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# KENWOOD

## LAND MOBILE RADIO March 2021 Edition





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<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  $\pm 10$ kHz 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-Incendic 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 <sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth® 4.0 Module
- Built-in Motion Sensor
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP67/68 Immersion
- Color Housing Option
- Digital Encode/Decode Format

1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.

**■ DIGITAL – NXDN® MODE**

- NXDN® Conventional / TYPE-C (Gen1/Gen2) Trunking
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming
- Paging Call
- Emergency Call
- All Group Call
- 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
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Over-the-Air Programming
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

**■ ANALOG MODE**

- Conventional Zones
- LTR® Zones
- FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)
- DTMF

**OPTIONAL FEATURES**

**■ GENERAL FEATURES**

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control Commands by Subscriber Units (KWD-5007RC)
- 256-bit AES Encryption (KWD-AE30K/31K Encryption Module required)
- Battery Management Solution (KSC-Y32K Charger & KAS-12K Software License Key required)

**■ DIGITAL – P25 MODE**

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

**■ DIGITAL – DMR MODE**

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



# NX-5200/5300

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VHF/UHF Digital & FM Analog Portable Radios

## RADIO

### Standard Key Models

NX-5200K2	VHF (136-174MHz), 6.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300K2	UHF (450-520MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300K5	UHF (380-470MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking

### Full Key Models

NX-5200K3	VHF (136-174MHz), 6.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300K3	UHF (450-520MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300K6	UHF (380-470MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking

## CSA US APPROVED MODELS

**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	VHF (136-174MHz), 6.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5200-ISCK3	VHF (136-174MHz), 6.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300-ISCK2	UHF (450-520MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300-ISCK3	UHF (450-520MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300-ISCK5	UHF (380-470MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5300-ISCK6	UHF (380-470MHz), 5.0 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking

## BATTERY READER

**KAS-12K** License Key for KAS-12  
Battery Reader Software for KNB-L1/2/3/N4/LS5 & KSC-Y32 (Windows® Vista/7/8/8.1) **Note:**  
*Requires KPT-300LMC for authentication*

### SOFTWARE UPGRADE LICENSES FOR KAS-12

**Note:** Upgrade License attaches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authentication.

**KAS-12PRO** Add Battery Management with Database  
**Must require KAS-12K Battery Reader Software to upgrade**  
**Note:**  
- A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.  
- Requires KPT-300LMC for authentication

## Offline Authentication Option

**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) Account Registration Key.  
- Requires KPT-300LMC V1.10 or higher.  
- Cancellation rule is difference with 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.

## General Radio Features

**KWD-5000CH** License Key for 4000 Channel Expansion

**KWD-5001FP** License Key for Front Panel Programming

**KWD-5002SD** License Key for microSD Memory Card Slot Activation

**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.

**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.

## P25 Radio Features

**KWD-5100CV** License Key for P25 Conventional

**KWD-5101TR** License Key for P25 Phase 1 Trunking (requires KWD-5100CV)  
**Note:** Required for Link Layer Authentication

**KWD-5102TR** License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)

**KWD-5103RK** License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)

**KWD-5105VT** License Key for P25 Conventional Voting Scan

**KWD-5106DT** License Key for P25 Trunking OTAR / GPS  
**Note:** Conventional (OTAR/GPS) does NOT require KWD-5106DT.

## DMR Radio Features

KWD-5300CV	License Key for DMR Tier 2 Conventional & S-Trunking
KWD-5301TR	License Key for DMR Tier 3 Trunking (requires KWD-5300CV)
KWD-5500EE	License Key for DMR ARC4 Enhanced Encryption

## ANTENNAS

KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-27M	UHF whip antenna 440-490 MHz
KRA-27M2	UHF whip antenna 470-520 MHz
KRA-27M3	UHF whip antenna 400-450 MHz
KRA-22M	VHF low-profile helical antenna 148-162 MHz
KRA-22M2	VHF low-profile helical antenna 162-174 MHz
KRA-22M3	VHF low-profile helical antenna 136-150 MHz
KRA-23M	UHF low-profile helical antenna 450-490 MHz
KRA-23M2	UHF low-profile helical antenna 470-520 MHz
KRA-23M3	UHF low-profile helical antenna 403-430 MHz
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz

## BATTERIES AND CHARGERS

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

KNB-L1M	Li-ion 2000mAh (Compact Slim)
KNB-L2M	Li-ion 2600mAh (Standard)
KNB-L3M	Li-ion 3400mAh (High Capacity)
KNB-N4M	Ni-MH 2500mAh
KNB-LS5CU	CSA US Intrinsically Safe Battery Li-ion 2000mAh <b>Note:</b> 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 or KSC-326AK. <b>[Intrinsically Safe Option]</b>
KNB-LS7M	CSA US Intrinsically Safe Battery Li-ion 3800mAh <b>Note:</b> 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 or KSC-326AK. <b>[Intrinsically Safe Option]</b>
KBP-8M	AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included. <b>Note:</b> The color of the case is International Orange.
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)
KSC-32	Rapid rate single unit charger
KSC-326AK	Rapid rate 6-unit charger CEC Compliant
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)
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

