECORDING	\$	110.00
8326000031	RADIO TO RADIO CLONING	\$	120.00
8326000032	TEXT MESSAGE	\$	235.00
8326000033	BLUETOOTH LOW ENERGY	\$	120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$	235.00

HW/SW Warranty		List Price
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2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	120.00

Training and Services		List Price
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299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$	4,800.00
339TRNGV001	VIKING USER TRAINING	\$	5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$	7,850.00

339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00
Upgrade Kits		List Price
835VP5000YH	YELLOW HOUSING, VP5000	\$ 225.00
B0K-0002-00	DUST COVER CAP FOR VP5000	\$ 5.40
G5D-0027-00	DUST COVER PACKING RUBBER VP-T	\$ 5.40
K2K-0012-00	CHANNEL SELECTOR KNOB, VP5000/TK5X30	\$ 7.00
N08-0571-04	DUST COVER SCREW VP-T	\$ 4.40

VP400/600/900

Audio Accessories > Speaker Mics		List Price
589360010018	SPEAKER MIC BASIC, 18", VP-H	\$ 125.00
GEM-ML56PRM-C	VIKING SPEAKER MIC, BLACK, 24", VP-H	\$ 215.00
GEM-ML56PRMH	VIKING SPEAKER MIC, HI VIZ, 24", VP-H	\$ 270.00
R5893210G30	SPEAKER MIC PREMIUM HI VIZ, 30", VP-H	\$ 300.00
R597290003000	DETACHABLE CABLE, 30", FOR R5893210XXX MICS	\$ 98.00
Audio Accessories > Specialty Speaker Mics		List Price
589360005625	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,25", VP-H	\$ 345.00
589360005630	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN,30", VP-H	\$ 345.00
V2-G4JD221	FIRE SPEAKER MIC, OTTO, 500°F, VP-H	\$ 545.00
Audio Accessories > Surveillance		List Price
5895100055	2 WIRE PALM MIC KIT FOR ACCESSORY ADAPTER, VP-H	\$ 152.00
5895100056	3 WIRE LAPEL MIC KIT, VP-H	\$ 195.00
Audio Accessories > Headsets		List Price
5895100051	ACCESSORY ADAPTER, W/3.5MM THREADED JACK, VP-H	\$ 85.00
Antenna/Kits/Accs > Portable Antennas		List Price
5010017107	ANTENNA UHF 403-512 MHZ ,1/4 WAVE WHIP SMA, VP-H	\$ 33.00
5010017110	WIDE BAND VHF 136-174 MHz, MP ANTENNA	\$ 49.00
5010105012	ANTENNA 800 MHZ, 1/4 WAVE, WHIP, PORTABLE, VP-H	\$ 33.00
5010105013	ANTENNA 800 MHZ HALF-WAVE WHIP(RE D CORE), VP-H	\$ 33.00
5010105073	ANTENNA 7/800MHZ ,1/2 WAVE WHIP(GREEN CORE),VP-H	\$ 33.00
5010900400	ANTENNA 7/800/VHF MULTIBAND,GPS, WHITE CORE, VP-H	\$ 75.00
Carrying Accessories > Carry Cases		List Price
5084600609	LEATHER CASE, BELT FLAP, MIL STRAP, MODEL 1, VP-H	\$ 80.00
5084600610	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 1, VP-H	\$ 76.00
5084600611	LEATHER CASE, W/BELT FLAP, MODEL 3, VP-H	\$ 80.00
5084600612	LEATHER CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 80.00
5084600652	NYLON CASE, D SWIVEL BELT LOOP, MODEL 3, VP-H	\$ 76.00
5084600655	NYLON CASE, BELT LOOP, MODEL 1, VP-H	\$ 65.00
Carrying Accessories > Belt Loops and Straps		List Price
5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$ 76.00
5084600612-AR	TOP RESTRAINING STRAP REPLACEMENT, CASE 5084600612	\$ 13.00
585510015101	BELT LOOP LEATHER, W/D-SWIVEL , 3", VP-H	\$ 60.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$ 109.00
R50841000003	LEATHER RETAINING STRAP VP600/900	\$ 13.00
Carrying Accessories > Belts		List Price
R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$ 22.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$ 80.00
Carrying Accessories > Belt Clips and Brackets		List Price
5855100600	BELT CLIP 2.25" SPRING LOADED, VP-H	\$ 16.00
Batteries		List Price
5875700471	LI-ION BATTERY, 4500 MAH, NON-FM, VP-H	\$ 185.00
835VBFM	LI-ION BATTERY WITH FM KEY, 4500 MAH, IP67, VP-H	\$ 225.00
Chargers		List Price
5630600237	CHARGER, SINGLE BAY RAPID RATE, VP-H	\$ 165.00

5630600365	CHARGER, 6-BAY MULTI-CHEM, 4-PIN, VP-H	\$	710.00
836VVC10	SINGLE BAY VEHICULAR CHARGER, VP-H	\$	435.00

Programming/Manual		List Price
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023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$	415.00
023VKFWCD	VIKING FIRMWARE CD	\$	595.00
023VKMANUALCD	VIKING MANUAL CD	\$	475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$	295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$	205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$	595.00
5970600970	PROGRAMMING CABLE, USB, VP-H	\$	265.00
833ARMADASRVR	ARMADA SERVER	\$	8,750.00

Encryption Accessories		List Price
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0235000940	VK5000 VOICE AND AUTH KEY CABLE, VP-H	\$	435.00
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$	2,615.00
5855000932	KVL4000 VOICE KEY CABLE, VP-H	\$	325.00
R597570006701	KVL4000 AUTH KEY CABLE, VP-H	\$	325.00

Software Options		List Price
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8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$	-
8322000001	ANALOG CONVENTIONAL, VIKING	\$	-
8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000023	ENHANCED VRS PORTABLE	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00

Training and Services		List Price
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299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$ 4,800.00
339TRNGV001	VIKING USER TRAINING	\$ 5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$ 7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00
Upgrade Kits		List Price
2500600001	KNOB KIT, ROUND CHANNEL/ROUND VOLUME, VP-H	\$ 16.00
2500600002	KNOB KIT,FIRE CHANNEL/ROUND VOLUME, VP-H	\$ 16.00

VM7000

Audio Accessories > Specialty Speaker Mics		List Price
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Mobile Mics		List Price
KMC-65M	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 63.50
KMC-66M	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 115.20
Audio Accessories > Desk Mics		List Price
KMC-59C	DESKTOP MIC, 8-PIN, TDMA	\$ 232.30
KMC-9C	DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20	\$ 104.80
Audio Accessories > Speakers		List Price
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 76.70
KCT-72M	EXT ACCESSORY CONNECTION CABLE FOR KCH-19M, KCH-20	\$ 44.70
KES-5A	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 73.00
KES-8K	SPEAKER, EXTERNAL, 10W, VM-T	\$ 59.30
Antenna/Kits/Accs > Mobile Antennas		List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ 109.00
836VRA11	ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T	\$ 85.00
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00
BB3803WS	ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP	\$ 130.00
KRA-40GM	GPS ANTENNA, VM-T	\$ 50.80
NMO440CHW	ANTENNA, MOBILE, UHF 440-460, 1/2 WAVE 5.5 DB NMO	\$ 160.00
Antenna/Kits/Accs > Mobile Antenna Kits		List Price
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT	\$ 113.00
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR VM-H	\$ 85.00
G8PI	MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI	\$ 115.00
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00
NMO58AUCP	ANTENNA BASE, HOLE MOUNT, 17FT, UHF/PL-259 MALE	\$ 35.00
Antenna/Kits/Accs > Mobile Antenna Accs		List Price
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00
000-34125	CONN, ADAPT, UHF JACK TO N PLUG, 000-34125	\$ 152.00
8361125006	TRIPLEXER, MOBILE, VHF UHF 7/800, PANORAMA	\$ 570.00
Mobile Accessories		List Price
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00
836VMB10	MOUNTING BRACKET, ALUMINUM, DUAL-DECK, VM7000	\$ 180.00
EH-30	VM7000 DC POWER SUPPLY	\$ 430.00
KCH-21RVM	VIKING HAND HELD CONTROLLER BODY	\$ 1,211.00
KCT-77M2	HAND HELD CONTROLLER CABLE	\$ 222.80
KPS-15	DC SWITCHG P/S 117/230 VAC; Power Supply	\$ 210.80
KRK-17BF	CONTROL HEAD REMOTE KIT FOR KCH	\$ 170.00
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00

2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$	295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$	205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$	595.00
832VM7000M001	VM7000 PRIMARY LICENSE	\$	1,000.00
832VM7000MBMI	VM7000 MULTIBAND MULTIDECK MODE	\$	-
832VM7000S001	VM7000 SECONDARY LICENSE	\$	1,000.00
833ARMADASRVR	ARMADA SERVER	\$	8,750.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$	32.00
U026-016	PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM AND VM-H	\$	38.00

Encryption Accessories		List Price
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250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$	2,615.00
KPG-115	KVL4000 VOICE KEY CABLE, VM-T-KCH	\$	340.20
KPG-115AUT	KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)	\$	426.80
KPG-RJ45-KFD	KEYLOADER CABLE, USB-C TO RJ45, VM-T	\$	594.00
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$	1,034.00

Software Options		List Price
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8322000001	ANALOG CONVENTIONAL, VIKING	\$	-
8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000004	OTIP, VM-H/VM-T	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000009	4000 CHANNELS/TALKGROUPS	\$	710.00
8326000011	DISABLE VHF	\$	-
8326000012	DISABLE 7/800 MHz Band	\$	-
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000024	ENHANCED VRS MOBILE	\$	120.00

8326000025	BLUETOOTH	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00
8326000029	VOICE RECORDING	\$	110.00
8326000033	BLUETOOTH LOW ENERGY	\$	120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$	235.00
8326000035	CROSS BAND REPEAT	\$	325.00
8326000036	DISABLE UHF 380	\$	-
8326000037	DISABLE UHF HIGH	\$	-

HW/SW Warranty		List Price
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2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	120.00

Training and Services		List Price
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299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$	4,800.00
339TRNGV001	VIKING USER TRAINING	\$	5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$	7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$	10,500.00

VM6000

Audio Accessories > Specialty Speaker Mics		List Price
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Mobile Mics		List Price
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 158.00
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 490.00
Audio Accessories > Desk Mics		List Price
589001202303	DESKTOP MIC, VCH	\$ 525.00
Audio Accessories > Speakers		List Price
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 85.00
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 85.00
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 76.70
KES-5A	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 73.00
KES-8K	SPEAKER, EXTERNAL, 10W, VM-T	\$ 59.30
Antenna/Kits/Accs > Mobile Antennas		List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ 109.00
836VRA11	ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T	\$ 85.00
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00
BB3803WS	ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP	\$ 130.00
KRA-40GM	GPS ANTENNA, VM-T	\$ 50.80
NMO440CHW	ANTENNA, MOBILE, UHF 440-460, 1/2 WAVE 5.5 DB NMO	\$ 160.00
Antenna/Kits/Accs > Mobile Antenna Kits		List Price
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT	\$ 113.00
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR VM-H	\$ 85.00
G8PI	MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI	\$ 115.00
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00
NMO58AUCP	ANTENNA BASE, HOLE MOUNT, 17FT, UHF/PL-259 MALE	\$ 35.00
Antenna/Kits/Accs > Mobile Antenna Accs		List Price
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00
000-34125	CONN, ADAPT, UHF JACK TO N PLUG, 000-34125	\$ 152.00
Mobile Accessories		List Price
835VMSIB	SERIAL INTERFACE BOX RS232-RS485 VM-T	\$ 185.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00
KCH-21RVM	VIKING HAND HELD CONTROLLER BODY	\$ 1,211.00
KCT-77M2	HAND HELD CONTROLLER CABLE	\$ 222.80
KPS-15	DC SWITCHG P/S 117/230 VAC; Power Supply	\$ 210.80
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 595.00

833ARMADASRVR	ARMADA SERVER	\$	8,750.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$	32.00
U026-016	PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM AND VM-H	\$	38.00

Encryption Accessories		List Price
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023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$	435.00
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$	2,615.00
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$	325.00
KPG-115AUT	KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)	\$	426.80
KPG-RJ45-KFD	KEYLOADER CABLE, USB-C TO RJ45, VM-T	\$	594.00
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$	1,034.00

Software Options		List Price
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8322000001	ANALOG CONVENTIONAL, VIKING	\$	-
8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000004	OTIP, VM-H/VM-T	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000009	4000 CHANNELS/TALKGROUPS	\$	710.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000024	ENHANCED VRS MOBILE	\$	120.00
8326000025	BLUETOOTH	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00
8326000029	VOICE RECORDING	\$	110.00
8326000033	BLUETOOTH LOW ENERGY	\$	120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$	235.00

HW/SW Warranty		List Price
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2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	120.00

Training and Services		List Price
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299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$	4,800.00
339TRNGV001	VIKING USER TRAINING	\$	5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$	7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$	10,500.00

VM5000

Audio Accessories > Specialty Speaker Mics		List Price
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Headsets		List Price
BTH-900	BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T	\$ 450.00
Audio Accessories > Mobile Mics		List Price
KMC-65M	MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20	\$ 63.50
KMC-66M	MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20	\$ 115.20
Audio Accessories > Desk Mics		List Price
KMC-59C	DESKTOP MIC, 8-PIN, TDMA	\$ 232.30
KMC-9C	DESKTOP MIC, 8-PIN MOD. PLUG, KCH-19/20	\$ 104.80
Audio Accessories > Speakers		List Price
KAP-2	HORN ALERT/P.A. RELAY OPTION, VM-T	\$ 76.70
KES-5A	MOBILE SPEAKER, 40W MAX INPUT, VM-T	\$ 73.00
KES-8K	SPEAKER, EXTERNAL, 10W, VM-T	\$ 59.30
Antenna/Kits/Accs > Mobile Antennas		List Price
836VRA10	ANTENNA, UNITY GAIN, MWV1365S, VHF, VM-T	\$ 109.00
836VRA11	ANTENNA, 3DB GAIN, MHB5800, VHF, VM-T	\$ 85.00
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00
BB3803WS	ANTENNA, MOBILE, UHF 380-520 MHZ, 3DBI WHIP	\$ 130.00
KRA-40GM	GPS ANTENNA, VM-T	\$ 50.80
NMO440CHW	ANTENNA, MOBILE, UHF 440-460, 1/2 WAVE 5.5 DB NMO	\$ 160.00
Antenna/Kits/Accs > Mobile Antenna Kits		List Price
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT	\$ 113.00
5010012037	ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR VM-H	\$ 85.00
G8PI	MOBILE MAG MOUNT, NMO, 12', UHF/PL259 CONN, G8PI	\$ 115.00
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00
NMO58AUCP	ANTENNA BASE, HOLE MOUNT, 17FT, UHF/PL-259 MALE	\$ 35.00
Antenna/Kits/Accs > Mobile Antenna Accs		List Price
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00
000-34125	CONN, ADAPT, UHF JACK TO N PLUG, 000-34125	\$ 152.00
Mobile Accessories		List Price
835VMSIB	SERIAL INTERFACE BOX RS232-RS485 VM-T	\$ 185.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00
KPS-15	DC SWITCHG P/S 117/230 VAC; Power Supply	\$ 210.80
KRK-17BF	CONTROL HEAD REMOTE KIT FOR KCH	\$ 170.00
SSP2000B	FEDERAL SIGNAL BOX, VM-T	\$ 2,725.00
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00

2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$	595.00
833ARMADASRVR	ARMADA SERVER	\$	8,750.00
KPG-46XM	PROGRAMMING CABLE, VM5000 KCH-19	\$	193.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$	32.00
U026-016	PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM AND VM-H	\$	38.00

Encryption Accessories		List Price
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00
KPG-115	KVL4000 VOICE KEY CABLE, VM-T-KCH	\$ 340.20
KPG-115AUT	KVL-4000 RADIO AUTHENTICATION CABLE (MOBILE)	\$ 426.80
KPG-RJ45-KFD	KEYLOADER CABLE, USB-C TO RJ45, VM-T	\$ 594.00
KWD-AE30K	ENCRYPTION MODULE, VP-T, AES FIPS140-2, DES, AUTH	\$ 1,034.00

Software Options		List Price
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -
8322000002	P25 CONVENTIONAL, VIKING	\$ 415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 475.00
8322000104	VIKING16	\$ 920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ -
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ -
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 235.00
8324000004	OTIP, VM-H/VM-T	\$ 235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$ 55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$ 235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 165.00
8325000003	GPS, VIKING	\$ 120.00
8326000001	P25 AUTHENTICATION, VIKING	\$ 120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$ 60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 355.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 180.00
8326000015	25KHz DISABLED	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 120.00
8326000024	ENHANCED VRS MOBILE	\$ 120.00
8326000025	BLUETOOTH	\$ 120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$ 120.00
8326000028	INSTANT RECORDING REPLAY	\$ 120.00
8326000029	VOICE RECORDING	\$ 110.00
8326000033	BLUETOOTH LOW ENERGY	\$ 120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$ 235.00

HW/SW Warranty		List Price
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2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	120.00

Training and Services		List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$ 4,800.00
339TRNGV001	VIKING USER TRAINING	\$ 5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$ 7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00

VM600/900 (VCH)

Audio Accessories > Mobile Mics		List Price
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 158.00
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 490.00
589001603605	MOBILE MIC, KEYPAD, COLD,12 PIN, VCH	\$ 490.00
Audio Accessories > Desk Mics		List Price
589001202303	DESKTOP MIC, VCH	\$ 525.00
Audio Accessories > Speakers		List Price
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 85.00
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 85.00
Antenna/Kits/Accs > Mobile Antennas		List Price
5010012060	ANTENNA 136-960MHZ, WHIP, W/O BASE,TNC-MA, VM-H	\$ 342.00
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00
Antenna/Kits/Accs > Mobile Antenna Kits		List Price
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR	\$ 113.00
5010012037	VM-H	\$ 85.00
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00
Antenna/Kits/Accs > Mobile Antenna Accs		List Price
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00
Mobile Accessories		List Price
	GPS MODULE AND LMR-GPS ANTENNA MOUNT (DISCONTINUED)	\$ 435.00
2515000007		\$ 435.00
5975357792	Y CABLE, FIRECOM INTEGRATION, VM-H	\$ 43.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00
R597535774401	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD	\$ 585.00
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 595.00
833ARMADASRVR	ARMADA SERVER	\$ 8,750.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM	\$ 32.00
U026-016	AND VM-H	\$ 38.00
Encryption Accessories		List Price
023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$ 435.00
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$ 325.00
Software Options		List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ -
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -

8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000004	OTIP, VM-H/VM-T	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000024	ENHANCED VRS MOBILE	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00

Training and Services		List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$ 4,800.00
339TRNGV001	VIKING USER TRAINING	\$ 5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$ 7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00

VM600/900 (VCH)

Audio Accessories > Mobile Mics		List Price
250074031003	MOBILE MIC, STANDARD, LF10 12-PIN CONN, VCH	\$ 158.00
589001603505	MOBILE MIC, KEYPAD, HOT, 12 PIN, VCH	\$ 490.00
589001603605	MOBILE MIC, KEYPAD, COLD,12 PIN, VCH	\$ 490.00
Audio Accessories > Desk Mics		List Price
589001202303	DESKTOP MIC, VCH	\$ 525.00
Audio Accessories > Speakers		List Price
2500151005	MOBILE SPEAKER, 15W, 5 IN., MONO PLUG, VCH	\$ 85.00
2500151006	MOBILE SPEAKER, 15W, 5 IN., CRIMP LEADS, VCH	\$ 85.00
Antenna/Kits/Accs > Mobile Antennas		List Price
5010012060	ANTENNA 136-960MHZ, WHIP, W/O BASE,TNC-MA, VM-H	\$ 342.00
836VRA12	ANTENNA, WPD136M6C, MULTIBAND MOBILE VM-T	\$ 305.00
Antenna/Kits/Accs > Mobile Antenna Kits		List Price
5010012020	ANTENNA KIT 760-870 MHZ LO-PROFILE BMLPV700, N-TYPE	\$ 93.00
5010012021	ANTENNA KIT (3DB) 700/800 MHZ ROOF MOUNT ANTENNA BASE,HOLE MOUNT,17FT,N-MALE, VM-T 7/800 OR	\$ 113.00
5010012037	VM-H	\$ 85.00
G8XNI	MOBILE MAG MOUNT, NMO, 12', N CONNECTOR, G8XNI	\$ 125.00
Antenna/Kits/Accs > Mobile Antenna Accs		List Price
000-14000	CONN, ADAPT, N JACK TO UHF PLUG, 000-14000	\$ 163.00
Mobile Accessories		List Price
	GPS MODULE AND LMR-GPS ANTENNA MOUNT (DISCONTINUED)	\$ 435.00
2515000007		\$ 435.00
5975357792	Y CABLE, FIRECOM INTEGRATION, VM-H	\$ 43.00
8360600156	MICRO USB MALE TO USB FEMALE ADAPTER CABLE	\$ 13.00
R597535774401	CABLE, DUAL REMOTE, SERIAL,USB, PVP/UDDI, STD	\$ 585.00
USB433WACDB	DONGLE WI-FI, VM-T AND VM-H	\$ 93.00
Programming/Manual		List Price
023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$ 415.00
023VKFWCD	VIKING FIRMWARE CD	\$ 595.00
023VKMANUALCD	VIKING MANUAL CD	\$ 475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$ 295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$ 205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$ 595.00
833ARMADASRVR	ARMADA SERVER	\$ 8,750.00
R5975357791	PROGRAMMING CABLE, USB, VM-T RM AND VM-H	\$ 32.00
	PROGRAMMING EXTENSION CABLE, 16-FEET USB, VM-T RM	
U026-016	AND VM-H	\$ 38.00
Encryption Accessories		List Price
023500095003	VK5000 VOICE AND AUTH KEY CABLE, VCH	\$ 435.00
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00
585500094001	KVL4000 VOICE KEY CABLE, VCH	\$ 325.00
Software Options		List Price
8321000002	DIGITAL (P25 CAI AMBE +2), VIKING	\$ -
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -

8322000002	P25 CONVENTIONAL, VIKING	\$	415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$	145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$	475.00
8322000104	VIKING16	\$	920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$	180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$	-
8323000004	AES FIPS MULTI-KEY, VIKING	\$	560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$	-
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$	890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$	235.00
8324000004	OTIP, VM-H/VM-T	\$	235.00
8324000005	KEYPAD PROGRAMMING (US FED GOVT), VIKING	\$	55.00
8325000001	P25 DATA TRUNKING (PACKET DATA), VIKING	\$	235.00
8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$	165.00
8325000003	GPS, VIKING	\$	120.00
8326000001	P25 AUTHENTICATION, VIKING	\$	120.00
8326000002	MDC1200 / GE-STAR SIGNALING, VIKING	\$	60.00
8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$	300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$	415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$	-
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$	355.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$	180.00
8326000015	25KHz DISABLED	\$	-
8326000019	REBANDING (NEXTEL), VIKING	\$	120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$	120.00
8326000024	ENHANCED VRS MOBILE	\$	120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$	120.00
8326000028	INSTANT RECORDING REPLAY	\$	120.00

Training and Services		List Price
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$ 4,800.00
339TRNGV001	VIKING USER TRAINING	\$ 5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$ 7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$ 10,500.00

VP8000

Audio Accessories > Speaker Mics		List Price
KMC-54WDM	SPEAKER MIC, 2 BUTTON, MIL-SPEC, IP67, VP-T	\$ 158.30
KMC-70GR	SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T	\$ 168.50
KMC-70M	SPEAKER MIC, 3PF KEYS, BLACK, VP-T	\$ 158.30
KMC-72W	SPEAKER MIC, 2PF KEYS, NX	\$ 121.70
Audio Accessories > Specialty Speaker Mics		List Price
KMC-49	SPEAKER MIC PUB SAFETY, W/ ANTENNA CONN, VP-T	\$ 450.00
V2-G4KC221-S	FIRE SPEAKER MIC, OTTO, 500°F, IS, VP-T	\$ 545.00
V6-10040-VP	KIT, BLUETOOTH MIC W EARPHONE, OTTO BT REVO NC2	\$ 490.00
Audio Accessories > Earpieces		List Price
KEP-1	EARPHONE KIT 3.5MM, VP-T/TK	\$ 67.70
KEP-2	EARPHONE KIT 2.5 MM , VP-T/TK	\$ 67.70
Audio Accessories > Surveillance		List Price
589580012401	SURVEILLANCE KIT, BLACK, 2-WIRE, VP-T	\$ 490.00
589580012402	SURVEILLANCE KIT, BEIGE, 2-WIRE, VP-T	\$ 490.00
BTH-300KIT1	BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T	\$ 164.00
EH-1189SC	EARPHONE, BUD STYLE, FOR BTH-300, VP-T	\$ 11.00
KHS-11BL	2 WIRE PALM MIC W/EARPHONE, VP-T/TK	\$ 202.80
Audio Accessories > Headsets		List Price
BTH-900	BLUETOOTH HEADSET,BTH-900, DUAL MUFF, VP-T	\$ 450.00
KHS-14	HEADSET, SINGLE MUFF BOOM MIC, IN-LINE PTT, VP-T/T	\$ 177.70
KHS-15D-BH	HEADSET, BH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 542.80
KHS-15D-OH	HEADSET, OH W/NOISE CANCELLING BOOM MIC, W/PTT	\$ 475.30
Antenna/Kits/Accs > Portable Antennas		List Price
KRA-22M	ANTENNA VHF 148-162 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M2	ANTENNA VHF 162-174 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-22M3	ANTENNA VHF 136-150 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M	ANTENNA UHF 450-490 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M2	ANTENNA UHF 470-512 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-23M3	ANTENNA UHF 403-430 MHZ LOW-PROF HELICAL, VP-T	\$ 20.00
KRA-25	ANTENNA VHF 148-162 MZ, WHIP, VP-T	\$ 41.80
KRA-26M	ANTENNA VHF 146-162 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M2	ANTENNA VHF 162-174 MHZ HELICAL, VP-T	\$ 20.00
KRA-26M3	ANTENNA VHF 136-150 MHZ HELICAL, VP-T	\$ 20.00
KRA-27M3	ANTENNA UHF 400-450 MHZ WHIP, VP-T	\$ 20.00
KRA-28	ANTENNA VHF 140-170 MHZ WHIP, VP-T	\$ 51.20
KRA-29	ANTENNA UHF 380-430 MHZ UHF WHIP, VP-T	\$ 44.80
KRA-32K	ANTENNA 700/800 MHZ WHIP, VP-T	\$ 42.50
KRA-36	ANTENNA 700/800 MHZ STUB, VP-T	\$ 30.50
KRA-47MB	ANTENNA, MULTIBAND 136-870MHZ, VP8000	\$ 105.00
Carrying Accessories > Carry Cases		List Price
KW9130-LF	VP8000 LEATHER CASE, FIRE, LARGE BATTERY L3/LS7/L11	\$ 80.00
KW9130-LP	VP8000 LEATHER CASE, POLICE, D-SWIVEL, L3/LS7/L11 LG BATT	\$ 80.00

KW9130-NP	VP8000 NYLON CASE, POLICE, D-SWIVEL, L3/LS7/L11 LG BATT	\$	80.00
KW9140-LF	VP8000 LEATHER CASE, FIRE, L2/LS5 SM BATT	\$	80.00
KW9140-LP	VP8000 LEATHER CASE, POLICE, D-SWIVEL, L2/LS5 SM BATT	\$	80.00
KW9140-NP	VP8000 NYLON CASE, POLICE, D-SWIVEL, L2/LS5 SM BATT	\$	80.00

Carrying Accessories > Belt Loops and Straps		List Price
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5084600100	SHOULDER STRAP, LEATHER, HEAVY DUTY, VP-H/VP-T	\$	76.00
R50840000L20	BELT LOOP LEATHER, 2", VP6000/VP8000	\$	27.00
R50840000L30	BELT LOOP LEATHER, 3", VP6000/VP8000	\$	27.00
R50840000N20	BELT LOOP, NYLON 2", VP6000/VP8000	\$	27.00
R50840000S40	BELT LOOP, LEATHER 4.25" SLOT , VP6000/VP8000	\$	27.00
R50840000SS0	SHOULDER STRAP, VP-H/VP-T	\$	109.00

Carrying Accessories > Belts		List Price
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R50840000AS0	ANTI SWAY BELT, VP-H/VP-T	\$	22.00
R50840000UB0	UTILITY BELT, VP-H/VP-T	\$	80.00

Carrying Accessories > Belt Clips and Brackets		List Price
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KBH-11	BELT CLIP 2.5" SPRING ACTION, VP-T	\$	17.80
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Batteries		List Price
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KBP-8M2	BATTERY CLAMSHELL CASE, AA ALKALINEX12,ORANGE,VP-T	\$	143.20
KNB-L2M	LI-ION BATTERY, 2600MAH, NON IS, VP-T	\$	169.00
KNB-L3M	LI-ION BATTERY, 3400MAH, NON IS, VP-T	\$	218.70
KNB-LS5CU	LI-ION BATTERY, 2000MAH, CSA, VP-T	\$	254.50
KNB-LS7	LI-ION BATTERY, 3800MAH, CSA, VP-T	\$	338.80
KNB-LS7-IS	LI-ION BATTERY, 3800MAH, LABELED CSA US INTRINSICALLY SAFE	\$	366.00

Chargers		List Price
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KMB-30A	WALL MOUNT BRACKET FOR MULTIBAY CHARGER, VP-T	\$	72.80
KSC-32	CHARGER, SINGLE BAY RAPID RATE, VP-T	\$	97.30
KSC-326AK	CHARGER, SIX UNIT RAPID RATE, VP-T	\$	888.80
KSC-526K	CHARGER, SIX UNIT, REQUIRES CHARGER POCKETS, VP-T	\$	777.80
KSC-52AK	CHARGER, SINGLE BAY RAPID RATE, A-POCKET, VP-T	\$	92.30
KSC-52BK	CHARGER, SINGLE BAY RAPID RATE, B-POCKET, VP-T	\$	92.30
KSC-52PAW	CHARGER POCKET A, KSC-52/526, KNB-L11, VP-T	\$	10.80
KSC-52PBW	CHARGER POCKET B, KSC-52/526, KNB-L2/L3/LS7, VP-T	\$	10.80
KSC-Y32K	CHARGER, SINGLE BAY RAPID RATE INTELLIGENT,VP-T	\$	155.20
KVC-15	VEHICULAR CHARGER ADAPTER, RAPID RATE, VP-T	\$	193.00
KVC-23-C-CLIP	CLIP, KVC-23 CHARGER, HIGH-CAP BATTERY KNB-L3/LS7	\$	8.00
KVC-23V	VEHICULAR CHARGER WITH HI-CAP BATTERY C-CLIP, VP-T	\$	338.80

Portable Accessories		List Price
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W3F-0001-00	BATTERY JIG - VPX000 BATTERY ELIMINATOR	\$	275.00
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Programming/Manual		List Price
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023ARMADACD	VIKING ARMADA CD WITH OTAP/DRS/EBM SW	\$	415.00
023VKFWCD	VIKING FIRMWARE CD	\$	595.00
023VKMANUALCD	VIKING MANUAL CD	\$	475.00
2505000972	VIKING RADIO SECURITY DEVICE - MASTER	\$	295.00
2505000974	VIKING RADIO SECURITY DEVICE - SLAVE	\$	205.00
2990045094	ARMADA SOFTWARE SUBSCRIPTION 5 - YEARS, VIKING	\$	595.00

833ARMADASRVR	ARMADA SERVER	\$	8,750.00
E30-3325-05	CLONE CABLE, VP/NX PORTABLE	\$	230.00
KPG-236UM	PROGRAMMING CABLE, USB HI-SPEED, VP-T	\$	193.00

Encryption Accessories		List Price
250VK5000Z	VK5000Z VIKING KEYLOADER KIT	\$ 2,615.00
KPG-14P-KFD	KEYLOADER CABLE, USB, VP-T	\$ 648.00
KPG-93	KVL4000 VOICE KEY CABLE, VP-T	\$ 340.20
KPG-93AUT	KVL4000 AUTH KEY CABLE, VP-T	\$ 426.80

Software Options		List Price
8322000001	ANALOG CONVENTIONAL, VIKING	\$ -
8322000002	P25 CONVENTIONAL, VIKING	\$ 415.00
8322000005	P25 PHASE 1 TRUNKING, VIKING	\$ 145.00
8322000006	P25 PHASE 2 TDMA, VIKING	\$ 475.00
8322000104	VIKING16	\$ 920.00
8323000002	AES FIPS SINGLE KEY, VIKING	\$ 180.00
8323000003	DES-OFB MULTI-KEY, VIKING	\$ -
8323000004	AES FIPS MULTI-KEY, VIKING	\$ 560.00
8323000005	ARC4 (ADP COMPATIBLE), VIKING	\$ -
8324000002	P25 OTAR (OVER THE AIR REKEYING), VIKING	\$ 890.00
8324000003	OTAP (OVER-THE-AIR PROGRAMMING), VIKING	\$ 235.00
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8325000002	P25 DATA CONVENTIONAL (PACKET DATA), VIKING	\$ 165.00
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8326000003	FIRESAFE™ FIRST RESPONDER, VIKING	\$ 300.00
8326000004	FIRESAFE™ COMMAND, VIKING	\$ 415.00
8326000005	P25 CONV VOTE SCAN, VIKING	\$ -
8326000008	2048 CHANNELS/TALKGROUPS, VIKING	\$ 355.00
8326000009	4000 CHANNELS/TALKGROUPS	\$ 710.00
8326000013	THIRD PARTY INTERFACE, VIKING	\$ 180.00
8326000015	25KHz DISABLED	\$ -
8326000019	REBANDING (NEXTEL), VIKING	\$ 120.00
8326000020	REBANDING (NON-NEXTEL), VIKING	\$ 120.00
8326000023	ENHANCED VRS PORTABLE	\$ 120.00
8326000025	BLUETOOTH	\$ 120.00
8326000026	MAN DOWN	\$ 120.00
8326000027	P25 TWO-TONE PAGING ENCODE DECODE	\$ 120.00
8326000028	INSTANT RECORDING REPLAY	\$ 120.00
8326000029	VOICE RECORDING	\$ 110.00
8326000031	RADIO TO RADIO CLONING	\$ 120.00
8326000032	TEXT MESSAGE	\$ 235.00
8326000033	BLUETOOTH LOW ENERGY	\$ 120.00
8326000034	CUSTOM TRANSMIT POWER LEVELS	\$ 235.00
8326000039	WiFi	\$ -
832VP8000-7800	7/800 BAND ENABLE, VP8000	\$ 715.00

832VP8000-UHF	UHF BAND ENABLE, VP8000	\$	715.00
832VP8000-VHF	VHF BAND ENABLE, VP8000	\$	715.00
HW/SW Warranty		List Price	
2990600013	2-YR EXTENDED WARRANTY, VIKING	\$	205.00
2990600017	1-YR EXTENDED WARRANTY, VIKING	\$	120.00
Training and Services		List Price	
299PRGM001	RADIO PROFILE CREATION FOR PROGRAMMING	\$	4,800.00
339TRNGV001	VIKING USER TRAINING	\$	5,000.00
339TRNGV002	VIKING BASIC ARMADA PROGRAMMER TRAINING	\$	7,850.00
339TRNGV003	VIKING ADVANCED ARMADA PROGRAMMER TRAINING	\$	10,500.00
Upgrade Kits		List Price	
B0K-0078-00	DUST COVER CAP FOR VP6000/VP8000	\$	5.40
G5D-0027-00	DUST COVER PACKING RUBBER VP-T	\$	5.40
K2K-0263-00	FIRE CHANNEL KNOB, VP6000/VP8000	\$	9.00

PART NUMBER	PART DESCRIPTION	LIST PRICE
MANAGEMENT		
3356100001	ATLAS 6100 BASIC NETWORK MANAGEMENT SYSTEM	\$4,400
3356200001	ATLAS 6200 ADVANCED NETWORK MANAGEMENT SYSTEM	\$44,000
3356300001	ATLAS 6300 MANAGEMENT SYSTEM CLIENT	\$3,300
3356400001	ATLAS 6400 DATA GATEWAY	\$35,000
3356500001	ATLAS 6500 KEY MANAGEMENT FACILITY	\$45,000
3356600001	ATLAS 6600 ISSI GATEWAY	\$45,000
3356700001	ATLAS 6700 TELEPHONE INTERCONNECT GATEWAY	\$110,000
CONTROLLERS		
3358100002	ATLAS 8100 CONV SITE NETWORK I/F (CSNI) BASIC	\$10,000
3358100101	ATLAS 8100 CONV SITE NETWORK I/F (CSNI) ADVANCED	\$12,000
3358200001	ATLAS 8200 TRUNKING SITE NETWORK INTERFACE (TSNI)	\$33,000
3358200101	ATLAS 8200 TRUNKING SITE NETWORK I/F (TSNI) ADVANCED	\$66,000
3358000002	ATLAS 8000 HARDWARE PLATFORM	\$3,800
3358000102	ATLAS 8000 HARDWARE PLATFORM ADVANCED (NED)	\$5,500
GATEWAYS		
3358410001	ATLAS 8410 ANALOG/LOGGING GATEWAY	\$8,500
3358300001	ATLAS 8300 MOBILE RADIO GATEWAY	\$4,000
3358410101	ATLAS 8410 ANALOG/LOGGING GATEWAY ADVANCED	\$10,000
3358300101	ATLAS 8300 MOBILE RADIO GATEWAY ADVANCED	\$6,000
DISPATCH CONSOLE		
3357000002	ATLAS 7000 STARGATE CONSOLE	\$21,000
3357102001	VIDEO CARD AND VIDEO CABLE KIT	\$1,100
597395010501	ABOB - HIB INTERFACE CABLE	\$250
5851156402	HEADSET MODULE OPERATOR CONNECTION INTERFACE	\$1,100
5851156400	HEADSET MODULE SUPERVISOR CONNECTION INTERFACE	\$1,100
5890012025	HEADSET MICROPHONE PTT AND AMPLIFIER CONTROLLER	\$450
5890012035	WIRELESS PTT ADAPTER	\$1,100
5890012027	HEADSET MICROPHONE ASSEMBLY, VOICE TUBE	\$350
5890012028	HEADSET MICROPHONE ASSEMBLY, NOISE CANCELLATION	\$350
5853950008	8 INPUT/8 OUTPUT RELAY CONTROL	\$1,300
5890015065	BOSE SPEAKER (ONE PAIR)	\$300
EVENTIDE LOGGER		
3357500001	EFJ NEXLOG 740 BASE BUNDLE	\$18,000
3357511002	P25 BASE OPTION WITH 8 P25 TALKGROUP	\$25,000
3337512001	ADDITIONAL 8 CHANNELS OF P25	\$1,650
LICENSE		
332ANWC112	ATLAS NW CONNECT CONV SIMULCAST	\$ 6,600.00
332ANWC121	ATLAS NW CONNECT P25 PHASE 1 TRUNK	\$ 5,500.00

PART NUMBER	PART DESCRIPTION	LIST PRICE
BASE STATION		
ATLAS 4500 VHF		
3354511111	ATLAS 4500 AC VHF PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354511112	ATLAS 4500 AC VHF PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354511121	ATLAS 4500 AC VHF PHASE 1 TRUNK MULTICAST	\$25,000.00
3354511122	ATLAS 4500 AC VHF PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354511221	ATLAS 4500 AC VHF PHASE 2 TRUNK MULTICAST	\$50,000.00
3354511222	ATLAS 4500 AC VHF PHASE 2 TRUNK SIMULCAST	\$62,000.00
3354521111	ATLAS 4500 DC VHF PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354521112	ATLAS 4500 DC VHF PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354521121	ATLAS 4500 DC VHF PHASE 1 TRUNK MULTICAST	\$25,000.00
3354521122	ATLAS 4500 DC VHF PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354521221	ATLAS 4500 DC VHF PHASE 2 TRUNK MULTICAST	\$50,000.00
3354521222	ATLAS 4500 DC VHF PHASE 2 TRUNK SIMULCAST	\$62,000.00
ATLAS 4500 UHF		
3354512111	ATLAS 4500 AC UHF PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354512112	ATLAS 4500 AC UHF PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354512121	ATLAS 4500 AC UHF PHASE 1 TRUNK MULTICAST	\$25,000.00
3354512122	ATLAS 4500 AC UHF PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354512221	ATLAS 4500 AC UHF PHASE 2 TRUNK MULTICAST	\$50,000.00
3354512222	ATLAS 4500 AC UHF PHASE 2 TRUNK SIMULCAST	\$62,000.00
3354522111	ATLAS 4500 DC UHF PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354522112	ATLAS 4500 DC UHF PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354522121	ATLAS 4500 DC UHF PHASE 1 TRUNK MULTICAST	\$25,000.00
3354522122	ATLAS 4500 DC UHF PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354522221	ATLAS 4500 DC UHF PHASE 2 TRUNK MULTICAST	\$50,000.00
3354522222	ATLAS 4500 DC UHF PHASE 2 TRUNK SIMULCAST	\$62,000.00
ATLAS 4500 7/800 MHz		
3354513111	ATLAS 4500 AC 7/800 PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354513112	ATLAS 4500 AC 7/800 PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354513121	ATLAS 4500 AC 7/800 PHASE 1 TRUNK MULTICAST	\$25,000.00
3354513122	ATLAS 4500 AC 7/800 PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354513221	ATLAS 4500 AC 7/800 PHASE 2 TRUNK MULTICAST	\$50,000.00
3354513222	ATLAS 4500 AC 7/800 PHASE 2 TRUNK SIMULCAST	\$62,000.00
3354523111	ATLAS 4500 DC 7/800 PHASE 1 CONVENTIONAL MULTICAST	\$20,000.00
3354523112	ATLAS 4500 DC 7/800 PHASE 1 CONVENTIONAL SIMULCAST	\$32,000.00
3354523121	ATLAS 4500 DC 7/800 PHASE 1 TRUNK MULTICAST	\$25,000.00
3354523122	ATLAS 4500 DC 7/800 PHASE 1 TRUNK SIMULCAST	\$37,000.00
3354523221	ATLAS 4500 DC 7/800 PHASE 2 TRUNK MULTICAST	\$50,000.00
3354523222	ATLAS 4500 DC 7/800 PHASE 2 TRUNK SIMULCAST	\$62,000.00

PART NUMBER	PART DESCRIPTION	LIST PRICE
3396100001	ONSITE USER TRAINING AND CONSULTATION - 1 DAY	\$4,515.00
3396101001	ONSITE TRAINING 1 DAY (UP TO 10 STUDENTS)	\$4,515.00
3396102001	ONSITE TRAINING 2 DAYS (UP TO 10 STUDENTS)	\$6,615.00
3396103001	ONSITE TRAINING 3 DAYS (UP TO 10 STUDENTS)	\$8,715.00
3396104001	ONSITE TRAINING 4 DAYS (UP TO 10 STUDENTS)	\$10,815.00
3396105001	ONSITE TRAINING 5 DAYS (UP TO 10 STUDENTS)	\$12,915.00
3396106001	ONSITE TRAINING 6 DAYS (UP TO 10 STUDENTS)	\$16,485.00
3396107001	ONSITE TRAINING 7 DAYS (UP TO 10 STUDENTS)	\$18,585.00
3396108001	ONSITE TRAINING 8 DAYS (UP TO 10 STUDENTS)	\$20,685.00
3396109001	ONSITE TRAINING 9 DAYS (UP TO 10 STUDENTS)	\$22,785.00
3396110001	ONSITE TRAINING 10 DAYS (UP TO 10 STUDENTS)	\$24,885.00
3396205001	EFJ TRAINING CENTER 1 DAY (5 STUDENTS PACKAGE)	\$2,400.00
3396214001	EFJ TRAINING CENTER 1 DAY (1 TO 4 STUDENTS)	\$525.00
3396269001	EFJ TRAINING CENTER 1 DAY (5 TO 9 STUDENTS)	\$400.00
3391105001	STAGING	\$248.00
3391100001	SUPPORT (Provides one hour of Support Services, Application, Network, System Engineering)	\$248.00

PART NUMBER	PART DESCRIPTION	LIST PRICE
334000001	ATLAS MANUAL CD	\$10.00
3344000101	ATLAS 4000 MULTIMODE STATION TECHNICAL MANUAL	\$100.00
3347000101	ATLAS 7000 STARGATE TECHNICAL MANUAL	\$100.00
3347000201	ATLAS 7000 STARGATE OPERATING MANUAL	\$100.00
3348000101	ATLAS 8000 GATEWAY PLATFORM TECHNICAL MAN (REV 02)	\$100.00
3348400101	ATLAS 8400 4-CH ANALOG INTERFACE TECHNICAL MANUAL	\$100.00
3346200101	ATLAS 6100/6200 NMS TECHNICAL MANUAL	\$100.00
3346400101	ATLAS 6400 DATA ROUTER/GATEWAY MANUAL	\$100.00
3346500101	ATLAS 6500 KMF TECHNICAL MANUAL(R/B REV 2)	\$100.00
2390010002	JEM2 OPERATOR MANUAL (REV 2)(R/B -10003)	\$100.00
2500094505	SMA OPERATING MANUAL (REV 5)(R/B -94506)	\$100.00

PART NUMBER	PART DESCRIPTION	LIST PRICE
3351550001	REFERENCE GENERATOR SECURESYNC 1x10MHz & 1x 1PPS	\$10,000.00
3351555001	SECURE SYNC OPTION CARD 3x10MHz	\$1,500.00
3351556002	REF GENERATOR SECURESYNC OPTION MODULE 4X1PPS TTL	\$1,300.00
3351557001	GPS ANTENNA SECURE SYNC KIT	\$580.00
3351558001	GPS ANTENNA SURGE SUPPRESSOR	\$580.00
3351559001	REFERENCE GENERATOR SECURE SYNC OPTION CARD ALARM	\$650.00

KENWOOD

LAND MOBILE RADIO PRICE GUIDE March 2023 Edition



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[KPG-180AP](#)

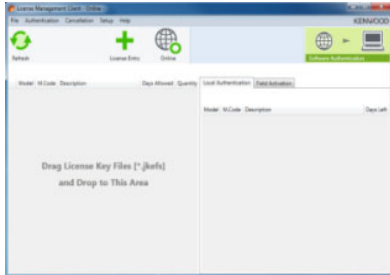


KPT-300LMC

License Management Client

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STANDARD



■ KPT-300LMC System Requirements

- Operating system: Windows Vista, 7, 8, 8.1, & 10
- CPU: Follow operating system requirement
- Memory: Follow operating system requirement
- 2GB disk storage space or more
- WXGA (1280 x 768) or larger display
- IBM PC/AT compatible
- Microsoft .NET Framework 4.5 or 4.6
- USB port necessary for USB offline authentication

• Minimum of one workstation with internet access is required to connect to Kenwood License authentication server.

■ GENERAL FEATURES

• **Kenwood Software Authentication Tool**
 KPT-300LMC is a mandatory software package to securely authenticate Kenwood radio programming tool, software, and radio feature licenses.

• **Radio Feature Activation**
 KPT-300LMC allows dealership driven radio function update of Kenwood digital radios at your own pace. Provides greater flexibility of dealerships' radio inventory to switch to different digital modes or expand radio capability when needed.

• **Account-wide Radio License Control**
 KPT-300LMC provides secure account control with account registration mechanism. Under same account, multiple work stations can access to the purchased Radio Feature license pool to activate licenses to radios.

• **Online and off the network authentication**
 KPT-300LMC requires online authentication but also offers off the network authentication method in case of needing field authentication where network connectivity may be difficult.