## CARRYING ACCESSORIES

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

## SPECIAL COLOR HOUSING

KWD-YH-5000	<p>Yellow Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order <b>L-5024</b> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</p>
KWD-OH-5000	<p>Orange Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order <b>L-5025</b> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.</p>

## MICROPHONES & AUDIO ACCESSORIES

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

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

## ENCRYPTION & OPTION MODULES

KWD-AE30K	<p>AES FIPS140-2 &amp; DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> 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). <b>Note:</b> Required for Link Layer Authentication <b>[Intrinsically Safe Option]- Must be Kenwood installed for I.S.</b></p>
KWD-AE31K	<p>AES &amp; DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> 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.) <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) <b>Note:</b> Required for Link Layer Authentication <b>[Intrinsically Safe Option]- Must be Kenwood installed for I.S.</b></p>
KCT-48VU	<p>External Vibration Unit <b>Note:</b> Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features <b>[Intrinsically Safe Option]</b></p>
KPG-AE1K	<p>AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).</p>



## ENCRYPTION & OPTION MODULES, CON'T

KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required
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## SERVICE RELATED ACCESSORIES

KPG-36XM	Full Speed USB Programming interface cable <b>Note:</b> This cable with USB mode may used for SD Card Direct Access.
KPG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000
KPG-93AUT	KVL-4000 Radio Authentication Cable <b>Note:</b> Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> 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.
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys <b>- Restricted Purchase Requirements -</b> <b>Notes:</b> • 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.

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

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

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)
L-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)
L-5004	Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)
L-5005	KPG-D1NK System Key File (SKF) <b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. •
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable
L-5025	Assemble Orange Housing KWD-OH-5000 with NX-5000 series Portable
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe <b>Must order KNB-LS5CU and KNB-LS7M I.S. battery</b>
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES
L-5077	FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning <b>Note:</b> Must purchase per Radio • 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.
L-5078	FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning  • 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.



<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  $\pm 10$ kHz 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 <sup>1</sup>
- 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

1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.

### ■ DIGITAL – NXDN® MODE

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

### ■ ANALOG MODE

- 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 Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)

## OPTIONAL FEATURES

### ■ GENERAL FEATURES

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control Commands by Subscriber Units (KWD-5007RC)
- 256-bit AES Encryption (KWD-AE30K/31K Encryption Module required)
- Battery Management Solution (KSC-Y32K Charger & KAS-12K Software License Key required)

### ■ DIGITAL – P25 MODE

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)
- Link Layer Authentication (KWD-5100CV & KWD-5101TR & KWD-AE3x Encryption Board Required)

### ■ DIGITAL – DMR MODE

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

## RADIO

NX-5400K2

700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Standard Key Model



# NX-5400

Table of Contents

700/800MHz Digital & FM Analog Portable Radio

## RADIO, CON'T

NX-5400K3 700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Full Key Model

## CSA US APPROVED MODELS

**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-5400-ISCK2 700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Standard Key Model

NX-5400-ISCK3 700 / 800 MHz, 3.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking Full Key Model

## FIELD PROGRAMMING UNIT (FPU)

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**

### 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

- 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).

**FIELD PROGRAMMING UNIT (FPU), CON'T**

**2. Software Key Type: System Key File (SKF)- See L-5005**

- 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.

**OVER THE AIR PROGRAMMING (OTAP)**

KPG-180AP

**OTAP Manager Software (Windows® Vista/7/8/10)**

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 serial or IP connection to radio or base station, one applicable communication profile is required.

**Note:** Requires KPT-300LMC for license authentication

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**

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

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).
KWD-AP2-CP	Additional <b>NXDN Conventional and Type-C Trunking IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.
KWD-AP4-DA	Additional DMR Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.
KWD-AP5-DP	Additional <b>DMR AIS IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway

**-- IMPORTANT NOTES--**

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

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

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

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters

DMR licenses are supported in KPG-180AP version 3.00 and higher

**BATTERY READER**

KAS-12K

License Key for KAS-12

Battery Reader Software for KNB-L1/2/3/N4/LS5 & KSC-Y32 (Windows® Vista/7/8/10) **Note: Requires KPT-300LMC for authentication**

**SOFTWARE UPGRADE LICENSES FOR KAS-12**

**Note: Upgrade License attaches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authentication.**

**BATTERY READER, CONT**

KAS-12PRO Add Battery Management with Database  
**Must require KAS-12K Battery Reader Software to upgrade**  
**Note:**  
 - A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.  
 - Requires KPT-300LMC for authentication

**Offline Authentication Option**

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) Account Registration Key.  
 - Requires KPT-300LMC V1.10 or higher.  
 - Cancellation rule is difference with 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.

**General Radio Features**

KWD-5000CH	License Key for 4000 Channel Expansion
KWD-5001FP	License Key for Front Panel Programming
KWD-5002SD	License Key for microSD Memory Card Slot Activation
KWD-5003BT	License Key for Bluetooth Data (Required for Data Communication) <b>Note:</b> Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.
KWD-5007RC	License Key for Remote Control by Subscriber Units <b>Note:</b> - 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**

KWD-5100CV	License Key for P25 Conventional
KWD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV) <b>Note:</b> Required for Link Layer Authentication
KWD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)
KWD-5105VT	License Key for P25 Conventional Voting Scan
KWD-5106DT	License Key for P25 Trunking OTAR / GPS Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.