For further details, download KPT-300LMC from MyTools > Product > Software. By installing the software, you will find detailed operation and

■ Applicable Radio Feature Licenses

- NX-5x00 series portable & mobile
- NX-5x00S series portable & mobile
- NX-3x00 series portable
- NX-3x20 series portable & mobile
- NX-1x00 series portable
- NX-P1x00 series portable

■ Applicable System Software

- NXDN Type-C Gen2 Trunking System
- DMR Tier 2 & Tier 3 IP Gateway

■ Applicable Programming Software

- KPG-D1/D1N (NX-5x00/5x00S)
- KPG-D2/D2N (NXR-5000)
- KPG-D3/D3N (NX-3x00/3x20)
- KPG-D5 (NX-P500)
- KPG-D6/D6N (NX-1x00/NX-P1x00)

■ Applicable Software Application

- For various radio series
- KAS-20 AVL & Dispatch Software

- For NX-5x00/5x00S/3x00/3x20 series
- KPG-AE1 Software AES Keyloader
 - KPG-DE1 Software DES Keyloader
 - KPG-180AP OTAP Management Software

- For NX-5x00/5x00S series
- KAS-12 Battery Reader

LICENSING SYSTEM LIST

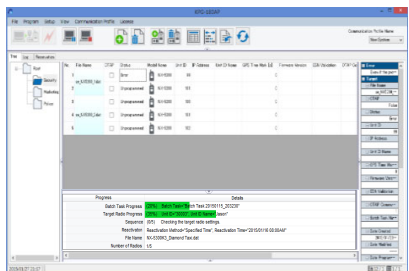
KPT-300LMC	License Management Client (downloadable from MyTools website)	NC
L-5000	KPT-300LMC Account Registration Key Note: Must submit "KPT-300LMC - Account Request Form" to Land Mobile Order Desk. Please find and download form from KENWOOD MyTools website > Product > Forms	NC

Optional Offline Authentication Key LIST

KWD-OFL-USB	USB License Storage Hardware key for Radio Feature License Note: - Must purchase Radio Feature Licenses separately. - Can be used with only one (1) KPT-300LMC Account Registration Key. - Requires KPT-300LMC V1.10 or higher. - Cancellation rule is different from standard Online/Offline Authentication. Please refer to a leaflet bundled with KWD-OFL-USB. Warranty Information: - Damaged USB License Storage "KWD-OFL-USB" a. Remaining Licenses will not be warranted. b. Licenses not uploaded to the License Management Server will not be warranted.	242.50
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NEXEDGE
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KPG-180AP
OTAP Management Software



■ KPG-180AP System Requirements

- Operating system: **Windows 7, 8, 8.1, & 10**
 - CPU: Follow operating system requirement
 - Memory: Follow operating system requirement
 - 200MB disk storage space or more
 - WXGA (1280 x 768) or larger display
 - Microsoft .NET Framework 4.5.2 or 4.6.x
 - LAN port (supporting 10BASE-T or later standard)
 - USB port necessary for base radio setup
- Workstation is recommended to have internet access to connect to Kenwood License authentication server. Offline Authentication is also available.

STANDARD

■ GENERAL FEATURES

- **Over-the-air Programming**
 KPG-180AP manages Over-the-air programming procedure using various transmission methods via base radio or direct IP connection to two-way radio system.
- **Multi-system and Multi-protocol Support**
 KPG-180AP supports up to 16 unique two way radios systems from P25¹, NXDN Conventional, NXDN Trunking, DMR Tier 2 Conventional, and DMR Tier 3 Trunking systems allowing dealerships or administrators to manage fleets across multiple systems from single software tool.
- **100,000 manageable field units**
 KPG-180AP supports up to 100,000 field units and multiple programming templates.
- **Smart & Time Efficient Data Transmittion**
 KPG-180AP tracks the change made to radio program data. Upon transmitting over-the-air, KPG-180AP automatically selects the changed portion of program data and minimize the transmitting data so to keep traffic low and fast.
- **ESN Validation**
- **OTAP Batch Task Scheduling**
- **Various Program File Activation Methods**
 (Auto apply, Next power on, User operation, time, etc)

■ Applicable Target Radios

- NX-5x00 series portable & mobile
- NX-5x00S series portable & mobile
- NX-3x00 series portable
- NX-3x20 series portable & mobile

■ Applicable Base Radios

- NX-5x00 series mobile
- NX-5x00S series mobile
- NX-3x20 series mobile

■ Applicable Base Radio Protocols

- NXDN Conventional
- NXDN Type-C Trunking and Gen2 Trunking
- Kenwood DMR Tier 2 Conventional
- Kairos DMR Tier 3 Trunking
- P25 Conventional (Radio to Radio)

■ Applicable direct IP connection

- NXDN Conventional system
- NXDN Type-C Trunking and Gen2 system
- Kairos DMR Tier 2 Conventional system
- Kairos DMR Tier 3 Trunked system
- Tait DMR Tier 3 Trunked system

OVER THE AIR PROGRAMMING (OTAP) LIST

KPG-180AP	OTAP Manager Software (Windows® 7/8/8.1/10) 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 Note: For each additional serial connected base radio or IP connected RF system, one additional communication profile is required. Note: Requires KPT-3001 MC for license authentication	954.00
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FLEET RADIO EXPANSION UPGRADES LIST

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	1800.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	3150.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	4500.00

ADDITIONAL RADIO SYSTEM PROFILES LIST

KWD-AP1-CA	Additional NXDN Base Radio License will allow user to add <u>One Base radio</u> for either NXDN Conventional, NXDN Type-C Trunking, or Gen2 Trunking	270.00
KWD-AP2-CP	Additional IP Connected NXDN System License will allow user to add <u>One IP connected RF system</u> for either NXDN Conventional, NXDN Type-C Trunking, or Gen2 Trunking	450.00
KWD-AP3-P25	Additional P25 Conventional Base Radio License will allow user to add <u>One Base radio</u> for P25 conventional radio to radio over-the-air reprogramming	864.00
KWD-AP4-DA	Additional DMR Base Radio License will allow user to add <u>One Base radio</u> for either Kenwood DMR Tier 2 Conventional, or Kairos DMR Tier 3 Trunking	270.00
KWD-AP5-DP	Additional IP Connected DMR System License will allow user to add <u>One IP connected RF system</u> for Kairos DMR Tier 2 Conventional, Kairos DMR Tier 3 Trunking, or Tait Tier 3 Trunking Systems	450.00

NEXEDGE[®]

P25 DMR

NX-5200/5300

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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

■ DIGITAL – P25 MODE

- P25 Conventional Option
- P25 Phase 1 Trunking Option
- P25 Phase 2 Trunking Option
- Conv/Trunking OTAR Option
- Conventional Voting Scan Option
- Packet Data Option for P25 OTAR & GPS
- Text Data
- Radio Authentication
- Tone Paging
- ARC4 Encryption Option

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.

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)
- P25 ARC4 Encryption (KWD-5107EE)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional Features (KWD-5300CV)
- DMR Tier 3 Trunking Features (KWD-5300CV & KWD-5301TR)

■ 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
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- 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

	<h1 style="margin: 0;">NX-5200/5300</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	<p>Table of Contents</p>
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RADIO	LIST
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Standard Key Models	
NX-5200K2	1004.20
NX-5300K2	1004.20
NX-5300K5	1004.20

Full Key Models	
NX-5200K3	1066.00
NX-5300K3	1066.00
NX-5300K6	1066.00

CSA US APPROVED MODELS	LIST
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Must Order L-5039 & "KNB-LS5CU or KNB-LS7M" Intrinsically Safe Battery per radio
**Note: microSD card is not allowed to use as Intrinsically Safe Option.*

NX-5200-ISCK2	1004.20
NX-5200-ISCK3	1066.00
NX-5300-ISCK2	1004.20
NX-5300-ISCK3	1066.00
NX-5300-ISCK5	1004.20
NX-5300-ISCK6	1066.00

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

General Radio Features	LIST
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KWD-5000CH	453.70
KWD-5001FP	324.00
KWD-5002SD	113.30
KWD-5003BT	37.80
KWD-5007RC	43.20

Note:
 - P25 Mode is NOT available.
 - This license may be used by Administrator due to Stun/Revive/Kill.
 - The license is required for only Transmitting of Remote Control.
 - PC command for Remote Control does NOT require the license.

P25 Radio Features	LIST
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KWD-5100CV	621.00
KWD-5101TR	561.70
KWD-5102TR	432.00
KWD-5103RK	756.00
KWD-5105VT	129.70
KWD-5106DT	194.30
KWD-5107EE	NC

DMR Radio Features	LIST
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KWD-5300CV	64.80
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NEXEDGE[®]
P25 DMR

NX-5200/5300
VHF/UHF Digital & FM Analog Portable Radios

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KWD-5301TR	License Key for DMR Tier 3 Trunking (requires KWD-5300CV)	144.00
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	NX-5200/5300	Table of Contents
VHF/UHF Digital & FM Analog Portable Radios		

KWD-5500EE	License Key for DMR ARC4 Enhanced Encryption	43.20
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	20.00
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	20.00
KRA-22M3	VHF low-profile helical antenna 136-150 MHz	20.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	20.00
KRA-23M2	UHF low-profile helical antenna 470-520 MHz	20.00
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	41.80
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	51.20
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz	44.80
BATTERIES AND CHARGERS		LIST
*All of batteries listed below except KBP-8M2 is compatible with IP67/68 when it is used with a radio.		
KNB-L1M	Li-ion 2000mAh (Compact Slim)	144.00
KNB-L2M	Li-ion 2600mAh (Standard)	169.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	218.70
KNB-LS5CU	CSA US Intrinsically Safe Battery Li-ion 2000mAh Note: Due to the I.S. circuitry on the KNB-LS5CU, the cells may lose charge during storage. To prevent loss of capacity during storage, charge the battery for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K, KSC-326K, KSC-326AK or KSC-526K. [Intrinsically Safe Option]	254.50
KNB-LS7M	CSA US Intrinsically Safe Battery Li-ion 3800mAh Note: Due to the I.S. circuitry on the KNB-LS7M, the cells may lose charge during storage. To prevent loss of capacity during storage, charge the battery for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K, KSC-326K, KSC-326AK or KSC-526K. [Intrinsically Safe Option]	366.00
KBP-8M2	AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included. Note: The color of the case is International Orange.	143.20
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	155.20
KSC-32	Rapid rate single unit charger	97.30
KSC-326AK	Rapid rate 6-unit charger CEC Compliant	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PBW	Charging pocket for KSC-526K compatible with NX-5000 series, NX-205/305 and NX-210	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	193.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	366.00

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BATTERY READER			LIST
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KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/N4/LS5/LS7 & KSC-Y32 (Windows® Vista/7/8/8.1/10) Note: Requires KPT-300LMC for authentication		91.80
KAS-12PRO	Add Battery Management with Database Requires KAS-12K base license for upgrade Note: Requires KPT-300LMC for authentication		378.00

CARRYING ACCESSORIES			LIST
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KBH-11	Spring action belt clip (2.5")		17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment		32.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back		26.80
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case		44.80
KLH-200K3	Heavy duty leather carrying case for NX-5000 series with KNB-L1/L2/L3/LS5CU (for both keypad models)		53.80
KLH-201K3	Nylon carrying case for NX-5000-series with KNB-L1/L2/L3/LS5CU (for both keypad models)		32.00

SPECIAL COLOR HOUSING			LIST
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KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.		48.80
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MICROPHONES & AUDIO ACCESSORIES			LIST
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***IP grades for microphones and audio accessories are decided by each item.**

KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with Active Noise Reduction Note: IP68 is available only when used with NX-5000 series portable [Intrinsically Safe Option]		158.30
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic [Intrinsically Safe Option]		121.70
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]		450.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics [Intrinsically Safe Option]		67.70
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]		67.70
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]		278.80
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]		202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: NOT compatible with TDMA operations [Intrinsically Safe Option]		257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: NOT compatible with TDMA operations [Intrinsically Safe Option]		177.70
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]		542.80
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]		475.30

ENCRYPTION & OPTION MODULES			LIST
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KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-5003 if installation is required. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood. If you order only a Module and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.) 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). Note: Required for Link Layer Authentication [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		1034.00
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KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-5004 if installation is required. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood. If you order only a Module and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.) Note: 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) Note: Required for Link Layer Authentication [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	670.20
KCT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features [Intrinsically Safe Option]	103.70
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	396.80
SERVICE RELATED ACCESSORIES		LIST
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8.1/10) Note: Requires KPT-300LMC for authentication 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 <ul style="list-style-type: none"> • For NX-5000 series radios. • KWD-ASK-MK (Master Key): For trunked system operator (SYSOP). Required for activating KWD-ASK-AK Access keys. Securely embeds/encrypts the HSID. • KWD-ASK-AK (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK Master Key. • KPG-D1NK supports up to 16 KWD-ASK-AK Access Keys (16 trunked networks). 2. Software Key Type: System Key File (SKF)- See L-5005 <ul style="list-style-type: none"> • For NX-5000 series radios. • 3-digit HEX System ID (HSID) with verifiable written authorization required from SYSOP. • Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be permitted from SYSOP to order and use SKF. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools. 	167.30
KPG-36XM	Full Speed USB Programming interface cable Note: This cable with USB mode may used for SD Card Direct Access.	193.00
KPG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	340.20
KPG-93AUT	KVL-4000 Radio Authentication Cable Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	426.80
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming Notes: Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> • For NX-5000 series only. • Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key. • Must have KPG-D1NK. • 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. 	254.50
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - Restricted Purchase Requirements - Notes: <ul style="list-style-type: none"> • For NX-5000 series only. • Sold to trunked system operator (SYSOP) or SYSOP authorized entities only • Must have KPG-D1NK. • SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Purchase KWD-ASK-AK Access Keys if needed. 	607.70

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OPTIONAL CABLE FOR FOREST/FIRE SERVICES FEATURE SET (FSFS) OPTION

KPG-CLN-14P	Portable-to-Portable Cloning Cable (14P:14P), 1m	274.30
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INSTALLATION / TUNING CHARGES **LIST**

L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50
L-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)	81.00
L-5004	Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)	81.00
L-5005	KPG-D1NK System Key File (SKF) Note: Enables P25 Trunked system programming privileges in a KPG-D1NK. - Restricted Purchase Requirements - <ul style="list-style-type: none"> • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Must have KPG-D1NK. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools. • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file. • 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file. 	142.20
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable	28.80
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe Must order <u>KNB-LS5CU</u> or <u>KNB-LS7M I.S. battery</u>	36.00
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES	54.00
L-5077	FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Must purchase <u>per Radio</u> <ul style="list-style-type: none"> • This feature set is provided by custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation 	64.80
L-5078	FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Purchase per application - <u>provided as Custom FW for unlimited radios</u> <u>To PLACE AN ORDER</u> , submit "Kenwood LMR Customization Application" form along with your PO to Land Mobile Order Desk via email (LMRorderdesk@us.jvckenwood.com) or fax (310-761-8246). <ul style="list-style-type: none"> • This feature set is provided as custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support Mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation 	1512.00

 	<h1>NX-5200/5300</h1> <p>VHF/UHF Digital & FM Analog Portable Radios</p>	Table of Contents
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-- IMPORTANT NOTES regarding ENCRYPTION MODULES--

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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood 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.

KWD-AE30 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-AE30K modules to erroneous destinations specified on an order.

NEXEDGE
P25 DMR
NX-5400
 700/800MHz Digital & FM Analog Portable Radio

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<Standard Key Model > <Full Key Model >

All NX-5400 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.

Due to spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed:

- 864.000

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

- 3 W (700/800 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

DIGITAL – P25 MODE

- P25 Conventional Option
- P25 Phase 1 Trunking Option
- P25 Phase 2 Trunking Option
- Conv/Trunking OTAR Option
- Conventional Voting Scan Option
- Packet Data Option for P25 OTAR & GPS
- Text Data
- Radio Authentication
- Tone Paging

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.

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)
- P25 ARC4 Encryption (KWD-5107EE)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

DIGITAL – DMR MODE

- DMR Tier 2 Conventional Features (KWD-5300CV)

DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking (only in 800MHz)
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- 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

- NPSPAC Channels
- 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

NEXEDGE
P25 DMR

NX-5400
700/800MHz Digital & FM Analog Portable Radio

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- DMR Tier 3 Trunking Features ([KWD-5300CV](#) & [KWD-5301TR](#))

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RADIO	LIST
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NX-5400K2	700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Standard Key Model	1004.20
NX-5400K3	700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Full Key Model	1066.00

CSA US APPROVED MODELS	LIST
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Must Order L-5039 & "KNB-LS5CU or KNB-LS7M" Intrinsically Safe Battery per radio <i>*Note: microSD card is not allowed to use as Intrinsically Safe Option.</i>		
NX-5400-ISCK2	700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Standard Key Model	1004.20
NX-5400-ISCK3	700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Full Key Model	1066.00

SOFTWARE LICENSING & RADIO FEATURE OPTIONS
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IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

General Radio Features	LIST
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KWD-5000CH	License Key for 4000 Channel Expansion	453.70
KWD-5001FP	License Key for Front Panel Programming	324.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	113.30
KWD-5003BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-5007RC	License Key for Remote Control by Subscriber Units Note: - P25 Mode is <u>NOT</u> available. - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does <u>NOT</u> require the license.	43.20

P25 Radio Features	LIST
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KWD-5100CV	License Key for P25 Conventional	621.00
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV) Note: Required for Link Layer Authentication	561.70
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	432.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	756.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	129.70
KWD-5106DT	License Key for P25 Trunking OTAR / GPS Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.	194.30
KWD-5107EE	License Key for P25 ARC4 Enhanced Encryption	NC

DMR Radio Features	LIST
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KWD-5300CV	License Key for DMR Tier 2 Conventional	64.80
KWD-5301TR	License Key for DMR Tier 3 Trunking (requires KWD-5300CV)	144.00
KWD-5500EE	License Key for DMR ARC4 Enhanced Encryption	43.20

ANTENNAS	LIST
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KRA-32K	700/800 MHz Whip Antenna	42.50
KRA-36	700/800 MHz Stubby Antenna	30.50

	<h1 style="margin: 0;">NX-5400</h1> <h2 style="margin: 0;">700/800MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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BATTERIES AND CHARGERS **LIST**

**All of batteries listed below except KBP-8M2 is compatible with IP67/68 when it is used with a radio.*

KNB-L1M	Li-ion 2000mAh (Compact Slim)	144.00
KNB-L2M	Li-ion 2600mAh (Standard)	169.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	218.70
KNB-LS5CU	CSA US Intrinsically Safe Battery Li-ion 2000mAh Note: Due to the I.S. circuitry on the KNB-LS5CU, the cells may lose charge during storage. To prevent loss of capacity during storage, charge the battery for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K, KSC-326K, KSC-326AK or KSC-526K. [Intrinsically Safe Option1]	254.50
KNB-LS7M	CSA US Intrinsically Safe Battery Li-ion 3800mAh Note: Due to the I.S. circuitry on the KNB-LS7M, the cells may lose charge during storage. To prevent loss of capacity during storage, charge the battery for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K, KSC-326K, KSC-326AK or KSC-526K. [Intrinsically Safe Option1]	366.00
KBP-8M2	AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included. Note: The color of the case is International Orange.	143.20
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	155.20
KSC-32	Rapid rate single unit charger	97.30
KSC-326AK	Rapid rate 6-unit charger CEC Compliant	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PBW	Charging pocket for KSC-526K compatible with NX-5000 series, NX-205/305 and NX-210	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	193.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only.	366.00

BATTERY READER **LIST**

KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/N4/LS5/LS7 & KSC-Y32 (Windows® Vista/7/8/8.1/10) Note: Requires KPT-300LMC for authentication	91.80
KAS-12PRO	Add Battery Management with Database Requires KAS-12K base license for upgrade Note: Requires KPT-300LMC for authentication	378.00

CARRYING ACCESSORIES **LIST**

KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	26.80
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	44.80
KLH-200K3	Heavy duty leather carrying case for NX-5000 series with KNB-L1/L2/L3/LS5CU (for both keypad models)	53.80
KLH-201K3	Nylon carrying case for NX-5000-series with KNB-L1/L2/L3/LS5CU (for both keypad models)	32.00

SPECIAL COLOR HOUSING **LIST**

KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order L-5024 for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	48.80
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MICROPHONES & AUDIO ACCESSORIES **LIST**

**IP grades for microphones and audio accessories are decided by each item.*

KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with Active Noise Reduction Note: IP68 is available only when used with NX-5000 series portable [Intrinsically Safe Option]	158.30
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic [Intrinsically Safe Option]	121.70
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]	450.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics [Intrinsically Safe Option]	67.70
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]	67.70
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]	278.80
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]	202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	177.70
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	542.80
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	475.30

ENCRYPTION & OPTION MODULES **LIST**

KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-5003 if installation is required. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood. If you order only a Module and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.) KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is a U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1). Note: Required for Link Layer Authentication [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	1034.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-5004 if installation is required. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood. If you order only a Module and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.) Note: 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) Note: Required for Link Layer Authentication [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	670.20
KCT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features [Intrinsically Safe Option]	103.70
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	590.20
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	396.80

	<h1 style="margin: 0;">NX-5400</h1> <h2 style="margin: 0;">700/800MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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SERVICE RELATED ACCESSORIES		LIST
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8/8.1/10) Note: Requires KPT-300LMC for authentication	167.30
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 <ul style="list-style-type: none"> • For NX-5000 series radios. • KWD-ASK-MK (Master Key): For trunked system operator (SYSOP). Required for activating KWD-ASK-AK Access keys. Securely embeds/encrypts the HSID. • KWD-ASK-AK (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK Master Key. • KPG-D1NK supports up to 16 KWD-ASK-AK Access Keys (16 trunked networks). 		
2. Software Key Type: System Key File (SKF)- See L-5005 <ul style="list-style-type: none"> • For NX-5000 series radios. • 3-digit HEX System ID (HSID) with verifiable written authorization required from SYSOP. • Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be permitted from SYSOP to order and use SKF. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools. • The *.SKF securely embeds/encrypts the HSID. 		
KPG-36XM	Full Speed USB Programming interface cable Note: This cable with USB mode may be used for SD Card Direct Access.	193.00
KPG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	340.20
KPG-93AUT	KVL-4000 Radio Authentication Cable Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	426.80
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming Notes: Enables P25 Trunked system programming privileges in a KPG-D1NK. • For NX-5000 series only • Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key • Must have KPG-D1NK • 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.	254.50
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - Restricted Purchase Requirements - Notes: • For NX-5000 series only. • Sold to trunked system operator (SYSOP) or SYSOP authorized entities only • Must have KPG-D1NK • SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Purchase KWD-ASK-AK Access Keys if needed	607.70
OPTIONAL CABLE FOR FOREST/FIRE SERVICES FEATURE SET (FSFS) OPTION		
KPG-CLN-14P	Portable-to-Portable Cloning Cable (14P:14P), 1m	274.30
INSTALLATION / TUNING CHARGES		LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50
L-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)	81.00
L-5004	Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)	81.00

	<h1 style="margin: 0;">NX-5400</h1> <h2 style="margin: 0;">700/800MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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L-5005	KPG-D1NK System Key File (SKF) Note: Enables P25 Trunked system programming privileges in a KPG-D1NK. - Restricted Purchase Requirements - <ul style="list-style-type: none"> • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Must have KPG-D1NK. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools. • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file. • 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file. 	142.20
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable	28.80
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe Must order KNB-LS5CU or KNB-LS7M I.S. battery	36.00
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES	54.00
L-5077	FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Must purchase per Radio <ul style="list-style-type: none"> • This feature set is provided by custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation. 	64.80
L-5078	FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Purchase per application - <u>provided as Custom FW for unlimited radios</u> To PLACE AN ORDER, submit "Kenwood LMR Customization Application" form along with your PO to Land Mobile Order Desk via email (LMRorderdesk@us.jvckenwood.com) or fax (310-761-8246). <ul style="list-style-type: none"> • This feature set is provided as custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support Mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation. 	1512.00

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--

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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to KWD-AE30 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-AE30K modules to erroneous destinations specified on an order.



NX-3200/3300

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VHF/UHF Digital & FM Analog Portable Radios

STANDARD



Basic Standard Key Full Key

All NX-3000 series portables include:

- Belt Clip (KBH-11)
- Accessory Cover
- Channel Stopper
- 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), all warranty service must be done by National Kenwood Authorized Service Centers. IP67 Certification is valid under the 3 year premium warranty. No re-certification is available.

Because of spurious signal (birdie), the following frequencies (and ±7.5kHz ranges) are not allowed ;

- 139.2000 • 403.2000 • 460.8000
- 144.0000 • 408.0000 • 465.6000
- 148.8000 • 412.8000 • 470.4000
- 153.6000 • 417.6000 • 475.2000
- 158.4000 • 422.4000 • 480.0000
- 160.0000 • 427.2000 • 484.8000
- 163.2000 • 432.0000 • 489.6000
- 168.0000 • 436.8000 • 494.4000
- 172.8000 • 441.6000 • 499.2000
- 446.4000 • 504.0000
- 451.2000 • 508.8000
- 456.0000 • 513.6000
- 518.4000

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-520 MHz) Models
- 512 CH-GID / 128 Zones
- 64 CH-GID / 4 Zones (For Basic Models)
- Basic Models (w/o LCD and keypad)
- Standard Keypad Models (w/ LCD and D-pad/4key)
- Full Keypad Models (w/ LCD and D-pad/12 key)
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide)
- 5-Line Text Message Frame (3 Lines of Text, icon & key guide)
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color Light Bar Indicator
- Transmit/Busy/Call Alert/Warn LED
- Remote Stun/Kill/Check
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 4-way Directional-pad (For Standard/Full Keypad)
- Emergency Key
- 2 Side PF Keys
- 1W Speaker Audio
- Dual Digital Protocol¹
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows® FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55² Water & Dust Intrusion
- IP67² Immersion
- Digital Encode/Decode Format

DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking Option
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

DIGITAL – DMR MODE

- DMR Tier 2 Conventional
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

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

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single FM digital protocol is selected with programming software.
 2. Must equip **Accessory Cover** included with a Radio. Speaker Microphone does not cover IPs.

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth® Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**KWD-3501TR**)
- DMR Tier 2 Conventional (**Factory Installed**)
- DMR Tier 3 Trunking (**KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control Command by Subscriber Units (**KWD-3504RC**)

Approved by CSA-us International Inc. for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B

RADIO		LIST
NX-3200K	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model	720.00
NX-3200K2	VHF (136-174MHz), 5.0 Watts, 512 CH, Standard Key Model	781.30
NX-3200K3	VHF (136-174MHz), 5.0 Watts, 512 CH, Full Key Model	841.20
NX-3300K	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model	720.00
NX-3300K2	UHF (400-520MHz), 5.0 Watts, 512 CH, Standard Key Model	781.30
NX-3300K3	UHF (400-520MHz), 5.0 Watts, 512 CH, Full Key Model	841.20

	NX-3200/3300	Table of Contents
VHF/UHF Digital & FM Analog Portable Radios		

Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)	LIST
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NX-3200K2-XLKVP	VHF Extra-Cap Li-Ion Value Pack : NX-3200K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-26M	1,020.30
NX-3300K2-XLKVP	UHF Extra-Cap Li-Ion Value Pack : NX-3300K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-27M	1,020.30

Li-ion VALUE PACKAGES (Preferred for Conventional Mode Usage)	LIST
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NX-3200K2LAKVP	VHF Hi-Cap Li-Ion Value Pack : NX-3200K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-26M	981.40
NX-3300K2LAKVP	UHF Hi-Cap Li-Ion Value Pack : NX-3300K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-27M	981.40
NX-3200K2SLAKVP	VHF Li-Ion Value Pack : NX-3200K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M	937.10
NX-3300K2SLAKVP	UHF Li-Ion Value Pack : NX-3300K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M	937.10

CSA US APPROVED MODELS	LIST
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Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio		
NX-3200-ISCK	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model	720.00
NX-3200-ISCK2	VHF (136-174MHz), 5.0 Watts, 512 CH, Standard Key Model	781.30
NX-3200-ISCK3	VHF (136-174MHz), 5.0 Watts, 512 CH, Full Key Model	841.20
NX-3300-ISCK	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model	720.00
NX-3300-ISCK2	UHF (400-520MHz), 5.0 Watts, 512 CH, Standard Key Model	781.30
NX-3300-ISCK3	UHF (400-520MHz), 5.0 Watts, 512 CH, Full Key Model	841.20

Note: KNB-68LC is NOT compatible for NX-3000 Intrinsically Safe usage.

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature license

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
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KWD-3000CH	License Key for 1000 Channel Expansion	172.80
KWD-3001FP	License Key for Front Panel Programming	135.00
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-3302TR	License Key for DMR Tier 3 Trunking	108.00
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C and Type-C Gen2)	45.00
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption	43.20
KWD-3503AE	License Key for AES/DES Encryption Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.	486.00
KWD-3504RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	43.20
KWD-3505DE	License Key for DES Encryption Note: Requires KPG-AE1/DE1 software key loader to load encryption keys	108.00

ANTENNAS	LIST
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KRA-22M	VHF Low-profile helical antenna 148-162 MHz	20.00
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KRA-22M2	VHF Low -profile helical antenna 162-174 MHz	20.00
ANTENNAS CON'T		LIST
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	20.00
KRA-23M	UHF Low-profile helical antenna 450-490 MHz	20.00
KRA-23M2	UHF Low-profile helical antenna 470-520 MHz	20.00
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz	20.00
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	41.80
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	51.20
BATTERIES AND CHARGERS		LIST
KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation	160.20
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation	121.30
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only	77.00
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only	97.30
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only [Intrinsically Safe Option]	197.00
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	65.70
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC/78LM/79LCM Li-ion Battery	58.80
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC/78LM/79LCM	75.70
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	226.80
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	346.70
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/68LC/78LM/79LCM	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PCW	Charging pocket for KSC-526K compatible with NX-3000 series	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25SK chargers (chargers not included) *KSC-25LSK is not compatible with KVC-4.	142.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/NX-3x00/x00/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NIMH packs only.	366.00
CARRYING ACCESSORIES		LIST
KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-206K	Heavy-Duty Leather Case w/Swivel Belt Loop for Basic Model	59.50
KLH-206K2	Heavy-Duty Leather Case w/Swivel Belt Loop for Standard Keypad Model	59.50
KLH-206K3	Heavy-Duty Leather Case w/Swivel Belt Loop for Full Keypad Model	59.50
KLH-207K	Nylon carrying case for Basic Model	32.00

NEXEDGE[®] DMR	NX-3200/3300	Table of Contents
VHF/UHF Digital & FM Analog Portable Radios		

KLH-207K2	Nylon carrying case for Standard Keypad Model	32.00
KLH-207K3	Nylon carrying case for Full Keypad Model	32.00

	<h1 style="margin: 0;">NX-3200/3300</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	<p>Table of Contents</p>
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SPECIAL COLOR HOUSING	LIST
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KWD-YH-3000U	High Visibility Green Housing Kit for NX-3x00 series Standard Key Portables Must order L-5068 for Factory Install. Eligible for warranty of IP67 immersion only when factory installed with L-5068. Note: If you order only housing and perform Dealer Installation, IP67 Warranty Claim will not be eligible. Note: Coloring of housing changed to High Visibility Green after Nov 2021 production. Original yellow is no longer available.	48.80
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MICROPHONES & AUDIO ACCESSORIES	LIST
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***IP grades for microphones and audio accessories are decided by each item.**

KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]	450.00
KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with Active Noise Reduction Note: IP68 is available only when used with NX-5000 series portable [Intrinsically Safe Option]	158.30
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic [Intrinsically Safe Option]	121.70
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics [Intrinsically Safe Option]	67.70
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]	202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: Not compatible with TDMA operations [Intrinsically Safe Option]	257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: Not compatible with TDMA operations [Intrinsically Safe Option]	177.70
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	542.80
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	475.30

OPTION MODULES	LIST
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KCT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed.	103.70
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SERVICE RELATED ACCESSORIES	LIST
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KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile Note: Requires KPT-300LMC for authentication	167.30
KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-36XM	Full Speed USB Programming interface cable	193.00

INSTALLATION / TUNING CHARGES	LIST
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L-836	Assemble KMB-16 with six KSC-25/25L	16.20
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	18.00
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5052	NX-3000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50
L-5054	Installation AES/DES for NX-3000 Portable/Mobile	27.00
L-5062	Configure NX-3000 series for CSA US Intrinsically Safe Note: NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.	36.00
L-5068	Assemble Color Housing KWD-YH-3000U/P with NX-3000 series Portable	28.80



NX-3200/3300

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VHF/UHF Digital & FM Analog Portable Radios

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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.

NEXEDGE
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NX-3400

800/900MHz Digital & FM Analog Portable Radio



All NX-3000 series portables include:

- Belt Clip (KBH-11)
- Antenna (KRA-38K)
- Accessory Cover
- Channel Stopper
- User Guide
- Premium Warranty: 3 Years*

All Accessories / options: 1 Year

Purchase Battery and Charger 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), all warranty service must be done by National Kenwood Authorized Service Centers. IP67 Certification is valid under the 3 year premium warranty. No re-certification is available.

Because of spurious signal (birdie), the following frequencies (and ±6.25kHz ranges) are not allowed :

- 854.4000 • 936.0000
- 859.2000 • 940.8000
- 864.0000
- 868.8000

STANDARD

■ GENERAL FEATURES

- 3 W (806-941 MHz) Model
- 512 CH-GID / 128 Zones
- Full Keypad Model (w/ LCD and D-pad/12 key) & key guide)
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide)
- 5-Line Text Message Frame (3 Lines of Text, icon & key guide)
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color Light Bar Indicator
- Transmit/Busy/Call Alert/Warn LED
- Remote Stun/Kill/Check
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 4-way Directional-pad (For Standard/Full Keypad)
- Emergency Key
- 2 Side PF Keys
- 1W Speaker Audio
- Dual Digital Protocol¹
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows® FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES . Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55² Water & Dust Intrusion
- IP67² Immersion
- Digital Encode/Decode Format

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single FM digital protocol is selected with programming software.

2. Must equip **Accessory Cover** included with a Radio. Speaker Microphone does not cover IPs.

■ DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® 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
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

■ 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

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth® Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**Factory Installed**)
- DMR Tier 2 Conventional (**KWD-3301CV**)
- DMR Tier 3 Trunking (**KWD-3301CV & KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control Command by Subscriber Units (**KWD-3504RC**)

Approved by CSA-us International Inc. for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-incendive use in Class I, Div. 2, Groups A, B hazardous locations.

RADIO	LIST
NX-3400K3 800/900MHz, 3.0 Watts, 512 CH, Full Key Model, NXDN Conv & Trunking	1034.00
Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)	LIST
NX-3400K3-XLKVP Extra-Cap Li-Ion Value Pack : NX-3400K3+KNB-78L(2860mAh)+KSC-25LSK	1253.00

	<h1 style="margin: 0;">NX-3400</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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CSA US APPROVED MODELS	LIST
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Must Order L-5062 & KNB-79LCM Intrinsicly Safe Battery per radio

NX-3400-ISCK3	800/900MHz, 3.0 Watts, 512 CH, Full Key Model, NXDN Conv & Trunking	1034.00
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Note: KNB-68LC is NOT compatible for NX-3000 Intrinsicly Safe usage.

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- FPU & Software Applications: Software License Key Request Form
- Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-3000CH License Key for 1000 Channel Expansion	172.80
KWD-3001FP License Key for Front Panel Programming	135.00
KWD-3002BT License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-3301CV License Key for DMR Tier 2 Conventional	45.00
KWD-3302TR License Key for DMR Tier 3 Trunking (Requires KWD-3301CV)	108.00
KWD-3502EE License Key for DMR ARC4 Enhanced Encryption	43.20
KWD-3503AE License Key for AES/DES Encryption Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.	486.00
KWD-3504RC License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	43.20
KWD-3505DE License Key for DES Encryption Note: Requires KPG-AE1/DE1 software key loader to load encryption keys	108.00

ANTENNAS	LIST
KRA-32K 700/800 MHz Whip Antenna	42.50
KRA-36 700/800 MHz Stubby Antenna	30.50
KRA-38K 800/900 MHz Whip Antenna	42.50
KRA-39 900 MHz Stubby Antenna	30.50

BATTERIES AND CHARGERS	LIST
KNB-78LM 2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation	160.20
KNB-57LAM 2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation	121.30
KNB-55LAM 1480 mAh, Li-ion battery, IP67, battery only	77.00
KNB-56N 1400 mAh, Ni-MH battery, IP67, battery only	97.30
KNB-79LCM CSA US Intrinsicly Safe Battery Li-ion 2860mAh, IP67, battery only [Intrinsicly Safe Option]	197.00
KBP-5 AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	65.70
KSC-25LSK 100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC/78LM/79LCM Li-ion Battery	58.80
KSC-25SK 110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC/78LM/79LCM	75.70

NEXEDGE DMR	<h1 style="margin: 0;">NX-3400</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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BATTERIES AND CHARGERS CON'T	LIST
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KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	226.80
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	346.70
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/68LC/78LM/79LCM	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PCW	Charging pocket for KSC-526K compatible with NX-3000 series	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25SK chargers (chargers not included) *KSC-25LSK is not compatible with KVC-4.	142.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/NX-3x00/x00/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only.	366.00

CARRYING ACCESSORIES	LIST
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KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-206K3	Heavy-Duty Leather Case w/Swivel Belt Loop for Full Keypad Model	59.50
KLH-207K3	Nylon carrying case for Full Keypad Model	32.00

MICROPHONES & AUDIO ACCESSORIES	LIST
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***IP grades for microphones and audio accessories are decided by each item.**

KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included).	450.00
KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with Active Noise Reduction Note: IP68 is available only when used with NX-5000 series portable [Intrinsically Safe Option]	158.30
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic [Intrinsically Safe Option]	121.70
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics [Intrinsically Safe Option]	67.70
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]	202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: Not compatible with TDMA operations [Intrinsically Safe Option]	257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: Not compatible with TDMA operations [Intrinsically Safe Option]	177.70
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	542.80
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT [Intrinsically Safe Option]	475.30

OPTION MODULES	LIST
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KCT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed.	103.70
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SERVICE RELATED ACCESSORIES	LIST
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KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile Note: Requires KPT-300LMC for authentication	167.30
KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-36XM	Full Speed USB Programming interface cable	193.00

	<h1 style="margin: 0;">NX-3400</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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INSTALLATION / TUNING CHARGES	LIST
L-836 Assemble KMB-16 with six KSC-25/25L	16.20
L-961 Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	18.00
L-5001 Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5052 NX-3000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50
L-5054 Installation AES/DES for NX-3000 Portable/Mobile	27.00
L-5062 Configure NX-3000 series for CSA US Intrinsically Safe Note: NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.	36.00

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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.

NEXEDGE[®]
DMR
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NX-3220/3320

VHF/UHF Digital & FM Analog Portable Radios

STANDARD



Basic Standard Key Full Key

All NX-3000 series portables include:

- Belt Clip (KBH-11)
- 2-PIN Accessory Cover
- Channel Stopper
- 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 2-pin connector cap must be installed.
2. To maintain immersion specs (IP67), all warranty service must be done by National Kenwood Authorized Service Centers. IP67 Certification is valid under the 3 year premium warranty. No re-certification is available.

Because of spurious signal (birdie), the following frequencies (and ±7.5kHz ranges) are not allowed ;

• 139.2000	• 403.2000	• 460.8000
• 144.0000	• 408.0000	• 465.6000
• 148.8000	• 412.8000	• 470.4000
• 153.6000	• 417.6000	• 475.2000
• 158.4000	• 422.4000	• 480.0000
• 160.0000	• 427.2000	• 484.8000
• 163.2000	• 432.0000	• 489.6000
• 168.0000	• 436.8000	• 494.4000
• 172.8000	• 441.6000	• 499.2000
	• 446.4000	• 504.0000
	• 451.2000	• 508.8000
	• 456.0000	• 513.6000
		• 518.4000

■ GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-520 MHz) Models
- 260 CH-GID / 128 Zones
- 64 CH-GID / 4 Zones (For Basic Models)
- Basic Models (w/o LCD and keypad)
- Standard Keypad Models (w/ LCD and D-pad/4key)
- Full Keypad Models (w/ LCD and D-pad/12 key)
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide)
- 5-Line Text Message Frame (3 Lines of Text, icon & key guide)
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color Light Bar Indicator
- Transmit/Busy/Call Alert/Warn LED
- Remote Stun/Kill/Check
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 4-way Directional-pad (For Standard/Full Keypad)
- Emergency Key
- 2 Side PF Keys
- 1W Speaker Audio
- Dual Digital Protocol¹
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth[®] 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows[®] FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55² Water & Dust Intrusion
- IP67² Immersion
- Color Housing Option

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single FM digital protocol is selected with programming software.
 2. Must equip **Accessory Cover** included with a Radio. Speaker Microphone does not cover IPs.

■ DIGITAL – NXDN[®] MODE

- NXDN[®] Conventional
- NXDN[®] TYPE-C (Gen1/Gen2) Trunking Option
- AMBE+2[™] VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN[®] Scrambler

■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2[™] VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

■ 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

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth[®] Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**KWD-3501TR**)
- DMR Tier 2 Conventional (**Factory Installed**)
- DMR Tier 3 Trunking (**KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control Command by Subscriber Units (**KWD-3504RC**)

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

	<h1 style="margin: 0;">NX-3220/3320</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	Table of Contents
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RADIO		LIST
NX-3220K	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model	572.80
NX-3220K2	VHF (136-174MHz), 5.0 Watts, 260CH, Standard Key Model	674.20
NX-3220K3	VHF (136-174MHz), 5.0 Watts, 260CH, Full Key Model	733.80
NX-3320K	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model	572.80
NX-3320K2	UHF (400-520MHz), 5.0 Watts, 260CH, Standard Key Model	674.20
NX-3320K3	UHF (400-520MHz), 5.0 Watts, 260CH, Full Key Model	733.80

RADIO TRUNKING PACKAGE		LIST
NX-3220K-TR	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model with NXDN Trunking	601.20
NX-3220K2-TR	VHF (136-174MHz), 5.0 Watts, 260CH, Standard Key Model with NXDN Trunking	702.50
NX-3220K3-TR	VHF (136-174MHz), 5.0 Watts, 260CH, Full Key Model with NXDN Trunking	762.20
NX-3320K-TR	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model with NXDN Trunking	601.20
NX-3320K2-TR	UHF (400-520MHz), 5.0 Watts, 260CH, Standard Key Model with NXDN Trunking	702.50
NX-3320K3-TR	UHF (400-520MHz), 5.0 Watts, 260CH, Full Key Model with NXDN Trunking	762.20

Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)		LIST
NX-3220K2-XLKVP	VHF Extra-Cap Li-Ion Value Pack : NX-3220K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-26M	913.20
NX-3320K2-XLKVP	UHF Extra-Cap Li-Ion Value Pack : NX-3320K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-27M	913.20

Li-ion VALUE PACKAGES (Preferred for Conventional Mode Usage)		LIST
NX-3220K2LAKVP	VHF Hi-Cap Li-Ion Value Pack : NX-3220K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-26M	874.30
NX-3320K2LAKVP	UHF Hi-Cap Li-Ion Value Pack : NX-3320K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-27M	874.30
NX-3220KSLAKVP	VHF Li-Ion Value Pack : NX-3220K+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M	728.60
NX-3220K2SLAKVP	VHF Li-Ion Value Pack : NX-3220K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M	830.00
NX-3220K3SLAKVP	VHF Li-Ion Value Pack : NX-3220K3+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M	889.60
NX-3320KSLAKVP	UHF Li-Ion Value Pack : NX-3320K+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M	728.60
NX-3320K2SLAKVP	UHF Li-Ion Value Pack : NX-3320K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M	830.00
NX-3320K3SLAKVP	UHF Li-Ion Value Pack : NX-3320K3+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M	889.60

CSA US APPROVED MODELS		LIST
Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio		
NX-3220-ISCK	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model	572.80
NX-3220-ISCK2	VHF (136-174MHz), 5.0 Watts, 512 CH, Standard Key Model	674.20
NX-3220-ISCK3	VHF (136-174MHz), 5.0 Watts, 512 CH, Full Key Model	733.80
NX-3320-ISCK	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model	572.80
NX-3320-ISCK2	UHF (400-520MHz), 5.0 Watts, 512 CH, Standard Key Model	674.20
NX-3320-ISCK3	UHF (400-520MHz), 5.0 Watts, 512 CH, Full Key Model	733.80

Note: KNB-68LC is NOT compatible for NX-3000 Intrinsically Safe usage.

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

	<h1 style="margin: 0;">NX-3220/3320</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	<p>Table of Contents</p>
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Radio Features		LIST
KWD-3000CH	License Key for 1000 Channel Expansion	172.80
KWD-3001FP	License Key for Front Panel Programming	135.00
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-3302TR	License Key for DMR Tier 3 Trunking	108.00
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C and Type-C Gen2)	45.00
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption	43.20
KWD-3503AE	License Key for AES/DES Encryption Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.	486.00
KWD-3504RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	43.20
KWD-3505DE	License Key for DES Encryption Note: Requires KPG-AE1/DE1 software key loader to load encryption keys	108.00

ANTENNAS		LIST
KRA-22M	VHF Low-profile helical antenna 148-162 MHz	20.00
KRA-22M2	VHF Low -profile helical antenna 162-174 MHz	20.00
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	20.00
KRA-23M	UHF Low-profile helical antenna 450-490 MHz	20.00
KRA-23M2	UHF Low-profile helical antenna 470-520 MHz	20.00
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz	20.00
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	41.80
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	51.20

BATTERIES AND CHARGERS		LIST
KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation	160.20
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation	121.30
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only	77.00
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only	97.30
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only [Intrinsically Safe Option]	197.00
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	65.70
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/57LAM/68LC/78LM/79LCM Li-ion Battery	58.80

	<h1 style="margin: 0;">NX-3220/3320</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	Table of Contents
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KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/57LAM/68LC/78LM/79LCM	75.70
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	226.80
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	346.70
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/57LAM/68LC/78LM/79LCM	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PCW	Charging pocket for KSC-526K compatible with NX-3000 series	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
BATTERIES AND CHARGERS, CON'T		LIST
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25SK chargers (chargers not included) *KSC-25LSK is not compatible with KVC-4.	142.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/NX-3x00/x00/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only.	366.00

CARRYING ACCESSORIES		LIST
KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-206K	Heavy-Duty Leather Case w/Swivel Belt Loop for Basic Model	59.50
KLH-206K2	Heavy-Duty Leather Case w/Swivel Belt Loop for Standard Keypad Model	59.50
KLH-206K3	Heavy-Duty Leather Case w/Swivel Belt Loop for Full Keypad Model	59.50
KLH-207K	Nylon carrying case for Basic Model	32.00
KLH-207K2	Nylon carrying case for Standard Keypad Model	32.00
KLH-207K3	Nylon carrying case for Full Keypad Model	32.00

SPECIAL COLOR HOUSING		LIST
KWD-YH-3000P	High Visibility Green Housing Kit for NX-3x20 series Standard Key Portables Must order L-5068 for Factory Install. Eligible for warranty of IP67 immersion only when factory installed with L-5068. Note: If you order only housing and perform Dealer Installation, IP67 Warranty Claim will not be eligible. Note: Coloring of housing changed to High Visibility Green after Nov 2021 production. Original yellow is no longer available.	48.80

MICROPHONES & AUDIO ACCESSORIES		LIST
*IP grades for microphones and audio accessories are decided by each item.		
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operation. [Intrinsically Safe Option]	104.80
KMC-21A	Compact speaker microphone [Intrinsically Safe Option]	62.70
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Option]	67.70
KHS-7	Single muff headset w/boom mic [Intrinsically Safe Option]	103.70
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. [Intrinsically Safe Option]	135.20
KHS-8BL	Two-Wire palm mic w/earphone (black) [Intrinsically Safe Option]	133.30
KHS-9BL	Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	475.30

	<h1 style="margin: 0;">NX-3220/3320</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Portable Radios</h2>	Table of Contents
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KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) [Intrinsically Safe Option]	69.00
KHS-26	Clip Mic w/earphone	36.30
KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80
SERVICE RELATED ACCESSORIES		LIST
KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile <i>Note: Requires KPT-300LMC for authentication</i>	167.30
KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-22UM	USB Programming interface cable	193.00
INSTALLATION / TUNING CHARGES		LIST
L-836	Assemble KMB-16 with six KSC-25/25L	16.20
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	18.00
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	129.70
L-5052	NX-3000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50
L-5054	Installation AES/DES for NX-3000 Portable/Mobile	27.00
L-5062	Configure NX-3000 series for CSA US Intrinsically Safe Note: NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.	36.00
L-5068	Assemble Color Housing KWD-YH-3000U/P with NX-3000 series Portable	28.80

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. **DO NOT SHIP** encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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.

NEXEDGE
DMR

NX-3420

800/900MHz Digital & FM Analog Portable Radio

Table of Contents



All NX-3420 portables include:

- Belt Clip (KBH-11)
- Antenna (KRA-38K)
- 2-PIN Accessory Cover
- Channel Stopper
- User Guide
- Premium Warranty: 3 Years*

All Accessories / options: 1 Year

Purchase Battery and Charger separately

Note:

1. To meet IP grades and MIL, the 2-pin connector cap must be installed.
2. To maintain immersion specs (IP67), all warranty service must be done by National Kenwood Authorized Service Centers. IP67 Certification is valid under the 3 year premium warranty. No re-certification is available.

Because of spurious signal (birdie), the following frequencies (and ±6.25kHz ranges) are not allowed :

- 854.4000 • 936.0000
- 859.2000 • 940.8000
- 864.0000
- 868.8000

STANDARD

GENERAL FEATURES

- 3 W (806-941 MHz) Model
- 260 CH-GID / 128 Zones
- Full Keypad Model (w/ LCD and D-pad/12 key)
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide)
- 5-Line Text Message Frame (3 Lines of Text, icon & key guide)
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color Light Bar Indicator
- Transmit/Busy/Call Alert/Warn LED
- Remote Stun/Kill/Check
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 4-way Directional-pad (For Standard/Full Keypad)
- Emergency Key
- 2 Side PF Keys
- 1W Speaker Audio
- Dual Digital Protocol¹
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows® FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES . Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55² Water & Dust Intrusion
- IP67² Immersion
- Digital Encode/Decode Format

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single FM digital protocol is selected with programming software.
 2. Must equip **Accessory Cover** included with a Radio. Speaker Microphone does not cover IPs.

DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® 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
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

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

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth® Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**Factory Installed**)
- DMR Tier 2 Conventional (**KWD-3301CV**)
- DMR Tier 3 Trunking (**KWD-3301CV & KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control Command by Subscriber Units (**KWD-3504RC**)

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

RADIO	LIST
NX-3420K3 800/900MHz, 3.0 Watts, 260 CH, Full Key Model, NXDN Conv & Trunking	801.30
Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)	LIST
NX-3420K3-XLKVP Extra-Cap Li-Ion Value Pack : NX-3420K3+KNB-78L(2860mAh)+KSC-25LSK	1020.30

NEXEDGE[®] DMR	<h1 style="margin: 0;">NX-3420</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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CSA US APPROVED MODELS	LIST
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Must Order L-5062 & KNB-79LCM Intrinsicly Safe Battery per radio

NX-3420-ISCK3	800/900MHz, 3.0 Watts, 260 CH, Full Key Model, NXDN Conv & Trunking	801.30
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Note: KNB-68LC is NOT compatible for NX-3000 Intrinsicly Safe usage.

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- FPU & Software Applications: Software License Key Request Form
- Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-3000CH	License Key for 1000 Channel Expansion 172.80
KWD-3001FP	License Key for Front Panel Programming 135.00
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) 37.80 Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.
KWD-3301CV	License Key for DMR Tier 2 Conventional 45.00
KWD-3302TR	License Key for DMR Tier 3 Trunking (Requires KWD-3301CV) 108.00
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption 43.20
KWD-3503AE	License Key for AES/DES Encryption 486.00 Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.
KWD-3504RC	License Key for Remote Control by Subscriber Unit 43.20 Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.
KWD-3505DE	License Key for DES Encryption 108.00 Note: Requires KPG-AE1/DE1 software key loader to load encryption keys

ANTENNAS	LIST
KRA-32K	700/800 MHz Whip Antenna 42.50
KRA-36	700/800 MHz Stubby Antenna 30.50
KRA-38K	800/900 MHz Whip Antenna 42.50
KRA-39	900 MHz Stubby Antenna 30.50

BATTERIES AND CHARGERS	LIST
KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation 160.20
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation 121.30
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only 77.00
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only 97.30
KNB-79LCM	CSA US Intrinsicly Safe Battery Li-ion 2860mAh, IP67, battery only 197.00 [Intrinsicly Safe Option]
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included 65.70

NEXEDGE[®] DMR	NX-3420 800/900MHz Digital & FM Analog Portable Radio	Table of Contents
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BATTERIES AND CHARGERS, CON'T		LIST
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/57LAM/68LC/78LM/79LCM Li-ion Battery	58.80
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/57LAM/68LC/78LM/79LCM	75.70
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	226.80
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	346.70
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/57LAM/68LC/78LM/79LCM	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PCW	Charging pocket for KSC-526K compatible with NX-3000 series	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25SK chargers (chargers not included) *KSC-25LSK is not compatible with KVC-4.	142.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/NX-3x00/x00/x10/x20, TK- x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only.	366.00
CARRYING ACCESSORIES		LIST
KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-206K3	Heavy-Duty Leather Case w/Swivel Belt Loop for Full Keypad Model	59.50
KLH-207K3	Nylon carrying case for Full Keypad Model	32.00
MICROPHONES & AUDIO ACCESSORIES		LIST
*IP grades for microphones and audio accessories are decided by each item.		
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operation. [Intrinsically Safe Option]	104.80
KMC-21A	Compact speaker microphone [Intrinsically Safe Option]	62.70
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Option]	67.70
KHS-7	Single muff headset w/boom mic [Intrinsically Safe Option]	103.70
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. [Intrinsically Safe Option]	135.20
KHS-8BL	Two-Wire palm mic w/earphone (black) [Intrinsically Safe Option]	133.30
KHS-9BL	Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	475.30
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) [Intrinsically Safe Option]	69.00
KHS-26	Clip Mic w/earphone	36.30
KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80

	<h1 style="margin: 0;">NX-3420</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Portable Radio</h2>	Table of Contents
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SERVICE RELATED ACCESSORIES	LIST
KPG-D3NK License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile <i>Note: Requires KPT-300LMC for authentication</i>	167.30
KPG-AE1K License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	590.20
KPG-DE1K License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-22UM USB Programming interface cable	193.00
INSTALLATION / TUNING CHARGES	LIST
L-836 Assemble KMB-16 with six KSC-25/25L	16.20
L-961 Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	18.00
L-5001 Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5052 NX-3000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50
L-5054 Installation AES/DES for NX-3000 Portable/Mobile	27.00
L-5062 Configure NX-3000 series for CSA US Intrinsically Safe Note: NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.	36.00

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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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All NX-1000 series portables include:

- Li-Ion Battery (KNB-45L)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Note:

1. To meet IP grades and MIL, the 2-pin connector cap or accessory must be installed.

STANDARD

■ GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- 5 W (450-520 MHz) Models
- NXDN & Analog Mode
- Optional DMR Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- 64 CH-GID / 4 Zones (For Basic Models)
- Basic Models
- Standard Keypad Models w/ LCD
- 13-seg, 8-character LCD
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
 - Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
- Lone Worker
- Max/Min Volume Setting
- Voice Announcement
- Front Panel Programming Mode
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion
- Intrinsically Safe Option

■ DIGITAL – NXDN® MODE

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

■ DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Over-the-Air Alias
- Late Entry
- ARC4 Encryption Option

■ ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Uninhibit, Radio Check, Emergency
- QT / DQT, Two-Tone, DTMF
- Built-in Voice Inversion Scrambler
- Built-in Compander

OPTIONAL FEATURES

- NXDN Type-D Trunking License (**KWD-1202TDK**)
- DMR Conversion License (**KWD-1301CN**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.

Please download latest firmware from MyTools website > Product > Firmware

Approved for Class I, Div. 1, Group D and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations.

RADIO		LIST
NX-1200NVK	VHF (136-174MHz), 5W, 64 CH, Basic Model, NXDN/Analog	375.80
NX-1200NVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog	469.30
NX-1300NUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, NXDN/Analog	375.80
NX-1300NUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog	469.30
NX-1300NUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, NXDN/Analog	375.80
NX-1300NUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog	469.30

CSA US APPROVED MODELS	LIST
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All in one package with Radio, Antenna, Battery (KNB-82LCM Intrinsically Safe Battery) and Charger

NX-1200-ISCNVK	VHF (136-174MHz), 5W, 64 CH, Basic Model, NXDN/Analog Note: Can be used in Class I Gas Environment only	557.30
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NX-1200-ISCNVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog Note: Can be used in Class I Gas Environment only	650.70
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CSA US APPROVED MODELS, CON'T **LIST**

NX-1300-ISCNUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, NXDN/Analog Note: Can be used in Class I Gas Environment only	557.30
NX-1300-ISCNUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog Note: Can be used in Class I Gas Environment only	650.70
NX-1300-ISCNUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, NXDN/Analog Note: Can be used in Class I Gas Environment only	557.30
NX-1300-ISCNUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog Note: Can be used in Class I Gas Environment only	650.70

ANTENNAS **LIST**

KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-22M	VHF low profile antenna 148-162 MHz	20.00
KRA-22M2	VHF low profile antenna 162-174 MHz	20.00
KRA-22M3	VHF low profile antenna 136-150 MHz	20.00
KRA-23M	UHF low profile antenna 450-490 MHz	20.00
KRA-23M2	UHF low profile antenna 470-520 MHz	20.00
KRA-23M3	UHF low profile antenna 403-430 MHz	20.00

BATTERIES AND CHARGERS **LIST**

KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-82LCM	CSA US Intrinsically Safe Battery Li-ion 1900mAh, battery only [Intrinsically Safe Option]	140.00
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	38.30
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	44.70
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70

CARRYING ACCESSORIES **LIST**

KBH-10	Spring action belt clip	10.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187	Nylon case for NX-1200/1300 srs	17.80

NEXEDGE[®]	NX-1200NV/1300NU VHF/UHF NXDN & FM Analog Portable Radios	Table of Contents
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MICROPHONES & AUDIO ACCESSORIES	LIST
KMC-45D MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operaiton. [Intrinsically Safe Option]	104.80
KMC-21A Compact speaker microphone [Intrinsically Safe Option]	62.70
KEP-2 2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Option]	67.70
KHS-7 Single muff headset w/boom mic [Intrinsically Safe Option]	103.70
KHS-7A Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. [Intrinsically Safe Option]	135.20
KHS-8BL Two-Wire palm mic w/earphone (black) [Intrinsically Safe Option]	133.30
KHS-9BL Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	475.30
KHS-10D-OH Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) [Intrinsically Safe Option]	69.00
KHS-26 Clip Mic w/earphone [Intrinsically Safe Option]	36.30
KHS-27A D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C C-Ring Ear Hanger w/PTT & Mic	38.80

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- [FPU & Software Applications](#): Software License Key Request Form
 - [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-1202TDK License Key for NXDN Type-D Trunking	10.80
KWD-1301CN License Key for DMR Conventional Conversion	45.00
KWD-1500EE License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES	LIST
KPG-D6NK License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM USB Programming interface cable	193.00
E30-3410-05 2 pin Clone Cable	97.30

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Contact Kenwood Parts for price and availability for listed parts

D32-0456-03	Channel stopper for NX-1000 series Basic(No Display) model	-
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INSTALLATION / TUNING CHARGES		LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
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L-5075	NX-1000 Series Portables Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50
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NX-1000 series full keypad portables include:

- Li-ion Battery (KNB-84LA)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Note:

1. To meet IP grades and MIL, radio must be installed with the KNB-84LA and the 2-pin connector cap.

STANDARD

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- 5 W (450-520 MHz) Models
- NXDN & Analog Mode
- Optional DMR Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- Full Keypad Models w/ LCD
- 13-seg, 8-character LCD
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
 - Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
 - Lone Worker
 - Max/Min Volume Setting
 - Voice Announcement
 - Front Panel Programming Mode
 - Manual Dialing
- (Analog DTMF, Digital Status Messaging and Individual Calling)
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IEC 60529 - IP54/55/67 Water & Dust Intrusion

DIGITAL – NXDN® MODE

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Over-the-Air Alias
- Late Entry
- ARC4 Encryption Option

ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Unihabit, Radio Check, Emergency
- QT / DQT, Two-Tone, DTMF
- Built-in Voice Inversion Scrambler
- Built-in Componder

OPTIONAL FEATURES

- NXDN Type-D Trunking License (**KWD-1202TDK**)
- DMR Conversion License (**KWD-1301CN**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.
 Please download latest firmware from MyTools website > Product > Firmware

RADIO		LIST
NX-1200NVK3	VHF (136-174MHz), 5W, 260 CH, LCD & Full Keypad, NXDN/Analog	556.70
NX-1300NUK3	UHF (450-520MHz), 5W, 260 CH, LCD & Full Keypad, NXDN/Analog	556.70
NX-1300NUK6	UHF (400-470MHz), 5W, 260 CH, LCD & Full Keypad, NXDN/Analog	556.70
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00

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ANTENNAS, CON'T		LIST
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-22M	VHF low profile antenna 148-162 MHz	20.00
KRA-22M2	VHF low profile antenna 162-174 MHz	20.00
KRA-22M3	VHF low profile antenna 136-150 MHz	20.00
KRA-23M	UHF low profile antenna 450-490 MHz	20.00
KRA-23M2	UHF low profile antenna 470-520 MHz	20.00
KRA-23M3	UHF low profile antenna 403-430 MHz	20.00
BATTERIES AND CHARGERS		LIST
KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-84LA	1900 mAh, Li-ion battery (IEC 60529 - IP67) - requires KSC-35K/SK charger	89.50
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L/84LA	38.30
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L/84LA	44.70
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70
CARRYING ACCESSORIES		LIST
KBH-10	Spring action belt clip	10.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187	Nylon case for NX-1200/1300 srs (non-DTMF)	17.80
MICROPHONES & AUDIO ACCESSORIES		LIST
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operaiton.	104.80
KMC-21A	Compact speaker microphone	62.70
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	67.70
KHS-7	Single muff headset w/boom mic	103.70
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	135.20
KHS-8BL	Two-Wire palm mic w/earphone (black)	133.30
KHS-9BL	Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	475.30
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	69.00
KHS-26	Clip Mic w/earphone	36.30
KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80

NEXEDGE[®]

NX-1200NV/1300NU (K3/K6)

VHF/UHF NXDN & FM Analog Portable Radios

Table of Contents

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- FPU & Software Applications: Software License Key Request Form
- Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features		LIST
KWD-1202TDK	License Key for NXDN Type-D Trunking	10.80
KWD-1301CN	License Key for DMR Conventional Conversion	45.00
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES

SERVICE RELATED ACCESSORIES		LIST
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM	USB Programming interface cable	193.00
E30-3410-05	2 pin Clone Cable	97.30

Contact Kenwood Parts for price and availability for listed parts

D32-0456-03	Channel stopper for NX-1000 series Basic(No Display) model	-
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INSTALLATION / TUNING CHARGES

INSTALLATION / TUNING CHARGES		LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	129.70
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50

DMR

NX-1200DV/1300DU

VHF/UHF DMR & FM Analog Portable Radios

Table of Contents



All NX-1000 series portables include:

- Li-ion Battery (KNB-45L)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Note:
 1. To meet IP grades and MIL, the 2-pin connector cap or accessory must be installed.

STANDARD

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- 5 W (450-520 MHz) Models
- DMR & Analog Mode
- Optional NXDN Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- 64 CH-GID / 4 Zones (For Basic Models)
- Basic Models
- Standard Keypad Models (w/ LCD
- 13-seg, 8-character LCD
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
 - Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
- Lone Worker
- Max/Min Volume Setting
- Voice Announcement
- Front Panel Programming Mode
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion
- Intrinsically Safe Option

DIGITAL – DMR MODE

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Over-the-Air Alias
- Late Entry
- ARC4 Encryption Option

DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Unihabit, Radio Check, Emergency
- QT / DQT
- Two-Tone

OPTIONAL FEATURES

- NXDN Conversion License ([KWD-1201CD](#))
- NXDN Type-D Trunking License ([KWD-1202TDK](#)) *Requires KWD-1201CD enabled
- DMR ARC4 Enhanced Encryption ([KWD-1500EE](#))
- Remote Control Command by Subscriber Units ([KWD-1501RC](#))

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.
 Please download latest firmware from MyTools website > Product > Firmware

Approved for Class I, Div. 1, Group D and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations.

RADIO		LIST
NX-1200DVK	VHF (136-174MHz), 5W, 64 CH, Basic Model, DMR/Analog	375.80
NX-1200DVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog	469.30
NX-1300DUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, DMR/Analog	375.80
NX-1300DUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog	469.30
NX-1300DUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, DMR/Analog	375.80
NX-1300DUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog	469.30
CSA US APPROVED MODELS		LIST
All in one package with Radio, Antenna, Battery (KNB-82LCM Intrinsically Safe Battery) and Charger		
NX-1200-ISCDVK	VHF (136-174MHz), 5W, 64 CH, Basic Model, DMR/Analog Note: Can be used in Class I Gas Environment only	557.30

	NX-1200DV/1300DU VHF/UHF DMR & FM Analog Portable Radios	Table of Contents
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NX-1200-ISCDVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog Note: Can be used in Class I Gas Environment only	650.70
NX-1300-ISCDUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, DMR/Analog Note: Can be used in Class I Gas Environment only	557.30
NX-1300-ISCDUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog Note: Can be used in Class I Gas Environment only	650.70
NX-1300-ISCDUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, DMR/Analog Note: Can be used in Class I Gas Environment only	557.30
NX-1300-ISCDUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog Note: Can be used in Class I Gas Environment only	650.70

ANTENNAS	LIST
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KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-22M	VHF low profile antenna 148-162 MHz	20.00
KRA-22M2	VHF low profile antenna 162-174 MHz	20.00
KRA-22M3	VHF low profile antenna 136-150 MHz	20.00
KRA-23M	UHF low profile antenna 450-490 MHz	20.00
KRA-23M2	UHF low profile antenna 470-520 MHz	20.00
KRA-23M3	UHF low profile antenna 403-430 MHz	20.00

BATTERIES AND CHARGERS	LIST
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KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-82LCM	CSA US Intrinsically Safe Battery Li-ion 1900mAh, battery only [Intrinsically Safe Option]	140.00
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	38.30
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	44.70
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70

CARRYING ACCESSORIES	LIST
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KBH-10	Spring action belt clip	10.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187	Nylon case for NX-1200/1300 srs	17.80

DMR	NX-1200DV/1300DU	Table of Contents
VHF/UHF DMR & FM Analog Portable Radios		

MICROPHONES & AUDIO ACCESSORIES	LIST
KMC-45D MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operaiton. [Intrinsically Safe Option]	104.80
KMC-21A Compact speaker microphone [Intrinsically Safe Option]	62.70
KEP-2 2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Option]	67.70
KHS-7 Single muff headset w/boom mic [Intrinsically Safe Option]	103.70
KHS-7A Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. [Intrinsically Safe Option]	135.20
KHS-8BL Two-Wire palm mic w/earphone (black) [Intrinsically Safe Option]	133.30
KHS-9BL Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	475.30
KHS-10D-OH Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) [Intrinsically Safe Option]	69.00
KHS-26 Clip Mic w/earphone [Intrinsically Safe Option]	36.30
KHS-27A D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C C-Ring Ear Hanger w/PTT & Mic	38.80

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-1201CD License Key for NXDN Conventional Conversion	45.00
KWD-1202TDK License Key for NXDN Type-D Trunking Note: Requires KWD-1201CD (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	10.80
KWD-1500EE License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00



NX-1200DV/1300DU

VHF/UHF DMR & FM Analog Portable Radios

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SERVICE RELATED ACCESSORIES		LIST
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM	USB Programming interface cable	193.00
E30-3410-05	2 pin Clone Cable	97.30
<i>Contact Kenwood Parts for price and availability for listed parts</i>		
D32-0456-03	Channel stopper for NX-1000 series Basic(No Display) model	-
INSTALLATION / TUNING CHARGES		LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	129.70
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50



NX-1200DV/1300DU (K3/K6)

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VHF/UHF DMR & FM Analog Portable Radios



NX-1000 series full keypad portables include:

- Li-ion Battery (KNB-84LA)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Note:

1. To meet IP grades and MIL, radio must be installed with the KNB-84LA and the 2-pin connector cap.

STANDARD

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- 5 W (450-520 MHz) Models
- DMR & Analog Mode
- Optional NXDN Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- Full Keypad Models w/ LCD
- 13-seg, 8-character LCD
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
 - Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
- Lone Worker
- Max/Min Volume Setting
- Voice Announcement
- Front Panel Programming Mode
- Manual Dialing (Analog DTMF, Digital Status Messaging and Individual Calling)
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IEC 60529 - IP54/55/67 Water & Dust Intrusion

DIGITAL – DMR MODE

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Over-the-Air Alias
- Late Entry
- ARC4 Encryption Option

DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Unihabit, Radio Check, Emergency
- QT / DQT
- Two-Tone
- DTMF
- Built-in Voice Inversion Scrambler (per channel)

OPTIONAL FEATURES

- NXDN Conversion License ([KWD-1201CD](#))
- NXDN Type-D Trunking License ([KWD-1202TDK](#)) *Requires KWD-1201CD enabled
- DMR ARC4 Enhanced Encryption ([KWD-1500EE](#))
- Remote Control Command by Subscriber Units ([KWD-1501RC](#))

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.
 Please download latest firmware from MyTools website > Product > Firmware

RADIO		LIST
NX-1200DVK3	VHF (136-174MHz), 5W, 260 CH, Full Keypad Model, DMR/Analog	556.70
NX-1300DUK3	UHF (450-520MHz), 5W, 260 CH, Full Keypad Model, DMR/Analog	556.70
NX-1300DUK6	UHF (400-470MHz), 5W, 260 CH, Full Keypad Model, DMR/Analog	556.70
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00

	<h1 style="margin: 0;">NX-1200DV/1300DU (K3/K6)</h1> <h2 style="margin: 0;">VHF/UHF DMR & FM Analog Portable Radios</h2>	Table of Contents
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ANTENNAS, CON'T	LIST
KRA-41M VHF stubby antenna 148-162 MHz	16.70
KRA-41M2 VHF stubby antenna 162-174 MHz	16.70
KRA-41M3 VHF stubby antenna 136-150 MHz	16.70
KRA-42M UHF stubby antenna 440-490 MHz	16.70
KRA-42M2 UHF stubby antenna 470-520 MHz	16.70
KRA-42M3 UHF stubby antenna 403-430 MHz	16.70
KRA-22M VHF low profile antenna 148-162 MHz	20.00
KRA-22M2 VHF low profile antenna 162-174 MHz	20.00
KRA-22M3 VHF low profile antenna 136-150 MHz	20.00
KRA-23M UHF low profile antenna 450-490 MHz	20.00
KRA-23M2 UHF low profile antenna 470-520 MHz	20.00
KRA-23M3 UHF low profile antenna 403-430 MHz	20.00
BATTERIES AND CHARGERS	LIST
KNB-45L 2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L 2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-84LA 1900 mAh, Li-ion battery (IEC 60529 - IP67) - requires KSC-35K/SK charger	89.50
KNB-29N 1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK 110~220 volt Fast rate single unit charger for KNB-45L/69L	38.30
KSC-43K 110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	44.70
KMB-28AK Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50
KVC-22 110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70
CARRYING ACCESSORIES	LIST
KBH-10 Spring action belt clip	10.00
KBH-8DS Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187 Nylon case for NX-1200/1300 srs (non-DTMF)	17.80
MICROPHONES & AUDIO ACCESSORIES	LIST
KMC-45D MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) Note: KMC-45 (Non D version) is not compatible with DMR (TDMA) operaiton.	104.80
KMC-21A Compact speaker microphone	62.70
KEP-2 2.5mm earphone kit for KMC-17/45 Speaker Mic	67.70
KHS-7 Single muff headset w/boom mic	103.70
KHS-7A Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	135.20
KHS-8BL Two-Wire palm mic w/earphone (black)	133.30
KHS-9BL Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	475.30
KHS-10D-OH Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Option]	483.50
KHS-22A Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	69.00
KHS-26 Clip Mic w/earphone	36.30

DMR	NX-1200DV/1300DU (K3/K6) VHF/UHF DMR & FM Analog Portable Radios	Table of Contents
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KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

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- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-1201CD	45.00
License Key for NXDN Conventional Conversion	
KWD-1202TDK	10.80
License Key for NXDN Type-D Trunking Note: Requires KWD-1201CD (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	
KWD-1500EE	36.00
License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	
KWD-1501RC	36.00
License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	

SERVICE RELATED ACCESSORIES	LIST
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KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM	USB Programming interface cable	193.00
E30-3410-05	2 pin Clone Cable	97.30

<i>Contact Kenwood Parts for price and availability for listed parts</i>		
D32-0456-03	Channel stopper for NX-1000 series Basic(No Display) model	-

INSTALLATION / TUNING CHARGES	LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50

NEXEDGE®

NX-205G/305G

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VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)



All NX-G series portables include:

- Belt Clip (KBH-11)
- Universal Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Purchase Battery, Charger, Antenna separately.

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470, 450-520 MHz) Models
- 512 CH-GID / 128 Zones
- 12-Key Keypad Models
- 14 Character Alphanumeric Aliases
- Backlit Dot Matrix LCD
- Function/Status LCD Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 6 Front PF & Menu Keys
- 2 Side PF Keys
- 500 mW Speaker Audio
- Emergency Call Features
- Built-in GPS Unit
(KRA-43G/44G is required for GPS operation)
- KPG-111D Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input1
- Transparent Data Mode

DIGITAL – GENERAL

- NXDN® Digital Air Interface
- 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 with Voice
- NXDN® Scrambler Included
- AES & DES Encryption Module Option
- AES/DES Software Key Loader Option

DIGITAL – CONVENTIONAL MODE

- 64 Radio Access Numbers (RAN)
- Individual & Group Selective Call
- Mixed FM/Digital Operation
- Conventional IP Networks
- Site Roaming

DIGITAL – TRUNKING MODE

- Individual Private Call
- Group Call & Broadcast Call
- Telephone Interconnect
- Transmission Trunked Mode
- Message Trunked Mode
- Call Queuing with Priority
- Late Entry (UID & GID)
- 4 Priority Monitor ID's
- Remote Group Add
- System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS

- NEXEDGE Generation1 System
- 48site Trunked IP Network
- Auto Roaming Registration
- Group Registration

NEXEDGE Generation1 System Bridge

- 8 Trunked Networks per radio (each in a zone)
- UID Lists for each network

NEXEDGE Generation2 System (option)

- 1,152 sites Wide Area System
- Direct Frequency Assignment
- Advanced GPS
- Multi-System Roaming

SCAN

- Single Zone / Multi-Zone / List Scan
- Dual Priority Scan (Conventional)

ANALOG MODE – GENERAL

- 25 & 12.5 kHz Channels
- Conventional & LTR® Zones
- FleetSync®/II, MDC-1200, DTMF
- QT / DQT & Two-Tone (Conventional Zones Only)
- Voice Inversion Scrambler
- Analog Scrambler Board Capability

MPT ZONES (option)

- Single-Site Trunking
- Multi-Site Network Trunking
- 8 Network Capacity
- Network Roaming / Registration

FleetSync®/II (FM)

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency Status / Text Messages

RADIO		LIST
NX-205GK	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	831.20
NX-205GK2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	893.00
NX-305GK	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	831.20
NX-305GK2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	831.20
NX-305GK3	450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	893.00
NX-305GK4	400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	893.00
ANTENNAS		LIST
KRA-43GM	VHF helical antenna 146-162 MHz (w/GPS)	21.00
KRA-43GM2	VHF helical antenna 162-174 MHz (w/GPS)	21.00
KRA-43GM3	VHF helical antenna 136-150 MHz (w/GPS)	21.00
KRA-44GM	UHF helical antenna 440-490 MHz (w/GPS)	21.00
KRA-44GM2	UHF helical antenna 470-520 MHz (w/GPS)	21.00
KRA-44GM3	UHF helical antenna 400-450 MHz (w/GPS)	21.00

NEXEDGE

NX-205G/305G

Table of Contents

VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)

KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	20.00
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	20.00
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	20.00
KRA-23M	UHF low-profile helical antenna 450-490 MHz	20.00
KRA-23M2	UHF low-profile helical antenna 470-520 MHz	20.00
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	20.00
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	41.80
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	51.20
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz	44.80
BATTERIES AND CHARGERS		LIST
KNB-47LAM	1950 mAh, Li-ion battery - requires KSC-32/326K/326AK charger	131.20
KNB-48LAM	2550 mAh, Li-ion battery - requires KSC-32/326K/326AK charger	153.00
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC Note: Includes 110/220V auto-switching AC adapter with U.S.-style line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).	97.30
KSC-326AK	Rapid rate 6-unit charger CEC Compliant	888.80
KSC-526K	Rapid rate 6-unit charger CEC Compliant Note: Requires charging pocket KSC-52PBW and/or KSC-52PCW	823.80
KSC-52PBW	Charging pocket for KSC-526K compatible with NX-5000 series, NX-205/305 and NX-210	10.80
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK	72.80
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	346.70
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	193.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x05/x10/x20, TK-x180, TK-x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	366.00
CARRYING ACCESSORIES		LIST
KBH-11	Spring action belt clip (2.5")	17.80
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back for KLH-148 leather case	26.80
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B/92/122/123/133/148/154)	44.80
KLH-148K	Heavy duty leather case for TK-5x20, NX-x00/x05 (Non DTMF keypad models)	53.80
KLH-148K2	Heavy duty leather case for TK-5x20, NX-x00/x05 (DTMF keypad models)	53.80
KLH-149K	Nylon carrying case for TK-5x20, NX-x00/x05 (Non DTMF keypad models)	32.00
KLH-149K2	Nylon carrying case for TK-5x20, NX-x00/x05 (DTMF keypad models)	32.00
SPECIAL COLOR HOUSING		LIST
KWD-YH20-NX	Yellow Housing Kit for NX-x00/x05 portables (6 Control Keys Version Only) Order L-1714 for Factory Install. (required for IP67 radio orders)	48.80
KWD-OH20-NX	Orange Housing Kit for NX-x00/x05 portables (6 Control Keys Version Only) Order L-1739 for Factory Install. (required for IP67 radio orders)	48.80
MICROPHONES & AUDIO ACCESSORIES		LIST
KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included).	450.00
KMC-72W	MIL-SPEC, IP54/55/67* Noise-cancelling Speaker Mic Note: Radio does not have an IP67 Immersion spec; meets MIL STD810 rain standards.	121.70
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics	67.70
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	278.80

NEXEDGE

NX-205G/305G

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VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)

KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	202.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	257.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	177.70

NEXEDGE

NX-205G/305G

Table of Contents

VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)

KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	542.80
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	475.30
SOFTWARE & USB OPTIONS		LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	396.80
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*05/*10/*11/*20 Portables & Mobiles Must order L-1812 for factory installation, or L-1813 for field-upgrade option	18.00
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*05/*10/*11/*20 series without ESN . KWD-LIC-USB stores KWD-NX2G-10 options which are purchased separately and includes KPG-97USB software for activating radios. Note: - Must order L-1819. - Must purchase KWD-NX2G-10 separately. - KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order. - KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders. - KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options. - The licenses (KWD-NX2G-10) installed to the KWD-LIC-USB is NOT eligible for warranty compensaton.	NC
OPTION MODULES		LIST
KCT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed.	103.70
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) Order L-1093 for NXDN®/FleetSync® operations	26.80
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1828 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). Note: GPS Board must be removed to install this option.	1,034.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1829 if installation is required. Note: 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) Note: GPS Board must be removed to install this option.	670.20
SERVICE RELATED ACCESSORIES		LIST
KPG-111DNK	Windows® Programming Software for NX-*00/*05/*10/*11 Series (Compliant with FCC Part 90 Narrowbanding)	111.70
KPG-36XM	USB Programming interface cable	193.00
MPT FIRMWARE/ACCESSORIES/TUNING		LIST
KPG-143DNK	Windows® Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Note: - Must order L-1727 for Network Level License ID & programming privileges.	111.70
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio Must order L-1729 Note: Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.	72.00
L-1726	Install MPT option in NX series radio	27.00
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	171.00

NEXEDGE Table of Contents
NX-205G/305G
VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)

L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attn: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Note: see NX series MPT Introduction Sales Bulletin for details.	91.80
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC
L-1730	Install KCT-57MS (for MPT Emergency Call)	21.70
INSTALLATION / TUNING CHARGES		LIST
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	18.00
L-1084	NX-x00(S)/x05 Programming (with basic TX/RX check)	40.50
L-1093	NX-x00(S)/x05 Portable KCT-57MS Installation (for NXDN® / FleetSync®)	21.70
L-1100	Multi-Channel Encoder Modification	27.00
L-1714	Assemble Yellow Housing KWD-YH20-NX with NX-x00/x05 portables (6 Control Keys Version Only)	28.80
L-1739	Assemble Orange Housing KWD-OH20-NX with NX-x00/x05 portables (6 Control Keys Version Only)	28.80
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)	27.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	0.00
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	135.00
L-1828	Install KWD-AE30K in NX-x00/x05 series Portable (Must purchase module separately)	81.00
L-1829	Install KWD-AE31K in NX-x00/x05 series Portable (Must purchase module separately)	81.00

-- 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 for more information regarding export regulations. **DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.**

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood 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.

KWD-AE30 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 JVCKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated JVCKENWOOD 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-AE30K modules to erroneous destinations specified on an order.

NX-1200AV/1300AU

VHF/UHF Digital Upgradeable Portable Radios

Table of Contents



All NX-1000 series portables include:

- Li-Ion Battery (KNB-45L)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Note:

1. To meet IP grades and MIL, the 2-pin connector cap or accessory must be installed.

STANDARD

GENERAL FEATURES

- 5 W (136-174 MHz) Models
- 5 W (400-470 MHz) Models
- 5 W (450-520 MHz) Models
- Analog Mode
- Optional NXDN Upgrade
- Optional DMR Upgrade
- AMBE+2™ VOCODER for optional digital modes
- 260 CH-GID / 128 Zones
- 64 CH-GID / 4 Zones (For Basic Models)
- Basic Models
- Standard Keypad Models w/ LCD
- 13-seg, 8-character LCD
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
- Lone Worker
- Max/Min Volume Setting
- Voice Announcement
- Front Panel Programming Mode
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion

ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Uninhibit, Radio Check, Emergency
- QT / DQT
- Two-Tone
- DTMF
- Built-in Voice Inversion Scrambler (per channel)
- Built-in Comander (per channel)

DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call

OPTIONAL FEATURES

- NXDN Conventional Upgrade License (**KWD-1200CAK**)
- NXDN Type-D Trunking License (**KWD-1202TDK**) *Requires KWD-1200CAK enabled
- DMR Tier 2 Conventional Upgrade License (**KWD-1300CAK**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.
 Please download latest firmware from MyTools website > Product > Firmware

RADIO		LIST
NX-1200AVK	VHF (136-174MHz), 5W, 64 CH, Basic, Analog	346.00
NX-1200AVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, Analog	429.50
NX-1300AUK	UHF (450-520MHz), 5W, 64 CH, Basic, Analog	346.00
NX-1300AUK2	UHF (450-520 MHz), 5W, 260 CH, LCD & Standard Keypad, Analog	429.50
NX-1300AUK4	UHF (400-470MHz), 5W, 64 CH, Basic, Analog	346.00
NX-1300AUK5	UHF (400-470 MHz), 5W, 260 CH, LCD & Standard Keypad, Analog	429.50
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00

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KRA-27M3	UHF whip antenna 400-450 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70
KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-42M3	UHF stubby antenna 403-430 MHz	16.70
KRA-22M	VHF low profile antenna 148-162 MHz	20.00
KRA-22M2	VHF low profile antenna 162-174 MHz	20.00
KRA-22M3	VHF low profile antenna 136-150 MHz	20.00
KRA-23M	UHF low profile antenna 450-490 MHz	20.00
KRA-23M2	UHF low profile antenna 470-520 MHz	20.00
KRA-23M3	UHF low profile antenna 403-430 MHz	20.00
BATTERIES AND CHARGERS		LIST
KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	38.30
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	44.70
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70
CARRYING ACCESSORIES		LIST
KBH-10	Spring action belt clip	10.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187	Nylon case for NX-1200/1300 srs	17.80
MICROPHONES & AUDIO ACCESSORIES		LIST
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	104.80
KMC-21A	Compact speaker microphone	62.70
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	67.70
KHS-7	Single muff headset w/boom mic	103.70
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	135.20
KHS-8BL	Two-Wire palm mic w/earphone (black)	133.30
KHS-9BL	Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	475.30
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	483.50
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	69.00
KHS-26	Clip Mic w/earphone	36.30
KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80

NX-1200AV/1300AU

VHF/UHF Digital Upgradeable Portable Radios

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SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- FPU & Software Applications: Software License Key Request Form
 - Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features		LIST
KWD-1200CAK	License Key for NXDN Conventional Upgrade	45.00
KWD-1202TDK	License Key for NXDN Type-D Trunking Note: Requires KWD-1200CAK (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	10.80
KWD-1300CAK	License Key for DMR Tier2 Conventional Upgrade	45.00
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES		LIST
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM	USB Programming interface cable	193.00
E30-3410-05	2 pin Clone Cable	97.30

Contact Kenwood Parts for price and availability for listed parts

D32-0456-03	Channel stopper for NX-1000 series Basic(No Display) model	-
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INSTALLATION / TUNING CHARGES		LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services.	40.50

NX-1202AV/1302AU

VHF/UHF Digital Upgradeable Portable Radios

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All NX-1000 series portables include:

- Li-ion Battery (KNB-45L)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

STANDARD

■ GENERAL FEATURES

- 2 W (136-174 MHz) Models
- 2 W (450-520 MHz) Models
- Analog Mode
- Optional NXDN Upgrade
- Optional DMR Upgrade
- AMBE+2™ VOCODER for optional digital modes
- 64 CH-GID / 4 Zones
- Basic Models
- 7-color LED Indicator
- KENWOOD Audio Quality
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Noise Suppressor
 - Microphone type selection
- Multiple Scan Functions
 - Dual Priority, Single, Zone, Multi, Scan
- On/Off Volume Knob
- 16-Position Mechanical Selector
- 2 Side PF Keys
- 1W Speaker Audio
- VOX
- Emergency Call Features
 - Lone Worker
 - Max/Min Volume Setting
 - Voice Announcement
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55 Water & Dust Intrusion

■ ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Unihabit, Radio Check, Emergency
- QT / DQT
- Two-Tone
- DTMF
- Built-in Voice Inversion Scrambler (per channel)
- Built-in Comander (per channel)

■ DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- NXDN® ESN Validation (for Type-D System)
- Late Entry

■ DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call

OPTIONAL FEATURES

Note:

1. To meet IP grades and MIL, the 2-pin connector cap or accessory must be installed.

- NXDN Conventional Upgrade License (**KWD-1200CAK**)
- NXDN Type-D Trunking License (**KWD-1202TDK**) *Requires KWD-1200CAK enabled
- DMR Tier 2 Conventional Upgrade License (**KWD-1300CAK**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license.

RADIO		LIST
NX-1202AVK	VHF (136-174MHz), 2W, 64 CH, Basic Model, Analog	312.20
NX-1302AUK	UHF (450-520MHz), 2W, 64 CH, Basic Model, Analog	312.20
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	20.00
KRA-26M2	VHF helical antenna 162-174 MHz	20.00
KRA-26M3	VHF helical antenna 136-150 MHz	20.00
KRA-27M	UHF whip antenna 440-490 MHz	20.00
KRA-27M2	UHF whip antenna 470-520 MHz	20.00
KRA-41M	VHF stubby antenna 148-162 MHz	16.70
KRA-41M2	VHF stubby antenna 162-174 MHz	16.70
KRA-41M3	VHF stubby antenna 136-150 MHz	16.70
KRA-42M	UHF stubby antenna 440-490 MHz	16.70

<h1 style="margin: 0;">NX-1202AV/1302AU</h1> <h2 style="margin: 0;">VHF/UHF Digital Upgradeable Portable Radios</h2>	Table of Contents	tents
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KRA-42M2	UHF stubby antenna 470-520 MHz	16.70
KRA-22M	VHF low profile antenna 148-162 MHz	20.00
KRA-22M2	VHF low profile antenna 162-174 MHz	20.00
KRA-22M3	VHF low profile antenna 136-150 MHz	20.00
KRA-23M	UHF low profile antenna 450-490 MHz	20.00
KRA-23M2	UHF low profile antenna 470-520 MHz	20.00

BATTERIES AND CHARGERS	LIST
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KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	79.20
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	95.50
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	44.80
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	38.30
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	44.70
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) Note: A supplied in-line AC-DC switching power supply with six DC plugs supply installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	254.50

KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)	44.70
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CARRYING ACCESSORIES	LIST
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KBH-10	Spring action belt clip	10.00
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	32.00
KLH-187	Nylon case for NX-1200/1300 srs	17.80

MICROPHONES & AUDIO ACCESSORIES	LIST
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KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	104.80
KMC-21A	Compact speaker microphone	62.70
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	67.70
KHS-7	Single muff headset w/boom mic	103.70
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	135.20
KHS-8BL	Two-Wire palm mic w/earphone (black)	133.30
KHS-9BL	Three-Wire lapel mic w/earphone (black) Note: Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.	215.50
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	475.30
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	483.50
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	69.00
KHS-26	Clip Mic w/earphone	36.30
KHS-27A	D-Ring Ear Hanger w/PTT & Mic	31.80
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	38.80

<h1 style="margin: 0;">NX-1202AV/1302AU</h1> <h2 style="margin: 0;">VHF/UHF Digital Upgradeable Portable Radios</h2>	Table of Contents
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SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- [FPU & Software Applications](#): Software License Key Request Form
 - [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-1200CAK License Key for NXDN Conventional Upgrade	45.00
KWD-1202TDK License Key for NXDN Type-D Trunking Note: Requires KWD-1200CAK (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	10.80
KWD-1300CAK License Key for DMR Tier2 Conventional Upgrade	45.00
KWD-1500EE License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES	LIST
KPG-D6NK License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70
KPG-22UM USB Programming interface cable	193.00
E30-3410-05 2 pin Clone Cable	97.30

Contact Kenwood Parts for price and availability for listed parts

D32-0456-03 Channel stopper for NX-1000 series Basic(No Display) model	-
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INSTALLATION / TUNING CHARGES	LIST
L-5001 Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5075 NX-1000 Series Portables Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services.	40.50

ProTalk

PKT-23

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UHF BRS Portable Radios



LT series portable includes:

- Spring action belt clip
- Drop-in charger
- Fixed Antenna
- 1430 mAh Li-ion Battery
- Instruction Manual
- Standard Warranty: 2 Years*

* All Accessories / options: 1 Year

GENERAL FEATURES

- UHF 1.5 Watt or 500 mW Transmit Power
- Extra Durable Polycarbonate Housing
- Small (1.8" W x 0.8" D x 3.3 H) & Lightweight (3.9 oz)
- Li-Ion battery with over 11 Hours Talk Time (5/5/90 duty cycle)
- Over 15 Hours Talk Time (with Battery Save On) 5/5/90 duty cycle
- 4 Channel Operation (factory pre-set)
- 99 User-Programmable Memory Bank Frequencies
- Channel Scan
- Wireless Cloning Mode
- Key Lock/Super Lock
- User Programmable QT (39) and DQT (168) Signaling
- Bell Tone Alert
- Speaker Mute Function
- VOX (Voice-activated transmit) w/5 Sensitivity Levels
- Voice Announcement
- Time Out Timer
- LED Battery Status Indicator
- 2 Function Keys
- 1-PIN Audio Accessory Jack
- Micro USB Port
- Antenna (fixed non-removable)
- Passes IP54 & 11 Rugged Mil-Spec 810 C, D, E, F & G Standards

RADIO		*MAP	LIST
PKT-23K	451-470 MHz UHF 1.5W or 500 mW, 4 Ch. Ultra Compact Portable	178.00	212.80
BATTERIES AND CHARGERS			LIST



KNB-71L



KSC-44K



KSC-44MLK



KMB-44K
Includes 6 Way Multiple AC Adapter

KNB-71L	Li-Ion battery (Same as supplied with PKT-23K)	34.30
KSC-44K	Li-Ion Fast rate charger/AC Power Supply (Same as supplied with PKT-23K)	30.50
KSC-44MLKS	Multi-unit AC Adapter (Connect up to 6 KSC-44K charger cups)	48.80
KMB-44K	Six unit Charger Cup Mount and Multi-AC Adapter (Charging Cups not included)	203.00

CARRYING ACCESSORIES		LIST
KBH-20M	Belt Clip (Same as supplied with PKT-23K & bulk PKT-23BKP)	11.30
MICROPHONES & AUDIO ACCESSORIES		LIST
KHS-33	Clip Mic w/earphone single pin (only compatible with PKT-23)	36.30
KHS-34	C-Ring Ear Hanger w/PTT & Mic single pin (only compatible with PKT-23)	45.30
INSTALLATION / TUNING CHARGES		LIST
L-1773	Change channel to other frequencies or program PKT-23	27.00

-- NOTES --

* Please see Kenwood's ProTalk[®] MAP (Minimum Advertised Price) policy.