**DMR Radio Features**

KWD-5300CV	License Key for DMR Tier 2 Conventional & S-Trunking
KWD-5301TR	License Key for DMR Tier 3 Trunking (requires KWD-5300CV)
KWD-5500EE	License Key for DMR ARC4 Enhanced Encryption

**ANTENNAS**

KRA-32K	700/800 MHz Whip Antenna
KRA-36	700/800 MHz Stubby Antenna

**BATTERIES AND CHARGERS**

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

KNB-L1M	Li-ion 2000mAh (Compact Slim)
KNB-L2M	Li-ion 2600mAh (Standard)
KNB-L3M	Li-ion 3400mAh (High Capacity)
KNB-N4M	Ni-MH 2500mAh
KNB-LS5CU	CSA US Intrinsically Safe Battery Li-ion 2000mAh <b>Note:</b> 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 or KSC-326AK. <b>[Intrinsically Safe Option]</b>
KNB-LS7M	CSA US Intrinsically Safe Battery Li-ion 3800mAh <b>Note:</b> 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 or KSC-326AK. <b>[Intrinsically Safe Option]</b>
KBP-8M	AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included. <b>Note:</b> The color of the case is International Orange.
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)
KSC-32	Rapid rate single unit charger
KSC-326AK	Rapid rate 6-unit charger CEC Compliant
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)
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.

**CARRYING ACCESSORIES**

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

**SPECIAL COLOR HOUSING**

KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order <b>L-5024</b> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.
KWD-OH-5000	Orange Housing Kit for NX-5000 series Portables (Standard Key Model K2/K5 Only) Order <b>L-5025</b> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) <b>Note:</b> If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.

**MICROPHONES & AUDIO ACCESSORIES**

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

KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with <b>Active Noise Reduction</b> <b>Note:</b> IP68 is available only when used with NX-5000 series portable <b>[Intrinsically Safe Option]</b>
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic <b>[Intrinsically Safe Option]</b>
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included). <b>[Intrinsically Safe Option]</b>
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics <b>[Intrinsically Safe Option]</b>

**MICROPHONES & AUDIO ACCESSORIES, CON'T**

KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic <b>[Intrinsically Safe Option]</b>
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) <b>[Intrinsically Safe Option]</b>
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) <b>[Intrinsically Safe Option]</b>
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) <b>Note:</b> NOT compatible with TDMA operations <b>[Intrinsically Safe Option]</b>
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT <b>Note:</b> NOT compatible with TDMA operations <b>[Intrinsically Safe Option]</b>
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT <b>[Intrinsically Safe Option]</b>
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT <b>[Intrinsically Safe Option]</b>

**ENCRYPTION & OPTION MODULES**

KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5003</b> 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). <b>Note:</b> Required for Link Layer Authentication <b>[Intrinsically Safe Option]- Must be Kenwood installed for I.S.</b>
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <b>L-5004</b> 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.) <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) <b>Note:</b> Required for Link Layer Authentication <b>[Intrinsically Safe Option]- Must be Kenwood installed for I.S.</b>
KCT-48VU	External Vibration Unit <b>Note:</b> Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features <b>[Intrinsically Safe Option]</b>
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b> <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K <b>Authentication by KPT-300LMC is required</b>

**SERVICE RELATED ACCESSORIES**

KPG-36XM	Full Speed USB Programming interface cable <b>Note:</b> This cable with USB mode may be used for SD Card Direct Access.
KPG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000
KPG-93AUT	KVL-4000 Radio Authentication Cable <b>Note:</b> Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <b>Notes:</b> 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.

**SERVICE RELATED ACCESSORIES, CONT**

KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - <b>Restricted Purchase Requirements</b> - <b>Notes:</b> • 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.
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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
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**INSTALLATION / TUNING CHARGES**

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)
L-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)
L-5004	Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)
L-5005	KPG-D1NK System Key File (SKF) <b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK. - <b>Restricted Purchase Requirements</b> - • 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.
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable
L-5025	Assemble Orange Housing KWD-OH-5000 with NX-5000 series Portable
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe <b>Must order KNB-LS5CU and KNB-LS7M I.S. battery</b>
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES
L-5077	FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning <b>Note:</b> Must purchase per Radio • 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.
L-5078	FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv & P25 Conv Zone Cloning • 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.





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  $\pm 7.5$  kHz 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 |

**STANDARD**

**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 Protocol<sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth<sup>®</sup> 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows<sup>®</sup> FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55<sup>2</sup> Water & Dust Intrusion
- IP67<sup>2</sup> Immersion
- Digital Encode/Decode Format

*1. Designed to operate digital, DMR\_QR 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<sup>®</sup> MODE**

- NXDN<sup>®</sup> Conventional
- NXDN<sup>®</sup> TYPE-C (Gen1/Gen2) Trunking Option
- AMBE+2<sup>™</sup> 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<sup>®</sup> Scrambler

**DIGITAL – DMR MODE**

- DMR Tier 2 Conventional
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2<sup>™</sup>VOCODER
- 12.5 kHz Channels
- 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<sup>®</sup> Zones
- FleetSync<sup>®</sup>/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages
- MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit
- QT / DQT
- Two-Tone (Conventional Zones Only)

**OPTIONAL FEATURES**

- 1000 Channel (**KWD-3000CH**)
- Front Panel Programming (**KWD-3001FP**)
- Built-in Bluetooth<sup>®</sup> Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking & S-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 hazardous locations.

**RADIO**

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

**Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)**

NX-3200K2-XLKVP	VHF Extra-Cap Li-Ion Value Pack : NX-3200K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-26M
NX-3300K2-XLKVP	UHF Extra-Cap Li-Ion Value Pack : NX-3300K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-27M

**Li-ion VALUE PACKAGES (Preferred for Conventional Mode Usage)**

NX-3200K2LAKVP	VHF Hi-Cap Li-Ion Value Pack : NX-3200K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-26M
NX-3300K2LAKVP	UHF Hi-Cap Li-Ion Value Pack : NX-3300K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-27M
NX-3200K2SLAKVP	VHF Li-Ion Value Pack : NX-3200K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M
NX-3300K2SLAKVP	UHF Li-Ion Value Pack : NX-3300K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M

**CSA US APPROVED MODELS**

**Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio**

NX-3200-ISCK	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model
NX-3200-ISCK2	VHF (136-174MHz), 5.0 Watts, 512 CH, Standard Key Model
NX-3200-ISCK3	VHF (136-174MHz), 5.0 Watts, 512 CH, Full Key Model
NX-3300-ISCK	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model
NX-3300-ISCK2	UHF (400-520MHz), 5.0 Watts, 512 CH, Standard Key Model
NX-3300-ISCK3	UHF (400-520MHz), 5.0 Watts, 512 CH, Full Key Model

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

### Field Programming Unit (FPU)

KPG-D3NK	License Key for KPG-D3NK Programming Software for NX-3000 Portable/Mobile <b>Note:</b> Requires KPT-300LMC for authentication
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### Over The Air Programming (OTAP)

KPG-180AP	<b>OTAP Manager Software (Windows® Vista/7/8/8.1/10)</b> License includes: Software manages up to fifty(50) radio program files, one communication profile for each NXDN serial connection, DMR serial connection, NXDN Type-C IP, and DMR AIS IP connection <b>Note:</b> For each serial or IP connection to radio or base station, one applicable communication profile is required. <b>Note:</b> Requires KPT-300LMC for license authentication
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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	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.

### Over The Air Programming (OTAP), CON'T

KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).
KWD-AP2-CP	Additional <b>NXDN Conventional and Type-C Trunking IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .
KWD-AP4-DA	Additional DMR Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.
KWD-AP5-DP	Additional <b>DMR AIS IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway

#### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.  
Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters.  
DMR licenses are supported in KPG-180AP version 3.00 and higher

### Encryption Software Keyloaders

KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE <b>Note:</b> - Requires KPT-300LMC for authentication - KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).
KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE <b>Note:</b> - Requires KPT-300LMC for authentication

### Offline Authentication Option

KWD-OFL-USB	<p>USB License Storage Hardware key for Radio Feature License</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>- Must purchase Radio Feature Licenses separately.</li> <li>- Can be used with only one (1) Account Registration Key.</li> <li>- Requires KPT-300LMC V1.10 or higher.</li> <li>- Cancellation rule is difference with standard Online/Offline Authentication. Please refer to a leaflet bundled with KWD-OFL-USB.</li> </ul> <p><b>Warranty Information:</b></p> <ul style="list-style-type: none"> <li>- Damaged USB License Storage "KWD-OFL-USB"</li> <li>a. Remaining Licenses will not be warranted.</li> <li>b. Licenses not uploaded to the License Management Server will not be warranted.</li> </ul>
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### Radio Features

KWD-3000CH	License Key for 1000 Channel Expansion
KWD-3001FP	License Key for Front Panel Programming
KWD-3002BT	<p>License Key for Bluetooth Data (Required for Data Communication)</p> <p><b>Note:</b> Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.</p>
KWD-3302TR	License Key for DMR Tier 3 Trunking
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C, Type-C Gen2 and S-Trunking)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	<p>License Key for AES/DES Encryption</p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. Factory Installation only. Must order L-5054.</li> <li>2. Requires KPG-AE1/DE1 software key loader to encrypt.</li> <li>3. KWD-3503AE is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) Please see descriptions at the bottom.</li> </ol>
KWD-3504RC	<p>License Key for Remote Control by Subscriber Unit</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>- This license may be used by Administrator due to Stun/Revive/Kill.</li> <li>- The license is only required for transmission of Remote Control commands.</li> <li>- PC command for Remote Control does <b>NOT</b> require the license.</li> </ul>
KWD-3505DE	<p>License Key for DES Encryption</p> <p><b>Note:</b></p> <p>Requires KPG-AE1/DE1 software key loader to load encryption keys</p>

### ANTENNAS

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

## BATTERIES AND CHARGERS

KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only <b>[Intrinsically Safe Option]</b>

## BATTERIES AND CHARGERS, CON'T

KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC/78LM/79LCM Li-ion Battery
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC/78LM/79LCM
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/68LC/78LM/79LCM
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
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.
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.