NX-5700/5800/5900

VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios

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STANDARD



NX-5000(K-version*) Mobiles include:

- Basic Control Head (KCH-19M)
- 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
 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.*

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 ¹
- 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 Station² (DMR Mode³)
- Cross Band Repeater (Only)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55

DIGITAL – P25 MODE

- P25 Conventional Option
- P25 Phase 1 Trunking Option
- P25 Phase 2 Trunking Option
- Conv/Trunking OTAR Option
- Conventional Voting Scan Option
- Packet Data Option for P25 OTAR & GPS
- Text Data
- Radio Authentication
- Tone Paging

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
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

DIGITAL – DMR MODE

- DMR Tier 2 Conventional Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- 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,

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)
- 256-bit AES Encryption (KWD-AE30K/31K Encryption Module 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)
- P25 ARC4 Encryption (KWD-5107EE)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

DIGITAL – DMR MODE


- DMR Tier 2 Conventional 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 (KRR Kit & KCT-71 or KCT-77 Cable required)
- Dual Remote Control Heads (KCH-19/20R/21R & KRR Kit & KCT-71 or KCT-77 Cables required)
- Multiple RF Decks



	<h1 style="margin: 0;">NX-5700/5800/5900</h1> <p style="margin: 0;">VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios</p>	<p style="margin: 0;">Table of Contents</p>
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RADIO	LIST
NX-5700K VHF (136-174MHz), 50 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	1193.20
NX-5800K UHF (450-520MHz), 45 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	1193.20
NX-5800K2 UHF (380-470MHz), 45 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	1193.20
NX-5900K 700 / 800 MHz, 30/35 Watts NXDN Conventional / 800MHz TYPE-C (Gen1/Gen2) Trunking	1521.20

RF Deck Only	LIST
<i>MUST purchase necessary accessories separately</i>	
NX-5700BK VHF (50W, 136-174 MHz) RF Deck Only	877.00
NX-5800BK UHF (45W, 450-520 MHz) RF Deck Only	877.00
NX-5800BK2 UHF (45W, 380-470 MHz) RF Deck Only	877.00
NX-5900BK 35W, 700/800 MHz RF Deck Only	1205.20

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.
 License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- FPU & Software Applications: Software License Key Request Form
 - Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

General Radio Features	LIST
KWD-5000CH License Key for 4000 Channel Expansion	453.70
KWD-5001FP License Key for Front Panel Programming	324.00
KWD-5002SD License Key for microSD Memory Card Slot Activation	113.30
KWD-5003BT License Key for Bluetooth Data (Required for Data Communication) <small>Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.</small>	37.80
KWD-5004MR License Key for Multiple RF Decks Receiver <small>Note: Required ONLY for the radios with S/N: B5900000 or earlier.</small>	N/C
KWD-5007RC License Key for Remote Control by Subscriber Units <small>Note: - P25 Mode is <u>NOT</u> available. - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does <u>NOT</u> require the license.</small>	43.20

P25 Radio Features	LIST
KWD-5100CV License Key for P25 Conventional	621.00
KWD-5101TR License Key for P25 Phase 1 Trunking (requires KWD-5100CV) <small>Note: Required for Link Layer Authentication</small>	561.70
KWD-5102TR License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	432.00
KWD-5103RK License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	756.00
KWD-5105VT License Key for P25 Conventional Voting Scan	129.70
KWD-5106DT License Key for P25 Trunking OTAR / GPS <small>Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.</small>	194.30
KWD-5107EE License Key for P25 ARC4 Enhanced Encryption	NC

DMR Features	LIST
KWD-5300CV License Key for DMR Tier 2 Conventional	64.80
KWD-5301TR License Key for DMR Tier 3 Trunking (requires KWD-5300CV)	144.00
KWD-5500EE License Key for DMR ARC4 Enhanced Encryption	43.20

Other Accessories, Software, and Services

Refer to NX-5000 series mobile accessory pages



NX-5700H/5800H

VHF/UHF Digital & FM Analog Mobile Radio

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NX-5000HBF Mobiles include:

- High Power Radio
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

STANDARD

■ **GENERAL FEATURES**

- 110 W (136 -174 MHz) Model
- 100 W (380 - 450, 450 - 520 MHz) Model
- 1024 CH-GID / 128 Zones
- Multi-Digital Operation in NXDN/P25
- Support NX-5000 Remote Control Head Options
- Multi-RF Deck Configuration Available (Lowband, VHF, 380-470, 450-520, 7&800)
- Built-in Micro USB A-B Interface
- Horn Alert / Public Address
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1N)
- Optional 256-bit AES Encryption
- 12 Watt Audio Output
- DB-25 & Molex 9-pin Accessory Connector
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G

■ **DIGITAL – P25 MODE**

- P25 Conventional
- P25 Phase 1 Trunking Option
- P25 Phase 2 Trunking Option
- Conv/Trunking OTAR Option
- Packet Data Option for P25 OTAR & GPS
- Conventional Voting Scan Option
- Text Data
- Radio Authentication
- Tone Paging
- ARC4 Encryption Option

■ **DIGITAL – NXDN® MODE**

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking Option
- 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
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

■ **ANALOG MODE**

- Conventional 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)

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](#))
- 256-bit AES Encryption ([KWD-AE30K/31K](#) Encryption Module required)

■ **DIGITAL – P25 MODE**

- Conventional Features ([Factory Installed](#))
- Phase 1 Trunking Features ([KWD-5101TR](#))
- Phase 2 Trunking Features ([KWD-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](#))
- P25 ARC4 Encryption ([KWD-5107EE](#))
- Link Layer Authentication ([KWD-5101TR](#) & KWD-AE3x Encryption Board Required)

■ **DIGITAL – NXDN MODE**

- Conventional Features ([Factory Installed](#))
- Type-C Trunking Features ([KWD-5201TR](#))

■ **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

■ **MOUNTING & REMOTE CONFIGURATIONS**

- (See NX-5000 Accessory page for details)
- [KCH-19](#) Basic Control Head
 - [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)



	<h1 style="margin: 0;">NX-5700H/5800H</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Mobile Radio</h2>	<p style="margin: 0;">Table of Contents</p>
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RF Deck Only	LIST
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<i>MUST purchase necessary accessories separately</i>		
NX-5700HBF	NX-5700HBF (110W, 136-174 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)	2457.70
NX-5800HBF	NX-5800HBF (100W, 450-520 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)	2457.70
NX-5800HBF2	NX-5800HBF2 (100W, 380-470 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)	2457.70

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

General Radio Features	LIST
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KWD-5000CH	License Key for 4000 Channel Expansion	453.70
KWD-5001FP	License Key for Front Panel Programming	324.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	113.30
KWD-5003BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-5007RC	License Key for Remote Control by Subscriber Units Note: - P25 Mode is NOT available. - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does NOT require the license.	43.20

P25 Radio Features	LIST
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KWD-5101TR	License Key for P25 Phase 1 Trunking Note: Required for Link Layer Authentication	561.70
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5101TR)	432.00
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	756.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	129.70
KWD-5106DT	License Key for P25 Trunking OTAR / GPS Note: Conventional (OTAR/GPS) DO NOT require KWD-5106DT.	194.30
KWD-5107EE	License Key for P25 ARC4 Enhanced Encryption	NC

NXDN Radio Features	LIST
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KWD-5201TR	License Key for NXDN Type-C Trunking	75.70
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Other Accessories, Software, and Services	
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Refer to NX-5000 series mobile accessory pages

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NX-5600H
Lowband Digital & FM Analog Mobile Radio



NX-5000HBF Mobiles include:

- High Power Radio
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

STANDARD

■ GENERAL FEATURES

- 110 W (39-50 MHz) Model
- 1024 CH-GID / 128 Zones
- Analog / NXDN Digital Operation
- Support NX-5000 Remote Control Head Options
- Multi-RF Deck Configuration Available (Lowband, VHF, 380-470, 450-520, 7&800)
- Built-in Micro USB A-B Interface
- Horn Alert / Public Address
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1N)
- Optional 256-bit AES Encryption
- 12 Watt Audio Output
- DB-25 & Molex 9-pin Accessory Connector
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55

■ ANALOG MODE

- Conventional 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)

■ DIGITAL – NXDN® MODE

- NXDN® Conventional
- AMBE+2™ VOCODER
- 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
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

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)
- 256-bit AES Encryption (KWD-AE30K/31K Encryption Module required)

■ DIGITAL – NXDN MODE

- Conventional Features (Factory Installed)

■ 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

■ MOUNTING & REMOTE CONFIGURATIONS

(See NX-5000 Accessory page for details)

- KCH-19 Basic Control Head
- 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)



RF Deck Only

LIST

MUST purchase necessary accessories separately

NX-5600HBF3	NX-5600HBF3 (110W, 39-50 MHz) RF Deck Only, Analog & NXDN Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)	2127.70
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	<h1 style="margin: 0;">NX-5600H</h1> <h2 style="margin: 0;">Lowband Digital & FM Analog Mobile Radio</h2>	Table of Contents
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SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

General Radio Features		LIST
KWD-5000CH	License Key for 4000 Channel Expansion	453.70
KWD-5001FP	License Key for Front Panel Programming	324.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	113.30
KWD-5003BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-5007RC	License Key for Remote Control by Subscriber Units Note: - P25 Mode is <u>NOT</u> available. - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does <u>NOT</u> require the license.	43.20

Other Accessories, Software, and Services
Refer to NX-5000 series mobile accessory pages

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MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: Requires KCT-72M to connect to Remote Control Head	73.00
KCT-72M	External Accessory Connection Cable for KCH-19M / KCH-20RM	44.70
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug)	232.30
DC POWER CABLES		LIST
KCT-23M	DC Cable, 35-50W, 10 feet Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	47.70
KCT-23M3	DC Cable, 35-50W, 23 feet Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	65.70
KCT-23M2	DC Cable, 75-110W, 10 feet Note: For high power mobiles (NX-5600HB/5700HB) only.	47.70
KCT-23M4	DC Cable, 75/110W, 23 feet Note: For high power mobiles (NX-5600HB/5700HB) only.	65.70
MOUNTING BRACKETS		LIST
KMB-33M	Mounting Bracket Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	17.20
KMB-36	Mounting Bracket Note: For high power mobiles (NX-5600HB/5700HB) only.	91.70
CONTROL HEADS		LIST
KCH-19M	Basic Control Panel	218.70
KRK-14HM	Control Head Interface Kit for KCH-19M	193.00
KCH-20RM	Full Featured Remote Control Panel Note: - Remote configuration only. No Internal Speaker included. KES-5A is required. - microSD License (KWD-5002SD) and Bluetooth SPP License (KWD-5003BT) are NOT required for both KCH-20RM and connected RF Decks . KCH-20RM and connected RF Decks can be used of microSD and Bluetooth SPP with NO License Activation.	729.70
KCH-21RM	Hand Held Control Head for Long Cable *Requires KCT-77M2 (17 ft.) Note: - Bluetooth SPP License (KWD-5003BT) is NOT required for both KCH-21RM and connected RF Decks. KCH-21RM has built-in Bluetooth SPP license that will also activate the connected RF Decks.	1211.00
KCH-21RM-S	Hand Held Control Head with Short Cable (4 ft.) Note: - Bluetooth SPP License (KWD-5003BT) is NOT required for both KCH-21RM and connected RF Decks. KCH-21RM has built-in Bluetooth SPP license that will also activate the connected RF Decks.	1211.00
CONTROL HEAD REMOTE KIT (for Mid Power Mobiles)		LIST
KRK-15BM	Control Head Remote Kit Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	60.80
REMOTE & MULTI RF DECK CABLES		LIST
KCT-71M2	Remote Control Cable (17 feet)	85.50
KCT-71M3	Remote Control Cable (25 feet)	97.30
KCT-71M4	Remote Control Cable (1.6 feet)	54.70
KCT-71A50	KCT-71A Extended Control Head Cable (up to 50 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	226.80
KCT-71A100	KCT-71A Extended Control Head Cable (up to 100 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	292.30
KCT-77M2	Remote Control Cable for KCH-21RM (17 feet)	222.80

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OTHER ACCESSORIES

KCT-46	Ignition sense cable Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	16.70
KCT-18	Ignition sense cable Note: For high power mobiles (NX-5600HB/5700HB) only.	24.00
KAP-2	Horn Alert/P.A. Relay Option Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	76.70
KCT-72M	External Accessory Connection Cable for KCH-19M / KCH-20RM	44.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	51.20
KMB-10	Key lock adapter Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	32.00
KRA-40GM	GPS Antenna	50.80
KCT-90USB	USB Mobile Cable for SD Card Direct Access Support Note: microSD function requires KWD-5002SD license.	113.30
KCT-91MRS	DB25 Cable for Mobile Relay Station (Conventional Only) Note: - Mobile Relay Station requires Multi RF Deck Configuration. - Built-in GPS and Bluetooth are not available with Mobile Relay Station. - DMR mode is not available	41.80
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
KMB-34	Control Station Mounting Case for KPS-15 Power Supply with mobile Note: For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.	65.70

RADIO FEATURE LICENSE OPTIONS

Refer to model page for available Radio Feature Licenses.
 Radio & Feature compatibility may differ per model.

ENCRIPTION MODULES **LIST**

KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-5007 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). Note: Required for Link Layer Authentication	1034.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-5008 if installation is required. Note: 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) Note: Required for Link Layer Authentication	670.20
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	590.20
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	396.80

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--
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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood 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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NX-5000 Series Mobile Accessories

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KWD-AE30 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-AE30K modules to erroneous destinations specified on an order.



NX-5000 Series Mobile Accessories

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REMOTE & MULTI-RF DECK CONFIGURATIONS

DIY - CONFIGURATION GUIDE

NX-5000 series mobile are capable of following configurations using any frequency/power type combinations

- Dash Mount **Mid power models only*
- Single Band / Single Control Head
- Single Band / Dual Control Head
- Dual Band / Single Control Head
- Dual Band / Dual Control Head
- Triple Band / Single Control Head
- Triple Band / Dual Control Head



This order guide is intended for DIY configuring and assembly of NX-5000 multi-deck configuration.
For Factory Assembly orders, refer to convenient Accessory Kit & Assembly Labor codes.

STEP 1. Select Mobile(s) / Up to 3 mobiles of any combination

- Mid Power Mobiles : NX-5700B, NX-5800B, NX-5900B
- High Power Mobiles : NX-5600HB, NX-5700HB, NX-5800HB

STEP 2. Add power cable and bracket / For each Mobile Deck

- Mid Power Mobiles : KCT-23M(10 ft) or KCT-23M3(23ft), KMB-33M(bracket), and KRK-15BM(Control Head Remote Kit)
- High Power Mobiles : KCT-23M2(10 ft) or KCT-23M4(23ft), and KMB-36(bracket)

STEP 3. Select Control Head(s). Up to two Control Heads.

- KCH-19M Basic Control Head + KRK-14HM Control Head Interface Kit
- KCH-20RM Full Featured Control Head + KCT-72M(Acc Connection Port) + KES-5A (Speaker)

STEP 4. Add Microphone for each Control Head.

- KMC-65M Standard Microphone
- KMC-66M Microphone with 12 keypad
- or from other 8pin audio input accessories

STEP 5. Select Desired Cable Length (Radio to Control Head)

- For KCH-19M/KCH-20RM Control Heads:
17ft.(KCT-71M2, 25ft. (KCT-71M3), 1.6ft.(KCT-71M4), or custom length (KCT-71A50/KCT-71A100)
- For KCH-21RM Control Head:

STEP 6. Add Deck to Deck Connection Cable (ONLY for multi-RF configuration)

- For Dual-band configuration : Requires ONE x KCT-71M4 (1.6ft.)

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CONVENIENT REMOTE & MULTI-RF DECK ACCESSORY KITS		LIST
MID POWER / Remote Kit - Single Head / Single RF Deck		LIST
5ABM	KMC-65M, KCH-19M, KRK-14HM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M	704.30
5AFM	KMC-65M, KCH-20RM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KES-5A, KCT-72M	1140.20
5AHM	KCH-21RM, KRK-15BM, KCT-77M2, KCT-23M3, KMB-33M	1577.50
MID POWER / Remote Kit - Dual Head / Single RF Deck		LIST
5ABBM	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M	1265.00
5AFFM	KMC-65M(x2), KCH-20RM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KES-5A(x2), KCT-72M(x2)	2136.70
MID POWER / Remote Kit - Single Head / Dual RF Deck		LIST
5ABMM	KMC-65M, KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2)	902.70
5AFMM	KMC-65M, KCH-20RM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A, KCT-72M	1338.50
5AHMM	KCH-21RM, KRK-15BM(x2), KCT-77M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2)	1775.80
MID POWER / Remote Kit - Single Head / Dual RF Deck, External Speakers per deck		LIST
5ABMM-MR	KMC-65M, KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)	1202.20
5AFMM-MR	KMC-65M, KCH-20RM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)	1520.30
5AHMM-MR	KCH-21RM, KRK-15BM(x2), KCT-77M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)	2075.30
MID POWER / Remote Kit - Dual Head / Dual RF Deck		LIST
5ABMM	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2)	1463.30
5AFFMM	KMC-65M(x2), KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KCT-72M(x2)	2335.00
MID POWER / Remote Kit - Dual Head / Dual RF Deck, External Speakers per deck		LIST
5ABMM-MR	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)	1763.00
5AFFMM-MR	KMC-65M(x2), KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)	2399.00
HIGH POWER / Single Head Remote Mount Kit		LIST
6ABMIG	KMC-65M, KCH-19M, KRK-14HM, KCT-71M2, KCT-23M4, KCT-18, KMB-36	742.00
6AFMIG	KMC-65M, KCH-20RM, KCT-71M2, KCT-23M4, KCT-72M, KES-5A, KCT-18, KMB-36	1177.70
6AHMIG	KCH-21RM, KCT-77M2, KCT-23M4, KCT-18, KMB-36	1615.20
HIGH POWER / Single Remote Mount / Dual High Power RF Deck		LIST
6AFMMIG	KMC-65M, KCH-20RM, KCT-71M2, KCT-23M4(x2), KCT-72M, KES-5A, KCT-18(x2), KMB-36 (x2), KCT-71M4	1413.70
HIGH POWER / Single Deck Dual Head Remote Mount		LIST
6ABBMIG	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KCT-71M2(x2), KCT-23M4, KCT-18, KMB-36	1302.70
6AFFMIG	KMC-65M(x2), KCH-20RM(x2), KCT-71M2(x2), KCT-23M4, KCT-72M(x2), KES-5A(x2), KCT-18, KMB-36	2174.20

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REMOTE & MULTI-RF DECK ASSEMBLY LABORS	LIST
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Basic assembly and setup service for Remote & Multi-RF Deck configurations.

Note1: MUST submit the Remote Mount Configuration Request Form for multi-band system

Note2: When mixing two accessory kits to configure one multi-band system, you MUST add ONE KCT-71M4 cable to your order.

Ordering Example: Creating Tri-Deck (2 mid power + 1 high power deck)

- 2 x NX-5x00BK** Any of mid power deck, any band
- 1 x NX-5x00HBF** Any of high power deck, any band
- 1 x 5AFMM** Accessory kit for two mid power decks
- 1 x KCT-71M4** Connector cable to bridge two accessory packages
- 1 x 6AFMIG** Accessory kit for high power deck
- 1 x L-5037** Labor code for Triple Deck Radio assembly

As a result, radio is configured as... **two control heads, triple deck connected, with 2 mid power and 1 high power deck.**

Note3: MUST purchase NX-5x00(H)B RF Decks and corresponding Remote Kit(s) with all listed labors.

L-5029	Factory Assembly & Factory Packing for Single Head Remote Kit and Radio	81.00
L-5030	Factory Assembly & Factory Packing for Dual Head Remote Kit and Radio	151.20
L-5031	Factory Assembly & Factory Packing for Single Head Remote Kit and Dual Deck Radio	91.80
L-5032	Factory Assembly & Factory Packing for Single Head / Dual Deck / Ext. Speakers	162.00
L-5033	Factory Assembly & Factory Packing for Dual Head and Dual Deck Radio	162.00
L-5034	Factory Assembly & Factory Packing for Dual Head / Dual Deck / Ext. Speakers	167.30
L-5035	Factory Assembly & Factory Packing for Single Head Remote and Triple Deck Radio	151.20
L-5037	Factory Assembly & Factory Packing for Dual Head and Triple Deck Radio	172.80

INSTALLATION / TUNING SERVICES	LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5006	NX-5000 Mobile Programming (with basic TX/RX check)	40.50
L-5007	Install KWD-AE30K in NX-5000 series Mobile (Must purchase module separately)	81.00
L-5008	Install KWD-AE31K in NX-5000 series Mobile (Must purchase module separately)	81.00
L-5015	Install KAP-2 (Default) HR1/ INTERNAL Sp./PA. Note: This labor code is only for individual orders for mobile configuration. The labor code (L-5032, 5034, and 5036) for Multi RF Deck Configuration Package includes installation of KAP-2.	27.00
L-5019	Install KAP-2 (Default) HR1/ EXTERNAL Sp./PA. Note: This labor code is only for individual orders for mobile configuration. The labor code (L-5032, 5034, and 5036) for Multi RF Deck Configuration Package includes installation of KAP-2.	27.00
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES	54.00
L-5077	FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Must purchase <u>per Radio</u> <ul style="list-style-type: none"> • This feature set is provided by custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation. 	64.80
L-5078	FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning Note: Purchase per application - <u>provided as Custom FW for unlimited radios</u> To PLACE AN ORDER , submit "Kenwood LMR Customization Application" form along with your PO to Land Mobile Order Desk via email (LMRorderdesk@us.jvckenwood.com) or fax (310-761-8246). <ul style="list-style-type: none"> • This feature set is provided as custom firmware based on V4.21.00 firmware. • Feature set is applicable for analog conventional / P25 conventional modes only. • Feature set does not support Mobile multi-deck configuration. • Feature set will not work with any other firmware options or customized firmware. • Custom firmware is not eligible for warranty compensation. 	1512.00

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SOFTWARE LICENSING & RADIO FEATURE OPTIONS

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.
 License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- [FPU & Software Applications](#): Software License Key Request Form
 - [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

SERVICE RELATED ACCESSORIES		LIST
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8/8.1) Note: Requires KPT-300LMC for authentication Note: Requires P25 Trunk system programming privileges for P25 Trunk programming. Must purchase L-5005 or KWD-ASK Hardware Access Keys	167.30
L-5005	KPG-D1NK System Key File (SKF) Note: Enables P25 Trunked system programming privileges in a KPG-D1NK. - Restricted Purchase Requirements - <ul style="list-style-type: none"> • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Must have KPG-D1NK. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools. • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file. • 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file. 	142.20
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - Restricted Purchase Requirements - Notes: <ul style="list-style-type: none"> • For NX-5000 series only. • Sold to trunked system operator (SYSOP) or SYSOP authorized entities only • Must have KPG-D1NK • SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Purchase KWD-ASK-AK Access Keys if needed 	607.70
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming Notes: Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul style="list-style-type: none"> • For NX-5000 series only • Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key • Must have KPG-D1NK • 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. 	254.50
KPG-115	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	340.20
KPG-115AUT	KVL-4000 Radio Authentication Cable Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	426.80
KPG-46XM	Full Speed USB Programming interface cable Note: This cable with USB mode may be used for SD Card Direct Access.	193.00
KPG-CLN-RJ45	Mobile-to-Mobile Cloning Cable (RJ45:RJ45), 3m	208.70
FleetSync® & NEXEDGE® AVL & MESSAGING		LIST
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch Note: <ul style="list-style-type: none"> - Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with Windows® XP, VISTA & 7 and Microsoft® MapPoint®2006/2009/2010 (certain format bitmap images can be imported). Refer to KAS-10 product spec sheets and manuals for details. - NEXEDGE Gen2. Tvoe-D Trunking and DMR System not supported. 	468.70



NX-3720HG/3820HG

VHF/UHF Digital & FM Analog Mobile Radios

Table of Contents



All NX-3000 Series Mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- Blade Fuse
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

Because of spurious signal (birdie), the following frequencies (and ±7.5kHz ranges) are not allowed ;

- | | | |
|------------|------------|------------|
| • 139.2000 | • 403.2000 | • 460.8000 |
| • 144.0000 | • 408.0000 | • 465.6000 |
| • 148.8000 | • 412.8000 | • 470.4000 |
| • 153.6000 | • 417.6000 | • 475.2000 |
| • 158.4000 | • 422.4000 | • 480.0000 |
| • 163.2000 | • 427.2000 | • 484.8000 |
| • 166.4000 | • 432.0000 | • 489.6000 |
| • 168.0000 | • 436.8000 | • 494.4000 |
| • 172.8000 | • 441.6000 | • 499.2000 |
| | • 446.4000 | • 504.0000 |
| | • 451.2000 | • 508.8000 |
| | • 456.0000 | • 513.6000 |
| | | • 518.4000 |

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single digital protocol selected with programming software.

STANDARD

■ GENERAL FEATURES

- 50 W (136-174 MHz) Models
- 45 W (400-470, 450-520 MHz) Models
- 512 CH / 128 Zones
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide) / 14 characters
- 4-Line Text Message Frame (2 Lines of Text, icon & key guide)
- Function/Status LCD Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color LED Indicator
- Transmit/Busy/Call Alert/Warn LED
- Emergency/AUX Key
- 4W Speaker Audio
- DB-15 Accessory Connector
- Dual Digital Protocol ¹
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Active Noise Reduction (ANR)
- KPG-D3N Windows® FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP-54 Water & Dust Intrusion
- Digital Encode/Decode Format

■ 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
- Built-in Voice Inversion Scrambler

■ DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking Option
- 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
- Digital Two-Tone
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN® Scrambler

■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth® Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**KWD-3501TR**)
- DMR Tier 2 Conventional (**Factory Installed**)
- DMR Tier 3 Trunking (**KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control by Subscriber Units (**KWD-3504RC**)

RADIO	LIST
NX-3720HGK VHF (136-174MHz), 50 Watts, 512 CH, 128 Zones	831.20
NX-3820HGK UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones	831.20
NX-3820HGK2 UHF (400 - 470MHz), 45 Watts, 512 CH, 128 Zones	831.20
RADIO TRUNKING PACKAGE	LIST
NX-3720HGK-TR VHF (136-174MHz), 50 Watts, 512 CH, 128 Zones with NXDN Trunking	859.50
NX-3820HGK-TR UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking	859.50
NX-3820HGK2-TR UHF (400 - 470MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking	859.50

	<h1 style="margin: 0;">NX-3720HG/3820HG</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Mobile Radios</h2>	Table of Contents
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SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- [FPU & Software Applications](#): Software License Key Request Form
 - [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
KWD-3000CH License Key for 1000 Channel Expansion	172.80
KWD-3001FP License Key for Front Panel Programming	135.00
KWD-3002BT License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-3302TR License Key for DMR Tier 3 Trunking	108.00
KWD-3501TR License Key for Digital Trunking (Includes NXDN Type-C and Type-C Gen2)	45.00
KWD-3502EE License Key for DMR ARC4 Enhanced Encryption	43.20
KWD-3503AE License Key for AES/DES Encryption Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.	486.00
KWD-3504RC License Key for Remote Control by Subscriber Units Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does NOT require the license.	43.20
KWD-3505DE License Key for DES Encryption Note: Requires KPG-AE1/DE1 software key loader to load encryption keys	108.00

CONTROL HEAD REMOTE KIT	LIST
KRK-18HM Interface Kit for a Control Head	177.00
KRK-19BM Interface Kit for an RF Deck	44.70

Note: Remote Control Cable must be purchased separately.

REMOTE CONTROL CABLES	LIST
KCT-71M2 Remote Control Cable (17 feet)	85.50
KCT-71M3 Remote Control Cable (25 feet)	97.30
KCT-71M4 Remote Control Cable (1.6 feet)	54.70
KCT-71A50 KCT-71A Extended Control Head Cable (up to 50 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	226.80
KCT-71A100 KCT-71A Extended Control Head Cable (up to 100 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	292.30

MOBILE INSTALLATION ACCESSORIES	LIST
KCT-60M DB15-to-15pin Molex Adapter Cable	35.20
KCT-18 Ignition sense cable (requires KCT-60M Acc. Cable Option)	24.00
KCT-72M External Accessory Connection Cable for KRK-18HM	44.70
KLF-2 Line Filter (suppresses alternator whine, 25dB, 25A max.)	51.20
KMB-10 Key lock adapter	32.00
KRA-40GM GPS Antenna	50.80

NEXEDGE DMR	<h1 style="margin: 0;">NX-3720HG/3820HG</h1> <h2 style="margin: 0;">VHF/UHF Digital & FM Analog Mobile Radios</h2>	Table of Contents
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CONTROL STATION INSTALLATION ACCESSORIES		LIST
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)	65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.	232.30
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: requires KCT-60M installed.	73.00
SERVICE RELATED ACCESSORIES		LIST
KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile Note: Requires KPT-300LMC for authentication	167.30
KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-46XM	Full Speed USB Programming interface cable Note: This cable with USB mode may be used for SD Card Direct Access.	193.00
INSTALLATION / TUNING CHARGES		LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-5053	NX-3720HG/3820HG/3920G/3921G Programming (with basic TX/RX check)	40.50
INSTALLATION / TUNING CHARGES, CON'T		LIST
L-5054	Installation for NX-3000 Portable/Mobile AES	27.00

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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.



NX-3920G/3921G

800/900MHz Digital & FM Analog Mobile Radios

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- All NX-3000 Series Mobiles include:**
- Standard Microphone (KMC-65M)
 - Mounting Bracket
 - DC Cable
 - Blade Fuse
 - User Guide
 - Premium Warranty: 3 Years

All Accessories / options: 1 Year

Because of spurious signal (birdie), the following frequencies (and $\pm 6.25\text{kHz}$ ranges) are not allowed ;

- 854.4000 • 936.0000
- 859.2000 • 940.8000
- 864.0000
- 868.8000

1. Designed to operate digital, DMR OR NXDN, along with analog FM; a single digital protocol selected with programming software.

STANDARD

■ GENERAL FEATURES

- 15 W (800 MHz) Model
- 15 W (900 MHz) Model
- 512 CH / 128 Zones
- 4-Line Basic Frame (2-Line Main/Sub-LCD, icon & key guide) / 14 characters
- 4-Line Text Message Frame (2 Lines of Text, icon & key guide)
- Function/Status LCD Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- 7-color LED Indicator
- Transmit/Busy/Call Alert/Warn LED
- Emergency/AUX Key
- 4W Speaker Audio
- DB-15 Accessory Connector
- Dual Digital Protocol ¹
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Active Noise Reduction (ANR)
- KPG-D3N Windows® FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP-54 Water & Dust Intrusion
- Digital Encode/Decode Format

■ ANALOG MODE

- Conventional Zones
- LTR® Zones
- FleetSync®/III: 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
- Built-in Voice Inversion Scrambler

■ DIGITAL – NXDN® MODE

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking
- 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
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Site Roaming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Option

OPTIONAL FEATURES

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth® Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**Factory Installed**)
- DMR Tier 2 Conventional (**KWD-3301CV**)
- DMR Tier 3 Trunking (**KWD-3301CV & KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)
- Remote Control by Subscriber Units (**KWD-3504RC**)

RADIO		LIST
NX-3920GK	800MHz, 15 Watts, 512 CH, 128 Zones, NXDN Conv & Trunking	1085.50
NX-3921GK	900MHz, 15 Watts, 512 CH, 128 Zones, NXDN Conv & Trunking	1085.50

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.

Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.

License Keys will be E-mailed to the address provided on the order form.

Form is available on MyTools website > Product > Forms

- [FPU & Software Applications](#): Software License Key Request Form
- [Radio Feature Licenses](#): Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

NEXEDGE[®] DMR	NX-3920G/3921G 800/900MHz Digital & FM Analog Mobile Radios	Table of Contents
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Radio Features		LIST
KWD-3000CH	License Key for 1000 Channel Expansion	172.80
KWD-3001FP	License Key for Front Panel Programming	135.00
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) Note: Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.	37.80
KWD-3301CV	License Key for DMR Tier 2 Conventional	45.00
KWD-3302TR	License Key for DMR Tier 3 Trunking (Requires KWD-3301CV)	108.00
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption	43.20
KWD-3503AE	License Key for AES/DES Encryption Note: 1. Factory Installation only. Must order L-5054. 2. Requires KPG-AE1/DE1 software key loader to encrypt. 3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.	486.00
KWD-3504RC	License Key for Remote Control by Subscriber Units Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is required for only Transmitting of Remote Control. - PC command for Remote Control does NOT require the license.	43.20
KWD-3505DE	License Key for DES Encryption Note: Requires KPG-AE1/DE1 software key loader to load encryption keys	108.00
CONTROL HEAD REMOTE KIT		LIST
KRK-18HM	Interface Kit for a Control Head	177.00
KRK-19BM	Interface Kit for an RF Deck	44.70
Note: Remote Control Cable must be purchased separately.		
REMOTE CONTROL CABLES		LIST
KCT-71M2	Remote Control Cable (17 feet)	85.50
KCT-71M3	Remote Control Cable (25 feet)	97.30
KCT-71M4	Remote Control Cable (1.6 feet)	54.70
KCT-71A50	KCT-71A Extended Control Head Cable (up to 50 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	226.80
KCT-71A100	KCT-71A Extended Control Head Cable (up to 100 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	292.30
MOBILE INSTALLATION ACCESSORIES		LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	35.20
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	24.00
KCT-72M	External Accessory Connection Cable for KRK-18HM	44.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	51.20
KMB-10	Key lock adapter	32.00
KRA-40GM	GPS Antenna	50.80
CONTROL STATION INSTALLATION ACCESSORIES		LIST
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)	65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80

	<h1 style="margin: 0;">NX-3920G/3921G</h1> <h2 style="margin: 0;">800/900MHz Digital & FM Analog Mobile Radios</h2>	Table of Contents
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KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.	232.30
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: requires KCT-60M installed.	73.00

SERVICE RELATED ACCESSORIES	LIST
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KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile Note: Requires KPT-300LMC for authentication	167.30
KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	590.20
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE Note: - Requires KPT-300LMC for authentication	396.80
KPG-46XM	Full Speed USB Programming interface cable Note: This cable with USB mode may be used for SD Card Direct Access.	193.00

INSTALLATION / TUNING CHARGES	LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	129.70
L-5053	NX-3720HG/3820HG/3920G/3921G Programming (with basic TX/RX check)	40.50
L-5054	Installation for NX-3000 Portable/Mobile AES	27.00

-- IMPORTANT NOTES regarding ENCRYPTION SOFTWARE OPTION--

Encryption Software Option, 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 for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

JVCKENWOOD may request the following information to be submitted at time of order (this information must meet JVCKENWOOD internal approvals prior to shipment even if being returned to JVCKENWOOD 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.

NEXEDGE™

NX-1700HNV/1800HNU

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VHF/UHF NXDN & FM Analog Mobile Radios



All NX-1000 series mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- 15A Fuse
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

■ GENERAL FEATURES

- 50 W (136-174 MHz) Model
- 45 W (400-470 MHz) Model
- NXDN & Analog Mode
- Optional DMR Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- 13-Segment 10-character LCD Display
- 7-color large LED indicator
- White Backlit
- KENWOOD Audio Quality
 - 6W (max) loud audio
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Microphone type settings
- Multiple Scan Functions
 - Dual/Single Priority Scan, Single/Multi Zone Scan, Normal Scan
- Orange-colored Emergency button
- Horn Alert and Public Address function
- Ignition Sense function
- Voice Announcement
- DB15 Accessory Interface
- Lone Worker
- Max/Min Volume Setting
- Display Customization
- Power-on LED
- Menu Mode
- MIL-STD-810 C/D/E/F/G/H
- IP-54 Water & Dust Intrusion

■ DIGITAL – NXDN® MODE

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check & Control
- GPS Combination with additional module
- Late Entry
- NXDN® Scrambler

■ DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check & Control
- Over-the-Air Alias
- GPS Combination with additional module
- Late Entry
- ARC4 Encryption Option

■ ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Mute hold, Talk back, Selcall

OPTIONAL FEATURES

- NXDN Type-D Trunking License (**KWD-1202TDK**)
- DMR Conversion License (**KWD-1301CN**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license. Please download latest firmware from MyTools website > Product > Firmware

MODEL		LIST
NX-1700HNVK	136-174 MHz VHF 50W, 260 Ch / 128 Zones	534.70
NX-1800HNUK2	400-470 MHz UHF 45W, 260 Ch / 128 Zones	534.70
MOBILE INSTALLATION ACCESSORIES		LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	35.20
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	24.00
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	51.20
KMB-10	Key lock adapter	32.00
CONTROL STATION INSTALLATION ACCESSORIES		LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Note: Compatible with FDMA (analog / NXDN) and TDMA operations	232.30
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)	65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: requires KCT-60M installed.	73.00

NEXEDGE[®]	NX-1700HNV/1800HNU	Table of Contents
VHF/UHF NXDN & FM Analog Mobile Radios		

FleetSync[®] & NEXEDGE[®] AVL & MESSAGING	LIST
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GPS15XL-W	Garmin Internal GPS Receiver Board for NEXEDGE/FleetSync AVL Note: <ul style="list-style-type: none"> • Conventional operation only. • Requires GA25 MCX GPS antenna. • Refer to www.garmin.com for GPS-15XL-W technical specifications. • Option: Order L-1874 for Kenwood Long Beach installation. 	159.20
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W Note: shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	75.70

SOFTWARE LICENSING & RADIO FEATURE OPTIONS	LIST
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IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses.
 Submit completed form to LMR Order Desk for all Software license and Radio Feature license options.
 License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- FPU & Software Applications: Software License Key Request Form
 - Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
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KWD-1202TDK	License Key for NXDN Type-D Trunking	10.80
KWD-1301CN	License Key for DMR Conventional Conversion	45.00
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit Note: <ul style="list-style-type: none"> - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license. 	36.00

SERVICE RELATED ACCESSORIES	LIST
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KPG-46XM	USB Programming interface cable	193.00
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70

INSTALLATION / TUNING CHARGES	LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	129.70
L-1873	NX-1000 Series Mobiles Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services	40.50
L-1874	Install Garmin GPS15XL-W in NX-1000 Series mobile Note: The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	108.00

NEXEDGE™ **NX-1700HDV/1800HDU** Table of Contents
VHF/UHF DMR & FM Analog Mobile Radios



All NX-1000 series mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- 15A Fuse
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

■ GENERAL FEATURES

- 50 W (136-174 MHz) Model
- 45 W (400-470 MHz) Model
- DMR & Analog Mode
- Optional NXDN Mode Conversion
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- 13-Segment 10-character LCD Display
- 7-color large LED indicator
- White Backlit
- KENWOOD Audio Quality
 - 6W (max) loud audio
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Microphone type settings
- Multiple Scan Functions
 - Dual/Single Priority Scan, Single/Multi Zone Scan, Normal Scan
- Orange-colored Emergency button
- Horn Alert and Public Address function
- Ignition Sense function
- Voice Announcement
- DB15 Accessory Interface
- Lone Worker
- Max/Min Volume Setting
- Display Customization
- Power-on LED
- Menu Mode
- MIL-STD-810 C/D/E/F/G/H
- IP-54 Water & Dust Intrusion

■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode
- Call Interrupt
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check & Control
- Over-the-Air Alias
- GPS Combination with additional module
- Late Entry
- ARC4 Encryption Option

■ DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check & Control
- GPS Combination with additional module
- Late Entry
- NXDN® Scrambler

■ ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Mute hold, Talk back, Selcall

OPTIONAL FEATURES

- NXDN Conversion License (**KWD-1201CD**)
- NXDN Type-D Trunking License (**KWD-1202TDK**) *Requires KWD-1201CD enabled
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**)
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license. Please download latest firmware from MyTools website > Product > Firmware

MODEL		LIST
NX-1700HDVK	136-174 MHz VHF 50W, 260 Ch / 128 Zones	534.70
NX-1800HDK2	400-470 MHz UHF 45W, 260 Ch / 128 Zones	534.70
MOBILE INSTALLATION ACCESSORIES		LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	35.20
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	24.00
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	51.20
KMB-10	Key lock adapter	32.00
CONTROL STATION INSTALLATION ACCESSORIES		LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Note: Compatible with FDMA (analog / NXDN) and TDMA operations	232.30
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)	65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: requires KCT-60M installed.	73.00

NEXEDGE™ **NX-1700HDV/1800HDU** Table of Contents
VHF/UHF DMR & FM Analog Mobile Radios

FleetSync® & NEXEDGE® AVL & MESSAGING **LIST**

GPS15XL-W	Garmin Internal GPS Receiver Board for DMR/FleetSync AVL Note: • Conventional operation only. • Requires GA25 MCX GPS antenna. • Refer to www.garmin.com for GPS-15XL-W technical specifications. • Option: Order L-1874 for Kenwood Long Beach installation.	159.20
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W Note: shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	75.70

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- FPU & Software Applications: Software License Key Request Form
 - Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features **LIST**

KWD-1201CD	License Key for NXDN Conventional Conversion	45.00
KWD-1202TDK	License Key for NXDN Type-D Trunking Note: Requires KWD-1201CD (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	10.80
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES **LIST**

KPG-46XM	USB Programming interface cable	193.00
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70

INSTALLATION / TUNING CHARGES **LIST**

L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-1873	NX-1000 Series Mobiles Programming (with basic TX/RX check) Must submit NX-x000 Series Programming Order Form upon placing order for any programming services	40.50
L-1874	Install Garmin GPS15XL-W in NX-1000 Series mobile Note: The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	108.00

NEXEDGE™

NX-1700HAV/1800HAU

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VHF/UHF Digital Upgradeable Mobile Radios



All NX-1000 series mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- 15A Fuse
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

■ GENERAL FEATURES

- 50 W (136-174 MHz) Model
- 45 W (400-470 MHz) Model
- Analog Mode
- Option NXDN Upgrade
- Optional DMR Upgrade
- AMBE+2™ VOCODER
- 260 CH-GID / 128 Zones
- 13-Segment 10-character LCD Display
- 7-color large LED indicator
- White Backlit
- KENWOOD Audio Quality
 - 6W (max) loud audio
 - Audio Equalizer: Flat, High, or Low
 - Auto Gain Control: On, High, or Low
 - Microphone type settings
- Multiple Scan Functions
 - Dual/Single Priority Scan, Single/Multi Zone Scan, Normal Scan
- Orange-colored Emergency button
- Horn Alert and Public Address function
- Ignition Sense function
- Voice Announcement
- DB15 Accessory Interface
- Lone Worker
- Max/Min Volume Setting
- Display Customization
- Power-on LED
- Menu Mode
- MIL-STD-810 C/D/E/F/G/H
- IP-54 Water & Dust Intrusion
- GPS Receiver Option

■ ANALOG MODE

- Conventional Zones
- FleetSync®: PTT ID, Stun/Revive, Mute hold, Talk back, Selcall
- MDC-1200: PTT ID, Radio Inhibit/Unihabit, Radio Check, Emergency
- QT / DQT
- Two-Tone
- DTMF
- Built-in Voice Inversion Scrambler (per channel)
- Built-in Compressor (per channel)

■ DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- NXDN® Type-D Trunking Option
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check & Control
- GPS Combination with additional module
- Late Entry
- NXDN® Scrambler

■ DIGITAL – DMR MODE (Optional)

- DMR Tier 2 Conventional & Site Roaming
- DMR Auto Slot Select (DASS)
- 12.5 kHz Channels
- Digital / Analog Mixed Mode

OPTIONAL FEATURES

- NXDN Conventional Upgrade License (**KWD-1200CAK**)
- NXDN Type-D Trunking License (**KWD-1202TDK**) *Requires KWD-1200CAK enabled
- DMR Tier 2 Conventional Upgrade License (**KWD-1300CAK**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) *Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

Digital mode conversion & Type-D requires additional firmware loading after applying upgrade license. Please download latest firmware from MyTools website > Product > Firmware

MODEL		LIST
NX-1700HAVK	136-174 MHz VHF 50W, 260 Ch / 128 Zones	507.70
NX-1800HAUK2	400-470 MHz UHF 45W, 260 Ch / 128 Zones	507.70
MOBILE INSTALLATION ACCESSORIES		LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	35.20
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	24.00
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	51.20
KMB-10	Key lock adapter	32.00
CONTROL STATION INSTALLATION ACCESSORIES		LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	104.80
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) Note: Compatible with FDMA (analog / NXDN) and TDMA operations	232.30
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)	65.70
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	210.80
MICROPHONES AND SPEAKERS		LIST
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	63.50
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	115.20
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug	59.30
KES-5A	External speaker, 40W max input Note: requires KCT-60M installed.	73.00

NEXEDGE™	NX-1700HAV/1800HAU	Table of Contents
VHF/UHF Digital Upgradeable Mobile Radios		

FleetSync® & NEXEDGE® AVL & MESSAGING	LIST
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GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync AVL Note: • Conventional operation only. • Requires GA25 MCX GPS antenna. • Refer to www.garmin.com for GPS-15XL-W technical specifications. • Option: Order L-1874 for Kenwood Long Beach installation.	159.20
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W Note: shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	75.70

SOFTWARE LICENSING & RADIO FEATURE OPTIONS

IMPORTANT: NX-5000/5000S/3000/3x20/1x00 series radio requires **KPT-300LMC & L-5000** for activation of Radio Feature licenses. Submit completed form to LMR Order Desk for all Software license and Radio Feature license options. License Keys will be E-mailed to the address provided on the order form.

- Form is available on MyTools website > Product > Forms
- FPU & Software Applications: Software License Key Request Form
 - Radio Feature Licenses: Radio Feature License Keys Request Form

Note: Radio Feature License Keys are transferable from one radio to another radio within 72 hours of activation. If a Radio Feature License is transferred to another radio within the 72 hour window, the 72 hour clock is reset.

Radio Features	LIST
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KWD-1200CAK	License Key for NXDN Conventional Upgrade	45.00
KWD-1202TDK	License Key for NXDN Type-D Trunking Note: Requires KWD-1200CAK (NXDN Conventional) enabled before applying NXDN Type-D Trunking license.	10.80
KWD-1300CAK	License Key for DMR Tier2 Conventional Upgrade	45.00
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption Note: ARC4 Enhanced Encryption is available only in DMR mode.	36.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit Note: - This license may be used by Administrator due to Stun/Revive/Kill. - The license is only required for transmission of Remote Control commands. - PC command for Remote Control does NOT require the license.	36.00

SERVICE RELATED ACCESSORIES	LIST
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KPG-46XM	USB Programming interface cable	193.00
KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable/mobile Note: Requires KPT-300LMC for authentication	111.70

INSTALLATION / TUNING CHARGES	LIST
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L-5001	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	129.70
L-1873	NX-1000 Series Mobiles Programming (with basic TX/RX check) Must submit <u>NX-x000 Series Programming Order Form</u> upon placing order for any programming services	40.50
L-1874	Install Garmin GPS15XL-W in NX-1000 Series mobile Note: The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	108.00

NEXEDGE

NXR-710/810
 NXDN VHF/UHF Repeaters

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All NXR-710/810 series include:

- Handle
- Blade Type Fuse (15A)
- Power cable (12ft, no fuse)
- 15pin lead wire with connector
- Front glass
- Screws
- Instruction Manual
- Premium Warranty: 2 Years*

* All Accessories / options: 1 Year

GENERAL FEATURES

■ **GENERAL FEATURES**

- 50 W (136-174 MHz) Models
- 40 W (400-470 MHz) Models
- 40 W (450-520 MHz) Models
- NXDN & Analog Mode
- 50 / 40W @ 50% Duty
- 25 / 25W @ 100% Duty
- AMBE+2™ VOCODER
- Repeater Operation
- Duplex / Simplex Base Operation
- 30 CH Scanning Base
- Two-Digit LED Display
- 6 Lighted Programmable Function keys
- Front Panel Speaker
- 4W External Speaker Audio
- Programmable AUX I/O's
- Power Supply Voltage Monitor
- RF Power Down Detect
- DTMF AUX Output Control
- DTMF AUX Input Monitoring
- Built-in Scrambler
- NXDN® Scrambler

■ **DIGITAL – NXDN® REPEATER**

- NXDN® Conventional
- NXDN® Conventional IP Network
- *Requires KTI-3 Network Interface Unit
- 6.25 & 12.5 kHz Channels
- 16 RAN Repeater Control Built-in
- 1,000 GIDs Per Site
- 1,000 UIDs Per Site
- Over-the-Air Alias
- Over-the-Air Programming (Repeat only)
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Voting Option

■ **ANALOG REPEATER**

- VHF: 25 & 12.5 kHz Channels

REPEATER		LIST
NXR-710K	Repeater, Analog/NXDN, VHF, 136-174MHz, 5-50W Default TX power setting 25W - 50W	2,565.20
NXR-810K	Repeater, Analog/NXDN, UHF, 450-520MHz, 5-40W Default TX power setting 25W - 40W	2,565.20
NXR-810K2	Repeater, Analog/NXDN, UHF, 400-470MHz, 5-40W Default TX power setting 25W - 40W	2,565.20
Field Programming Unit (FPU)		LIST
KPG-129DNK	Repeater Programming Software	111.70
SERVICE RELATED ACCESSORIES		LIST
KPG-46XM	Programming Cable	193.00

System Accessories and Optional Features

Complete set of accessories and software licensed features available from EFJohnson Technologies



TKR-D810

DMR UHF Repeaters

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All TKR-D810 series include:

- Handle
- Blade Type Fuse (15A)
- Power cable (12ft, no fuse)
- 15pin lead wire with connector
- Front glass
- Screws
- Instruction Manual
- Premium Warranty: 2 Years*

* All Accessories / options: 1 Year

IMPORTANT:
Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are NOT available for TKR-D series

GENERAL FEATURES

■ GENERAL FEATURES

- 40 W (400-470 MHz) Models
- 40 W (450-520 MHz) Models
- DMR & Analog Mode
- AMBE+2™ VOCODER
- Repeater Operation
- Two-Digit LED Display
- 6 Lighted Programmable Function keys
- Programmable AUX I/O's
- RF Power Down Detect
- Analog DTMF AUX Output Control
- Analog DTMF AUX Input Monitoring
- DMR AIS IP Console Interface
- *Requires KTI-5 Network Interface Unit

■ DIGITAL – DMR REPEATER

- DMR Tier 2 Conventional
- DMR Conventional IP Network
- *Requires KTI-5 Network Interface Unit
- DMR Auto Slot Select (DASS) ready
- 12.5kHz channel
- 1 Color code Repeater Control Built-in
- Over-the-Air Alias
- Over-the-Air Programming (Repeat only)
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- Call Interrupt
- ARC4 Enhanced Encryption (Repeat only)
- AES/DES Encryption (Repeat only)

■ ANALOG REPEATER

- UHF: 25 & 12.5 kHz Channels
- 16 QT/DQT Repeater Control Built-in
- Hang Timer / Time Out Timer / CW ID

REPEATER	DEALER	LIST
TKR-D810K Repeater, Analog/DMR, UHF, 450-520MHz, 5-40W Default TX power setting 25W - 40W	1,592.80	2,654.70
TKR-D810K2 Repeater, Analog/DMR, UHF, 400-470MHz, 5-40W Default TX power setting 25W - 40W	1,592.80	2,654.70
Field Programming Unit (FPU)	DEALER	LIST
KPG-174DNK Repeater Programming Software	67.00	111.70
SERVICE RELATED ACCESSORIES	DEALER	LIST
KPG-46XM Programming Cable	115.80	193.00

System Accessories and Optional Features

Complete set of accessories and software licensed features available from EFJohnson Technologies

NEXEDGE® **NXR-1700** Table of Contents
 FM Analog & DMR VHF Repeater

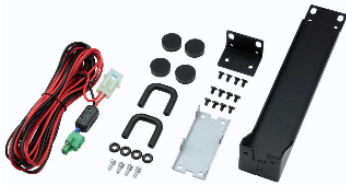


All NXR-1700 series include:

- Handle
- DC Power Cable*
- L-type Rack Mount Brackets (Long and short)
- Screws
- Plate to Couple 2 Repeaters
- 4x Rubber Feet
- Instruction Manual
- Premium Warranty: 2 Years**

*DC Power Cable is NOT compatible with current TKR-D model

** All Accessories / options: 1 Year



GENERAL FEATURES

■ **GENERAL FEATURES**

- 50 W (136-174 MHz) Model
- Light, Compact and Space-efficient
- 1.71-inch OLED with Icons and Numeric Display
- Thermal-controlled Cooling Fan
- Up to 32 Channels
- Dual Digital Protocol: DMR Tier 2*2 / NXDN Conventional*1,*2
- USB-A Connector for Audio Accessories
- External I/O Pin from DB25
- Non-repeat Simplex / Semi-Duplex Mode for Analog and NXDN*1,*2
- Hot Standby System Redundancy
- Built-in IP Network Adapter
- Unicast and Multicast Call Routing
- SNMP Protocol for Direct Reporting to a Generic System*1
- Support G.711 Audio Codec (for Test Console and Third-party Applications)
- IP Remote Management (Monitor / Control / Programming / Test Console)
- Ready for IPIF to External Applications (for IP Console, OTAP) / Voice Logging
- Built-in SIP IF without External IP Console or Gateway (Digital only)*1,*2,*3
- IP Remote Control Interface (IPRCI)*1
- Enhanced Security (HTTPS)
- CW ID, Hang Timer
- Multi-site Conventional IP Network up to 16 Sites (both Digital and Analog)*2
- Voting Repeater + Up to 15 Receivers (Analog / NXDN / DMR)*1,*2,*3
- IP Conventional Networking Compatible with NXR-5000 (NXDN)*1, legacy KTI-3 (NXDN)*1 and KTI-5 (DMR)*2

■ **DIGITAL – COMMON**

- Built-in AMBE+2™ Vocoder
- Mixed Analog / Digital Operation
- Site Roaming with Beacon
- RF-link: NXDN / DMR*1
- Repeat Encrypted Voice / Data (AES / DES / ARC4 Enhanced Encryption)
- User List / Site Group Table
- Radio Access Control*1,*3

■ **DIGITAL – NXDN REPEATER (Optional)**

- 6.25 & 12.5 kHz Channels
- NXDN Conventional*1,*2
- NXDN Digital Voting*1,*2
- NXDN Digital Site Roaming*1

■ **DIGITAL – DMR REPEATER (Optional)**

- 12.5kHz Channel
- DMR Tier 2 Conventional*2
- DMR Site Roaming
- DMR Auto Slot Select
- Call Interruption

■ **ANALOG REPEATER**

- FM Conventional
- Multiple QT/DQT
- Analog Call Routing
- Voting

*1: Future Release

*2: Software Option

*3: Requires firmware upgrade of

REPEATER		LIST
NXR-1700E	Repeater, Analog, VHF, 136-174MHz, 1-50W	2,466.00
Repeater Feature		LIST
KWD-NX10DCK	License Key for DMR Tier 2 Conventional	444.70
Field Programming Unit (FPU)		LIST
KPG-D7K	Repeater Programming Software	111.70
INSTALLATION / TUNING CHARGES		LIST
L-1900	Factory Activation of NXR-1x00 Feature Licenses (per Repeater) Note: Must purchase Repeater Feature Licenses separately. KPT-300LMC's History Menu will not display the Repeater Features activated by Factory.	129.70
System Accessories and Optional Features		
Complete set of accessories and software licensed features available from EFJohnson Technologies		

KENWOOD

NEXEDGE®

Price Guide

EFJohnson

a JVCKENWOOD Company

Edition Date: 02/01/2023

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NXR-710/810

UHF/VHF Low Power Base Stations and Repeaters



BASE STATION		LIST
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	2,740.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	2,740.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	2,740.00
REPEATER STATION		LIST
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	2,740.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	2,740.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	2,740.00
REPEATER STATION WITH DUPLEXER		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.		
NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	3,532.70
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	3,532.70
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	3,532.70
REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY		LIST
NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	3,042.40
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	3,042.40
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	3,042.40
REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY		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, 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, KSGPS20400, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	4,033.80
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20400, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	4,033.80
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20400, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	4,033.80
BASIC ACCESSORIES		LIST
KPG-46UM	Programming Cable	193.00
KPG-129DNK	Programming Software (NXR-710/810)	111.50
B51-8901-00	NXR-710 Service Manual	54.00
B51-8902-00	NXR-810 Service Manual	54.00
KMC-9C	Desktop Microphone	104.80
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	211.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	227.00
COMPONENTS		LIST
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	2,565.20
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	2,565.20
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	2,565.20
KSGPS20200	DC Switching Power Supply	304.20

NXR-710/810

UHF/VHF Low Power Base Stations and Repeaters

KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F Note: This is the default frequency range. Other ranges may be available by special order.	850.00
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F Note: This is the default frequency range. Other ranges may be available by special order.	709.90
KSGCB20008	Cable, 10", 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	59.60
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	59.60
KTI-3M	Network Interface Unit	322.10
KSGPS20400	POWER SUPPLY, 40A ,13.8VDC, 19" WIDE RACK MOUNTED	566.70

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.