## CARRYING ACCESSORIES

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

## SPECIAL COLOR HOUSING

KWD-YH-3000U	Yellow Housing Kit for NX-3x00 series Portables (Standard Key Model Only) Must order <b>L-5068</b> for Factory Install. Eligible for warranty of IP67 immersion only when factory installed with L-5068. <b>Note:</b> If you order only housing and perform Dealer Installation, IP67 Warranty Claim will not be eligible.
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## MICROPHONES & AUDIO ACCESSORIES

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

KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included). <b>[Intrinsically Safe Option]</b>
KMC-70M	MIL-SPEC, IP54/55/67/68* Speaker Mic with <b>Active Noise Reduction</b> <b>Note:</b> IP68 is available only when used with NX-5000 series portable <b>[Intrinsically Safe Option]</b>
KMC-72W	MIL-SPEC, IP54/55/67 Noise-cancelling Speaker Mic <b>[Intrinsically Safe Option]</b>
KEP-1	3.5mm earphone kit for KMC-41/42W/54W/70M/72W Speaker Mics <b>[Intrinsically Safe Option]</b>
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) <b>[Intrinsically Safe Option]</b>
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) <b>Note:</b> Not compatible with TDMA operations <b>[Intrinsically Safe Option]</b>

## MICROPHONES & AUDIO ACCESSORIES, CON'T

KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT <b>Note:</b> Not compatible with TDMA operations <b>[Intrinsically Safe Option]</b>
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT <b>[Intrinsically Safe Option]</b>
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT <b>[Intrinsically Safe Option]</b>

## OPTION MODULES

KCT-48VU	External Vibration Unit <b>Note:</b> Audio accessories cannot be used when this option installed.
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## SERVICE RELATED ACCESSORIES

KPG-36XM	Full Speed USB Programming interface cable
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## INSTALLATION / TUNING CHARGES

L-836	Assemble KMB-16 with six KSC-25/25L
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>
L-5052	NX-3000 Series Portables Programming (with basic TX/RX check)
L-5054	Installation AES/DES for NX-3000 Portable/Mobile
L-5062	Configure NX-3000 series for CSA US Intrinsically Safe <b>Note:</b> NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.
L-5068	Assemble Yellow Housing KWD-YH-3000U/P with NX-3000 series Portable



**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-

**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)
- 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 Protocol<sup>1</sup>
- 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
- IP54/55<sup>2</sup> Water & Dust Intrusion
- IP67<sup>2</sup> 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
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- 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 & S-Trunking (**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**

**NX-3400K3** 800/900MHz, 3.0 Watts, 512 CH, Full Key Model, NXDN Conv & Trunking

**CSA US APPROVED MODELS**

**Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio**

**NX-3400-ISCK3** 800/900MHz, 3.0 Watts, 512 CH, Full Key Model, NXDN Conv & Trunking

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

**Over The Air Programming (OTAP), CON'T**

**KWD-AP1-CA** Additional NXDN Conventional Type-C Air Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).

**KWD-AP2-CP** Additional **NXDN Conventional and Type-C Trunking IP** Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .

**KWD-AP4-DA** Additional DMR Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.

**KWD-AP5-DP** Additional **DMR AIS IP** Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.  
Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters.

DMR licenses are supported in KPG-180AP version 3.00 and higher

**Encryption Software Keyloaders**

**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).

**KPG-DE1K** License Key for DES Encryption Software Key Loader for KWD-3503AE

**Note:**

- Requires KPT-300LMC for authentication



**Radio Features**

KWD-3000CH	License Key for 1000 Channel Expansion
KWD-3001FP	License Key for Front Panel Programming
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) <b>Note:</b> 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 & S-Trunking
KWD-3302TR	License Key for DMR Tier 3 Trunking (Requires KWD-3301CV)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	License Key for AES/DES Encryption <b>Note:</b> 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 <b>Note:</b> - 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 <b>NOT</b> require the license.
KWD-3505DE	License Key for DES Encryption <b>Note:</b> Requires KPG-AE1/DE1 software key loader to load encryption keys

**ANTENNAS**

KRA-32K	700/800 MHz Whip Antenna
KRA-36	700/800 MHz Stubby Antenna
KRA-38K	800/900 MHz Whip Antenna
KRA-39	900 MHz Stubby Antenna

**BATTERIES AND CHARGERS**

KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only <b>[Intrinsically Safe Option]</b>
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC/78LM/79LCM Li-ion Battery
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC/78LM/79LCM
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/68LC/78LM/79LCM
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
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.
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.

**CARRYING ACCESSORIES**

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

**MICROPHONES & AUDIO ACCESSORIES**

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

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

**OPTION MODULES**

KCT-48VU	External Vibration Unit <b>Note:</b> Audio accessories cannot be used when this option installed.
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**SERVICE RELATED ACCESSORIES**

KPG-36XM	Full Speed USB Programming interface cable
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**INSTALLATION / TUNING CHARGES**

L-836	Assemble KMB-16 with six KSC-25/25L
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.
L-5052	NX-3000 Series Portables Programming (with basic TX/RX check)
L-5054	Installation AES/DES for NX-3000 Portable/Mobile
L-5062	Configure NX-3000 series for CSA US Intrinsically Safe <b>Note:</b> NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.