NXR-5700 REPEATER

[LIST](#)

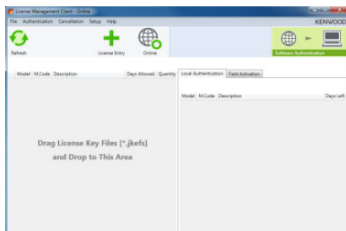
NXR-5700K

Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in

6,363.10

LICENSING SYSTEM

[LIST](#)



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only.



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
L-5000	Account Registration Key	NC

Note: Specify the number of PC's used for Radio Feature License Activation.

SOFTWARE LICENSE OPTIONS

[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
 - 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
- 5 ~ 14 License Keys
- 15 ~ 24 License Keys

NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz

SOFTWARE LICENSE OPTIONS cont'd

LIST

KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) Note: - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	111.50
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RADIO FEATURE LICENSE OPTIONS

LIST

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
 - 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	540.00
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BASIC ACCESSORIES

LIST

KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	4,056.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KSGCB10206	Programming USB A/B Cable	20.00
B5B-7216-10	NXR-5700 Service Manual	54.00

RF BASE STATION AMPLIFIER OPTIONS

LIST

Note: Includes Two Cables for Radio Connectivity

KSGPA22423	136-174MHz, 3W Input, 25-50W Output	2,374.40
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RF REPEATER STATION AMPLIFIER OPTIONS

LIST

Note: Includes One Cable for Radio Connectivity

KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,757.00
KSGPA22443	151-162MHz, 3W Input, 150W Output	3,228.00
KSGPA22444	162-174MHz 3W Input 150W Output	3,228.00
KSGPA22415	136-174MHz 3W Input 100W Output	2,577.10
KSGPA23704	136-174MHz, 3W Input, 50W Output, 5-Pack	1,605.00
KSGPA22416	136-174MHz, 3W Input, 100W Output, 5-Pack	2,074.00

NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz

POWER SUPPLY OPTIONS LIST

KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00

Gen1 TRUNKING CONFIGURATIONS LIST

KSGPG91800	Repeater Trunking Feature Note: One Feature required for each trunking repeater.	1,500.00
KSGPG91810	Multi-Site Networking Feature Note: One required for each networked site.	12,600.40
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) Note: Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	629.60
KPG-110SMK	System Manager Trunking Software Note: Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	495.70
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	180.40
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	180.40

USB KEY FUNCTION OR CAPABILITY	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	

Gen2 TRUNKING CONFIGURATIONS

[Please see the NEXEDGE Gen2 Page.](#)

ETHERNET SWITCH & ROUTER OPTIONS 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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

EXTERNAL TRUNKING CONTROLLER OPTIONS LIST

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
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NXR-5700

VHF Digital & FM Base Repeaters - 136-174MHz

KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60
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MISC STATION OPTIONS

LIST

KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	6,263.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00

COMPONENTS

LIST

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGCB20112	Cable, Coaxial, BNC, 12"	53.80
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA22523	136-174MHz, 25W Input, 25-50W Output, with Internal Relay	2,099.00
KSGPA22540	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT BSA	2,643.00
KSGPA22552	144-152MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22553	152-162MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22554	162-174MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,757.00
KSGPA22515	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT	2,279.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,228.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,228.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,228.00

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.

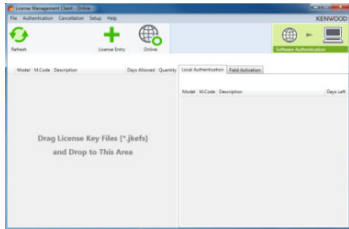
TRUNKING OPTIONS

- 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.

NXR-5800 REPEATER LIST

NXR-5800K	Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	6,363.10
NXR-5800K3	Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	6,363.10

LICENSING SYSTEM LIST



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only.



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
L-5000	Account Registration Key Note: Specify the number of PC's used for Radio Feature License Activation.	NC

SOFTWARE LICENSE OPTIONS 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
 - 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
- 5 ~ 14 License Keys
- 15 ~ 24 License Keys

NXR-5800

UHF Digital & FM Base Repeaters - 400-520MHz

SOFTWARE LICENSE OPTIONS cont'd LIST

KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) Note: - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	111.50
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RADIO FEATURE LICENSE OPTIONS LIST

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
 - 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	540.00
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BASIC ACCESSORIES LIST

KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	4,056.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KSGCB10206	Programming USB A/B Cable	20.00
B5B-7217-10	NXR-5800 Service Manual	54.00

RF BASE STATION AMPLIFIER OPTIONS LIST

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,811.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,811.00

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,583.00
KSGPA23702	403-450MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	4,157.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,284.00
KSGPA23703	450-512MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23705	450-512MHz, 3W Input, 50W Output, 5-Pack	1,719.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	4,157.00

POWER SUPPLY OPTIONS LIST

KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMTOC03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMTOC07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMTOC40U)	3,104.00

NXR-5800

UHF Digital & FM Base Repeaters - 400-520MHz

KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00

Gen1 TRUNKING CONFIGURATIONS LIST

KSGPG91800	Repeater Trunking Feature Note: One Feature required for each trunking repeater.	1,500.00
KSGPG91810	Multi-Site Networking Feature Note: One required for each networked site.	12,600.40
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) Note: Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	629.60
KPG-110SMK	System Manager Trunking Software Note: Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	495.70
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	180.40
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	180.40

USB KEY FUNCTION OR CAPABILITY	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	

Gen2 TRUNKING CONFIGURATIONS

[Please see the NEXEDGE Gen2 Page.](#)

ETHERNET SWITCH & ROUTER OPTIONS 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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

EXTERNAL TRUNKING CONTROLLER OPTIONS LIST

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60

MISC STATION OPTIONS LIST

KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	5,060.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,873.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) Note: Modem 2400 bps to be used with LTR controllers, includes interface cable.	275.40
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00

NXR-5800

UHF Digital & FM Base Repeaters - 400-520MHz

COMPONENTS	LIST	
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGCB20112	Cable, Coaxial, BNC, 12"	53.80
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA23521	406-450MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23551	406-450MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23553	450-512MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	4,157.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	4,157.00

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.

NXR-5900 REPEATER

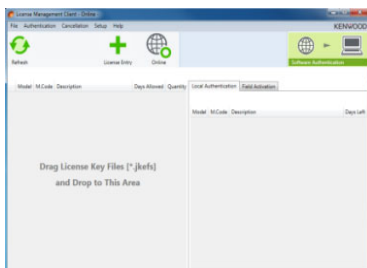
[LIST](#)

NXR-5900K Repeater, Digital, RX 806-825 MHz, TX 821-870 MHz

6,860.40

LICENSING SYSTEM

[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
L-5000	Account Registration Key Note: Specify the number of PC's used for Radio Feature License Activation.	NC

SOFTWARE LICENSE OPTIONS

[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
 - 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

NXR-5900

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

5 ~ 14 License Keys

15 ~ 24 License Keys

SOFTWARE LICENSE OPTIONS cont'd

LIST

KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) Note: - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	111.50
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RADIO FEATURE LICENSE OPTIONS

LIST

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
 - 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	540.00
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BASIC ACCESSORIES

LIST

KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator Note: Only one KXK-3M3 required per site for 6.25KHz operation.	4,056.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KSGCB10206	Programming USB A/B Cable	20.00
B5B-7278-00	NXR-5900 Service Manual	54.00

RF REPEATER STATION AMPLIFIER OPTIONS

LIST

Note: Includes One Cable for Radio Connectivity.

KSGPA24181	764-870MHz, 250mW Input, 80W Output	3,060.00
KSGPA24131	764-870MHz, 250mW Input, 150W Output	4,041.00

POWER SUPPLY OPTIONS

LIST

KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 130W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 130W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS

LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00

Gen1 TRUNKING CONFIGURATIONS

LIST

NXR-5900

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

KSGPG91800	Repeater Trunking Feature Note: One Feature required for each trunking repeater.	1,500.00
KSGPG91810	Multi-Site Networking Feature Note: One required for each networked site.	12,600.40
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) Note: Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	629.60
KPG-110SMK	System Manager Trunking Software Note: Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	495.70
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	180.40
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	180.40

USB KEY FUNCTION OR CAPABILITY	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	

Gen2 TRUNKING CONFIGURATIONS

[Please see the NEXEDGE Gen2 Page.](#)

ETHERNET SWITCH & ROUTER OPTIONS

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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

EXTERNAL TRUNKING CONTROLLER OPTIONS

LIST

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60

MISC STATION OPTIONS

LIST

KSGDX14644	4 Cavity 800MHz BpBr Duplexer Note: Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	2,453.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00

COMPONENTS

LIST

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00

NXR-5900

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

KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50

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

NXR-5901 REPEATER

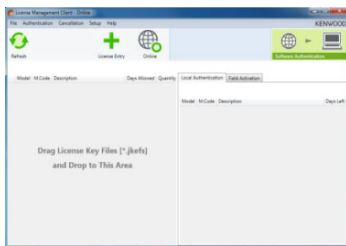
[LIST](#)

NXR-5901K Repeater, Digital, RX 896-902MHz, TX 935-941MHz

6,860.40

LICENSING SYSTEM

[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 "[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
L-5000	Account Registration Key Note: Specify the number of PC's used for Radio Feature License Activation.	NC

SOFTWARE LICENSE OPTIONS

[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
 - 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
- 5 ~ 14 License Keys
- 15 ~ 24 License Keys

NXR-5901

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

SOFTWARE LICENSE OPTIONS cont'd

LIST

KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) Note: - Requires KPT-300LMC for authentication. - To program NXR-5000, Type A/B USB Cable (KSGCB10206) may be required.	111.50
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RADIO FEATURE LICENSE OPTIONS

LIST

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
 - 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	540.00
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BASIC ACCESSORIES

LIST

KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator Note: Only one KXK-3M3 required per site for 12.5KHz and 6.25KHz operation.	4,056.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KSGCB10206	Programming USB A/B Cable	20.00
B5B-7278-00	NXR-5901 Service Manual	54.00

RF REPEATER STATION AMPLIFIER OPTIONS

LIST

Note: Includes One Cable for Radio Connectivity.

KSGPA25172	928-943MHz, 250mW Input, 80W Output	3,060.00
KSGPA25132	935-940MHz, 250mW Input, 140W Output	4,041.00

POWER SUPPLY OPTIONS

LIST

KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 130W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 130W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS

LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00

ETHERNET SWITCH & ROUTER OPTIONS

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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00

NXR-5901

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

KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00
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INTERNAL TRUNKING AND NETWORKING OPTIONS LIST

KSGPG91800	Repeater Trunking Feature Note: One Feature required for each trunking repeater.	1,500.00
KSGPG91810	Multi-Site Networking Feature Note: One required for each networked site	12,600.40
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) Note: Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)	629.60
KPG-110SMK	System Manager Trunking Software Note: Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key..	495.70
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	180.40
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key	180.40

USB KEY FUNCTION OR CAPABILITY	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	

EXTERNAL TRUNKING CONTROLLER OPTIONS LIST

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60

MISC STATION OPTIONS LIST

KSGDX15044	4 Cavity 900MHz BpBr Duplexer Note: Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	2,511.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00

COMPONENTS LIST

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50

NEXEDGE®

NXR-1700

FM Analog & DMR VHF Repeater

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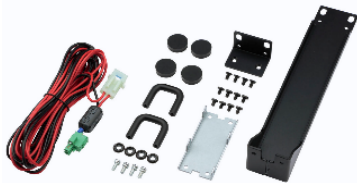


All NXR-1700 series include:

- Handle
- DC Power Cable*
- L-type Rack Mount Brackets (Long and short)
- Screws
- Plate to Couple 2 Repeaters
- 4x Rubber Feet
- Instruction Manual
- Premium Warranty: 2 Years**

*DC Power Cable is NOT compatible with current TKR-D model

** All Accessories / options: 1 Year



GENERAL FEATURES

GENERAL FEATURES

- 50 W (136-174 MHz) Model
- Light, Compact and Space-efficient
- 1.71-inch OLED with Icons and Numeric Display
- Thermal-controlled Cooling Fan
- Up to 32 Channels
- Dual Digital Protocol: DMR Tier 2*2 / NXDN Conventional*1,*2
- USB-A Connector for Audio Accessories
- External I/O Pin from DB25
- Non-repeat Simplex / Semi-Duplex Mode for Analog and NXDN*1,*2
- Hot Standby System Redundancy
- Built-in IP Network Adapter
- Unicast and Multicast Call Routing
- SNMP Protocol for Direct Reporting to a Generic System*1
- Support G.711 Audio Codec (for Test Console and Third-party Applications)
- IP Remote Management (Monitor / Control / Programming / Test Console)
- Ready for IPIF to External Applications (for IP Console, OTAP) / Voice Logging
- Built-in SIP IF without External IP Console or Gateway (Digital only)*1,*2,*3
- IP Remote Control Interface (IPRCI)*1
- Enhanced Security (HTTPS)
- CW ID, Hang Timer
- Multi-site Conventional IP Network up to 16 Sites (both Digital and Analog)*2
- Voting Repeater + Up to 15 Receivers (Analog / NXDN / DMR)*1,*2
- IP Conventional Networking Compatible with NXR-5000 (NXDN)*1, legacy KTI-3 (NXDN)*1 and KTI-5 (DMR)*2

DIGITAL – COMMON

- Built-in AMBE+2™ Vocoder
- Mixed Analog / Digital Operation
- Site Roaming with Beacon
- RF-link: NXDN / DMR*1
- Repeat Encrypted Voice / Data (AES / DES / ARC4 Enhanced Encryption)
- User List / Site Group Table
- Radio Access Control*1,*3

DIGITAL – NXDN REPEATER (Optional)

- 6.25 & 12.5 kHz Channels
- NXDN Conventional*1,*2
- NXDN Digital Voting*1,*2
- NXDN Digital Site Roaming*1

DIGITAL – DMR REPEATER (Optional)

- 12.5kHz Channel
- DMR Tier 2 Conventional*2
- DMR Site Roaming
- DMR Auto Slot Select
- Call Interruption

ANALOG REPEATER

- FM Conventional
- Multiple QT/DQT
- Analog Call Routing
- Voting

*1: Future Release

*2: Software Option

*3: Requires firmware upgrade of terminal to obtain compatibility with this

REPEATER		LIST
NXR-1700E	Repeater, Analog, VHF, 136-174MHz, 1-50W	2,466.70
Repeater Feature		LIST
KWD-NX10DCK	License Key for DMR Tier 2 Conventional	445.00
KWD-NX10MSK	Conventional IP Network (Multi-Site)	342.00
Field Programming Unit (FPU)		LIST
KPG-D7K	Repeater Programming Software	112.30
INSTALLATION / TUNING CHARGES		LIST
L-1900	Factory Activation of NXR-1x00 Feature Licenses (per Repeater) Note: Must purchase Repeater Feature Licenses separately. KPT-300LMC's History Menu will not display the Repeater Features activated by Factory.	129.60

System Accessories and Optional Features
 Complete set of accessories and software licensed features available from EFJohnson Technologies

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.

NXR-710 REPEATER		LIST
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	2,565.20
BASIC ACCESSORIES		LIST
KPG-46XM	Programming Cable	193.00
KPG-129DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
B51-8901-00	NXR-710 Service Manual	54.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	322.10
KWD-NX10VTR	Voting System Option	540.00
RF BASE STATION AMPLIFIER OPTIONS		LIST
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.		
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	2,374.40
RF REPEATER STATION AMPLIFIER OPTIONS		LIST
Note: Includes One Cable for Radio Connectivity.		
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,757.00
KSGPA22443	151-162MHz, 3W Input, 150W Output	3,228.00
KSGPA22444	162-174MHz 3W Input 150W Output	3,228.00
KSGPA22415	136-174MHz 3W Input 100W Output	2,577.10
KSGPA23704	136-174MHz, 3W Input, 50W Output, 5-Pack	1,605.00
KSGPA22416	136-174MHz, 3W Input, 100W Output, 5-Pack	2,074.00
POWER SUPPLY OPTIONS		LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00
MOUNTING CONFIGURATIONS		LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00

NXR-710

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

KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00
ETHERNET SWITCH & ROUTER OPTIONS		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.		
6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00
TYPE-D TRUNKING OPTIONS		LIST
KWD-10DTR	Type-D Single Site Repeater Trunking Feature Note: One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	270.00
KTI-5M	Network Adaptor Device- Required for Type-D Trunking Web Access Note: For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	524.90
L-1794	Installation of KPG-1006DNA Firmware for KTI-5M at Factory.	NC
EXTERNAL TRUNKING CONTROLLER OPTIONS		LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60
MISC STATION OPTIONS		LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	6,263.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	411.70
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGTM10010	Panel, Tone Term, 10ch, with case, full dup, 2 or 4 wire, w/mon	865.00
KSGBCDCASE	Case, Tone Term Panel	74.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00

NXR-710

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

KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA22523	136-174MHz, 25W Input, 25-50W Output, with Internal Relay	2,099.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output, with Internal Relay	2,643.00
KSGPA22540	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT BSA	2,643.00
KSGPA22551	136-144MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22552	144-152MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22553	152-162MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22554	162-174MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,757.00
KSGPA22515	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT	2,279.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	3,228.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,228.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,228.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,228.00

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.

NXR-810 REPEATER		LIST
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NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	2,565.20
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	2,565.20

BASIC ACCESSORIES		LIST
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KPG-46XM	Programming Cable	193.00
KPG-129DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
B51-8902-00	NXR-810 Service Manual	54.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	322.10
KWD-NX10VTR	Voting System Option	540.00

RF BASE STATION AMPLIFIER OPTIONS		LIST
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Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,811.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,811.00

RF REPEATER STATION AMPLIFIER OPTIONS		LIST
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Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,583.00
KSGPA23702	403-450MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	4,157.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,284.00
KSGPA23703	450-512MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23705	450-512MHz, 3W Input, 50W Output, 5-Pack	1,719.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	4,157.00

NXR-810

UHF Base Stations and Repeaters - 400-520 MHz

POWER SUPPLY OPTIONS LIST

KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00

ETHERNET SWITCH & ROUTER OPTIONS 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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

TYPE-D TRUNKING OPTIONS LIST

KWD-10DTR	Type-D Single Site Repeater Trunking Feature Note: One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	270.00
KTI-5M	Network Adaptor Device- Required for Type-D Trunking Web Access Note: For field upgrade, please download KPG-1006DNA from TOOLS and install to your KTI-5M. (Installation Manual is included.)	524.90
L-1794	Installation of KPG-1006DNA Firmware for KTI-5M at Factory.	NC

EXTERNAL TRUNKING CONTROLLER OPTIONS LIST

KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,559.60

MISC STATION OPTIONS LIST

KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	5,060.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,873.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,440.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,614.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	934.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	411.70

NXR-810

UHF Base Stations and Repeaters - 400-520 MHz

COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGTM10TCS	Case, Tone Term Panel	77.40
KSGCB32801	Cable, Interface, Tone to '50	35.60
KSGTM10010	Panel, Tone Term, 10ch, with case, full dup, 2 or 4 wire, w/mon	865.00
KSGBCDCASE	Case, Tone Term Panel	74.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGTM20TCS	Case, Tone Term Panel (N-Series)	74.00
KSGTM10010	Panel, Tone Term, 10ch, with case, full dup, 2 or 4 wire, w/mon	865.00
KSGBCDCASE	Case, Tone Term Panel	74.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	332.00
KSGTM10021	600 Ohm Balanced Line Driver	316.20
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male (Repeater)	42.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,598.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,469.00
KSGMD10001	Modem, USR	227.00
KSGCB22154	Cable, 54", DB-9 Female (Controller) to DB-25 Male (Modem)	42.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA23521	406-450MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23551	406-450MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23553	450-512MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	4,157.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	4,157.00



TKR-D710

DMR VHF Repeaters* - 136-174MHz

* Base Operations are not



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 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.

REPEATER		LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W Note: 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 NOT available.	2,654.60
BASIC ACCESSORIES & LABOR		LIST
KPG-46XM	Programming Cable	193.00
KPG-174DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KTI-5M	Network Adaptor Device - Required for Conv. IP Networking Functionality Note: - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeater	524.90
L-1806	Installation of KPG-1010DMR Firmware and Option for KTI-5M	21.60
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	21.60
B5B-7228-00	TKR-D710 Service Manual	54.00
RF BASE STATION AMPLIFIER OPTIONS		LIST
Note: Includes Two Cables for Radio Connectivity and an Internal Antenna Relay.		
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	2,374.40
RF REPEATER STATION AMPLIFIER OPTIONS		LIST
Note: Includes One Cable for Radio Connectivity.		
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,757.00
KSGPA22443	151-162MHz, 3W Input, 150W Output	3,228.00
KSGPA22444	162-174MHz 3W Input 150W Output	3,228.00
KSGPA22415	136-174MHz 3W Input 100W Output	2,577.10
KSGPA23704	136-174MHz, 3W Input, 50W Output, 5-Pack	1,605.00
KSGPA22416	136-174MHz, 3W Input, 100W Output, 5-Pack	2,074.00
POWER SUPPLY OPTIONS		LIST
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	304.20
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,430.00



TKR-D710

DMR VHF Repeaters* - 136-174MHz

* Base Operations are not

KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS

LIST

KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMTOC40U)	3,104.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMTOC03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMTOC07R)	2,266.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMTOC20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00

ETHERNET SWITCH & ROUTER OPTIONS

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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

MISC STATION OPTIONS

LIST

KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	6,263.00
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COMPONENTS

LIST

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMTOC03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMTOC07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMTOC40U	Crate for 40U Cabinet	549.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA22523	136-174MHz, 25W Input, 25-50W Output, with Internal Relay	2,099.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output, with Internal Relay	2,643.00
KSGPA22540	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT BSA	2,643.00
KSGPA22551	136-144MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22552	144-152MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22553	152-162MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22554	162-174MHz, 25W Input, 150W Output, with Internal Relay	3,925.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,757.00
KSGPA22515	AMP 136-174MHZ, 25W INPUT, 100W OUTPUT	2,279.00



TKR-D710

DMR VHF Repeaters* - 136-174MHz

* Base Operations are not

KSGPA22541	136-144MHz, 25W Input, 150W Output	3,228.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,228.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,228.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,228.00



TKR-D710

DMR VHF Low Power Repeaters - 136-174MHz

* Base Operation



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 KT1-5

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

TKR-D710 REPEATER LIST

TKR-D710K	Repeater, Digital, VHF, 5-50W 136-174MHz Note: 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 NOT available.	2,654.60
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TKR-D710 REPEATER PACKAGE LIST

TKR-D710KPS	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), 5-50W 136-174MHz Repeater Note: 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 NOT available.	2,783.20
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REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY LIST

TKR-D710KPSI	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), KT1-5M Network Adaptor, KPG-1010DMR, 5-50W 136-174MHz Repeater Note: 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 NOT available.	3,298.30
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REPEATER STATION WITH DUPLEXER 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, includes KSGPS20200 Power Supply, KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable, 5-50W 148-160MHz Repeater Note: 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 NOT available.	3,462.50
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REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY 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 KT1-5M are mounted inside the Repeater; a separate Rack-Mount Power Supply is included.

TKR-D710KPSDI	Repeater Station, includes KSGPS20400 Power Supply, KSGDX62001 Duplexer, KT1-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable, 5-50W 148-160MHz Repeater Note: 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 NOT available.	3,953.90
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BASIC ACCESSORIES & LABOR LIST

KPG-46XM	Programming Cable	193.00
KPG-174DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00



TKR-D710

DMR VHF Low Power Repeaters - 136-174MHz

* Base Operation

	Network Adaptor Device - Required for Conv. IP Networking Functionality	
KTI-5M	Note: - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeater	524.90
L-1806	Installation KPG-1010DMR Firmware and Option for KTI-5M	21.60
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	21.60
B5B-7228-00	TKR-D710 Service Manual	54.00
POWER SUPPLY OPTIONS		LIST
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	304.20
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,430.00
MOUNTING CONFIGURATIONS		LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
ETHERNET SWITCH & ROUTER OPTIONS		LIST
<p>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.</p>		
6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00
MISC STATION OPTIONS		LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	6,263.00
COMPONENTS		LIST
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F Note: This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	850.00
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	59.60
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	59.60
KSGPS20400	POWER SUPPLY, 40A ,13.8VDC, 19" WIDE RACK MOUNTED	566.70
KSGPS20200	DC Switching Power Supply	304.20
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00



TKR-D710

DMR VHF Low Power Repeaters - 136-174MHz

* Base Operation

KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50



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.

TKR-D810 REPEATER LIST

TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W Note: 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 NOT available.	2,654.60
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W Note: 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 NOT available.	2,654.60

BASIC ACCESSORIES & LABOR LIST

KPG-46XM	Programming Cable	193.00
KPG-174DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KTI-5M	Network Adaptor Device - Required for Conv. IP Networking Functionality Note: - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeater	524.90
L-1806	Installation of KPG-1010DMR Firmware and Option for KTI-5M	21.60
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	21.60
B5B-7229-00	TKR-D710 Service Manual	54.00

RF BASE STATION AMPLIFIER OPTIONS LIST

Note: Includes Two Cables for Radio Connectivity.

KSGPA23421	406-450MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,811.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	2,057.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,743.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,811.00

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Note: Includes One Cable for Radio Connectivity.

KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,583.00
KSGPA23702	403-450MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	4,157.00



TKR-D810

DMR UHF Repeaters - 400-520MHz

KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,757.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,284.00
KSGPA23703	450-512MHz, 3W Input, 100W Output, 5-Pack	2,363.00
KSGPA23705	450-512MHz, 3W Input, 50W Output, 5-Pack	1,719.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	4,157.00

POWER SUPPLY OPTIONS LIST

KSGPS20200	DC Switching Power Supply 13.8VDC 20A	304.20
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W amplifier option.	1,430.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,430.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,836.00

MOUNTING CONFIGURATIONS LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
KSGMT90005	Cage, Black, required when ordering 5-Pack Amplifiers only	712.00

ETHERNET SWITCH & ROUTER OPTIONS 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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00

MISC STATION OPTIONS LIST

KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	5,060.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) Note: Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,873.00

COMPONENTS LIST

KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00



TKR-D810

DMR UHF Repeaters - 400-520MHz

KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGPA23521	406-450MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output, with Internal Relay	2,057.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output, with Internal Relay	2,743.00
KSGPA23551	406-450MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23553	450-512MHz, 25W Input, 150W Output, with Internal Relay	4,811.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,757.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,284.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	4,157.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	4,157.00



TKR-D810

DMR UHF Low Power 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.

TKR-D810 REPEATER LIST

TKR-D810K	Repeater, Digital, UHF, 5-40W 450-520MHz Note: 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 NOT available.	2,654.60
TKR-D810K2	Repeater, Digital, UHF, 5-40W 400-470MHz Note: 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 NOT available.	2,654.60

TKR-D810 REPEATER PACKAGE LIST

TKR-D810KPS	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), 5-40W 450-520MHz Repeater Note: 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 NOT available.	2,783.20
TKR-D810K2PS	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), 5-40W 400-470MHz Repeater Note: 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 NOT available.	2,783.20

REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY LIST

TKR-D810KPSI	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adaptor, KPG-1010DMR, 5-40W 450-520MHz Repeater Note: 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 NOT available.	3,298.30
TKR-D810K2PSI	Repeater Package, includes KSGPS20200 Power Supply (mounted internally), KTI-5M Network Adaptor, KPG-1010DMR, 5-40W 400-470MHz Repeater Note: 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 NOT available.	3,298.30

REPEATER STATION WITH DUPLEXER 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-D810KPSD	Repeater Station, includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable, 5-40W 400-520MHz Repeater Note: 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 NOT available.	3,462.50
TKR-D810K2PSD	Repeater Station, includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable, 5-40W 400-470MHz Repeater Note: 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 NOT available.	3,462.50



TKR-D810

DMR UHF Low Power Repeaters - 400-520MHz

REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY

LIST

TKR-D810KPSDI	Repeater Station, includes KSGPS20400 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable, 5-40W 450-520MHz Repeater Note: 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 <u>NOT</u> available.	3,953.90
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TKR-D810K2PSDI	Repeater Station, includes KSGPS20400 Power Supply, KSGDX63002 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable, KSGCB20010 Cable, 5-40W 400-470MHz Repeater Note: 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 <u>NOT</u> available.	3,953.90
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BASIC ACCESSORIES & LABOR

LIST

KPG-46XM	Programming Cable	193.00
KPG-174DNK	Repeater Programming Software	111.50
KPG-149RM	Nexedge Repeater Monitoring Software	270.00
KTI-5M	Network Adaptor Device - Required for Conv. IP Networking Functionality Note: - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeater	524.90
L-1806	Installation of KPG-1010DMR Firmware and Option for KTI-5M	21.60
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	21.60
B5B-7229-00	TKR-D710 Service Manual	54.00

POWER SUPPLY OPTIONS

LIST

KSGPS20200	DC Switching Power Supply 13.8VDC 20A	304.20
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	566.70
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,430.00

MOUNTING CONFIGURATIONS

LIST

KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	2,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00

ETHERNET SWITCH & ROUTER OPTIONS

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.

6365074160	CISCO 8-PORT SWITCH	292.48
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	830.25
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	636.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
KSGRT20001	HP MSR2003 AC ROUTER Note: For complex system, order this router instead of the KSGRT-RV340	1,899.00
KSGMS100P1	15A Power Strip, 19" Rackmount, 1RU Note: One recommended per rack when including a switch and/or router	154.00



TKR-D810

DMR UHF Low Power Repeaters - 400-520MHz

MISC STATION OPTIONS

LIST

KSGDX12556	6 Cavity VHF BpBr Duplexer Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	6,263.00
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TKR-D810

DMR UHF Low Power Repeaters - 400-520MHz

COMPONENTS		LIST
KSGDX63002	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F Note: This is the default frequency range. Other ranges may be available by special order. Frequencies must be provided with an order	709.90
KSGCB20008	Cable, 10", 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	59.60
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	59.60
KSGPS20400	POWER SUPPLY, 40A ,13.8VDC, 19" WIDE RACK MOUNTED	566.70
KSGPS20200	DC Switching Power Supply	304.20
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50

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

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

* KAS-20 does not support serial base connection

* Refer to KAS-20 brochure for details

SAMPLE LICENSE	LIST
SAMPLE LICENSE VALID FOR 30 DAYS OF OPERATION	
Following features are enabled for 30 days after activation:	
KAS-20K2	21.60
- AVL (similar to KWD-20C-LMK license) - Dispatch (similar to KWD-20C-VDK license) - Voice Path (similar to one KWD-20C-VPK license)	

BASE LICENSE	LIST
KAS-20K	NC
AVL & DISPATCH SOFTWARE BASE LICENSE	

- 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 DEALER 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.

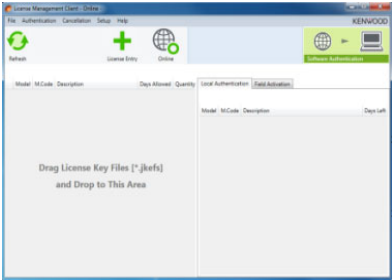
TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:

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.

KAS-20

STANDALONE / MULTI-CLIENT AVL & DISPATCH SOFTWARE

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

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.

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

SOFTWARE UPGRADE LICENSES (FOR CLIENT) **LIST**

KWD-20C-VDK	Voice Dispatch License for KAS-20 client Note: KWD-20C-VDK does not contain vocoder license. IP dispatching requires additional KWD-20C-VPK for AMBE+2 voice vocoding .	720.40
KWD-20C-VPK	Voice Path License for KAS-20 client Note: Single KWD-20C-VPK allows single stream of AMBE+2 vocoding per license. Purchase multiple licenses up to 8 for simultaneous vocoding.	720.40
KWD-20C-LMK	Location Management License for KAS-20 client	720.40

SOFTWARE UPGRADE LICENSES (FOR SERVER) **LIST**

KWD-20S-MCK	Server upgrade license to enable multi-client operation Note: Single KAS-20 server software holds up to ten KAS-20 clients.	2,430.00
KWD-20S-VRK	Server upgrade license to enable Voice Logging and Playbacks Note: Voice replay uses one KWD-20C-VPK voice path license while replaying on KAS-20 client.	2,430.00
KWD-20S-RSK	Server upgrade license to connect ONE additional RF system to KAS-20 system.	2,430.00

COMPANION PRODUCTS COMPUTERS **LIST**

KSGCP30202	Windows server	4,985.30
KSGCP30203	Standalone PC Opt3040	1,452.60
KSGMS00702	BUDDY DESKTOP MIC, USB, FOR KAS-20	486.00
KSGSP10001	Multi-Media Desktop PC Speakers AX210 USB	57.20

COMPUTER MONITORS **LIST**

KSGCP30102	DELL 22 MONITOR - E2222H, 21.5"	340.20
KSGCP00014	24" Backlit LCD Monitor 1920 x 1080 resolution HDMI VGA Display Port P2417H	592.90

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
- AVL and Voice Dispatch operation of IP: GPS data, status/text message, and voice

Notes:

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

GPS AVL & DISPATCH		LIST
KAS-10	GPS AVL & Dispatch Messaging Software	468.70
KSGCP50001	AMBE-3000™ Vocoder Chip with USB Interface Note: USB-3003™ multi pass Vocoder with USB is not compatible with KAS-10.	775.70
COMPANION PRODUCTS COMPUTERS		LIST
KSGCP30201	Windows Workstation PC	2,296.10
KSGSP10001	Multi-Media Desktop PC Speakers	57.20
KSGCP40002	USB Over the Head Headset with Microphone	102.60
KSGMS00702	BUDDY DESKTOP MIC, USB, FOR KAS-20	486.00
COMPUTER MONITORS		LIST
KSGCP30102	DELL 22 MONITOR - E2222H, 21.5"	340.20
KSGCP00014	19" Anti-Glare Black LCD Monitor	592.90
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	340.20
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	1,344.60

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 radio.

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

OTAP MANAGER		LIST
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	OTAP Manager	
	Note:	
KPG-150AP	- 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.	594.00

ADDITIONAL LICENSES		LIST
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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 Note: Price is per license on quantities of less than 100 licenses.	27.00
KWD-AP100	Additional Radio License for 1 PC Note: Price is per license when ordering between 100 and 249 licenses at the same time.	27.00
KWD-AP250	Additional Radio License for 1 PC Note: Price is per license when ordering between 250 and 499 licenses at the same time.	27.00
KWD-AP500	Additional Radio License for 1 PC Note: Price is per license when ordering 500 or more licenses at the same time.	27.00
KWD-SP1	Additional System License for 1 PC Note: Price is per license on quantities of less than 16 licenses.	359.60

-- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adaptor 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

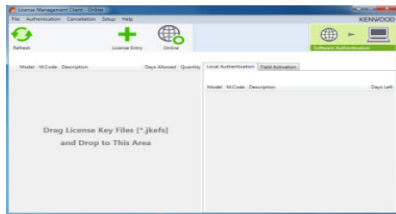
- Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
- Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
- One-click programming allows multiple radios to share the same programming data without individual modification.
- Each 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

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 "[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.

KPT-300LMC	License Management Client	NC
L-5000	Account Registration Key	NC

Note: Specify the number of PC's used for Radio Feature License Activation.

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.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.

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
- 5 ~ 14 License Keys
- 15 ~ 24 License Keys

KPG-180AP

OTAP Manager for NX-5000 Series

SOFTWARE LICENSING OPTIONS cont'd

LIST

KPG-180AP	<p>OTAP Manager Software (Windows® Vista/7/8/8.1/10)</p> <ul style="list-style-type: none"> • License includes Fifty (50) radios / One(1) NXDN Conventional and Type-C Air Communication Profile and One(1) NXDN Conventional and Type-C IP Communication Profile <p>Note:</p> <ul style="list-style-type: none"> - 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. 	954.70
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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	<p>Additional 100 Radio Package License for 1 PC</p> <p>Note: License includes 100 subscriber radios OTAP License.</p>	1,800.40
KWD-AP5250	<p>Additional 250 Radio Package License for 1 PC</p> <p>Note: License includes 250 subscriber radios OTAP License.</p>	3,150.40
KWD-AP5500	<p>Additional 500 Radio Package License for 1 PC</p> <p>Note: License includes 500 subscriber radios OTAP License.</p>	4,500.40
KWD-AP1-CA	<p>Additional NXDN Conventional Type-C Air Communication Profile for 1 PC.</p> <p>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).</p>	270.00
KWD-AP2-CP	<p>Additional NXDN Conventional Type-C IP Communication Profile for 1 PC.</p> <p>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).</p>	450.40
KWD-AP3-P25	<p>P25 Radio to Radio Air Communication Profile for 1 PC.</p> <p>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.</p>	864.00

-- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adaptor 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

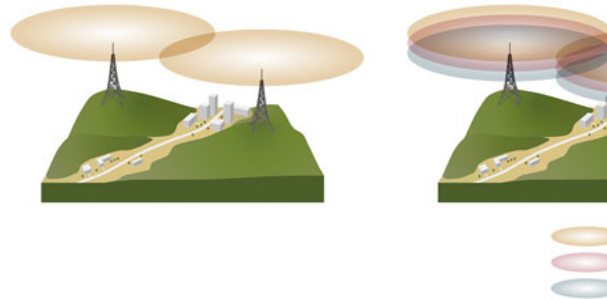
Main Features

- 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 Adaptor</i>		<i>LIST</i>
KTI-4M	Telephone Interconnect Adaptor	693.90
901-9416	Model 30 WorldPatch	877.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	123.50
L-8005	KTI-4M Calibration (Required)	81.00

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.

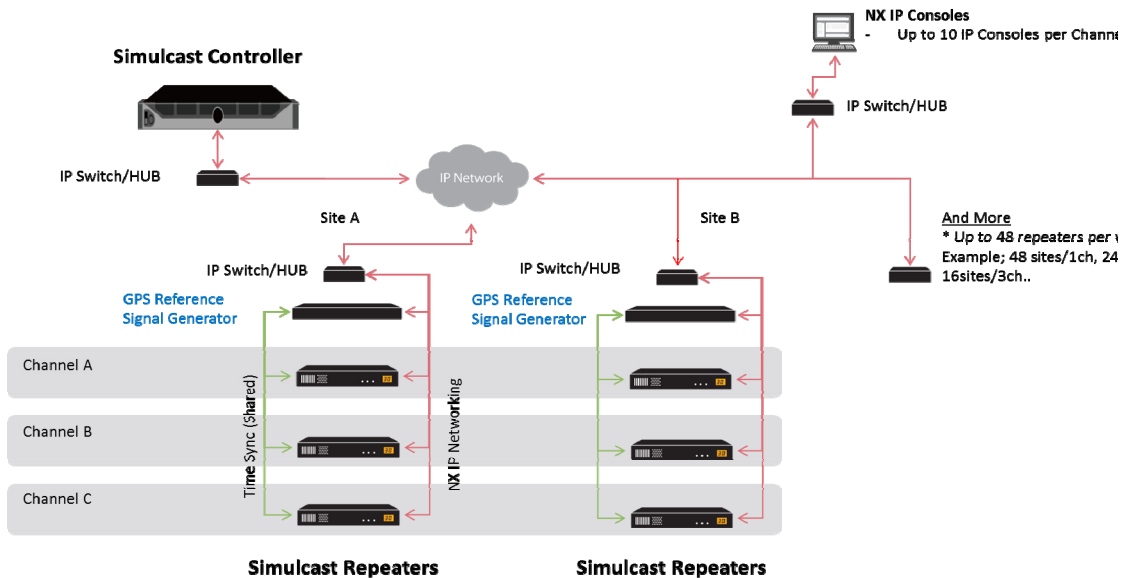


Features and Highlights

- 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



SIMULCAST CONTROLLER **LIST**

KSGCT13SIM	Simulcast Controller	15,951.60
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SIMULCAST REPEATERS **LIST**

NXR-5700KSR	Simulcast Repeater, Digital, VHF, 136-174MHz, 25W, 0.5ppm TCXO built-in	16,330.70
NXR-5800KSR	Simulcast Repeater, Digital, UHF, 450-520MHz, 25W, 0.5ppm TCXO built-in	16,330.70
NXR-5800K3SR	Simulcast Repeater, Digital, UHF, 400-470MHz, 25W, 0.5ppm TCXO built-in	16,330.70

GPS REFERENCE **LIST**

KSG-SIM-SG	Hi Performance GPS Receiver w/ Sync Cable. Includes GPS antenna, mounting hardware, and antenna line surge suppressor. Antenna line should be ordered separately. Note: GPS reference is required per site	9,073.00
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SERVICE

LIST

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

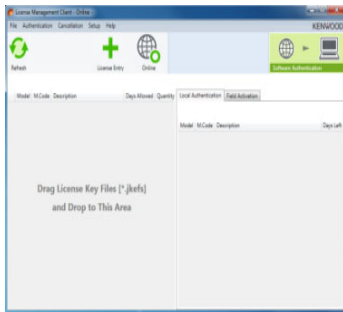
Custom

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. DEALER should notify Kenwood Systems Group if required.

LICENSING SYSTEM

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 "**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

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

PROGRAMMING SOFTWARE

LIST

KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) Note: - Requires KPT-300LMC for authentication. - Type A/B USB Cable (KSGCB10206) is required	111.50
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NEXEDGE® Generation2 System

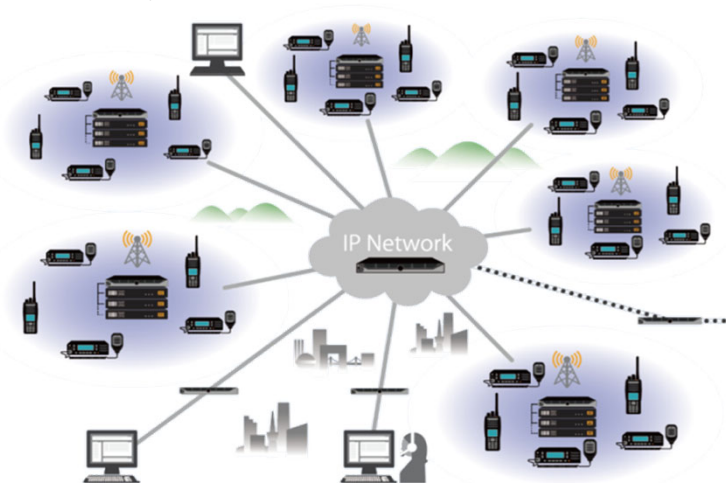
NEXEDGE Gen2

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 ¹
- Browser Based Multi-Access Configuration
- All Gen1 Functionality
- Direct Frequency Assignment
- Call Pre-Emption for Console
- Fleet Priority Channel
- Dynamic Control Channel
- GPS Report Channel²
- SNMP Capability for Repeaters ³
- 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 repeaters require a properly configured CF card be installed to support SNMP.

SERVER PACKAGES LIST

63600010	NEXEDGE GEN2 SYSTEM CONTROLLER (Includes Server and System Control Software)	26025.00
63600011	NEXEDGE GEN2 SYSTEM CONTROLLER GEO-REDUNDANCY PCKG (Includes 2 units of Server and Server Control Software each for redundancy)	52050.10
63600020	NEXEDGE GEN2 SITE CONTROLLER (Includes Server and Site Control Software)	9627.90
63600021	NEXEDGE GEN2 SITE CONTROLLER LOCAL REDUNDANCY PCKG (Includes 2 units of Server and Site Control Software each for redundancy)	20281.30
63600030	NEXEDGE GEN2 IP GATEWAY (Includes Server and IP Gateway Software)	16275.20
63600031	NEXEDGE GEN2 IP GATEWAY LOCAL REDUNDANCY PCKG (Includes 2 units of Server and IP Gateway Software each for redundancy)	33575.90
63600040	NEXEDGE GEN2 NMS SERVER (Includes Server and Nertwork Management Service Software)	12476.40
63600041	NEXEDGE GEN2 ROAMING GATEWAY (Includes Server and Roming Gateway Server Software)	14755.20

SERVER HARDWARE 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. Note: - L-8518 must be required for each server.	6,562.10
L-8518	Labor for Installing and loading Linux OS and Application Software.	810.00

WINDOWS® APPLICATION LICENSING LIST



NEXEDGE® Generation2 System

NEXEDGE Gen2

KPG-1004NC	<p>Network Manager Client Software</p> <p>Note: Required for Network Management.</p> <p>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.</p>	3,600.70
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TO PLACE AN ORDER FOR WINDOWS® SOFTWARE:

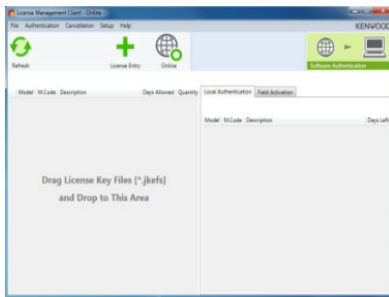
1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
 - a) E-Mail: systemsorderdesk@us.jvckenwood.com
 - b) Fax: (678) 957-1880
3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail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

KPG-1004NC Software License Key Discount Structure

- 1 License Key
- 2 ~ 4 License Keys
- 5 ~ 14 License Keys
- 15 ~ 24 License Keys

LICENSING SYSTEM

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 "**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
L-5000	Account Registration Key	NC
	Note: Specify the number of PC's used for Radio Feature License Activation.	

REPEATER TRUNKING AND MULTI SITE FEATURE

LIST

KWD-20CTR	<p>Repeater Trunking Feature</p> <p>Note: Required for each Trunking Repeater.</p>	1,620.00
KWD-20CNT	<p>Repeater Multi-Site Feature</p> <p>Note: Only for Multi-Site Trunking System. Required for each Trunking Repeater.</p>	1,799.30

Notes:

1. When migrating to Gen2, existing Gen1 repeaters are not subject to new or additional fees for Trunking and Multisite Features.
2. After migration to Gen2, new repeaters are subject to Gen2 Trunking and Multisite Feature pricing.

NEXEDGE®

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

SOFTWARE		LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	13,500.00
KSGPG92010	System Group Call Path License Note: License for block of 10 path activations. Minimum of one block; maximum of 10 blocks per system.	10,800.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key Note: Required for operation.	180.40
HARDWARE		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. Note: - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	6,562.10
L-8518	Labor for Installing and loading Linux OS and Application Software.	810.00
MOUNTING CONFIGURATIONS		LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,139.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,266.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	3,104.00
KSGMT20020	42" (20RU) Locking Cabinet	2,110.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	1,416.80
KSGMT20001	Cabinet Solid Top Panel	95.00
KSGMT20002	Cabinet Fan Top Assembly	459.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	148.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	760.00
KSGMT0C03R	Crate for 3' Rack	380.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	686.00
KSGMT0C07R	Crate for 7' Rack	1,433.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,744.00
KSGMT0C40U	Crate for 40U Cabinet	549.00

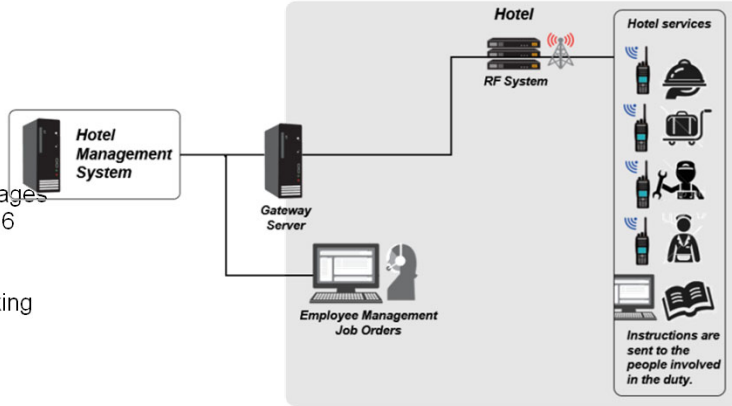
NXlink provides a level of efficiency and coordination of workflow management for the hospitality industry, ensuring timely customer service for guests and support staff. The NXlink integration has been developed in cooperation with Datalink Systems Inc.

Product Features

- Two-way text messaging
- Interfaces with:
 - Guestware
 - HotSOS
 - HotelSystemsPro
- Time stamps and stores all messages
- Operates on Windows server 2016

Product Compatibility

- NEXEDGE Conv & Type-C Trunking
- NX-5x00 Series Portable



DATAGATE LICENSES		LIST
KSGCP60001	Datagate Basic Solution Note: Includes DataGate Software and Server.	5,246.60
WORKSTATION LICENSE FOR DATAGATE SERVER		LIST
KSGPG60100	WebGate Workstation License Note: Must order one license per seat.	358.20
DEVICE LICENSE FOR DATAGATE SERVER		LIST
KSGPG60011	Device license for Datagate Server Note: One license required for each device. Compatible with NX-5x00 series portables and mobiles and NX-x00 portables.	178.20
KENWOOD CUSTOM FIRMWARE		LIST
L-1849	Existing Custom FW - Tier 1 (NX-5x00 Series) for Datalink solution	864.00
L-1850	Existing Custom FW - Tier 2 (NX-x00 Series) for Datalink solution Note: Custom firmware is required upon using Datalink solution for the first time.	720.00
ON-SITE TECHNICAL SUPPORT		LIST
L-1845	Includes one person on-site for up to two days Note: Service includes, but is not limited to, validating the system configuration.	6,804.00
TRAINING		LIST
L-8830	On-site training includes one person for one day	4,284.40
L-8831	Additional on-site training per day	1,223.60

Radio System Coverage Studies**Single Site Radio System Coverage Study**

This Coverage Study provides the talk-in prediction of mobiles and outdoor portables for a single site. The single site must be submitted on the Coverage Study Request form. Site visits or site selection are not included. Site location will be validated whenever possible.

L-1841

Notes:

- Price is per system
- The labor code must be entered for each site to be studied
- Dealer must complete and submit a complete Coverage Study Request form
- Dealer is responsible for the accuracy of the site information submitted

135.00

Multiple Site Radio System Coverage Study

This Coverage Study provides talk-in prediction of mobiles and outdoor portables for each site and a composite coverage prediction of the system. The sites must be submitted on the Coverage Study Request form. Site visits or site selection are not included. Site location will be validated whenever possible.

L-1842

Notes:

- Price is per site
- L-1841 must be ordered for each system
- The labor code must be entered for each site in the system
- Dealer must complete and submit a complete Coverage Study Request form
- Dealer is responsible for the accuracy of the system and site information submitted

81.00

Radio System Coverage Study - Kenwood Site Selection

On-site visit of selected radio sites based on the Coverage Study Request form information to confirm site parameters and to gather data necessary to complete coverage study.

L-1843

Notes:

- Dealer must complete Coverage Study Request form before the scheduled visit
- Purchase order for labor code must be provided no less than one week before travel is scheduled
- On-site coverage study must be for a two day minimum; additional days are at a flat rate per day (see additional day labor code.)
- Study includes multiple site predictions and composite for talk-in of mobiles and outdoor portables

7,524.40

Additional Day**Notes:**

- Flat rate, per day
- Additional day(s) must be ordered with labor code L-1843
- Additional day(s) may be required due to the system size or geographic area to be studied

L-1844

2,754.00

On-Site Field Support**On-Site Field Support - Systems, Subscribers, Repeaters**

Field Support includes one person on-site for two days and may be from R&D and/or Systems engineering, depending on the defined support activity. Activities may include validating system configuration for complex deployments or assisting in the troubleshooting of performance issues.

L-1845

Notes:

- Requestor must define the support needed on a Field Support Request form along with all requested materials such as programming files, configuration, location, etc. before the visit is scheduled.
- Purchase order for labor code must be provided no less than one week before travel is scheduled.
- Field support is for a two day minimum; additional days are at a flat rate per day (see additional day labor code)
- An expedite fee will be required if trip is required with a less than one week notice (see expedite labor code)

6,804.00

On-Site Field Support - Expedite Fee**Notes:**

- An expedite fee will be required if trip schedule is based on a less than one week notice
- Requestor must provide written justification for immediate service

L-1846

405.00

Supplementary Services

Additional Day

Notes:

L-1847

- Flat rate, per day
- Additional day(s) may be required based on scope of work or complexity of tasks
- Additional day(s) may be purchased while field support personnel are onsite
- Requestor must email Kenwood authorization for additional expense(s) using labor code

2,556.40

Firmware Customization - Subscribers & Repeaters

Application Processing Fee - Customizations

The processing fee provides for the engineering review of a customization request to determine whether an existing customization can satisfy the requirements, whether a new custom firmware needs to be created, a DAT file generated, the FPU modified, or if the customization cannot be provided as requested.

L-1848

Notes:

- A Customization Request form must be completed and sent to dealer's rep.
- R&D will review the submitted customization to determine whether a customization is possible (see labor codes that follow.)
- The requestor will be notified of the customization status following the review along with additional charges and applicable labor code, if any.

81.00

L-1849

Existing Custom FW - Tier 1 (TK-x90, NX-5xxx, NX-3xxx, NXR-5xxx, TK-5x10)

864.00

Existing Custom FW - Tier 2 (TK-x170/-173, TK-x180, NX-x00, NX-x20, NX-x40, NXR-x00, TK-5x20, TKR-x50/-x51)
Existing Custom Firmware

L-1850

Notes:

- Legacy radio series are covered by Tier 2 although they are available at R&D's discretion
- Customer will be notified of charges and applicable labor code before release and billing
- Custom firmware will be released two to three weeks after invoice

720.00

New Customization

New Custom Firmware

Notes:

L-1851

- Price is per hour, any model
- Customer will be given a quote for the estimated hours required for the customization
- Customer must agree via an e-mail to the quoted hours before customization begins
- Actual hours will be invoiced for the customization per the labor code

216.00



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®

MAX PRO WORKSTATIONS		LIST
905-0412	Kenwood MAX Pro Workstation, Laptop Bundle USB Headset included, Media Dock not included.	34,760.25
930-0258	MAX Pro Software	33,509.25
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.	40,961.25
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.	49,864.50
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.	79,537.50
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.	120,908.25
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.	45,150.75
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.	75,465.00

905-0517	<p>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 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.</p>	115,807.50
905-0518	<p>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)</p>	21,692.25
950-1348	<p>MAX Standard Software Does not include Event Recording, Paging Tones, Aux I/O, Telephone, or Individual Calls</p>	10,530.00
905-0519	<p>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.</p>	24,826.50
905-0522	<p>MAX Standard Workstation Bundle (without PC) Includes one Media Dock, two Speakers, Power Supply, MAX Base Software License, and softcopy of manuals</p>	20,943.00
905-0524	<p>MAX Standard Laptop Bundle (without Laptop) Includes USB Headset and softcopy of manuals; does NOT include Media Dock or Laptop</p>	11,115.00
OPERATOR WORKSTATION SOFTWARE LICENSES (PER WORKSTATION)		LIST
930-0222	<p>Individual Call Software Feature Set Includes: Individual radio call, Call Alert, Radio Check, Radio Monitor, Inhibit, Uninhibit</p>	1,325.00
930-0223	<p>Telephony Feature Set Includes: Console controls for basic telephone operation, Caller ID, and Alias</p>	1,987.50
930-0224	<p>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</p>	1,987.50
930-0225	<p>Event Replay Short term audio playback at the console position</p>	2,243.75
930-0226	<p>Aux I/O Software Feature Set</p>	3,721.50
COMMANDIQ - MAX COMPACT WORKSTATION		LIST
950-1387	<p>CommandIQ Compact Workstation</p>	22,497.75
930-0406	<p>CommandIQ Individual Call SW Feature Set License</p>	1,192.50
930-0407	<p>CommandIQ Telephony Feature Set License</p>	1,788.75
930-0408	<p>CommandIQ Signalling/Paging Feature Set License</p>	1,788.75
930-0409	<p>CommandIQ I/O SW Feature Set License</p>	1,788.75
950-1396	<p>CommandIQ Multi-Function Button Kit</p>	1,788.75
WORKSTATION HARDWARE OPTIONS		LIST
950-0032	<p>Headset, 6-wire, Noise Cancelling Dual-prong adaptor which includes one headset top</p>	547.80
950-0033	<p>Headset 4-Wire, Noise Cancelling Dual-prong adaptor which includes one headset top</p>	614.25
950-0454	<p>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</p>	1,437.75
802-0115	<p>Headset Top, Noise Cancelling</p>	184.26
905-0414	<p>Kenwood Desktop Microphone, Shure with Cable</p>	768.75
950-1077	<p>Dual Prong Headset Jackbox Option (Dual Volume Control) Required for TRHI functionality</p>	1,000.00
950-1082	<p>Dual Prong Headset Jackbox Option (Single Volume Control)</p>	801.25
950-9102	<p>Footswitch, Single w/ 10' cable</p>	187.65

NEXEDGE®**NEXEDGE® MAX****Dispatch Console**

950-1190	Kenwood Speakers Single (cable separate)	562.50
950-1230	Kenwood 19" 2U Rackmount Speaker Panel - 2 Speakers (cables not included)	1,146.25
950-1251	2U Rackmount Gooseneck Microphone	1,325.25
709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	26.56
901-9695	Kenwood Media Dock XS Kit	5,037.50
950-1237	Console Position Light Pole	730.40

MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP) LIST

901-9727	Kenwood MAX Digital Radio Gateway Used when interfacing via IP directly to a NEXEDGE® System	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>	662.50

MAX SYSTEM HARDWARE/SOFTWARE LIST

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	4,243.75
930-0231	Z-Node Manager At least one required for each MAX System.	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.	3,981.25
930-0376	Block of 2 Radio Channel Licenses	868.75
930-0237	IP Voice Logger Channel Block License Provides IP Logging Access for up to 10 radio channels; may require additional Centrals	1,122.75
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
930-0239	Auxiliary I/O Port License Supports any combination of inputs and outputs up to 48	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	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	5,150.00
950-9351	Connectorized Punch down Block	146.08
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	2,205.00
901-9674	Model 6080 Relay Module For higher current applications (8 I/O)	1,093.75
802-1111	Acromag Ethernet I/O Unit Sixteen discrete I/O channels, any mix of inputs and outputs 12-32VDC	979.40
930-1214	Aux I/O Port License Supports any combination of inputs and outputs up to 16 ports	958.50
802-2117	Acromag Ethernet I/O Unit Thirty-two optically isolated inputs, 16 relay outputs (250 VAC@ 2A) 18-36VDC; power supply not included	3,411.30
950-1347	Network Isolation Switch Must be used with p/n 802-2117	323.70
802-0255	Power Supply for 802-2117 Acromag Ethernet Unit	41.50

MAX TELEPHONY GATEWAY INTERFACE		LIST
930-0235	Telephone Gateway Services (1 per Max Central)	2,650.00
930-0236	Telephony Port License (1 license per line connection) License not required if purchasing one of the gateways above	153.00
950-1130	2 Port FXS VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	1,883.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	5,733.00
950-1138	2 Port FXO VoIP Gateway with 2 port license Unit requires use of 19" Rack 2U shelf (810-0142)	1,006.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	5,733.00
MAX BROADBAND PTT INTERFACE		LIST
930-0359	Cellular PTT CSSI Talk Path License Add-On (1 per licensed Talk Path)	1,309.50
907-0001	MAX Broadband PTT Interface through CSSI - 5 Talkpaths	20,812.50
907-0002	MAX Broadband PTT Interface through CSSI (Redundant) - 5 Talkpaths	28,068.75
MAX DMR TIER III INTERFACE		LIST
905-0510	MAX Dispatch DMR AIS Gateway Bundle	14,508.00
905-0511	MAX Dispatch DMR AIS Gateway Redundancy Bundle	22,920.75
930-0363	MAX Dispatch DMR 5 TalkPath License	11,700.00
930-0364	MAX Dispatch DMR 10 TalkPath License	21,294.00
930-0365	MAX Dispatch DMR 20 TalkPath License	37,674.00
930-0366	MAX Dispatch DMR 30 TalkPath License	49,374.00
RACK MOUNTING AND POWER EQUIPMENT		LIST
950-1142	Redundant 12VDC Power System Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure	3,312.50
950-1143	Redundant 12VDC Power System Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure	6,093.75
950-1133	Isolated 12VDC Power Supply System (non-redundant) Supports up to 20 MAX Dispatch devices	3,228.75
950-1134	12VDC Power Distribution Panel Supports up to 40 MAX Dispatch devices; fuses not included	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	1,181.25
950-0923	MAX Radio Gateway Power Supply Option Used for powering one Radio Gateway	100.00
950-0589	Radio Interface Module Single Unit Rack Mount Kit	152.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	212.50
810-0142	19" Rack 2U Shelf	132.80
416-0043	Fuse, 3 Amp	8.30
416-0012	AC Power Cord (North America) Required for items that need main power input	18.26
LOCATION SERVICES		LIST
950-1366	Location Services CAD API Bundle	2,925.00
PAGING SERVICES		LIST
950-1365	Paging CAD API Bundle	2,223.00
MONITORS AND NETWORK EQUIPMENT		LIST
802-2311	Monitor, LCD Flatpanel, 23" Supports up to 1920X1080 resolution	448.20
802-2423	Tech Global 24" WS Multi-touch Monitor Supports up to 1920X1080 resolution	5,996.25
802-2220	View Sonic, LCD, 22" WS Multi-touch Monitor Supports up to 1920X1080 resolution	888.10

950-1275	1000BASE-T SFP Module (Copper) Includes two modules; needed if linking switches together on the same network	1,930.50
950-1276	1000BASE-SX SFP Module for Multi-Mode Fiber Includes two modules; needed for Multi-Mode Fiber Switch connection	2,468.25
950-1281	24 Port Managed Gigabit Rack Mount Switch Two required for high availability network	3,419.60
950-1280	48 Port Managed Gigabit Rack Mount Switch Two required for high availability network	5,967.70
950-1287	Cisco Management Cable Needed for switch programming and management	117.00

SYSTEM DOCUMENTATION LIST

395-0098	MAX Dispatch Manual Set CD includes complete suite of MAX Dispatch manuals	56.25
025-9638-1	MAX System Overview Manual	62.50
025-9645-1	MAX System Installation Manual	62.50
025-9654-1	MAX Dispatch System Configuration Manual	62.50
025-9649-1	MAX Operation Manual	62.50
025-9625-1	MAX Digital Radio Gateway Product Manual	112.50
025-9647-1	MAX Central Product Manual	62.50
025-9650-1	MAX Dispatch Console Design Manual	62.50
025-9630	Model 6080 Manual	62.50
025-9658-1	Media Dock XS Manual	112.50
025-9695	MAX Infrastructure Gateway Installation and Configuration Guide	112.50
025-9632	Headset Jackbox manual	112.50

CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE) LIST

Note: Factory Training in Redmond, WA

X99-M1344	MAX Dispatch Project Management/Project Engineering	By Quote
X97-344F	MAX Dispatch Factory Technical Training, First Person	2,562.75
X97-344A	MAX Dispatch Factory Technical Training, Additional person	1,275.75
XMP-K344-OWE	MAX-PSP Operator Web Training extension	3,375.00

ON-SITE OPERATOR TRAINING (NON-DISCOUNTABLE) LIST

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	5,625.00
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ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE) LIST

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	5,625.00
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UPGRADES LIST

950-1228	MAX Dispatch Software and Firmware Upgrade-PSP Required (P/N for delivery tracking only)	NC
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MAX DISPATCH SPARES LIST

950-1133	Isolated 12VDC Power Supply System (non-redundant) Can support up to 20 MAX Dispatch devices	3,228.75
901-9727	Kenwood MAX Digital Radio Gateway	3,368.75
901-9719	Kenwood MAX Central	4,243.75
901-9695	Kenwood Media Dock XS Kit	5,037.50
950-1337-1	Kenwood MAX Solutions Win10 Workstation	4,860.00
950-1278-1	Kenwood MAX Solutions Workstation PC	2,405.70
950-1395	MAX Solutions Workstation Win10 Laptop	6,972.75

NEXEDGE®**NEXEDGE® MAX**
Dispatch Console

802-0692	Power Supply, Desktop 60W	69.72
416-0012	AC Power Cord (North America)	18.26

COMMANDIQ SPARES & ACCESSORIES **LIST**

709-0002	Handset Cable, Coiled	33.75
802-0097	Handset with cable	258.75
802-0607	USB Stereo Headset	303.75
905-0330	Desktop Microphone, Shure With 6' cable	835.00
950-9102	Footswitch, Single w/ 10' cable	187.65
802-2427	CommandIQ Power Supply	132.75
025-9716	CommandIQ Manual	112.50
027-0203	CommandIQ Quick Start Guide - Operation	22.50
027-0204	CommandIQ - Quick Start Card	22.50

SERVICE PLANS **LIST**

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	2,187.50
XMP-K344-SSL	MAX-PSP Extended Service Plan Reinstatement Fee Reinstating the software services plan after its expiration; per position	4,162.50
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	225.00
XMP-K344-RCS	MAX-PSP Remote Configuration Services Systems & CSSI Assistance in the initial configuration of a system; up to 32 hours scheduled	7,470.00
XMP-K344-RCH	MAX-PSP Remote Configuration Services Features & Components Assistance in the configuration of new components or features; hourly	405.00
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

WARRANTY PACKAGE **LIST**

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
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KA160/KA450/KA500

Analog/P25/DMR VHF/UHF Repeaters - 136-174 MHz / 400-520 MHz



GENERAL FEATURES

- Analog FM 12.5 kHz
- Digital 12.5 kHz
- DMR Tier II simulcast repeaters
- P25 conventional and simulcast 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

KAIROS REPEATER AND GATEWAY		LIST
KA160	KAIROS DMR VHF (136-174 MHz) REPEATER, 1-25W	\$ 4,247.00
KA450	KAIROS DMR UHF LO (400-470 MHz) REPEATER, 1-25W	\$ 4,247.00
KA500	KAIROS DMR UHF HI (450-527 MHz) REPEATER, 1-25W	\$ 4,247.00
KA080	KAIROS 66-88MHz RF BACKHAUL REPEATER, 1-25W	\$ 4,610.40
REPEATER MOUNT (Mandatory mount option for rack mounting)		LIST
KA-RK1V2-BPM	19" MOUNT PANEL FOR 1 KAIROS REPEATER	\$ 550.90
KA-RK2-BPM	19" MOUNT PANEL FOR 2 KAIROS REPEATER	\$ 550.90
Kairos Software Options		LIST
DMR Tier 2		LIST
KA-SI-T2M	TIER 2 SIMULCAST LICENSE	\$ 6,673.50
P25		LIST
KA-P25	CONVENTIONAL P25 LICENSE	\$ 4,853.00
KA-P25-SI	COMBO SW LICENSE P25+SIMULCAST	\$11,525.90
Alarm Monitoring and Other		LIST
KA-NET-RCM	NETCONTROL - MONITORING AND REMOTE CONTROL SW	\$ 223.10
KA-1+1M	KIT AND SW FOR HOT STAND-BY CONFIGURATION <i>Note : Must purchase additional KA repeater.</i>	\$ 294.40
KA-MCTCSSM	MCTCSS SW LICENSE	\$ 294.40
KA-POCSAGM	POCSAG KAIROS	\$ 698.60

IP Gateway Software License		LIST
IPGW-1013	IP GATEWAY WITH SERVER, SOFTWARE, INSTALLATION	\$ 5,697.00
KWD-1013T2	DMR TIER II LICENSE	\$ 1,709.60
KAGW-1013	KAIROS GATEWAY	\$ 4,052.60
KAS-20 Console		LIST
KAS-20K	DISPATCH CLIENT LICENSE	\$ -
KWD-20S-MCK	MULTI-CLIENT LICENSE	\$ 2,430.00
KWD-20S-RSK	RF SYSTEM LICENSE	\$ 2,430.00
KWD-20C-VDK	VOICE DISPATCH LICENSE	\$ 720.40
KWD-20C-VPK	VOICE PATH LICENSE	\$ 720.40
KWD-20S-VRK	VOICE RECORD LICENSE	\$ 2,430.00
KWD-20C-LMK	LOCATION MANAGEMENT LICENSE	\$ 720.40
AMPLIFIER (OPTION) - ONE PER REPEATER		LIST
Note: Includes One Cable for Radio Connectivity.		
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	\$ 1,757.00
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	\$ 1,757.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	\$ 1,757.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	\$ 2,583.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	\$ 2,284.00
KSGPA22443	151-162MHz, 3W Input, 150W Output	\$ 3,228.00
KSGPA22444	162-174MHz 3W Input 150W Output	\$ 3,228.00
KSGPA22415	136-174MHz 3W Input 100W Output	\$ 2,577.10
KSGPA23702	403-450MHz, 3W Input, 100W Output, 5-Pack	\$ 2,363.00
KSGPA23703	450-512MHz, 3W Input, 100W Output, 5-Pack	\$ 2,363.00
KSGPA23704	136-174MHz, 3W Input, 50W Output, 5-Pack	\$ 1,605.00
KSGPA22416	136-174MHz, 3W Input, 100W Output, 5-Pack	\$ 2,074.00
KSGPA23705	450-512MHz, 3W Input, 50W Output, 5-Pack	\$ 1,719.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	\$ 4,157.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	\$ 4,157.00
KSGPA24181	764-870MHz, 250mW Input, 80W Output	\$ 3,060.00
KSGPA24131	764-870MHz, 250mW Input, 150W Output	\$ 4,041.00
KSGPA25172	928-943MHz, 250mW Input, 80W Output	\$ 3,060.00
KSGPA25132	935-940MHz, 250mW Input, 140W Output	\$ 4,041.00
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>	\$ 712.00
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>	\$ 6,263.00
KSGDX13546	DUPLEXER 6 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 5,060.00
KSGDX23101	DUPLEXER 4 CAVITY UHF BPBR (450-470MHz ONLY) <i>Note : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.</i>	\$ 1,873.00
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>	\$ 47.00
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>	\$ 47.00
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>	\$ 788.90
3351557001	GPS ANTENNA SECURE SYNC KIT <i>Note : Order one per site. Provides antenna connection to the GPS receiver for simulcast</i>	\$ 580.00
3351558001	GPS ANTENNA SURGE SUPPRESSOR <i>Note : Optional, item. Protects the GPS receiver inside the repeater from surges</i>	\$ 580.00
KA-GPSM	GPS RECEIVER	\$ 485.30
POWER SUPPLY OPTIONS		LIST
KSGPS20200	POWER SUPPLY, 20A, 13.8VDC <i>Note : when operating repeater without AMP - 25W - incompatible with amplifier</i>	\$ 304.20
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>	\$ 566.70
KSGPS20352	POWER SUPPLY, 35A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER	\$ 1,430.00
KSGPS20701	POWER SUPPLY, 70A, 13.8VDC, 19" WIDE RACK MOUNTED <i>Note : one 150/250W repeater or two 100 W</i>	\$ 1,430.00
KSGPS20702	POWER SUPPLY 70A, 13.8VDC, 19" WIDE RACK MOUNTED WITH SMART CHARGER	\$ 1,836.00
MOUNTING RACK		LIST
KSGMCAB4	77" (40RU) LOCKING CABINET WITH CRATE	\$ 3,104.00
KSGMRCK3	3' (17RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 1,139.00
KSGMRCK7	7' (45RU) ALUMINUM EQUIPMENT RACK WITH CRATE	\$ 2,266.00
KSGMT20020	42" (20RU) LOCKING CABINET	\$ 2,110.00
KSGMT0C20U	CRATE FOR 42" (20RU) LOCKING CABINET <i>Note : Optional for situations where extra protection during transportation is required.</i>	\$ 1,416.80
KSGMT20001	CABINET SOLID TOP PANEL	\$ 95.00
KSGMT20002	CABINET FAN TOP ASSEMBLY	\$ 459.00
KSGMT20003	CABINET SOLID FLOOR PANEL <i>Note : (INCLUDES FIVE PRE-DRILLED OPENINGS AND GROMMETS)</i>	\$ 148.00
VP-10-BPM	CLOSURE 10TE, FOR VERTICAL MOUNTING	\$ 114.48
VP-4-BPM	CLOSURE 4TE, FOR VERTICAL MOUNTING	\$ 64.80
KSGTM10TCS	CASE, TONE TERM PANEL	\$ 77.40
ETHERNET SWITCH & ROUTER OPTIONS		LIST
Note: One switch is required for each site; VPN router(s) may be required for multi-site systems de		
6365074160	CISCO 8-PORT SWITCH	\$ 292.48
KSGNS40002	ARUBA 2530-8 - 8 PORT HPE SWITCH	\$ 636.00
KSGUT10001	MOUNTING TRAY, 1RU <i>Note : Provides mounting space for up to two accessories</i>	\$ 123.50
KSGNS10024	RACK MOUNTED 24-PORT MANAGED NETWORK SWITCH	\$ 830.25
KSGRT20001	HP MSR2003 AC ROUTER <i>Note : For complex system, order this router instead of the KSGRT-RV340</i>	\$ 1,899.00

KSGMS100P1	15A POWER STRIP, 19" RACKMOUNT, 1RU <i>Note : One recommended per rack when including a switch and/or router</i>	\$ 154.00
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>	\$ 535.90
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>	\$ 151.80



STATE OF MICHIGAN PROCUREMENT
DTMB Central Procurement Services
 525 W. Allegan Street, 1st Floor N.E.
 Lansing, MI 48933

NOTICE OF CONTRACT

NOTICE OF CONTRACT NO. **21000000896**
 between
 THE STATE OF MICHIGAN
 and

CONTRACTOR	E.F. Johnson Company
	1440 Corporate Drive
	Irving, Texas 48933
	Timi Jackson
	972-819-2996
	tjackson@efji.com
	CV050201

STATE	Program Manager	(See Attached)	STATEWIDE
	Contract Administrator	Valerie Hiltz 517-249-0459 hiltzv@michigan.gov	DTMB

CONTRACT SUMMARY			
DESCRIPTION: Two-Way Radio and Radio Systems Sales and Service- Statewide			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
May 1, 2021	April 30, 2026	3, 1-year	April 30, 2026
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		As per DO. See 2.2. Time Frames	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input checked="" type="checkbox"/> P-card <input type="checkbox"/> Payment Request (PRC) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
N/A			
MISCELLANEOUS INFORMATION			
THIS IS NOT AN ORDER: Orders will be place directly by the State agency via the authorized document established in Schedule A, Section 5.1. Authorizing Document, and per terms, conditions, and specifications of this contract. The Contractor's Program Manager, responsible for day-to-day operations of this contract is Joe Campbell, 810-626-8813, JCcampbell@efji.com.			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION			\$1,000,000.00

Contract Number: **21000000896**

**Program Managers
for
Multi-Agency & Statewide Contracts**

	AGENCY	NAME	PHONE	EMAIL
1	DMTB (MPSCS)	Kate Jannereth	517-881-1031	jannerethk@michigan.gov
2	MDOC	Kasey Mlujeak	517-780-6370	MlujeaKL@michigan.gov
3	DNR	Paul Rogers	517-284-5872	RogersP5@michigan.gov

(This Space is intentionally Blank)

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Name & Title

Agency

Date



STATE OF MICHIGAN

STANDARD CONTRACT TERMS

MA 210000000896

This STANDARD CONTRACT (“**Contract**”) is agreed to between the State of Michigan (the “**State**”) and E.F. Johnson Company (“**Contractor**”), a Minnesota corporation. This Contract is effective on May 1, 2021 (“**Effective Date**”), and unless terminated, expires on April 30, 2026.

This Contract may be renewed for up to three (3) additional one (1) year period(s). Renewal is at the sole discretion of the State and will automatically extend the Term of this Contract. The State will document its exercise of renewal options via Contract Change Notice.

1. **Definitions.** For the purposes of this Contract, the following terms have the following meanings:

“**Accept**” has the meaning set forth in **Section 20**.

“**Acceptance**” has the meaning set forth in **Section 20**.

“**Affiliate**” of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. For purposes of this definition, the term “control” (including the terms “controlled by” and “under common control with”) means the direct or indirect ownership of more than fifty percent (50%) of the voting securities of a Person.

“**Allegedly Infringing Materials**” has the meaning set forth in **Section 33**.

“**Business Day**” means a day other than a Saturday, Sunday, or other day on which the State is authorized or required by Law to be closed for business.

“**Business Owner**” is the individual appointed by the agency buyer to (a) act as the agency’s representative in all matters relating to the Contract, and (b) co-sign off on notice of Acceptance. The Business Owner will be identified in the Statement of Work.

“Change” has the meaning set forth in **Section 5**.

“Change Notice” has the meaning set forth in **Section 5**.

“Change Proposal” has the meaning set forth in **Section 5**.

“Change Request” has the meaning set forth in **Section 5**.

“Confidential Information” has the meaning set forth in **Section 38.a**.

“**Configuration**” means State-specific changes made to the Software without Source Code or structural data model changes occurring.

“**Contract**” has the meaning set forth in the preamble.

“**Contract Activities**” refers to the includes the Services, Deliverables, delivery of commodities, or other contractual requirements set forth in **Schedule A – Statement of Work**, including any subsequent Statement(s) of Work, that the Contractor agrees to provide, and the State agrees to purchase pursuant to the terms of this Contract.

“**Contract Administrator**” is the individual appointed by each party to (a) administer the terms of this Contract, and (b) approve any Change Notices under this Contract. Each party’s Contract Administrator will be identified in the Statement of Work.

“**Contractor**” has the meaning set forth in the preamble.

“**Contractor’s Bid Response**” means the Contractor’s proposal submitted in response to the State’s requests to obtain Contract Activities.

“**Contractor Personnel**” means all employees of Contractor or any Permitted Subcontractors involved in the performance of Services hereunder.

“**Deliverables**” means all materials, including, but not limited to Software, Documentation, written materials and commodities, that Contractor is required to or otherwise does provide to the State under this Contract and otherwise in connection with any Services, including all items specifically identified as Deliverables in **Schedule A - Statement of Work**.

“**Dispute Resolution Procedure**” has the meaning set forth in **Section 55**.

“**Documentation**” means all generally available documentation relating to the Software, including all user manuals, operating manuals and other instructions, specifications, documents and materials, in any form or media, that describe any component, feature, requirement or other aspect of the Software, including any functionality, testing, operation or use thereof.

“**DTMB**” means the Michigan Department of Technology, Management and Budget.

“**Effective Date**” has the meaning set forth in the preamble.

“**Fees**” means collectively all fees collected by the Contractor pursuant to the terms of this Contract.

“**Financial Audit Period**” has the meaning set forth in **Section 42**.

“**Force Majeure**” has the meaning set forth in **Section 54**.

“**HIPAA**” has the meaning set forth in **Section 47**.

“**Intellectual Property Rights**” means all or any of the following: (a) patents, patent disclosures, and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names, and domain names, together with all of the associated goodwill; (c) copyrights and copyrightable works (including computer programs), mask works and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable Law in any jurisdiction throughout the world.

“**Key Personnel**” means any Contractor Personnel identified as key personnel in **Schedule A – Statement of Work**.

“**Law**” means any statute, law, ordinance, regulation, rule, code, order, constitution, treaty, common law, judgment, decree or other requirement or rule of any federal, state, local or foreign government or political subdivision thereof, or any arbitrator, court or tribunal of competent jurisdiction.

“**Loss or Losses**” means all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys’ fees and the costs of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers.

“**Maintenance Release**” means any update, upgrade, release or other adaptation or modification of the Software, including any updated Documentation, that Contractor may generally provide to its licensees from time to time during the Term, which may contain, among other things, error corrections, enhancements, improvements or other changes to the user interface, functionality, compatibility, capabilities, performance, efficiency or quality of the Software.

“**New Version**” means any new version of the Software that the Contractor may from time to time introduce and market generally as a distinct licensed product, as may be indicated by Contractor’s designation of a new version number.

“**Permitted Subcontractor**” has the meaning set forth in **Section 13**.

“**Person**” means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

“**Pricing**” means any and all fees, rates and prices payable under this Contract, including pursuant to any Schedule or Exhibit hereto.

“**Pricing Schedule**” means the schedule attached as **Schedule B**, setting forth the Fees, rates and Pricing payable under this Contract.

“**Program Manager**” is the individual appointed by each party to (a) monitor and coordinate the day-to-day activities of this Contract, and (b) for the State, to co-sign off on its notice of Acceptance of the Deliverables. Each party’s Program Manager will be identified in the Statement of Work.

“**Representatives**” means a party’s employees, officers, directors, partners, shareholders, agents, attorneys, successors and permitted assigns.

“**RFP**” means the State’s request designed to solicit responses for Contract Activities under this Contract.

“**Software**” means Contractor’s software set forth in the Statement of Work, and any Maintenance Releases or New Versions provided to the State and any Configurations made by or for the State pursuant to this Contract, and all copies of the foregoing permitted under this Contract.

“**Services**” means any of the services Contractor is required to or otherwise does provide under this Contract, **Schedule A** - Statement of Work, **Schedule C** - Software Terms (if applicable), and **Schedule D** – Data Security Schedule (if applicable).

“**Source Code**” means the human readable source code of the Software to which it relates, in the programming language in which the Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, the Software.

“**Site**” means the physical location designated by the State in, or in accordance with, this Contract or the Statement of Work for delivery or installation of the Contract Activities.

“**State**” means the State of Michigan.

“**State Data**” has the meaning set forth in **Section 36**.

“**State Materials**” means all materials and information, including equipment, documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State in connection with this Contract.

“**Statement of Work**” means any statement of work entered into by the parties and attached as a schedule to this Contract. The initial Statement of Work is attached as **Schedule A**, and subsequent Statements of Work shall be sequentially identified and attached as Schedules A-1, A-2, A-3, etc.

“**Stop Work Order**” has the meaning set forth in **Section 27**.

“**Term**” has the meaning set forth in the preamble.

“**Third Party**” means any Person other than the State or Contractor.

“**Transition Period**” has the meaning set forth in **Section 31**.

“**Transition Responsibilities**” has the meaning set forth in **Section 31**.

“**Unauthorized Removal**” has the meaning set forth in **Section 15**.

“**Unauthorized Removal Credit**” has the meaning set forth in **Section 15**.

“**Warranty Period**” means the period set forth in Schedule A, the Statement of Work, commencing on the date of acceptance of all Deliverables purchased pursuant to the terms of this Contract.

“**Work Product**” means all State-specific deliverables that Contractor is required to, or otherwise does, provide to the State under this Contract including but not limited to written materials, computer scripts, software configuration, software customization, APIs, macros, user interfaces, reports, project management documents, forms, templates, and other State-specific documents and related materials together with all ideas, concepts, processes, and methodologies developed in connection with this Contract whether or not embodied in this Contract. Work Product does not include software and/or any Contractor Intellectual Property or deliverables that are not State-specific deliverables.

- 2. Duties of Contractor.** Contractor must perform the Services and provide the Deliverables described in **Schedule A – Statement of Work**. An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies it deems necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in **Schedule A**.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

- 3. Statement(s) of Work.** Contractor shall provide the Contract Activities pursuant to Statements of Work entered into under this Contract. No Statement of Work shall be effective unless signed by each party's Contract Administrator. The term of each Statement of Work shall commence on the parties' full execution of the Statement of Work and terminate when the parties have fully performed their

obligations. The terms and conditions of this Contract will apply at all times to any Statements of Work entered into by the parties and attached as a schedule to this Contract. The State shall have the right to terminate such Statement of Work as set forth in **Sections 28 and 29**. Contractor acknowledges that time is of the essence with respect to Contractor's obligations under each Statement of Work and agrees that prompt and timely performance of all such obligations in accordance with this Contract and the Statements of Work is strictly required.

4. **Statement of Work Requirements.** Each Statement of Work may include the following: (a) names and contact information for Contractor's Contract Administrator, Program Manager and Key Personnel; (b) names and contact information for the State's Contract Administrator, Program Manager and Business Owner; (c) a detailed description of the Services to be provided under this Contract, including any training obligations of Contractor; (d) a detailed description of the Deliverables to be provided under this Contract; (e) a description of all liquidated damages associated with this Contract, if any; and (f) a detailed description of all State Resources, if any, required to complete the Implementation Plan, if such a Plan is necessary.
5. **Change Control Process.** The State may at any time request in writing (each, a "Change Request") changes to the Statement of Work, including changes to the Contract Activities (each, a "Change"). Upon the State's submission of a Change Request, the parties will evaluate and implement all Changes mutually agreed-upon in writing in accordance with this **Section 5**. No Change will be effective until the parties have executed a Change Notice. Except as the State may request in its Change Request or otherwise in writing, Contractor must continue to perform its obligations in accordance with the Statement of Work pending negotiation and execution of a Change Notice. Contractor will use its best efforts to limit any delays or Fee increases from any Change to those necessary to perform the Change in accordance with the applicable Change Notice. Contractor may, on its own initiative and at its own expense, prepare and submit its own Change Request to the State. However, the State will be under no obligation to approve or otherwise respond to a Change Request initiated by Contractor.
6. **Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State:	If to Contractor:
Valerie Hiltz 525 W. Allegan Street, 1 st Floor NE Lansing, MI 48933 hiltzv@michigan.gov 517-249-0459	Timi Jackson 1440 Corporate Irving, TX 75038 tjackson@efji.com 972-819-2336

7. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request. The State may require a performance bond (as specified in Schedule A) if, in the opinion of the State, it will ensure performance of the Contract.
8. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A-" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
Commercial General Liability Insurance	

<p><u>Minimum Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations</p> <p><u>Deductible Maximum:</u> \$50,000 Each Occurrence</p>	<p>Contractor must have their policy endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 04.</p>
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Umbrella or Excess Liability Insurance	
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<p><u>Minimum Limits:</u> \$5,000,000 General Aggregate</p>	<p>Contractor must have their policy follow form.</p>
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Automobile Liability Insurance	
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<p><u>Minimum Limits:</u> \$1,000,000 Per Accident</p>	<p>Contractor must have their policy: (1) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.</p>
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Workers' Compensation Insurance	
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<p><u>Minimum Limits:</u> Coverage according to applicable laws governing work activities.</p>	<p>Waiver of subrogation, except where waiver is prohibited by law.</p>
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Employers Liability Insurance	
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<p><u>Minimum Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.</p>	
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Professional Liability (Errors and Omissions) Insurance	
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<p><u>Minimum Limits:</u></p>	
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<p>\$3,000,000 Each Occurrence \$3,000,000 Annual Aggregate</p> <p><u>Deductible Maximum:</u> \$50,000 Per Loss</p>	
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If any of the required policies provide **claims-made** coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or delivery order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not to be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

- 9. Administrative Fee and Reporting.** Contractor must pay an administrative fee of 1% on all payments made to Contractor under the Contract including transactions with the State (including its departments, divisions, agencies, offices, and commissions), MiDEAL members, and other states (including governmental subdivisions and authorized entities). Administrative fee payments must be made by check payable to the State of Michigan and mailed to:

Department of Technology, Management and Budget
Cashiering
P.O. Box 30681
Lansing, MI 48909

Contractor must submit an itemized purchasing activity report, which includes at a minimum, the name of the purchasing entity and the total dollar volume in sales. Reports should be mailed to MiDeal@michigan.gov.

The administrative fee and purchasing activity report are due within 30 calendar days from the last day of each calendar quarter.

- 10. Extended Purchasing Program.** This contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at www.michigan.gov/mideal. Upon written agreement between the State and Contractor, this Contract may also be extended to: (a) State of Michigan employees and (b) other states (including governmental subdivisions and authorized entities).

If extended, Contractor must supply all Contract Activities at the established Contract prices and terms. The State reserves the right to impose an administrative fee and negotiate additional discounts based on any increased volume generated by such extensions.

Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis.

11. **Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.
12. **Intellectual Property Rights.** Contractor hereby acknowledges that the State is and will be the sole and exclusive owner of all right, title, and interest in the Work Product produced as part of the Contract Activities, and all associated intellectual property rights, if any. In general, Work Product constitutes works made for hire as defined in Section 101 of the Copyright Act of 1976. To the extent any Work Product, and related intellectual property therein do not qualify as works made for hire under the Copyright Act, Contractor will, and hereby does, immediately on its creation, assign, transfer and otherwise convey to the State, irrevocably and in perpetuity, throughout the universe, all right, title and interest in and to the Work Product, including all intellectual property rights therein. Contractor also irrevocably waives any and all claims Contractor may have now or hereafter have in any jurisdiction to so called "moral rights" or rights of *droit moral* with respect to the Work Product. If Contract Activities includes the purchase or use of software, such purchase, use, or access to Software shall be subject to **Schedules C and D** of this Contract.
13. **Subcontracting.** Contractor will not, without the prior written approval of the State, which consent may be given or withheld in the State's sole discretion, engage any Third Party to perform Services. The State's approval of any such Third Party (each approved Third Party, a "**Permitted Subcontractor**") does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will: (a) be responsible and liable for the acts and omissions of each such Permitted Subcontractor (including such Permitted Subcontractor's employees who, to the extent providing Services or Deliverables, shall be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees; (b) name the State a third party beneficiary under Contractor's Contract with each Permitted Subcontractor with respect to the Services; (c) be responsible for all fees and expenses mutually agreed-upon in a writing between Contractor and subcontractor payable to, by or on behalf of each Permitted Subcontractor in connection with this Contract, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits; and (d) notify the State of the location of the Permitted Subcontractor and indicate if it is located within the continental United States.
14. **Staffing.** Contractor is solely responsible for all Contractor Personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits. The State's Contract Administrator may require Contractor to remove personnel by providing a written notice to Contractor.
15. **Key Personnel.** If, in the sole discretion of the State, Key Personnel are required to complete the Contract Activities, such Key Personnel shall be identified in **Schedule A - Statement of Work**. The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Program Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.

Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("**Unauthorized Removal**"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances,

resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under **Section 28**.

It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 28**, Contractor will issue to the State an amount set forth in **Schedule A – Statement of Work** (each, an “**Unauthorized Removal Credit**”).

16. **Background Checks.** Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and Subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or Subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018. Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the request background checks. ted background checks. The State, in its sole discretion and at its expense, may also perform.
17. **Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.
18. **Change of Control.** Contractor will notify within 30 days of any public announcement, or otherwise once legally permitted to do so, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.
19. **Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Schedule A.
20. **Acceptance.** Contract Activities are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them (“**State Review Period**”), unless otherwise provided in Schedule A. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies, it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with **Section 28**, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed

Contract Activities, the parties' respective Program Managers must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part. The State, or a third party identified by the State, may perform the Contract Activities and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

21. **Delivery.** Contractor must deliver all Contract Activities F.O.B. destination, within the State premises with transportation and handling charges paid by Contractor, unless otherwise specified in Schedule A. All containers and packaging become the State's exclusive property upon acceptance.
22. **Risk of Loss and Title** Until final acceptance, title and risk of loss or damage to Contract Activities remains with Contractor. Contractor is responsible for filing, processing, and collecting all damage claims. The State will record and report to Contractor any evidence of visible damage. If the State rejects the Contract Activities, Contractor must remove them from the premises within 10 calendar days after notification of rejection. The risk of loss of rejected or non-conforming Contract Activities remains with Contractor. Rejected Contract Activities not removed by Contractor within 10 calendar days will be deemed abandoned by Contractor, and the State will have the right to dispose of it as its own property. Contractor must reimburse the State for costs and expenses incurred in storing or effecting removal or disposition of rejected Contract Activities.
23. **Warranty Period.** The warranty period, if applicable, for Contract Activities is a fixed period commencing on the date specified in **Schedule A**, and, for Software, **Schedule C**. If the Contract Activities do not function as warranted during the warranty period, the State may return such non-conforming Contract Activities to the Contractor for a full refund.
24. **Terms of Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in **Schedule A**. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Agreement are for the State's exclusive use. All prices are exclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

25. **Payment Disputes.** The State may withhold from payment any and all payments and amounts the State disputes in good faith, pending resolution of such dispute, provided that the State: (a) timely renders all payments and amounts that are not in dispute; notifies Contractor of the dispute prior to the due date for payment, specifying in such notice: (i) the amount in dispute; and (ii) the reason for the dispute set out in sufficient detail to facilitate investigation by Contractor and resolution by the parties; (b) works with Contractor in good faith to resolve the dispute promptly; and (c) promptly pays any amount determined to be payable by resolution of the dispute.