## 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  $\pm 7.5$  kHz 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 Protocol<sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver / Antenna
- Built-in Bluetooth<sup>®</sup> 4.0 Module
- Built-in Motion Sensor
- Active Noise Reduction (ANR)
- KPG-D3N Windows<sup>®</sup> FPU
- Flash Firmware Upgrading
- Optional Software-based DES and AES Encryptions (Digital Only)
- MIL-STD-810 C/D/E/F/G
- IP54/55<sup>2</sup> Water & Dust Intrusion
- IP67<sup>2</sup> Immersion

1. Designed to operate digital, DMR\_QR 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<sup>®</sup> MODE

- NXDN<sup>®</sup> Conventional
- NXDN<sup>®</sup> TYPE-C (Gen1/Gen2) Trunking Option
- AMBE+2<sup>™</sup> 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<sup>®</sup> Scrambler

### ■ DIGITAL – DMR MODE

- DMR Tier 2 Conventional
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2<sup>™</sup>VOCODER
- 12.5 kHz Channels
- 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<sup>®</sup> Zones
- FleetSync<sup>®</sup>/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<sup>®</sup> Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking & S-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 hazardous locations.

## RADIO

NX-3220K	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model
NX-3220K2	VHF (136-174MHz), 5.0 Watts, 260CH, Standard Key Model
NX-3220K3	VHF (136-174MHz), 5.0 Watts, 260CH, Full Key Model
NX-3320K	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model
NX-3320K2	UHF (400-520MHz), 5.0 Watts, 260CH, Standard Key Model
NX-3320K3	UHF (400-520MHz), 5.0 Watts, 260CH, Full Key Model

## **RADIO TRUNKING PACKAGE**

NX-3220K-TR	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model <u>with NXDN Trunking and S-Trunking</u>
NX-3220K2-TR	VHF (136-174MHz), 5.0 Watts, 260CH, Standard Key Model <u>with NXDN Trunking and S-Trunking</u>
NX-3220K3-TR	VHF (136-174MHz), 5.0 Watts, 260CH, Full Key Model <u>with NXDN Trunking and S-Trunking</u>
NX-3320K-TR	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model <u>with NXDN Trunking and S-Trunking</u>
NX-3320K2-TR	UHF (400-520MHz), 5.0 Watts, 260CH, Standard Key Model <u>with NXDN Trunking and S-Trunking</u>
NX-3320K3-TR	UHF (400-520MHz), 5.0 Watts, 260CH, Full Key Model <u>with NXDN Trunking and S-Trunking</u>

## **Li-ion VALUE PACKAGES (Preferred for Trunked Mode Usage)**

NX-3220K2-XLKVP	VHF Extra-Cap Li-Ion Value Pack : NX-3220K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-26M
NX-3320K2-XLKVP	UHF Extra-Cap Li-Ion Value Pack : NX-3320K2+KNB-78L(2860mAh)+KSC-25LSK+KRA-27M

## **Li-ion VALUE PACKAGES (Preferred for Conventional Mode Usage)**

NX-3220K2LAKVP	VHF Hi-Cap Li-Ion Value Pack : NX-3220K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-26M
NX-3320K2LAKVP	UHF Hi-Cap Li-Ion Value Pack : NX-3320K2+KNB-57LAM(2000mAh)+KSC-25LSK+KRA-27M
NX-3220KSLAKVP	VHF Li-Ion Value Pack : NX-3220K+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M
NX-3220K2SLAKVP	VHF Li-Ion Value Pack : NX-3220K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M
NX-3220K3SLAKVP	VHF Li-Ion Value Pack : NX-3220K3+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-26M
NX-3320KSLAKVP	UHF Li-Ion Value Pack : NX-3320K+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M
NX-3320K2SLAKVP	UHF Li-Ion Value Pack : NX-3320K2+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M
NX-3320K3SLAKVP	UHF Li-Ion Value Pack : NX-3320K3+KNB-55LAM(1480mAh)+KSC-25LSK+KRA-27M

## **CSA US APPROVED MODELS**

**Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio**

NX-3220-ISCK	VHF (136-174MHz), 5.0 Watts, 64 CH, Basic Model
NX-3220-ISCK2	VHF (136-174MHz), 5.0 Watts, 512 CH, Standard Key Model
NX-3220-ISCK3	VHF (136-174MHz), 5.0 Watts, 512 CH, Full Key Model
NX-3320-ISCK	UHF (400-520MHz), 5.0 Watts, 64 CH, Basic Model
NX-3320-ISCK2	UHF (400-520MHz), 5.0 Watts, 512 CH, Standard Key Model
NX-3320-ISCK3	UHF (400-520MHz), 5.0 Watts, 512 CH, Full Key Model

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

**Offline Authentication Option**

KWD-OFL-USB	USB License Storage Hardware key for Radio Feature License <u><b>Note:</b></u> - Must purchase Radio Feature Licenses separately. - Can be used with only one (1) Account Registration Key. - Requires KPT-300LMC V1.10 or higher. - Cancellation rule is difference with standard Online/Offline Authentication. Please refer to a leaflet bundled with KWD-OFL-USB. <u><b>Warranty Information:</b></u> - 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.
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**Radio Features**