Contractor shall not withhold any Contract Activities or fail to perform any obligation hereunder by reason of the State's good faith withholding of any payment or amount in accordance with this **Section 25** or any dispute arising therefrom.

26. **Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in **Schedule A**. Amounts due the State as liquidated damages may be set off against any Fees payable to Contractor under this Contract, or the State may bill Contractor as a separate item and Contractor will promptly make payments on such bills.
27. **Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or delivery order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.
28. **Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 29**, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Contract Activities from other sources.

29. **Termination for Convenience.** The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with **Section 31**, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.
30. **Effect of Termination.** Upon and after the termination or expiration of this Contract or one or more Statements of Work for any or no reason: (a) Contractor will be obligated to perform all Transition Responsibilities specified in **Section 31**; (b) all licenses granted to Contractor in State Data will immediately and automatically also terminate. Contractor must promptly return to the State all State Data not required by Contractor for its Transition Responsibilities, if any; (c) Contractor will: (i) return to the State all documents and tangible materials (and any copies) containing, reflecting, incorporating, or based on the State's Confidential Information; (ii) permanently erase the State's Confidential Information from its computer systems; and (iii) certify in writing to the State that it has complied with the requirements of this **Section 30** in each case to the extent such materials are not required by Contractor for Transition Responsibilities, if any.
31. **Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 180 calendar days, "**Transition Period**"), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to

facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.

- 32. General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

- 33. Infringement Remedies.** If, in either party's opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.
- 34. Limitation of Liability and Disclaimer of Damages.** **NEITHER THE STATE NOR THE CONTRACTOR WILL BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES. EXCEPT FOR CONTRACTOR'S INDEMNIFICATION OBLIGATIONS, IN NO EVENT WILL EITHER PARTY'S AGGREGATE LIABILITY TO THE OTHER PARTY UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION,**

WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER THIS CONTRACT.

35. Disclosure of Litigation, or Other Proceeding. Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.

36. State Data. All data and information provided to Contractor by or on behalf of the State, and all data and information derived therefrom, is the exclusive property of the State ("**State Data**"); this definition is to be construed as broadly as reasonably necessary. Upon request, Contractor must provide to the State, or a third party designated by the State, all State Data within 10 calendar days of the request and in the format requested by the State. Contractor will assume all costs incurred in compiling and supplying State Data. No State Data may be used for any marketing purposes.

Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services. Contractor must:

(a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss;

(b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, any applicable Statement of Work, and applicable law;

(c) keep and maintain State Data in the continental United States and

(d) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent.

37. Reserved.

38. Non-Disclosure of Confidential Information. The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

a. Meaning of Confidential Information. For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.

- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party. However, the State's legal ability to destroy Contractor data may be restricted by its retention and disposal schedule, in which case Contractor's Confidential Information will be destroyed after the retention period expires.

39. **Reserved.**

40. **Reserved.**

41. **Reserved.**

42. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error

must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid to Contractor or refunded by Contractor within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

- 43. Warranties and Representations.** Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) Contractor will perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (c) Contractor will meet or exceed the performance and operational standards, and specifications of the Contract; (d) Contractor will provide all Contract Activities in good quality, with no material defects; (d) Contractor will not interfere with the State's operations; (e) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (f) the Contract Activities will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (g) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities; (h) the Contract Activities are merchantable and fit for the specific purposes identified in the Contract; (g) the Contract signatory has the authority to enter into this Contract; (h) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; (i) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading; and that (j) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under **Section 28**, Termination for Cause. If Contract Activities includes purchase, use, or access to software, Contractor must agree to additional Warranties and Representations found in **Schedules C** or **D** of this Contract, as applicable.
- 44. Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.
- 45. Compliance with Laws.** Contractor must comply with all applicable federal, state and local laws, rules and regulations.
- 46. ADA Compliance.** The State is required to comply with the Americans with Disabilities Act of 1990 (ADA), and has adopted a formal policy regarding accessibility requirements for websites and software applications. Contractor's Service Software must comply, where relevant, with level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0.
- 47. HIPAA Compliance.** The State and Contractor must comply with all obligations under HIPAA and its accompanying regulations, including but not limited to entering into a business associate agreement, if reasonably necessary to keep the State and Contractor in compliance with HIPAA.
- 48. Reserved.**
- 49. Reserved.**
- 50. Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, and [Executive Directive 2019-09](#). Contractor and its subcontractors agree not to discriminate against an employee or applicant

for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this covenant is a material breach of this Contract.

51. **Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.
52. **Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.
53. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
54. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
55. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.
56. **Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval which shall not be unreasonably withheld, and then only in accordance with the explicit written instructions of the State.
57. **Website Incorporation.** The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.
58. **Schedules.** All Schedules and Exhibits that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work
Schedule A, Attachment 1	MPSCS Approved Radios, Consoles and Pagers
Schedule A, Attachment 2	EF Johnson Manufacturing Reps and Dealers (LSP's)
Schedule A, Attachment 3	Sample- Simple Quotation

Schedule B	Pricing and Fees
Schedule B, Attachment 1	Manufacturer List Price Catalog
Schedule C	Software Terms
Schedule D	Data Security Requirements
Schedule E	Federal Provisions Addendum

- 59. Entire Agreement and Order of Precedence.** This Contract, which includes Schedule A – Statement of Work, and schedules and exhibits which are hereby expressly incorporated, is the entire agreement of the parties related to the Contract Activities. This Contract supersedes and replaces all previous understandings and agreements between the parties for the Contract Activities. If there is a conflict between documents, the order of precedence is: (a) first, this Contract, excluding its schedules, exhibits, and Schedule A – Statement of Work; (b) second, Schedule A – Statement of Work; and (c) third, schedules expressly incorporated into this Contract. NO TERMS ON CONTRACTOR'S INVOICES, ORDERING DOCUMENTS, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE CONTRACT ACTIVITIES WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ITS AUTHORIZED USERS FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE, EVEN IF ACCESS TO OR USE OF THE CONTRACT ACTIVITIES REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.
- 60. Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
- 61. Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
- 62. Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.

STATE OF MICHIGAN

Master Agreement No. 21000000896
Two-Way Radio and Radio Systems Sales and Service
SCHEDULE A
STATEMENT OF WORK
CONTRACT ACTIVITIES

BACKGROUND

The State of Michigan, its agencies, and MiDeal members (local units of government including cities, villages, counties, townships, school districts, non-profit hospitals, and institutions of higher education) use two-way radio and wireless communication equipment to ensure public safety either by utilizing the Michigan Public Services Communication System (MPSCS) or independent systems, and the performance of their everyday duties.

SCOPE

This contract will be for use by the State of Michigan and its MiDeal members and must provide deliverables, services, staff, and otherwise do all things necessary or incidental to the performance of the work established in the contract to include but not limited to:

- A. P25 Two-Way Radios and other associated radio systems hardware, accessories and furniture which may or may not be utilized for use on and compatible with the Michigan Public Safety Communication System (MPSCS).
- B. Non-P25 Two-Way Radios and other associated radio system hardware, software, accessories, and furniture.
- C. Professional services including but not limited to extended warranties, engineering, installation, maintenance, repair, and training services.
- D. Future new technologies and technology solutions as necessary to refresh radio systems created under this contract or to augment existing State systems.

REQUIREMENTS

1. General Requirements

1.1. Sales- Deliverable Product Specifications

A. P-25 and Non-P25 Radios and Equipment.

The Contractor may provide both P-25 and Non-P25 radios and equipment. Products intended to be used in conjunction with (MPSCS) must meet parameters as set forth in **Section 1.1.B.** as indicated below.

The following list of commodities will be made available to include but not limited to:

1. Mobile and Portable Radios. Includes but are not limited to, trucking phase II, analog conventional:
 - a. Mobile Radio- which is a fixed mount unit installed into a vehicle.
 - b. Portable Radio- which are personal radios.

- c. Console Radio- which are at dispatch centers or established for back-up using 120v.
 - d. In-vehicle Repeaters and systems, and associated hardware and accessories.
- 2. Consoles. Include but not limited to any dispatch console.
- 3. Fixed Stations, Fixed Station Controls and Fixed Station Accessories. These are the large rack mounted radios and equipment located at radio tower sites, and receivers. Including but not limited to:
 - a. Microwave Antennas and Antenna Systems
 - b. Base Station/Repeater Radio Antennas
 - c. RF Transmission Lines
 - d. RF Filtering Equipment
- 4. Fixed Network Equipment. Includes all system infrastructure IP networking hardware including but not limited to:
 - a. Routers
 - b. Switches
 - c. Firewalls
- 5. System Infrastructure. Includes hardware, software, software licenses all located at the system master sites which run the radio system.
- 6. Dropship. Includes but is not limited to:
 - a. Microwave Equipment
 - b. Antenna Systems
 - c. Site Shelters
 - d. Console Furniture
 - e. Fixed Mount Hardware
 - f. Third party hardware or software
- 7. Accessories and Aftermarket. Includes but is not limited to such items as:
 - a. Belt Clips
 - b. Remote speaker mics
 - c. Batteries
- 8. Spare Parts. To repair any items sold
- 9. Pagers and Pager Encoders
- 10. Pager Accessories

B. P25 Equipment to be used in conjunction with the MPSCS

1. Radios and Dispatch Consoles

After evaluation by the Michigan Public Safety Communications staff for compliance with the established MPSCS technical and operational standards, the mobile and portable radios, paging receivers and dispatch consoles listed below have met those requirements and are eligible for use on the MPSCS by MPSCS members. Currently approved equipment available for review in **Schedule A, Attachment 1**.

2. Size800 MHz Fire Paging

At this time, only one manufacturer has been approved as compatible for use on the MPSCS. During the course of the contract this list could be updated and expanded as other manufacturers develop pagers that have been proven to work on the system. The list of currently approved pagers is as follows:

- a. Unication G4 Single Band P25 Voice Pager
- b. Unication G5 Dual Band P25 Voice Pager (which can switch between digital and analog paging)
- c. Unication accessories

1.2. Warranties

- A. The Contractor warrants that the hardware and installation services they furnished will be free from defect in material and workmanship.
- B. The Contractor's standard manufacturer's warranties from date of shipment for box items or acceptance for systems and complex projects are as follows:
 - 1. ATLAS components include a one-year initial warranty.
 - 2. Viking subscribers include a three-year initial warranty.
 - 3. NEXEDGE infrastructure components include a two-year initial warranty.
 - 4. NEXEDGE subscriber components include a three-year initial warranty for digital units; analog units include a two-year initial warranty.
 - 5. Kairos components include a two-year initial warranty.
- C. During the warranty period, if any component of the hardware or portion of the installation services fails, the Contractor will examine the failure and remedy by:
 - 1. Contracting either the Contractor's technical support:
 - a. JVCKENWOOD Technical Support Center (TSC)—The JVCKENWOOD TSC houses our Help Desk representatives and Service Technicians. Service Technicians are engaged when local support resources cannot fix the issue at hand and additional engineering expertise is required.
 JVCKENWOOD Technical Support
 1-800-328-3911, ext. 3
 - b. JVCKENWOOD-Authorized ATLAS® Repeater Depot in Irving, Texas—The depot maintains tools, test equipment, and repair kits, as well as replacement boards to provide repeater hardware repair and replacement services and hardware warranty services on other ATLAS infrastructure.
 JVCKENWOOD/E.F. Johnson Depot
 1440 Corporate Drive
 Irving, TX 75078
 1-800-328-3911, ext.3
 - c. KENWOOD-Authorized Repair Center: United Radio—United Radio has been contracted by JVCKENWOOD to provide depot warranty and repair services for all KENWOOD branded equipment other than ATLAS. The United Radio repair center maintains a stockroom of common repair parts to reduce repair time; it is staffed with certified technicians and support personnel.
 United Radio
 KENWOOD Authorized Service Center
 5703 Enterprise Parkway
 East Syracuse, NY 13057
 1-800-599-2101
 - 2. If a remote resolution of the issue is not possible, based on the warranty contract, a technician will be dispatched for on-site problem investigation and resolution.

- D. The Contractor confirms that any warranty purchased by EF Johnson from a third party, or other manufacturer, will pass through to the State.
- E. The contractor offers extended warranties for purchase as follows:
 1. Extended warranty for ATLAS components is customized based on the system design and equipment ordered. Extended warranties can be purchased for up to 15 years.
 2. Viking subscribers are eligible for a one- or two-year extended warranty to provide up to five years of total coverage. A one-year warranty extension is \$100 per unit; the two year extension costs \$175 per unit.
 3. Extended warranty for NEXEDGE infrastructure components is customized based on the system design and equipment ordered. Extended warranties can be purchased for up to five years of total warranty.
 4. NEXEDGE subscribers are eligible for extended warranties to provide up to five years of total coverage as detailed:

Product	Type	1-2 Year	3rd Year	4th Year	5th Year
Analog	Portable	Included in Standard Warranty	\$24.00	\$36.00	\$48.00
Analog	Mobile	Included in Standard Warranty	\$36.00	\$48.00	\$60.00
Digital/P25	Portable	Included in Standard Warranty	Included in Standard Warranty	\$36.00	\$48.00
Digital/P25	Mobile	Included in Standard Warranty	Included in Standard Warranty	\$48.00	\$60.00
NX-5000	Portable	Included in Standard Warranty	Included in Standard Warranty	\$45.00	\$95.00
NX-5000	Mobile	Included in Standard Warranty	Included in Standard Warranty	\$45.00	\$95.00

- 5. Kairos extended warranties are customized based on the system design and equipment ordered.

1.3. Recall Requirements and Procedures

Communications regarding recalls will be handled in the following manner:

- A. Contactor will post a Field Service Bulletin on the E.F. Johnson website.
- B. Contractor will distribute the Field Service Bulletin to the MR/dealer network and to the State's affected customers via an email.

1.4. Quality Assurance Program

- A. The Contractor's Quality Assurance Plan (QAP) establishes the goals, processes, and responsibilities required to implement effective quality management procedures.
- B. The QAP defines how the project team will implement, support, and communicate project quality practices, as well as the activities and processes related to managing the quality of the system implementation effort.
- C. The plan is applicable to all aspects of system implementation, including project management, detailed analysis, design, configuration, testing, installation, implementation, training, and

temporary post-implementation until the start of the warranty phase. The QAP will accomplish the following objectives:

1. Outline the purpose and scope of quality activities.
 2. Define how quality will be planned and managed.
 3. Define quality assurance/quality control (QA/QC) activities.
 4. Define acceptable quality standards.
 5. Define roles and responsibilities for quality management activities.
- D. The Contractor will use industry best practices as a tool to reduce quality risks that may arise during integration. These practices include lean process improvement, Kaizen opportunities, and scheduled system testing (factory, site, and system testing).

1.5. Incentives

- A. From time-to-time, the Contractor may offer promotional incentives and other special sales opportunities, for example: bundle packages, trial period promotions, and the like.
- B. The Contractor will offer trade-in programs, and quantity discounts will be available on a case-by case basis.

1.6 Specific Standards

- A. IT Policies, Standards and Procedures (PSP)

Contractors are advised that the State has methods, policies, standards and procedures that have been developed over the years. Contractors are expected to provide proposals that conform to State IT policies and standards. All services and products provided as a result of this RFP must comply with all applicable State IT policies and standards. Contractor is required to review all applicable links provided below and state compliance in their response.

Public IT Policies, Standards and Procedures (PSP):

https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html

- B. Acceptable Use Policy

To the extent that Contractor has access to the State's computer system, Contractor must comply with the State's Acceptable Use Policy, see http://michigan.gov/dtmb/0,4568,7-150-56355_56579_56755---,00.html. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access to the State's system if a violation occurs.

- C. SOM Digital Standards

All software items provided by the Contractor must adhere to the State of Michigan Application/Site Standards which can be found at www.michigan.gov/standards.

2. Service

2.1. Professional Service

The following professional services will be provided in order to engineer, service, maintain and repair the products or systems sold under this contract. These professional services will include but are not limited to:

- A. **System Engineering**

1. The Contractor will provide full turn-key RF and System Design services for KENWOOD ATLAS, KENWOOD NEXEDGE, and KENWOOD Kairos product lines.
2. For smaller projects the Contractor will work with their Local Service Providers (LSP) to provide support the implementation of the proposed systems.

3. Depending on the need and the scope of the project, services can be customized to the needs of the End-User and can include coverage design, acceptance testing, site development, and frequency coordination.

B. Installation

1. Installation will be expected within the timeframe and at the location agreed upon in the DO.
2. Installation will be considered complete as per **Section 7, Acceptance**.
3. The Contractor will offer a full range of installations from a full turn-key public safety radio system to a single mobile radio through its engineering team, Project Management Office (PMO), and through their local service provider/dealer network.

C. Maintenance

1. The Contractor will use trained and certified local service providers (LSP's) to perform Preventative Maintenance services with agencies operating a KENWOOD system.
2. Preventative Maintenance requires annual and semi-annual checks of major infrastructure components as well as visual checks of site conditions.
3. Preventative Maintenance work will be coordinated with the State's Program Manager or designee.

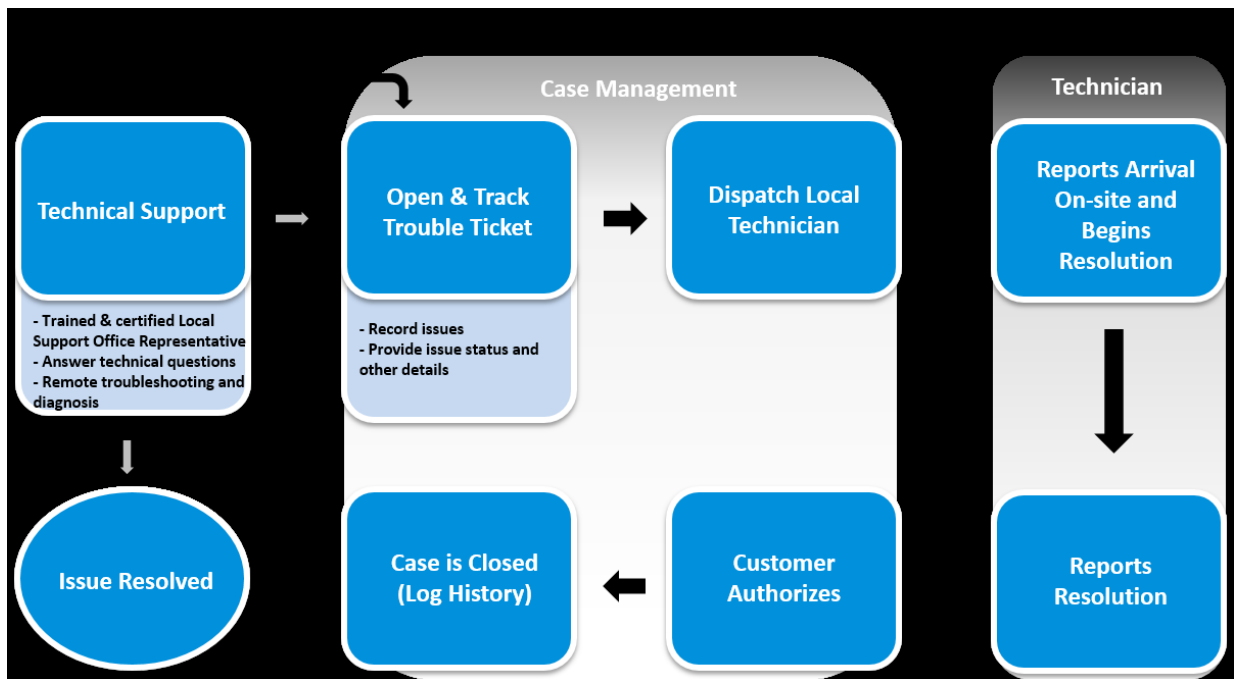
D. Technical Support

1. Technical Support will be provided by the local service provider (LSP) that installed the system.
 - a. LSP's must be available to take and address technical support calls during the standard business hours of 8 am to 5 pm EST, Monday through Friday.
 - b. LSP's must address the caller's issue within 24 hours. If the caller's issue cannot be resolved within 48 hours, service may need to be scheduled. See **Section E. Repairs and Service** below.
2. The Contractor will be available to offer technical support if the local support resources cannot fix the issue at hand and additional engineering expertise is required, or during weekends and after hours.
 - a. The Contractor's Technical support hotline is offered through JVCKENWOOD Technical Support at 1-800-328-3911, ext. 3.
 - b. The Contractors technical support hotline is available 9 a.m. to 6 p.m. ET. If the caller's issue cannot be resolved remotely, service may need to be scheduled. See **Section E. Repair and Service** below.

E. Repairs and Service

1. The Contractor must be able to service and repair the systems or equipment it sells.
2. Repair and service is standard for all E.F. Johnson and JVCKENWOOD or third party products during the equipment's warranty period for all equipment purchased under this master agreement.
3. Response times for repair and service calls for critical and non-critical issues are established on a per Delivery Order basis to provide the best service to the contracting agency.
4. Repair and service of systems and Contractor installed hardware and equipment.
 - a. Repair and service calls are initiated by a call to the LPS provider or the E.F. Johnson technical support line 1-800-328-3911, ext. 3.

- b. Dependent on the repair service package arranged for at time of purchase the Contractor will provide one of the following or a combination thereof.
- 1) On-Site Support. The LSP's that installed the system will be contacted to provide support for troubleshooting and hardware repair.
 - 2) On-Site Emergency Support. The Contractor will dispatch technicians on-site to diagnose and restore agency communication networks. System and on-site replacement is dependent upon the spares purchased and the LSP's access to spares/
 - 3) Repair-or-Replace Service. The Contractors Repair or Replace service covers infrastructure components during the contracted warranty period.
 - a) To initiate service, the contracting agency will contact the LSP that installed the system.
 - b) The LSP will be dispatched to the site, within what time established when the system was contracted, to remove the failed equipment from service.
 - i. The LPS will ship the failed equipment/unit to either the JVCKENWOOD/E.F. Johnson repair facility in Irving, Texas or to the KENWOOD repair facility with United Radio in East Syracuse, New York.
 - ii. Upon receipt of the failed unit the Repair Center determines whether to repair the failed part or replace the product.
 - c) If the agency has a supply of spare components, those units will be placed into service during the repair-or-replace process and the returned unit will assume the place of the spare equipment.



5. Repair and service of “Box Sales” items: Equipment sold as a “box sale” item may be returned to the Contractor’s Depot Repair Facility where equipment will be repaired and serviced by certified master technicians. All equipment will be tested to verify that repairs meet or exceed prescribed specifications prior to its return. To arrange for these repairs and service:
 - a. End User will contact either their LSP (8 am – 5 pm ET) or the JVCKENWOOD TSC (9am-6pm ET) at 1-800-328-3911, ext. 3 to arrange for return and service authorization.
6. Repair and Service agreements may be purchase for any equipment that fall outside of the initial warranty period.

F. System Hardware Upgrades

The Contractor offers a Hardware Refresh Program.

1. This program provides the update of commercial off-the-shelf (COTS) equipment used in system infrastructure to ensure that the hardware supports the System Release of software and is tailored and priced according to the State’s system.
2. Hardware Refresh includes the servers, routers, switches, and IT components of the sites.
3. The hardware is reviewed periodically with software updates to ensure proper operation with the latest update.
4. This program will refresh the hardware on planned intervals that coincide with the service life of the platforms in the Customer’s system and are supported by the current System Release.

G. Software Upgrades

Software Upgrades are included to keep any systems and complex projects completed under this contract up to date.

1. Software upgrades are planned and managed to provide network updates over a multi-year agreement.
2. Pricing is determined by the equipment and system to be covered and is priced based on the total proposal. Options for Software Upgrades include the following.
 - a. Software Support. Addresses bug-fix issues and enhance existing software features on the software platform and Patch management to address bug-fixes or software defects.
 - b. Software Care. A software maintenance program with no hidden costs, which includes:
 - 4) Updates to address bug-fix issues and enhance existing software features.
 - 5) Upgrades to deliver new software features that can be implemented via existing system components while maintaining the current mode of operation— there will be no separate licensing fees for these new features.
 - 6) Patch management to address bug-fixes or software defects, including all applicable security and commercial operating system patches.

H. Training

1. Training can be included in a system or complex project build out if requested or otherwise purchased.
2. The Contractor's Technical Training Catalog is offered as part of this contract.
 - a. The catalog includes a description of our training offerings for system administrators/managers, maintenance technicians, dispatch personnel, and radio end users, and pricing.
 - b. The catalog is updated annually as training programs are modified due to customer training feedback and the development of new courses due to the release of new equipment.
 - c. The cost for open-enrollment virtual classroom training, traditional classroom training attended in Irving, Texas, and asynchronous training is on a per student basis.
 - d. On-site training is based on the number of training days and includes the instructor's travel and living expenses, and student training materials.

2.2. Time Frames

- A. The Contractor will acknowledge requests for quotations within 24 hours of their receipt.
- B. The Contractor will provide the quotation as follows:
 1. For "Box Sales" purchases the Contractor will provide a quotation within 7 business days.
 2. For systems, timeframe for design/build quotations will be dependent on the scope of the work and variables such as size and complexity, level of effort, location, etc.
- C. Deliveries must be made in accordance with the timelines established in the DO.

2.3. Reporting

The Contractor must submit the following written reports:

- A. To the MiDeal Coordinator. The Contractor must provide quarterly reporting as indicated in the **Standard Contract Terms, Sections 9. Administrative Fee and Reporting and 10. Extended Purchasing.**
- B. To the Program Managers and or entities making the purchases. Reports will be provided as requested.
- C. To the Contract Administrator.
 1. Annual Line Item usage report including all purchased made from this contract including quantities, item description and pricing charged.
 2. Other Reports as deemed necessary.

2.4. Meetings

The Contractor must attend the following meetings:

- A. Contract Kick-off meeting within 15 calendar days of the Effective Date.
- B. Meetings as requested by Agency groups or MiDeal Members deem appropriate.
- C. Meetings as requested by the Contract Administrator as deemed appropriate.

2.5. Service Level Agreements (SLA's)

- A. The Contractor will meet the requirements of the service levels that will be established under this contract. Failure to meet the SLA's may result in the State's assessing Service Credits.

- B. SLA's for Radio Systems will be established in the project Statements of Work and made part of the Delivery Order.

SLA Metric 1. Timely Deliveries	
Definition and Purpose:	All orders must be shipped, and product received within the timeframes established in the Delivery Orders
Acceptable Standard:	All deliveries must occur in accordance with the approved Delivery Timeframe. See Schedule A, Section 2.2.B. The acceptable standard is 100% compliance.
Credit due for Failing to Meet the Service Level Agreement.	A percentage credit may be assessed for each occurrence that will not exceed 5% of the total DO amount. Extenuating circumstances must be relayed to the State prior to the ship date and will be reviewed by the person/entity who placed the order before any Service Credits are assessed. At the discretion of the State, these credits may be applied toward any payable due to the Contractor or be payable directly to the State. Payments made directly to the State will be completed within 10 days upon demand.
SLA Metric 2. Timely Service	
Definition and Purpose:	Products and Services will be provided as per the negotiated timelines established in this contract Section 2.1. Services, or in the timelines established in a DO for Radio System projects.
Acceptable Standard:	Meeting milestone deadlines established in the DO. The acceptable standard is 100% compliance.
Credit due for Failing to Meet the Service Level Agreement.	A percentage credit may be assessed for each occurrence that will not exceed 5% of the total DO amount. Extenuating circumstances will be reviewed by the person/entity who placed the order before any Service Credits are assessed. At the discretion of the State, these credits may be applied toward any payable due to the Contractor or be payable directly to the State. Payments made directly to the State will be completed within 10 days upon demand.
SLA Metric 3. Accurate Deliveries	
Definition and Purpose:	The Contractor must ensure that items and quantities delivered are exactly the items, brands, and quantities on the Delivery Order. No substitutions will be allowed without prior written permission by the person/entity placing the order. The entire order will be received on the same day unless a partial delivery has been approved in advance by person/entity placing the order.
Acceptable Standard:	1. Items, brands, and quantities delivered will match the Order Confirmation exactly. 2. Signed and dated packing slips will be provided to with the product at the time of delivery.

	<p>3. The entire order must be delivered on the same day unless a partial delivery has been approved in advance by the person/entity placing the order.</p> <p>4. Orders not received in their entirety, as determined by person/entity placing the order, will be considered inaccurate.</p> <p>The acceptable standard is 100% compliance.</p>
Credit due for Failing to Meet the Service Level Agreement.	<p>1. A percentage credit may be assessed for each occurrence that will not exceed 5% of the total DO amount.</p> <p>Extenuating circumstances will be reviewed by the person/entity who placed the order before any Service Credits are assessed. At the discretion of the State, these credits may be applied toward any payable due to the Contractor or be payable directly to the State. Payments made directly to the State will be completed within 10 days upon demand.</p>

3. Staffing

3.1. Contractor Representative

The Contractor must appoint a Contractor Representative specifically dedicated to this contract, who will be required to be knowledgeable on the contractual requirements and directly responsible for the day to day operations of the Contract.

A. The Contractor Representative **must** be:

1. Available for State personnel and customer service calls during the hours of 8 a.m. to 5 p.m. ET Monday through Friday.
 - a. The Contractor Representative must respond to the State within 8 business hours to State inquiries Monday through Friday.
2. Available for calls in the event of an emergency if required and established in the DO.
 - a. The Contractor Representative may be contacted during evening, weekends, or holidays.
 - b. The Contractor Representative will be expected to respond to the State within 4 hours during these times.

B. The Contractor must notify the Contract Administrator at least 14 calendar days before removing or assigning a new Contractor Representative.

C. The Contractor may not remove or assign a new Contractor Representative without the prior consent of the State. Prior consent is not required for reassignment for reasons beyond the Contractor's control, including illness, disability, death, leave of absence, personal emergency circumstances, resignation, or termination for cause.

3.2 Contract Administrator

The Contract Administrator for each party is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a "**Contract Administrator**"):

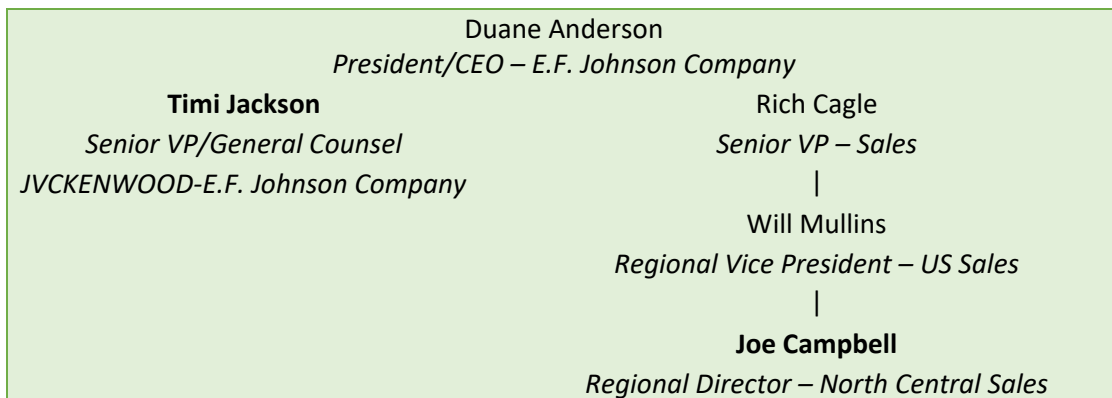
State:	Contractor: Bidder Please Provide
Valerie Hiltz 525 W. Allegan Street, 1 st Floor NE Lansing, MI 48933 hiltzv@michigan.gov 517-249-0459	Timi Jackson 1440 Corporate Drive Irving, Texas 75038 tjackson@efji.com 972-819-2336

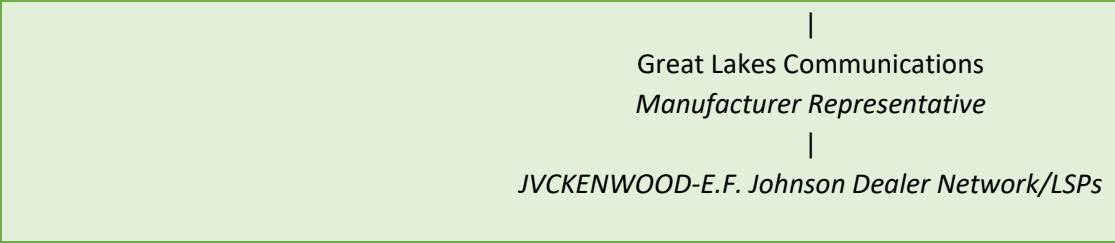
3.3 Program Manager

The Program Manager for each party who will be knowledgeable on the contractual requirements and directly responsible to monitor and coordinate the day-to-day operations of the Contract. For the Contractor, this individual is specifically assigned to State of Michigan accounts and the State recognizes that these individuals may be dependent on the project and will be identified in the DO (each a “Program Manager”):

State:	Contractor:
For DTMB MPSCS: Kate Jannereth Michigan State Police Headquarters jannerethk@michigan.gov 517-881-1031	Joe Campbell 1440 Corporate Drive Irving, Texas 75038 JCampbell@efji.com 810-626-8813
For DNR Forest Resources/Fire: Paul Rogers 525 West Allegan Lansing, MI 48909 RogersP5@michigan.gov 517-284-5872	
For MDOC: Kasey Mlujeak MDOC- Jackson Regional Offices MlujeaKL@michigan.gov 517-780-6370	
Others as Varies by Agency/ Division	

3.4. Organizational Chart





3.6. Disclosure of Subcontractors - Manufacturer Representatives and Dealers (LSP)

A subcontractor will be defined as any entity, in a business relationship with the Contractor, that will have their employees dispatched to, deliver directly to, or perform any work on behalf of the Contractor off site or at any State location. This could include manufacturer representative, dealers, or authorized resellers.

- A. Any subcontractors will be bound by the terms of this contract, although the State extends no contractual relationship to the Contractor’s subcontractors. The State will not accept billing from nor make direct payments to any subcontractor.
- B. The Contractor will give the State 30 calendar days’ notice if it intends to replace any subcontractor and provide the same information as required in the E.F. Johnson Manufacturer Representatives or Dealers table (see **Schedule A, Attachment 2- EF Johnson Manufacturer Representatives and Dealers- LSP**).
- C. The State may request to remove a subcontractor at any time during the term of the contract, and the Contractor is responsible for replacing that subcontractor within 30 calendar days.
- D. The Contractor will designate one key personnel that will be solely responsible for communicating the needs and substitution requests of subcontractors. At the State’s discretion, subcontractors will be permitted to communicate directly with the State on a case by case basis.

3.7. Security

Security at State facilities is a priority and the Contractor, and its personnel, must be responsive to and respectful of these needs.

- A. The State reserves the right to deny access to any facility to anyone who fails to comply with any applicable State, Federal, or local law, ordinance or regulation or whose presence may compromise the security of the facility, its patients, or staff.
- B. The Contractor will contract to have criminal background checks on all employees.
- C. The State may investigate Contractor and its subcontractors, and their respective employees, agents, and representatives before they have access to State facilities and systems.
 - 1. The scope of the investigation is at the discretion of the State; results will be used to determine eligibility for working within State facilities and systems. It may include:
 - a. Michigan State Police background checks (ICHAT),
 - b. Law Enforcement Information Network checks (LEIN), and
 - c. National Crime Information Center (NCIC) Fingerprints.
- D. The bidder’s staff may be required to make deliveries to or enter State facilities.
- E. Data Security. **See Schedule D-Data Security.**

4. Pricing

- A. The Contractor agrees that the pricing on this contract will always reflect the best pricing available anywhere in Michigan. Should the Contractor negotiate better contract pricing with any other entity, those new prices will be reflected in the pricing of this contract.
- B. The Contractor agrees to notify the State within 30 calendar days of the new pricing so that this contract may be updated to reflect the same.
- C. The Contractor agrees to meet with the Contract Administrator on an annual basis to review usage and to reconsider discounts offered.

4.1. Price Term

Pricing is firm and fixed for the entire length of the contract.

4.2. Price Changes

The discounts offered at the execution of this contract can always be improved upon, but never will the discounts-off list be less than offered at the execution of this contract. See **4. Pricing**.

4.3 Product Pricing Catalog

The Contractor will provide to the State a copy of its complete catalog(s) with the exact manufacturer list prices as provided to all manufacturer representatives, distributors, dealers, or resellers.

- A. This will be the pricing against which the Discounts Off List will be placed.
- B. This will be the pricing used to verify current product pricing and for audit purposes.
 - 1. This price list will be provided to the State as a PDF catalog and will be delivered to the Contract Administrator via email for publication with this contract.
 - 2. The price list will be updated no more than every six months.

4.4. Obtaining a Quotation

- A. To obtain a quotation for Systems or Complex Purchases, purchasers will either contact the EF Johnson's Program Manager or the Manufacturer's Representative. They will either provide you a quote directly or will assign a Dealer to contract you for further information and to provide the quotation to you.
- B. To obtain a quotation for "Box Sales" items, the purchaser may either contract the Manufacturer's representative or may contact one of the listed Dealer's directly.

4.5. Format Required for Quotations

- A. **Quotations for Systems and Complex Purchases.** A professional quote will be required for equipment and services that are for systems requiring significant systems integration/ professional services. By providing quotes in this format, the Contractor provides a level of documentation required by governmental entities for audit purposes.
 - 1. These quotes must be provided on corporate letterhead. If this contract is awarded to a manufacturer and they are having the work subcontracted through manufacturer representatives, dealers or distributors, then the quotation must be provided on the Manufacturer's letterhead or bear the manufacturer's logo and shall include all of the following elements:
 - a. Title Page
 - b. Table of Contents
 - c. Cover Letter – signed by the manufacturer's authorized representative.
 - d. System Description- including equipment and technical diagrams
 - e. Statement of work which provides a description of how the system will be implemented.

- f. Warranty and maintenance information
 - g. Equipment List- detailed by line item including the manufacturer's part number, quantity, description, list price, contract price (which is the discounted price)
 - 1) Third party drop ship equipment will be broken out with line item pricing, if applicable.
 - h. Profession Services List- detailed by line item including quantity, list price and contract price (which is the discounted price)
 - i. Training- description of training included in the proposal, if applicable
 - j. Pricing Summary- subtotals of Equipment and Professional Services that mirror the equipment list and pricing for all services.
 - k. Product Literature- if applicable.
 - l. No additional terms or conditions, other than are provided for in this contract are allowed.
2. Quotations may be provided as required by the requestor in:
- a. Hard copy via fax, US Postal Service delivery, courier service or in person
 - b. The State prefers PDF format via email
- B. Quotations for Deliverables that are "Box Sales". The Contractor may provide a quote in a form format for "Box Sales" which are those sales essentially for products with a minimal amount of professional services or system integration. The quotation form must include all the elements of the sample "Simple Quotation" provided in **Schedule A., Attachment 3. No additional terms or conditions, other than are provided for in this contract are allowed.**

5. Ordering

Orders will be placed with the entity that provided the quotation, whether it be the Contractor's Program Manager, the Manufacturer's Representative, or a Dealer.

5.1. Authorizing Document

- A. The appropriate authorizing document to order contracted products, deliverables, and service will be a Delivery Order (DO) created in SIGMA and provided to the Contractor via email or fax, or
- B. A phone order, if paying via P-Card, provided that the Master Agreement (MA) number is given at the time of the order which will ensure that the products ordered are charged against the contract and all terms, conditions, specifications, and pricing will apply. See P-card purchases outline in **Section 8.2.** below.
- C. MiDeal members may use the official written document of their choosing referencing this Master Agreement.

5.2 Order Verification

- A. The Contractor must have internal controls identify and prevent abnormal orders, for example, orders for items other than were quoted, of unusually large quantities or products not normally purchased.
- B. The Contractor must have controls in place to ensure that individuals place orders through SIGMA for the State of Michigan as required or through the appropriate purchasing paths for MiDeal members.
- C. The Contractor will verify that all entities making purchases under this contract are authorized to do so.

5.3. Minimum Orders

This contract has no minimum order requirements.

6. Delivery, Shipping and Packaging

6.1. Shipping

- A. Products will be delivered FOB, prepaid by the Contractor. If shipping costs are not included in the product costs, shipping will be billed as a line item on the invoice for that DO.
- B. Standard delivery for Box Sales will primarily be made via FedEx or UPS.
- C. Infrastructure components that are racked and larger subscriber orders will be palletized and shipped via dedicated truck.
- D. All deliveries must be made in person and signed for. No deliveries will be allowed to be dropped off. No deliveries will be made outside of business hours or closed locations.

6.2. Packaging and Palletizing

- A. Packaging must be optimized to permit the lowest freight rate.
- B. Shipments must be palletized whenever possible using the manufacturer's standard 4-way shipping pallets.
- C. Sensitive electronic equipment, racks and servers will be packaged per the manufacturers' recommendation.

6.3. Packing Slips

Packing slips must include the product description including model numbers, assigned serial number of equipment shipped, and quantities of each.

7. Acceptance

7.1. Acceptance, Inspection and Testing

The State will use the following criteria to determine the acceptance of the Contract Activities.

- A. **Phase Acceptance/Final Acceptance (Milestone) for quoted systems and projects**
 - 1. The Contractor will work with the State or MiDeal Member to review and accept each phase of the project as it is completed.
 - a. Unfinished work in a project phase must be recorded as a punch list item on the phase acceptance document.
 - b. Punch list items that do not interrupt system operations will not prohibit the start of the next phase of work.
 - c. At the end of the project, final acceptance is granted when all punch list items are completed.
 - d. Provide diagrams and documentation for each phase as agreed upon.
 - e. The Contractor will document punch list items, track and report to the team their progress in order to provide timely feedback on scope changes and document lessons learned.
- B. **Acceptance for "Box Sale" equipment**

Acceptance for "Box Sale" equipment, defined as equipment sold outside of a system implementation, will be in keeping with acceptance as outlined in **Standard Contract Terms, Section 20.**

8. Invoice and Payment

8.1. Invoice Requirements

- A. Invoicing for products and deliverables ordered via a DO will be based on prices established at time of order. Invoices must not be submitted until:
 - 1. Product has been delivered; or
 - 2. Milestone Payment-once the Contractor has completed a milestone.
- B. All invoices submitted to the State must include:
 - 1. Date
 - 2. Master Agreement number
 - 3. Delivery Order (DO) Number
 - 4. Quantity
 - 5. Description of the Contract Activities
 - 6. Unit price as agreed to in Schedule B or per approved quotation.
 - 7. Shipping costs (if any).
 - 8. Total price.

8.2. Payment Methods

- A. The State will make payment for Contract Activities will be via EFT.
- B. P-Card payment will be allowed for "Box Sale" orders under \$5,000.00.

8.3. Procedure

- A. Invoices must be forwarded to the agencies Program Manager via email by the 10th day of the following month.

9. Licensing Agreement

See **Schedule C- Software Terms and Exhibit 1 to Schedule C.**

10. Liquidated Damages

- A. Late or improper completion of the Contract Activities will cause loss and damage to the State and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, if there is late or improper completion of the Contract Activities the State is entitled to collect liquidated damages in the amount of \$5,000 and an additional \$100 per day for each day Contractor fails to remedy the late or improper completion of the Work.
- B. Unauthorized Removal of Key Personnel will interfere with the timely and proper completion of the Contract, to the loss and damage of the State, and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, the State may assess liquidated damages against Contractor as specified below.
 - 1) The State is entitled to collect \$1,000 per individual per day for the removal of any Key Personnel without prior approval of the State.
 - 2) The State is entitled to collect \$1,000 per individual per day for an unapproved or untrained key personnel replacement.

11. Additional Requirements

Although not currently anticipated, should any of the following become applicable the Contractor will comply with the following:

11.1. Environmental and Energy Efficient Products

The Contractor must identify any energy efficient, bio-based, or otherwise environmental friendly products used in the products. Contractor must include any relevant third-party certification, including the verification of a United States department of agriculture certified bio-based product label.

11.2. Hazardous Chemical Identification

In accordance with the federal Emergency Planning and Community Right-to-Know Act, 42 USC 11001, *et seq.*, as amended, the Contractor must provide a Material Safety Data Sheet listing any hazardous chemicals, as defined in 40 CFR §370.2, to be delivered. Each hazardous chemical must be properly identified, including any applicable identification number, such as a National Stock Number or Special Item Number.

11.3. Mercury Content

Pursuant to MCL 18.1261d, mercury-free products must be procured when possible. All products containing mercury must be labeled as containing mercury.

STATE OF MICHIGAN

Master Agreement No. 210000000896
Two-Way Radio and Radio Systems Sales and Service

SCHEDULE A, Attachment 1 MPSCS Approved Radios, Consoles and Pagers

(For the latest listing go to: <https://www.michigan.gov/mpscs/0,4640,7-184-62573---,00.html>)



After evaluation by the Michigan Public Safety Communications staff for compliance with the established MPSCS technical and operational standards, the radios and dispatch consoles listed below have met those requirements and are eligible for use on the MPSCS by MPSCS members.

The following Mobile Radios have been approved for use on the MPSCS:

Mobile Radios					
EF JOHNSON			MOTOROLA		
Model	Serial #	Version	Model	Serial #	Version
53xx Series **		ES , EL	Spectra **	494XXX1234	W3, W4, W4M, W5, W5M, W7, W9
VM600		Standard, Lightning w/o IV&D or OTAR	Spectra Plus Consolette **	526XXX1234	W4,W5,W9
VM900		Standard, Lightning	Spectra Consolette **	761XXX1234	W5,W7,W9
VM5930		w/o IV&D or OTAR	Spectra Plus Consolette **	374XXX1234	W5,W7,W9
VM6930		w/o IV&D or OTAR	XTL1500	775XXX1234	MX
VM7930		w/o IV&D or OTAR	XTL2500	514XXX1234	M5
HARRIS			XTL5000	500XXX1234	W3, W5, W5M, W7, W9, O3, O5
Model	Serial #	Version	XTL5000 Consolette	276XXX1234	W5, W7, W9, O5
M7200 & M7300			APX1500	466XXX1234	O2,O5 w/o IV&D or OTAR
XG-25M		Failsoft, IV&D, OTAR, & KVL not available	APX4500	471XXX1234	O2,O5 w/o IV&D or OTAR
XG-75		IV&D, OTAR, & KVL not available	APX6500	527XXX1234	O2, O3, O5, O7, O9
XG-100M		IV&D, OTAR, & KVL not available	AXP6500 Li	652XXX1234	O2, O3, O5
XG-75		IV&D, OTAR, & KVL not available	APX7500	656XXX1234	O2, O3, O5, O7, O9
KENWOOD			APX7500 Consolette	761XXX1234	O5,O7
Model	Serial #	Version	APX8500	761XXX1234	O9
NX5900			TAIT		
TK5910 **			Model	Serial #	Version
TK5930			TM9100		
RELM / BENDIX KING			TM9155		
Model	Serial #	Version	TM9400		
KNG-M800					

** No longer supported for State of Michigan agency users.

STATE OF MICHIGAN

Master Agreement No. 210000000896
Two-Way Radio and Radio Systems Sales and Service

SCHEDULE A, Attachment 1

MPSCS Approved Radios, Consoles and Pagers

(For the latest listing go to: <https://www.michigan.gov/mpscs/0,4640,7-184-62573---,00.html>)

The following Portable Radios are approved for use on the MPSCS:

Portable Radios					
EF JOHNSON			MOTOROLA		
Model	Serial #	Version	Model	Serial #	Version
51xx Series **		ES, SL, LT	APX900		
ASCEND **		ES	APX1000	837XXX1234	I, II, III w/o IV&D or OTAR
VP400		w/o IV&D or OTAR	APX3000	536XXX1234	w/o IV&D
VP-600		w/o IV&D or OTAR	APX4000	426XXX1234	I, II, III w/o IV&D or OTAR
VP-900		w/o IV&D or OTAR	APX6000	481XXX1234	I, II, III
VP6430		w/o IV&D or OTAR	APX6000 Extreme	756XXX1234	I, II, III
KENWOOD			APX6000 LI	755XXX1234	I, II, III
Model	Serial #	Model #	APX7000	655XXX1234	1.5, 3.5
TK5400 **		K1, K2 w/o IV&D or OTAR	APX7000 Extreme	562XXX1234	1.5, 3.5
TK5410 **		K1, K2	APX8000	576XXX1234	I, II, III w/o IV&D
TK5430		K1, K2	Saber **	310XXX1234	II, III
VP5430		w/o IV&D or OTAR	SRX2200		w/o IV&D or OTAR
NX5400		w/o IV&D or OTAR	XTS1500	687XXX1234	I, I.5
MA/COM - HARRIS			XTS2500	205XXX1234	I, I.5, II, III
Model	Serial #	Version	XTS3000 **	326XXX1234	I, II, III
P7200		MAPT-T7HXX	XTS5000	721XXX1234	I, II, III
XG-15P		Fallsort, IV&D, OTAR, & KVL not available	TAIT		
XG-25P		Fallsort, IV&D, OTAR, & KVL not available	Model	Serial #	Version
Unity XG-75		IV&D, OTAR, & KVL not available	TP9100		
Unity XG-100P		Fallsort, IV&D, OTAR, & KVL not available	TP9400		w/o IV&D or OTAR
XL-185P		IV&D, OTAR not available	THALES		
XL-200P		IV&D, OTAR, & KVL not available	Model	Serial #	Version
RELM / BENDIX KING			LIBERTY		4102023-501
Model	Serial #	Version			
KNG-P800					

** No longer supported for State of Michigan agency users.


The following Paging Receivers have been approved for use on the MPSCS:

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SCHEDULE A, Attachment 1 MPSCS Approved Radios, Consoles and Pagers

(For the latest listing go to: <https://www.michigan.gov/mpscs/0,4640,7-184-62573---,00.html>)

Paging Receivers		
Unication 		
Model	Serial #	Version
G4		700 / 800 Mhz

The following Dispatch Consoles have been approved for use on the MPSCS:

Integrated Dispatch Consoles	
MOTOROLA	
Model	Notes
MCC7100	Must remain connected at all times to the MPSCS Radio Network. Not approved for use off MPSCS network.
MCC7500	Must remain connected at all times to the MPSCS Radio Network.

Please contact the MPSCS Template Design Unit (TDU) or Radio Programming Unit (RPU) for individual model compatibility with features such as:

- Data
- GPS
- OTAR (**O**ver **T**he **A**ir **R**ekeying of encryption keys)
- Console Features and functions

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SCHEDULE A, Attachment 2

E.F. Johnson Manufacturer Representatives and Dealers LSP (Local Service Providers)

Company Name	Relationship to Contractor	Street Address, City State, Zip	Corporate Phone No.	Portion of the Contract Provided
Great Lakes Communications, Inc.	Manufacturer Representative	2060 E. Harbor Rd. Port Clinton OH 43452	419.734.4200	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Adams Electronics Company	Dealer	30469 Beck Rd. Wixom MI 48393	248.669.7100	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Daniel D. Baker d/b/a Adrian Communications	Dealer	103 1/2 Sand Creek Hwy. Adrian MI 49221	517.265.8470	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Anderson Radio, Inc.	Dealer	6149 Westside Saginaw Rd. Bay City MI 48706	989.684.9969	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
C-Comm of Kalamazoo, Inc.	Dealer	1600 Lincoln Rd. Allegan MI 49010	269.673.9900	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Communications Specialists, Inc.	Dealer	4138 S. Division Ave. Grand Rapids MI 49548	616.534.5862	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Cynergy Wireless Products, Inc	Dealer	1463 Combermere Dr. Troy MI 48083	248.298.3855	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
DeltaCom, Inc.	Dealer	24875 Novi Rd. P.O. Box 813 Novi MI 48376	248.207.8587	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Digicom Global, Inc.	Dealer	3911 Rochester Rd. Troy MI 48083	248.720.2001	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Caliber, LLC d/b/a Elcom Systems	Dealer	3150 Wright St. Marquette MI 49855	906.228.5255	KENWOOD ATLAS, KENWOOD Viking

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SCHEDULE A, Attachment 2

E.F. Johnson Manufacturer Representatives and Dealers LSP (Local Service Providers)

Company Name	Relationship to Contractor	Street Address, City State, Zip	Corporate Phone No.	Portion of the Contract Provided
Electrocomm - MI, Inc.	Dealer	2648 Lapeer Rd. Auburn Hills MI 48326	248.344.4300	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Grand Traverse Mobile Communications, Inc.	Dealer	1670 Barlow St. Suite 1 Traverse City MI 49686	231.947.9851	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
RFT Enterprises, Inc. d/b/a HEI Wireless	Dealer	2203 Plaza Dr. Benton Harbor MI 49022	269.926.1555	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
J.S. Electronics, Inc.	Dealer	1108 20th St. Menominee MI 49858	906.863.2820	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Midcom Radio Communications, Inc.	Dealer	1370 E. Sanilac Rd. Sandusky MI 48471	810.648.3780	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
Midcom Service	Dealer	2131 E. Laketon Ave. Muskegon MI 49442	231.773.3107	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
OTEC	Dealer	13356 Indian Rd. Kewadin MI 49648	231.264.6133	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
ProComm, Inc.	Dealer	2099 Independence Dr. Mt. Pleasant MI 48858	989.772.3751	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking

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Two-Way Radio and Radio Systems Sales and Service

SCHEDULE A, Attachment 2

E.F. Johnson Manufacturer Representatives and Dealers LSP (Local Service Providers)

Company Name	Relationship to Contractor	Street Address, City State, Zip	Corporate Phone No.	Portion of the Contract Provided
Radio North, LLC	Dealer	955 E. Commerce Dr. Suite A Traverse City MI 49685	231.929.2934	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Range Telecommunications	Dealer	2342 US 41W Marquette MI 49855	906.228.7000	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
SMR Communications, Inc	Dealer	255 Bell Rd. Niles MI 49210	269.683.7451	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Spectrum Wireless (USA), Inc.	Dealer	27601 Little Mack Ave. St. Clair Shores MI 48081	586.693.7525	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
State Systems Radio, Inc.	Dealer	5066 S. Sprinkle Rd. Portage MI 49002	269.349.1935	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos, KENWOOD ATLAS, KENWOOD Viking
T&W Electronics, Inc.	Dealer	1045 S. Division Ave. Grand Rapids MI 49507	616.241.3645	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos
Thumb Radio, Inc.	Dealer	1020 N. Van Dyke Ave. Bad Axe MI 48413	989.269.6420	KENWOOD NEXEDGE Systems and Subscribers, KENWOOD Kairos

STATE OF MICHIGAN

Master Agreement No. 210000000896
Two-Way Radio and Radio Systems Sales and Service

SCHEDULE A, Attachment 3 Sample- Simple Quotation Form

Company or Mfg Logo Here			Company Address Here			Date:	
						Quote #:	
						Customer #:	
Prepared By:			Phone:			Email:	
Prepared For:			Bill To:			Ship To:	
Company:			Address:			Address:	
Phone:							
Email:							
Fax:							
<i>All specifications, terms, conditions, and pricing are in accordance with State of Michigan Master Agreement # 21XXXXXXXXXX</i>							
EQUIPMENT and SERVICE DETAILS AND PRICING							
Quantity	Model	Description	Unit List Price	Percentage Discount	Contract Price	Total Price	
20	XXX1	xxx Portable	\$ 2,200.00	30	\$ 1,540.00	\$ 30,800.00	
20	XXX2	xxx Digital Trunking	\$ 1,570.00	30	\$ 1,099.00	\$ 21,980.00	
20	XXX3	Battery	\$ 125.00	25	\$ 85.00	\$ 1,700.00	
						\$ -	
						\$ -	
						\$ -	
						\$ -	
						\$ -	
		Services				\$ -	
20	SVC03	Radio programming and template generation	\$ 95.00	15	\$ 80.75	\$ 1,615.00	
						\$ -	
						\$ -	
						\$ -	
						\$ -	
						Quote Total	
						\$ 56,095.00	

STATE OF MICHIGAN

Master Agreement No. 210000000896
Two-Way Radio and Radio Systems Sales and Service

SCHEDULE B- PRICING

CATEGORY	DISCOUNT PERCENTAGE OFF MANUFACTURER LIST PRICE per PRODUCT LINE				
	KENWOOD Viking	KENWOOD Atlas	KENWOOD Nexedge	KENWOOD Kairos	Any Other typically sold by JVC Kenwood
Mobiles and Portables	20%	N/A	20%	N/A	20%
Fixed Stations	20%	20%	20%	20%	20%
Consoles	N/A	20%	20%	N/A	?
Fixed Network Equipment (third party products)	N/A	0%	0%	0%	0%
System Infrastructure	N/A	20%	20%	20%	?
Dropship (third party products)	0%	0%	0%	0%	0%
Accessories and Aftermarket	20%	20%	20%	20%	20%
Spare Parts	20%	20%	20%	20%	20%
Pagers (third party products)	0%	0%	0%	0%	0%
Pager Accessories (third party products)	0%	0%	0%	0%	0%
Services	0%	0%	0%	0%	0%

See Schedule B, Attachment 1 for Manufacturer List Price Catalogs - Located as a Separate Document

STATE OF MICHIGAN

Master Agreement No. 210000000896

Two-Way Radio and Radio Systems Sales and Service SCHEDULE C SOFTWARE TERMS

1. Definitions. In addition to the definitions found in the Contract Terms, for the purposes of this Contract, the following terms have the following meanings:

“Authorized Users” means all Persons authorized by the State to access and use the Software under this Contract, subject to the maximum number of users specified in the applicable Statement of Work.

“Harmful Code” means any: (a) virus, trojan horse, worm, backdoor or other software or hardware devices the effect of which is to permit unauthorized access to, or to disable, erase, or otherwise harm, any computer, systems or software; or (b) time bomb, drop dead device, or other software or hardware device designed to disable a computer program automatically with the passage of time or under the positive control of any Person, or otherwise prevent, restrict or impede the State's or any Authorized User's use of such software.

“Integration Testing” has the meaning set forth in **Section 4.2(c)**.

“Open-Source Components” means any software component that is subject to any open-source copyright license agreement, including any GNU General Public License or GNU Library or Lesser Public License, or other obligation, restriction or license agreement that substantially conforms to the Open Source Definition as prescribed by the Open Source Initiative or otherwise may require disclosure or licensing to any third party of any source code with which such software component is used or compiled.

“Open-Source License” has the meaning set forth in **Section 2.3**.

“Operating Environment” means, collectively, the platform, environment and conditions on, in or under which the Software is intended to be installed and operate, as set forth in the Statement of Work, including such structural, functional and other features, conditions and components as hardware, operating software and system architecture and configuration.

“Specifications” means the specifications for the Software set forth in the applicable Statement of Work and, to the extent consistent with and not limiting of the foregoing, the Documentation.

“State Materials” means all materials and information, including documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State in connection with this Contract.

“Support Services” means the software maintenance and support services Contractor is required to or otherwise does provide to the State pursuant to Contractor's Maintenance and Support Schedule, as appended as Exhibit 1 to this **Schedule B**.

“Technical Specification” means, with respect to any Software, the document setting forth the technical specifications for such Software and included in the Statement of Work.

“Testing Period” has the meaning set forth in Section 4.2(b).

“User Data” means all data, information and other content of any type and in any format, medium or form, whether audio, visual, digital, screen, GUI or other, that is input, uploaded to, placed into or collected, stored, processed, generated or output by any device, system or network by or on behalf of the State, including any and all works, inventions, data, analyses and other information and materials resulting from any use of the Software by or on behalf of the State under this Contract, except that User Data does not include the Software or data, information or content, including any GUI, audio, visual or digital or other display or output, that is generated automatically upon executing the Software without additional user input.

“Warranty Period” means the ninety (90) calendar-day period commencing on the date of the State's Acceptance of the Software.

2. License Grant and Restrictions.

2.1 Software License. Contractor hereby grants to the State and its Authorized Users the right and license to use the Software and Documentation in accordance with the terms and conditions of this Contract.

2.2 Use. The State will pay Contractor the corresponding Fees set forth in **Schedule B – Pricing and Fees**, for all Authorized Users access and use of the Software. Such Fees will be Contractor's sole and exclusive remedy for use of the Software, including any excess use.

2.3 Open-Source Licenses. Any use hereunder of Open-Source Components shall be governed by, and subject to, the terms and conditions of the applicable open-source license (“Open-Source License”). Contractor shall identify and describe in an exhibit to the Statement of Work each of the Approved Open-Source Components of the Software, and include an exhibit attaching all applicable Open-Source Software Licenses or identifying the URL where these licenses are publicly available.

2.4 Source Code. Software will not have any built-in licensing or expiration period prior to the end of the Contract.

3. Software Implementation.

3.1 Implementation. Contractor will deliver, install, configure, integrate, and otherwise provide and make fully operational the Software on or prior to the applicable Milestone Date in accordance with the criteria set forth in the Statement of Work.

3.2 Site Preparation. Unless otherwise set forth in the Statement of Work, Contractor is responsible for ensuring the relevant Operating Environment is set up and in working order to allow Contractor to deliver and install the Software on or prior to the applicable Milestone Date. Contractor will provide the State with such notice as is specified in the Statement of Work, prior to delivery of the Software to give the State sufficient time to prepare for Contractor's delivery and installation of the Software. If the State is responsible for Site preparation, Contractor will provide such assistance as the State requests to complete such preparation on a timely basis.

4. Testing and Acceptance.

4.1 Pre-Delivery Testing By Contractor. Before delivering and installing the Software, Contractor must:

(a) test the Software to confirm that it is fully operable, meets all applicable Specifications and will function in accordance with the Specifications and Documentation when properly installed in the Operating Environment;

(b) scan the Software using industry standard scanning software and definitions to confirm it is free of Harmful Code; and

(c) remedy any Non-Conformity or Harmful Code identified and retest and rescan the Software.

4.2 Acceptance Testing.

(a) Unless otherwise specified in the Statement of Work, upon installation of the Software, Acceptance Tests will be conducted to ensure the Software conforms to the requirements of this Contract, including the applicable Specifications and Documentation.

(b) All Acceptance Tests will take place at the designated Site(s) in the Operating Environment described in the Statement of Work, commence on the Business Day following installation of the Software and be conducted diligently for up to thirty (30) Business Days, or such other period as may be set forth in the Statement of Work (the “**Testing Period**”). Acceptance Tests will be conducted by the party responsible as set forth in the Statement of Work or, if the Statement of Work does not specify, the State, provided that:

- (i) for Acceptance Tests conducted by the State, if requested by the State, Contractor will make suitable Contractor Personnel available to observe or participate in such Acceptance Tests; and
- (ii) for Acceptance Tests conducted by Contractor, the State has the right to observe or participate in all or any part of such Acceptance Tests.

Contractor is solely responsible for all costs and expenses related to Contractor’s performance of, participation in, and observation of Acceptance Testing.

(c) Upon delivery and installation of any API, Configuration or Customization to the Software under the Statement of Work, additional Acceptance Tests will be performed on the modified Software as a whole to ensure full operability, integration, and compatibility among all elements of the Software (“**Integration Testing**”). Integration Testing is subject to all procedural and other terms and conditions set forth in **Section 4**.

(d) The State may suspend Acceptance Tests and the corresponding Testing Period by written notice to Contractor if the State discovers a material Non-Conformity in the tested Software or part or feature of the Software. In such event, Contractor will promptly, and in any case within ten (10) Business Days, correct such Non-Conformity, whereupon the Acceptance Tests and Testing Period will resume for the balance of the Testing Period.

4.3 Notices of Completion, Non-Conformities, and Acceptance. Within fifteen (15) Business Days following the completion of any Acceptance Tests, including any Integration Testing, the party responsible for conducting the tests will prepare and provide to the other party written notice of the completion of the tests. Such notice must include a report describing in reasonable detail the tests conducted and the results of such tests, including any uncorrected Non-Conformity in the tested Software.

(a) If such notice is provided by either party and identifies any Non-Conformities, the parties' rights, remedies, and obligations will be as set forth in **Section 12.3** and **Section 12.4**.

(b) If such notice is provided by the State, is signed by the State's Business Owner and Program Manager, and identifies no Non-Conformities, such notice constitutes the State's Acceptance of such Software.

(c) If such notice is provided by Contractor and identifies no Non-Conformities, the State will have thirty (30) Business Days to use the Software in the Operating Environment and determine, in the exercise of its sole discretion, whether it is satisfied that the Software contains no Non-Conformities, on the completion of which the State will, as appropriate:

- (i) notify Contractor in writing of Non-Conformities the State has observed in the Software and of the State's non-acceptance thereof, whereupon the parties' rights, remedies and obligations will be as set forth in **Section 4.4** and **Section 4.5**; or
- (ii) provide Contractor with a written notice of its Acceptance of such Software, which must be signed by the State's Business Owner and Program Manager.

4.4 Failure of Acceptance Tests. If Acceptance Tests identify any Non-Conformities, Contractor, at Contractor's sole cost and expense, will remedy all such Non-Conformities and re-deliver the Software, in accordance with the requirements set forth in the Statement of Work. Redelivery will occur as promptly as commercially possible and, in any case, within twenty (20) Business Days following, as applicable, Contractor's:

(a) completion of such Acceptance Tests, in the case of Acceptance Tests conducted by Contractor; or

(b) receipt of the State's notice under **Section 4.2(a)** or **Section 4.3(c)(i)**, identifying any Non-Conformities.

4.5 Repeated Failure of Acceptance Tests. If Acceptance Tests identify any Non-Conformity in the Software after a second or subsequent delivery of the Software, or Contractor fails to re-deliver the Software on a timely basis, the State may, in its sole discretion, by written notice to Contractor:

(a) continue the process set forth in **Section 4.2**;

(b) accept the Software as a nonconforming deliverable, in which case the Fees for such Software will be reduced equitably to reflect the value of the Software as received relative to the value of the Software had it conformed; or

(c) deem the failure to be a non-curable material breach of this Contract and the Statement of Work and terminate this Contract for cause in accordance with **Section 28** of the Contract Terms.

4.6 Acceptance. Acceptance ("**Acceptance**") of the Software (subject, where applicable, to the State's right to Integration Testing) will occur on the date that is the earliest of the State's delivery of a notice accepting the Software under **Section 4.3(b)**, or **Section 4.3(c)(ii)**.

5. Training. Contractor shall provide training on all uses of the Software permitted hereunder in accordance with the times, locations and other terms set forth in the Statement of Work. Any charges for such training will be provided at the time of the quotation request for new products and/or services. Upon the State's request, Contractor shall timely provide training for additional Authorized Users or other

additional training on all uses of the Software for which the State requests such training, at such reasonable times and locations and pursuant to such rates and other terms as are set forth in the Pricing Schedule.

6. Support Services; Maintenance Releases; New Versions.

6.1 Support Services for On-Premise Software. If the Operating Environment for the Software is internally hosted by the State, Contractor shall provide the State with the Support Services described in the Maintenance and Support Schedule attached as **Exhibit 1** to this **Schedule C**. Such Support Services shall be provided:

(a) Free of charge during the Warranty Period, it being acknowledged and agreed that the License Fee includes full consideration for such Services during such period.

(b) Thereafter, for so long as the State elects to receive Support Services for the Software, in consideration of the State's payment of Support Services Fees in accordance with the rates set forth in the Pricing Schedule.

6.2 Maintenance Releases. Provided that the State is current on its Support Services Fees, during the Term, Contractor shall provide the State, at no additional charge, with all Maintenance Releases, each of which will constitute Software and be subject to the terms and conditions of this Contract.

6.3 New Versions. Provided that the State is current on its Support Services Fees, during the Term, Contractor shall provide the State, at no additional charge, with all New Versions, each of which will constitute Software and be subject to the terms and conditions of this Contract.

6.4 Installation. The State has no obligation to install or use any Maintenance Release or New Versions. If the State wishes to install any Maintenance Release or New Version, the State shall have the right to have such Maintenance Release or New Version installed, in the State's discretion, by Contractor or other authorized party as set forth in the Statement of Work. Contractor shall provide the State, at no additional charge, adequate Documentation for installation of the Maintenance Release or New Version, which has been developed and tested by Contractor and Accepted Tested by the State. The State's decision not to install or implement a Maintenance Release or New Version of the Software will not affect its right to receive Support Services throughout the Term of this Contract.

7. Software Representations and Warranties.

7.1 Contractor further represents and warrants to the State that:

(a) it is the legal and beneficial owner of the entire right, title, and interest in and to the Software, including all Intellectual Property Rights relating thereto;

(b) or is a licensee with the right to sub-license the Software for use by the State as provided under this Contract.

(c) it has, and throughout the license term, will retain the unconditional and irrevocable right, power and authority to grant and perform the license hereunder;

(d) the Software, and the State's use thereof, is and throughout the license term will be free and clear of all encumbrances, liens and security interests of any kind;

(e) neither its grant of the license, nor its performance under this Contract does or to its knowledge will at any time:

- (i) conflict with or violate any applicable law;
- (ii) require the consent, approval or authorization of any governmental or regulatory authority or other third party; or
- (iii) require the provision of any payment or other consideration to any third party;

(f) when used by the State or any Authorized User in accordance with this Contract and the Documentation, the Software or Documentation as delivered or installed by Contractor does not or will not:

- (i) infringe, misappropriate or otherwise violate any Intellectual Property Right or other right of any third party; or
- (ii) fail to comply with any applicable law;

(g) as provided by Contractor, the Software does not or will not at any time during the license term contain any:

- (i) Harmful Code; or
- (ii) Open-Source Components or operate in such a way that it is developed or compiled with or linked to any Open-Source Components, other than Approved Open-Source Components specifically described in the Statement of Work.

(h) all Documentation is and will be complete and accurate in all material respects when provided to the State such that at no time during the license term will the Software have any material undocumented feature; and

(i) it will perform all Services in a timely, skillful, professional and workmanlike manner in accordance with commercially reasonable industry standards and practices for similar services, using personnel with the requisite skill, experience and qualifications, and will devote adequate resources to meet its obligations under this Contract.

(j) when used in the Operating Environment (or any successor thereto) in accordance with the Documentation, all Software as provided by Contractor, will be fully operable, meet all applicable specifications, and function in all respects, in conformity with this Contract and the Documentation; and

(k) no Maintenance Release or New Version, when properly installed in accordance with this Contract, will have a material adverse effect on the functionality or operability of the Software.

7.2 Disclaimer. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT, CONTRACTOR HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, WITH RESPECT TO THIS CONTRACT.

EXHIBIT 1 TO SCHEDULE C

8. Definitions. For purposes of this **Exhibit 1 to Schedule C**, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Section 1** shall have the respective meanings given to them in the Contract or its associated respective Schedules.

“Actual Uptime” means the total minutes in the Service Period that the Hosted Services are Available.

“Availability” has the meaning set forth in **Section 3(a)**.

“Availability Requirement” has the meaning set forth in **Section 3(a)**.

“Available” has the meaning set forth in **Section 3(a)**.

“Contractor Service Manager” has the meaning set forth in **Section 2.1**.

“Corrective Action Plan” has the meaning set forth in **Section 4.3**.

“Critical Service Error” has the meaning set forth in **Section 4**.

“Exceptions” has the meaning set forth in **Section 3.2**.

“Force Majeure Event” has the meaning set forth in **Section 5.1**.

“High Service Error” has the meaning set forth in **Section 4**.

“Hosted Services” has the meaning set forth in **Schedule E**.

“Low Service Error” has the meaning set forth in **Section 4**.

“Medium Service Error” has the meaning set forth in **Section 4**.

“Resolve” has the meaning set forth in **Section 4.1(a)**.

“Scheduled Downtime” has the meaning set forth in **Section 3.3**.

“Scheduled Uptime” means the total minutes in the Service Period.

“Service Availability Credits” has the meaning set forth in **Section 3.6(a)**.

“Service Level Credits” has the meaning set forth in **Section 4.2**.

“Service Level Failure” means a failure to perform the Software Support Services fully in compliance with the Support Service Level Requirements.

“Service Period” has the meaning set forth in **Section 3(a)**.

“Software” has the meaning set forth in the Contract.

“Software Support Services” has the meaning set forth in **Section 4.1**.

“State Service Manager” has the meaning set forth in **Section 2.2**.

“**State Systems**” means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

“**Support Request**” has the meaning set forth in **Section 4**.

“**Support Service Level Requirements**” has the meaning set forth in **Section 4**.

“**Term**” has the meaning set forth in the Contract.

9. Service Availability and Service Availability Credits.

(a) Availability Requirement. Contractor will make the Hosted Services Available, as measured over the course of each calendar month during the Term and any additional periods during which Contractor does or is required to perform any Hosted Services (each such calendar month, a “**Service Period**”), at least 99.98% of the time, excluding only the time the Hosted Services are not Available solely as a result of one or more Exceptions (the “**Availability Requirement**”). “**Available**” means the Hosted Services are available and operable for access and use by the State and its Authorized Users over the Internet in material conformity with the Contract. “**Availability**” has a correlative meaning. The Hosted Services are not considered Available in the event of a material performance degradation or inoperability of the Hosted Services, in whole or in part. The Availability Requirement will be calculated for the Service Period as follows: $(\text{Actual Uptime} - \text{Total Minutes in Service Period Hosted Services are not Available Due to an Exception}) \div (\text{Scheduled Uptime} - \text{Total Minutes in Service Period Hosted Services are not Available Due to an Exception}) \times 100 = \text{Availability}$.

9.2 Exceptions. No period of Hosted Service degradation or inoperability will be included in calculating Availability to the extent that such downtime or degradation is due to any of the following (“**Exceptions**”):

- (a) failures of the State’s or its Authorized Users’ internet connectivity;
- (b) Scheduled Downtime as set forth in **Section 3.3**.

9.3 Scheduled Downtime. Contractor must notify the State at least twenty-four (24) hours in advance of all scheduled outages of the Hosted Services in whole or in part (“**Scheduled Downtime**”). All such scheduled outages will: (a) last no longer than five (5) hours; (b) be scheduled between the hours of 12:00 a.m. and 5:00 a.m., Eastern Time; and (c) occur no more frequently than once per week; provided that Contractor may request the State to approve extensions of Scheduled Downtime above five (5) hours, and such approval by the State may not be unreasonably withheld or delayed.

9.4 Software Response Time. Software response time, defined as the interval from the time the end user sends a transaction to the time a visual confirmation of transaction completion is received, must be less than two (2) seconds for 98% of all transactions. Unacceptable response times shall be considered to make the Software unavailable and will count against the Availability Requirement.

9.5 Service Availability Reports. Within thirty (30) days after the end of each Service Period, Contractor will provide to the State a report describing the Availability and other performance of the Hosted Services during that calendar month as compared to the Availability Requirement. The report must be in electronic or such other form as the State may approve in writing and shall include, at a minimum: (a) the actual performance of the Hosted Services relative to the Availability Requirement; and (b) if Hosted Service performance has failed in any respect to meet or exceed the Availability Requirement during the reporting period, a description in sufficient detail to inform the State of the cause

of such failure and the corrective actions the Contractor has taken and will take to ensure that the Availability Requirement are fully met.

9.6 Remedies for Service Availability Failures.

(a) If the actual Availability of the Hosted Services is less than the Availability Requirement for any Service Period, such failure will constitute a Service Error for which Contractor will issue to the State the following credits on the fees payable for Hosted Services provided during the Service Period (“**Service Availability Credits**”):

Availability	Credit of Fees
≥99.98%	None
<99.98% but ≥99.0%	15%
<99.0% but ≥95.0%	50%
<95.0%	100%

(b) Any Service Availability Credits due under this **Section 3.6** will be applied in accordance with payment terms of the Contract.

(c) If the actual Availability of the Hosted Services is less than the Availability Requirement in any two (2) of four (4) consecutive Service Periods, then, in addition to all other remedies available to the State, the State may terminate the Contract on written notice to Contractor with no liability, obligation or penalty to the State by reason of such termination.

9.7 Service Monitoring and Management. Contractor will continuously monitor and manage the Hosted Services to optimize Availability that meets or exceeds the Availability Requirement. Such monitoring and management includes:

(a) proactively monitoring on a twenty-four (24) hour by seven (7) day basis all Hosted Service functions, servers, firewall and other components of Hosted Service security;

(b) if such monitoring identifies, or Contractor otherwise becomes aware of, any circumstance that is reasonably likely to threaten the Availability of the Hosted Service, taking all necessary and reasonable remedial measures to promptly eliminate such threat and ensure full Availability; and

(c) if Contractor receives knowledge that the Hosted Service or any Hosted Service function or component is not Available (including by written notice from the State pursuant to the procedures set forth herein):

(i) confirming (or disconfirming) the outage by a direct check of the associated facility or facilities;

(ii) if Contractor’s facility check in accordance with clause (i) above confirms a Hosted Service outage in whole or in part: (A) notifying the State in writing pursuant to the procedures set forth herein that an outage has occurred, providing such details as may be available, including a Contractor trouble ticket number, if appropriate, and time of outage; and (B) working all problems causing and caused by the outage until they are Resolved as Critical Service Errors in accordance with the Support Request

Classification set forth in **Section 4**, or, if determined to be an internet provider problem, open a trouble ticket with the internet provider; and

- (iii) notifying the State that Contractor has fully corrected the outage and any related problems, along with any pertinent findings or action taken to close the trouble ticket.

10. Support Service Level Requirements. Contractor will correct all Service Errors and respond to and Resolve all Support Requests in accordance with the required times and other terms and conditions set forth in this **Section 4** (“**Support Service Level Requirements**”), and the Contract.

10.1 Support Requests. The State will classify its requests for Service Error corrections in accordance with the descriptions set forth in the chart below (each a “**Support Request**”). The State Service Manager will notify Contractor of Support Requests by email, telephone or such other means as the parties may hereafter agree to in writing.

Support Request Classification	Description: Any Service Error Comprising or Causing any of the Following Events or Effects
Critical Service Error	<ul style="list-style-type: none"> • Issue affecting entire system or single critical production function; • System down or operating in materially degraded state; • Data integrity at risk; • Declared a Critical Support Request by the State; or • Widespread access interruptions.
High Service Error	<ul style="list-style-type: none"> • Primary component failure that materially impairs its performance; or • Data entry or access is materially impaired on a limited basis.
Medium Service Error	<ul style="list-style-type: none"> • Hosted Service is operating with minor issues that can be addressed with an acceptable (as determined by the State) temporary work around.
Low Service Error	<ul style="list-style-type: none"> • Request for assistance, information, or services that are routine in nature.

(a) Response and Resolution Time Service Levels. Response and Resolution times will be measured from the time Contractor receives a Support Request until the respective times Contractor has (i) responded to, in the case of response time and (ii) Resolved such Support Request, in the case of Resolution time. “**Resolve**” (including “**Resolved**”, “**Resolution**” and correlative capitalized terms) means

that, as to any Service Error, Contractor has provided the State the corresponding Service Error correction and the State has confirmed such correction and its acceptance thereof. Contractor will respond to and Resolve all Service Errors within the following times based on the severity of the Service Error:

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
Critical Service Error	One (1) hour	Three (3) hours	Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for the first additional hour or portion thereof that the corresponding Service Error remains un-Resolved, which amount will thereafter double for each additional one-hour increment.
High Service Error	One (1) hour	Four (4) hours	Three percent (3%) of the Fees for the month in which the initial Service Level Failure begins and three percent (3%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	Three percent (3%) of the Fees for the month in which the initial Service Level Failure begins and three percent (3%) of such monthly Fees for the first additional hour or portion thereof that the corresponding Service Error remains un-Resolved, which amount will thereafter double for each additional

				one-hour increment.
Medium Service Error	Three (3) hours	Two (2) Business Days	N/A	N/A
Low Service Error	Three (3) hours	Five (5) Business Days	N/A	N/A

(b) Escalation. With respect to any Critical Service Error Support Request, until such Support Request is Resolved, Contractor will escalate that Support Request within sixty (60) minutes of the receipt of such Support Request by the appropriate Contractor support personnel, including, as applicable, the Contractor Service Manager and Contractor’s management or engineering personnel, as appropriate.

10.2 Support Service Level Credits. Failure to achieve any of the Support Service Level Requirements for Critical and High Service Errors will constitute a Service Level Failure for which Contractor will issue to the State the corresponding service credits set forth in **Section 4.1(a)** (“**Service Level Credits**”) in accordance with payment terms set forth in the Contract.

10.3 Corrective Action Plan. If two or more Critical Service Errors occur in any thirty (30) day period during (a) the Term or (b) any additional periods during which Contractor does or is required to perform any Hosted Services, Contractor will promptly investigate the root causes of these Service Errors and provide to the State within five (5) Business Days of its receipt of notice of the second such Support Request an analysis of such root causes and a proposed written corrective action plan for the State’s review, comment and approval, which, subject to and upon the State’s written approval, shall be a part of, and by this reference is incorporated in, the Contract as the parties’ corrective action plan (the “**Corrective Action Plan**”). The Corrective Action Plan must include, at a minimum: (a) Contractor’s commitment to the State to devote the appropriate time, skilled personnel, systems support and equipment and other resources necessary to Resolve and prevent any further occurrences of the Service Errors giving rise to such Support Requests; (b) a strategy for developing any programming, software updates, fixes, patches, etc. necessary to remedy, and prevent any further occurrences of, such Service Errors; and (c) time frames for implementing the Corrective Action Plan. There will be no additional charge for Contractor’s preparation or implementation of the Corrective Action Plan in the time frames and manner set forth therein.

11. Force Majeure.

11.1 Force Majeure Events. Subject to **Section 5.3**, neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached the Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of the Contract, national or regional emergency, or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a “**Force Majeure Event**”), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

11.2 State Performance; Termination. In the event of a Force Majeure Event affecting Contractor’s performance under the Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate the Contract by written notice to Contractor if

a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of ten (10) Business Days or more. Unless the State terminates the Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under the Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

11.3 Exclusions; Non-suspended Obligations. Notwithstanding the foregoing or any other provisions of the Contract or this Schedule:

- (a) in no event will any of the following be considered a Force Majeure Event:
 - (i) shutdowns, disruptions or malfunctions of Contractor Systems or any of Contractor's telecommunication or internet services other than as a result of general and widespread internet or telecommunications failures that are not limited to the Contractor Systems; or
 - (ii) the delay or failure of any Contractor Personnel to perform any obligation of Contractor hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event.

STATE OF MICHIGAN

Master Agreement No. 210000000896

Two-Way Radio and Radio Systems Sales and Service SCHEDULE D DATA SECURITY REQUIREMENTS

1. **Definitions.** For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract.

“**Contractor Security Officer**” has the meaning set forth in **Section 2** of this Schedule.

“**FedRAMP**” means the Federal Risk and Authorization Management Program, which is a federally approved risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services.

“**FISMA**” means The Federal Information Security Modernization Act of 2014 (Pub.L. No. 113-283 (Dec. 18, 2014.).

“**Hosting Provider**” means any Permitted Subcontractor that is providing any or all of the Hosted Services under this Contract.

“**NIST**” means the National Institute of Standards and Technology.

“**PCI**” means the Payment Card Industry.

“**PSP**” or “**PSPs**” means the State’s IT Policies, Standards and Procedures.

“**SSAE**” means Statement on Standards for Attestation Engagements.

“**Security Accreditation Process**” has the meaning set forth in **Section 6** of this Schedule

2. **Security Officer.** Contractor will appoint a Contractor employee to respond to the State’s inquiries regarding the security of the Hosted Services who has sufficient knowledge of the security of the Hosted Services and the authority to act on behalf of Contractor in matters pertaining thereto (“**Contractor Security Officer**”).

3. **Contractor Responsibilities.** Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to:

- (a) ensure the security and confidentiality of the State Data;
- (b) protect against any anticipated threats or hazards to the security or integrity of the State Data;
- (c) protect against unauthorized disclosure, access to, or use of the State Data;
- (d) ensure the proper disposal of any State Data in Contractor’s or its subcontractor’s possession; and

- (e) ensure that all Contractor Representatives comply with the foregoing.

The State has established Information Technology (IT) PSPs to protect IT resources under the authority outlined in the overarching State 1305.00 Enterprise IT Policy. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable public and non-public State IT policies and standards, of which the publicly available ones are at https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html.

This responsibility also extends to all service providers and subcontractors with access to State Data or an ability to impact the contracted solution. Contractor responsibilities are determined from the PSPs based on the services being provided to the State, the type of IT solution, and the applicable laws and regulations.

4. Acceptable Use Policy. To the extent that Contractor has access to the State's IT environment, Contractor must comply with the State's Acceptable Use Policy, see https://www.michigan.gov/documents/dtmb/1340.00.01_Acceptable_Use_of_Information_Technology_Standard_458958_7.pdf. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing State systems. The State reserves the right to terminate Contractor's and/or subcontractor(s) or any Contractor Personnel's access to State systems if the State determines a violation has occurred.

5. Protection of State's Information. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

5.1 ensure that the Software and State Data is securely hosted, supported, administered, accessed, and backed up in a data center(s) that resides in the continental United States, and minimally meets Uptime Institute Tier 3 standards (www.uptimeinstitute.com), or its equivalent;

5.2 maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State Data that complies with the requirements of the State's data security policies as set forth in this Contract, and must, at a minimum, remain compliant with FISMA and NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs;

5.3 provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, encryption, transfer, commingling or processing of such information that ensure a level of security appropriate to the risks presented by the processing of State Data and the nature of such State Data, consistent with best industry practice and applicable standards (including, but not limited to, compliance with FISMA, NIST, CMS, IRS, FBI, SSA, HIPAA, FERPA and PCI requirements as applicable);

5.4 take all reasonable measures to:

(a) secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "malicious actors" and others who may seek, without authorization, to destroy, disrupt, damage, encrypt, modify, copy, access or otherwise use Hosted Services or the information found therein; and

(b) prevent (i) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (ii) State Data from being

commingled with or contaminated by the data of other customers or their users of the Services;
and (iii) unauthorized access to any of the State Data;

5.5 ensure that State Data is encrypted in transit and at rest using FIPS validated AES encryption modules and a key size of 128 bits or higher;

5.6 ensure the Hosted Services support Identity Federation/Single Sign-on (SSO) capabilities using Security Assertion Markup Language (SAML), Open Authentication (OAuth) or comparable State approved mechanisms;

5.7 ensure the Hosted Services implements NIST compliant multi-factor authentication for privileged/administrative and other identified access.

6. Security Accreditation Process. Throughout the Term, Contractor will assist the State, at no additional cost, with its **Security Accreditation Process**, which includes the development, completion and on-going maintenance of a system security plan (SSP) using the State's automated governance, risk and compliance (GRC) platform, which requires Contractor to submit evidence, upon request from the State, in order to validate applicable Contractor's security controls within two weeks of the State's request. On an annual basis, or as otherwise required by the State such as for significant changes, re-assessment of the system's controls will be required to receive and maintain authority to operate (ATO). All identified risks from the SSP will be remediated through a Plan of Action and Milestones (POAM) process with remediation time frames based on the risk level of the identified risk. For all findings associated with the Contractor's solution, at no additional cost, Contractor will be required to create or assist with the creation of State approved POAMs and perform related remediation activities. The State will make any decisions on acceptable risk, Contractor may request risk acceptance, supported by compensating controls, however only the State may formally accept risk. Failure to comply with this section will be deemed a material breach of the Contract.

7. Unauthorized Access. Contractor may not access, and shall not permit any access to, State systems, in whole or in part, whether through the Hosted Services or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State systems must be solely in accordance with the Contract and this Schedule, and in no case exceed the scope of the State's authorization pursuant to this Section. All State-authorized connectivity or attempted connectivity to State systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in the Contract as the same may be supplemented or amended by the State and provided to Contractor from time to time.

8. Security Audits.

8.1 During the Term, Contractor will maintain complete and accurate records of its data protection practices, IT security controls, and the security logs relating to State Data, including but not limited to any backup, disaster recovery or other policies, practices or procedures relating to the State Data and any other information relevant to its compliance with this Contract.

8.2 Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program prior to the commencement of Services and from time to time during the term of this Contract. The State, at its own expense, is entitled to perform, or to have performed, an on-site audit of Contractor's data privacy and information security program. If the State chooses to perform an on-site audit, Contractor will, make all such records, appropriate personnel and relevant materials available during normal business hours for inspection

and audit by the State or an independent data security expert that is reasonably acceptable to Contractor, provided that the State: (i) gives Contractor at least five (5) Business Days prior notice of any such audit; (ii) undertakes such audit no more than once per calendar year, except for good cause shown; and (iii) conducts or causes to be conducted such audit in a manner designed to minimize disruption of Contractor's normal business operations and that complies with the terms and conditions of all data confidentiality, ownership, privacy, security and restricted use provisions of the Contract. The State may, but is not obligated to, perform such security audits, which shall, at the State's option and request, include penetration and security tests, of any and all Hosted Services and their housing facilities and operating environments.

8.3 During the Term, Contractor will, when requested by the State, provide a copy of Contractor's or Hosting Provider's FedRAMP System Security Plan(s) or SOC 2 Type 2 report(s) to the State within two weeks of the State's request. The System Security Plan and SSAE audit reports will be recognized as Contractor's Confidential Information.

8.4 With respect to State Data, Contractor must implement any required safeguards as identified by the State or by any audit of Contractor's data privacy and information security program.

8.5 The State reserves the right, at its sole election, to immediately terminate this Contract or a Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this **Section 8**.

9. Application Scanning. During the Term, Contractor must, at its sole cost and expense, scan all Contractor provided applications, and must analyze, remediate and validate all vulnerabilities identified by the scans as required by the State Secure Web Application and other applicable PSPs.

Contractor's application scanning and remediation must include each of the following types of scans and activities:

9.1 Dynamic Application Security Testing (DAST) – Scanning interactive application for vulnerabilities, analysis, remediation, and validation (may include Interactive Application Security Testing (IAST)).

(a) Contractor must either a) grant the State the right to dynamically scan a deployed version of the Software; or b) in lieu of the State performing the scan, Contractor must dynamically scan a deployed version of the Software using a State approved application scanning tool, and provide the State a vulnerabilities assessment after Contractor has completed such scan. These scans and assessments i) must be completed and provided to the State quarterly (dates to be provided by the State) and for each major release; and ii) scans must be completed in a non-production environment with verifiable matching source code and supporting infrastructure configurations or the actual production environment.

9.2 Static Application Security Testing (SAST) - Scanning Source Code for vulnerabilities, analysis, remediation, and validation.

(a) For Contractor provided applications, Contractor, at its sole expense, must provide resources to complete static application source code scanning, including the analysis, remediation and validation of vulnerabilities identified by application Source Code scans. These scans must be completed for all Source Code initially, for all updated Source Code, and for all

Source Code for each major release and Contractor must provide the State a vulnerability assessment after Contractor has completed the required scans.

9.3 Software Composition Analysis (SCA) – Third Party and/or Open Source Scanning for vulnerabilities, analysis, remediation, and validation.

(a) For Software that includes third party and open source software, all included third party and open source software must be documented and the source supplier must be monitored by the Contractor for notification of identified vulnerabilities and remediation. SCA scans may be included as part of SAST and DAST scanning or employ the use of an SCA tool to meet the scanning requirements. These scans must be completed for all third party and open source software initially, for all updated third party and open source software, and for all third party and open source software in each major release and Contractor must provide the State a vulnerability assessment after Contractor has completed the required scans if not provided as part of SAST and/or DAST reporting.

9.4 In addition, application scanning and remediation may include the following types of scans and activities if required by regulatory or industry requirements, data classification or otherwise identified by the State.

(a) If provided as part of the solution, all native mobile application software must meet these scanning requirements including any interaction with an application programming interface (API).

(b) Penetration Testing – Simulated attack on the application and infrastructure to identify security weaknesses.

10. Nonexclusive Remedy for Security Breach.

11.1 Any failure of the Services to meet the requirements of this Schedule with respect to the security of any State Data or other Confidential Information of the State, including any related backup, disaster recovery or other policies, practices or procedures, is a material breach of the Contract for which the State, at its option, may terminate the Contract immediately upon written notice to Contractor without any notice or cure period, and Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

STATE OF MICHIGAN

Master Agreement No. 21000000896

Two-Way Radio and Radio Systems Sales and Service

SCHEDULE E

Federal Provisions Addendum

The provisions in this addendum may apply if the purchase will be paid for in whole or in part with funds obtained from the federal government. If any provision below is not required by federal law for this Contract, then it does not apply and must be disregarded. If any provision below is required to be included in this Contract by federal law, then the applicable provision applies and the language is not negotiable. If any provision below conflicts with the State's terms and conditions, including any attachments, schedules, or exhibits to the State's Contract, the provisions below take priority to the extent a provision is required by federal law; otherwise, the order of precedence set forth in the Contract applies. Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

- 1. Federally Assisted Construction Contracts.** If this contract is a “**federally assisted construction contract**” as defined in [41 CRF Part 60-1.3](#), and except as otherwise may be provided under [41 CRF Part 60](#), then during performance of this Contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of [Executive Order 11246](#) of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by [Executive Order 11246](#) of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in [Executive Order 11246](#) of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in [Executive Order 11246](#) of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of [Executive Order 11246](#) of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

2. **Davis-Bacon Act (Prevailing Wage)**

- a. If applicable, the Contractor (and its Subcontractors) for **prime construction contracts** in excess of \$2,000 must comply with the Davis-Bacon Act ([40 USC 3141-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction").
- b. The Contractor (and its Subcontractors) shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and the laborers and mechanics;
- c. The Contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work;
- d. There may be withheld from the Contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the Contractor or any Subcontractor on the work the difference between the rates of wages required by the Contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the Contractor or Subcontractors or their agents.

3. **Copeland "Anti-Kickback" Act.** If applicable, the Contractor must comply with the [Copeland "Anti-Kickback" Act \(40 USC 3145\)](#), as supplemented by Department of Labor regulations ([29 CFR Part 3](#), "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"), which prohibits the Contractor and subrecipients from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

4. **Contract Work Hours and Safety Standards Act.** If the Contract is **in excess of \$100,000** and **involves the employment of mechanics or laborers**, the Contractor must comply with [40 USC](#)

[3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)), as applicable.

5. **Rights to Inventions Made Under a Contract or Agreement.** If the Contract is funded by a federal “funding agreement” as defined under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.
6. **Clean Air Act.** If this Contract is **in excess of \$150,000**, the Contractor must comply with all applicable standards, orders, and regulations issued under the Clean Air Act (42 USC 7401-7671q) and the Federal Water Pollution Control Act (33 USC 1251-1387). Violations must be reported to the federal awarding agency and the regional office of the Environmental Protection Agency.
7. **Debarment and Suspension.** A “contract award” (see [2 CFR 180.220](#)) must not be made to parties listed on the government-wide exclusions in the [System for Award Management](#) (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
8. **Byrd Anti-Lobbying Amendment.** If this Contract **exceeds \$100,000**, bidders and the Contractor must file the certification required under [31 USC 1352](#).
9. **Procurement of Recovered Materials.** Under [2 CFR 200.322](#), a non-Federal entity that is a state agency or agency of a political subdivision of a state **and its contractors** must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Byrd Anti-Lobbying Certification

The following certification and disclosure regarding payments to influence certain federal transactions are made under FAR 52.203-11 and 52.203-12 and [31 USC 1352](#), the “Byrd Anti-Lobbying Amendment.” Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

1. [FAR 52.203-12](#), “Limitation on Payments to Influence Certain Federal Transactions” is hereby incorporated by reference into this certification.
2. The bidder, by submitting its proposal, hereby certifies to the best of his or her knowledge and belief that:
 - a. No federal **appropriated** funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress on his or her behalf in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan, or cooperative agreement;
 - b. If any funds **other than federal appropriated funds** (including profit or fee received under a covered federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress on his or her behalf **in connection with this solicitation**, the bidder must complete and submit, with its proposal, [OMB standard form LLL, Disclosure of Lobbying Activities](#), to the Solicitation Manager; and
 - c. He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$150,000 must certify and disclose accordingly.
3. This certification is a material representation of fact upon which reliance is placed at the time of Contract award. Submission of this certification and disclosure is a prerequisite for making or entering into this Contract under [31 USC 1352](#). Any person making an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision is subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

Signed by:

[Type company name]

[Type name and title]

Date: _____