KWD-3000CH	License Key for 1000 Channel Expansion
KWD-3001FP	License Key for Front Panel Programming
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) <u><b>Note:</b></u> Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.
KWD-3302TR	License Key for DMR Tier 3 Trunking
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C, Type-C Gen2 and S-Trunking)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	License Key for AES/DES Encryption <u><b>Note:</b></u> 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 <u><b>Note:</b></u> - 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 <b>NOT</b> require the license.
KWD-3505DE	License Key for DES Encryption <u><b>Note:</b></u> Requires KPG-AE1/DE1 software key loader to load encryption keys

**ANTENNAS**

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

**BATTERIES AND CHARGERS**

KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only <b>[Intrinsically Safe Option]</b>
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included

**BATTERIES AND CHARGERS, CON'T**

KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/57LAM/68LC/78LM/79LCM Li-ion Battery
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/57LAM/68LC/78LM/79LCM
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/57LAM/68LC/78LM/79LCM
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
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.
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.

**CARRYING ACCESSORIES**

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

**SPECIAL COLOR HOUSING**

KWD-YH-3000P	Yellow Housing Kit for NX-3x20 series Portables (Standard Key Model Only) Must order <b>L-5068</b> for Factory Install. Eligible for warranty of IP67 immersion only when factory installed with L-5068. <b>Note:</b> If you order only housing and perform Dealer Installation, IP67 Warranty Claim will not be eligible.
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## MICROPHONES & AUDIO ACCESSORIES

**\*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) <b>Note:</b> KMC-45 (Non D version) is not compatible with DMR (TDMA) operation. <b>[Intrinsically Safe Option]</b>
KMC-21A	Compact speaker microphone <b>[Intrinsically Safe Option]</b>
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic <b>[Intrinsically Safe Option]</b>
KHS-7	Single muff headset w/boom mic <b>[Intrinsically Safe Option]</b>
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-8BL	Two-Wire palm mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-9BL	Three-Wire lapel mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) <b>[Intrinsically Safe Option]</b>
KHS-26	Clip Mic w/earphone
KHS-27A	D-Ring Ear Hanger w/PTT & Mic
KHS-31C	C-Ring Ear Hanger w/PTT & Mic

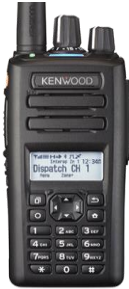
## SERVICE RELATED ACCESSORIES

KPG-22UM	USB Programming interface cable
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## INSTALLATION / TUNING CHARGES

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

### STANDARD



#### 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-

**Because of spurious signal (birdie), the following frequencies (and  $\pm 6.25$ kHz ranges) are not allowed :**

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

#### ■ 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 Protocol<sup>1</sup>
- 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
- IP54/55<sup>2</sup> Water & Dust Intrusion
- IP67<sup>2</sup> 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
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- 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 & S-Trunking (**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 locations.

### RADIO

**NX-3420K3** 800/900MHz, 3.0 Watts, 260 CH, Full Key Model, NXDN Conv & Trunking

### CSA US APPROVED MODELS

**Must Order L-5062 & KNB-79LCM Intrinsically Safe Battery per radio**

**NX-3420-ISCK3** 800/900MHz, 3.0 Watts, 260 CH, Full Key Model, NXDN Conv & Trunking

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



**Radio Features**

KWD-3000CH	License Key for 1000 Channel Expansion
KWD-3001FP	License Key for Front Panel Programming
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) <b>Note:</b> 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 & S-Trunking
KWD-3302TR	License Key for DMR Tier 3 Trunking (Requires KWD-3301CV)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	License Key for AES/DES Encryption <b>Note:</b> 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 <b>Note:</b> - 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 <b>NOT</b> require the license.
KWD-3505DE	License Key for DES Encryption <b>Note:</b> Requires KPG-AE1/DE1 software key loader to load encryption keys

**ANTENNAS**

KRA-32K	700/800 MHz Whip Antenna
KRA-36	700/800 MHz Stubby Antenna
KRA-38K	800/900 MHz Whip Antenna
KRA-39	900 MHz Stubby Antenna

**BATTERIES AND CHARGERS**

KNB-78LM	2860 mAh, Li-ion battery, IP67, battery only, best for trunked mode operation
KNB-57LAM	2000 mAh, Li-ion battery, IP67, battery only, best for conventional mode operation
KNB-55LAM	1480 mAh, Li-ion battery, IP67, battery only
KNB-56N	1400 mAh, Ni-MH battery, IP67, battery only
KNB-79LCM	CSA US Intrinsically Safe Battery Li-ion 2860mAh, IP67, battery only <b>[Intrinsically Safe Option]</b>
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included

**BATTERIES AND CHARGERS, CON'T**

KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/57LAM/68LC/78LM/79LCM Li-ion Battery
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/57LAM/68LC/78LM/79LCM
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KSC-256AK	Rapid rate 6-Unit charger for KNB-26N/55L/56N/57L/57LAM/68LC/78LM/79LCM
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
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.
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.

**CARRYING ACCESSORIES**

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

**MICROPHONES & AUDIO ACCESSORIES**

**\*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) <b>Note:</b> KMC-45 (Non D version) is not compatible with DMR (TDMA) operaiton. <b>[Intrinsically Safe Option]</b>
KMC-21A	Compact speaker microphone <b>[Intrinsically Safe Option]</b>
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic <b>[Intrinsically Safe Option]</b>
KHS-7	Single muff headset w/boom mic <b>[Intrinsically Safe Option]</b>
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-8BL	Two-Wire palm mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-9BL	Three-Wire lapel mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) <b>[Intrinsically Safe Option]</b>
KHS-26	Clip Mic w/earphone
KHS-27A	D-Ring Ear Hanger w/PTT & Mic
KHS-31C	C-Ring Ear Hanger w/PTT & Mic

**SERVICE RELATED ACCESSORIES**

KPG-22UM USB Programming interface cable

**INSTALLATION / TUNING CHARGES**

L-836 Assemble KMB-16 with six KSC-25/25L

L-961 Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)

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.

L-5052 NX-3000 Series Portables Programming (with basic TX/RX check)

L-5054 Installation AES/DES for NX-3000 Portable/Mobile

L-5062 Configure NX-3000 series for CSA US Intrinsicly Safe  
**Note:** NX-3000 series I.S. radios must be used with matching I.S. battery KNB-79LCM.



**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
- 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
- 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 (per channel)
- Built-in Comander (per channel)

**OPTIONAL FEATURES**

- DMR Conversion License (**KWD-1301CN**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**) \*Only applicable after DMR conversion
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

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**

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

### CSA US APPROVED MODELS

**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 <b>Note:</b> Can be used in Class I Gas Environment only
NX-1200-ISCNVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCNUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, NXDN/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCNUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCNUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, NXDN/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCNUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, NXDN/Analog <b>Note:</b> Can be used in Class I Gas Environment only

### ANTENNAS

KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-27M	UHF whip antenna 440-490 MHz
KRA-27M2	UHF whip antenna 470-520 MHz
KRA-27M3	UHF whip antenna 400-450 MHz

### ANTENNAS, CON'T

KRA-41M	VHF stubby antenna 148-162 MHz
KRA-41M2	VHF stubby antenna 162-174 MHz
KRA-41M3	VHF stubby antenna 136-150 MHz
KRA-42M	UHF stubby antenna 440-490 MHz
KRA-42M2	UHF stubby antenna 470-520 MHz
KRA-42M3	UHF stubby antenna 403-430 MHz
KRA-22M	VHF low profile antenna 148-162 MHz
KRA-22M2	VHF low profile antenna 162-174 MHz
KRA-22M3	VHF low profile antenna 136-150 MHz
KRA-23M	UHF low profile antenna 450-490 MHz
KRA-23M2	UHF low profile antenna 470-520 MHz
KRA-23M3	UHF low profile antenna 403-430 MHz

### BATTERIES AND CHARGERS

KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-82LCM	CSA US Intrinsically Safe Battery Li-ion 1900mAh, battery only <b>[Intrinsically Safe Option]</b>
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) <b>Note:</b> 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.
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)

### CARRYING ACCESSORIES

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

### MICROPHONES & AUDIO ACCESSORIES

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. <b>[Intrinsically Safe Option]</b>
KMC-21A	Compact speaker microphone <b>[Intrinsically Safe Option]</b>
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic <b>[Intrinsically Safe Option]</b>
KHS-7	Single muff headset w/boom mic <b>[Intrinsically Safe Option]</b>
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-8BL	Two-Wire palm mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations. <b>[Intrinsically Safe Option]</b>
KHS-9BL	Three-Wire lapel mic w/earphone (black) <b>Note:</b> Available for Analog and NXDN (FDMA) only. NOT compatible with DMR (TDMA) operations.
KHS-10D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-10D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Option]</b>
KHS-22A	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band) <b>[Intrinsically Safe Option]</b>
KHS-26	Clip Mic w/earphone <b>[Intrinsically Safe Option]</b>
KHS-27A	D-Ring Ear Hanger w/PTT & Mic
KHS-31C	C-Ring Ear Hanger w/PTT & Mic

KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable <b>Note:</b> Requires KPT-300LMC for authentication
KPG-22UM	USB Programming interface cable
E30-3410-05	2 pin Clone Cable for NX-P1000 Series

### Radio Features

KWD-1301CN	License Key for DMR Conventional Conversion
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption <b>Note:</b> ARC4 Enhanced Encryption is available only in DMR mode.
KWD-1501RC	License Key for Remote Control by Subscriber Unit <b>Note:</b> - 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 <b>NOT</b> require the license.

### SERVICE RELATED ACCESSORIES

<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

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check)





# NX-1200DV/1300DU

## VHF/UHF DMR & FM Analog 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

**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
- 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
- Late Entry

#### ■ ANALOG MODE

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

### OPTIONAL FEATURES

- NXDN Conversion License (**KWD-1201CD**)
- DMR ARC4 Enhanced Encryption (**KWD-1500EE**)
- Remote Control Command by Subscriber Units (**KWD-1501RC**)

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

NX-1200DVK	VHF (136-174MHz), 5W, 64 CH, Basic Model, DMR/Analog
NX-1200DVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog
NX-1300DUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, DMR/Analog
NX-1300DUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog
NX-1300DUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, DMR/Analog
NX-1300DUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog



# NX-1200DV/1300DU

VHF/UHF DMR & FM Analog Portable Radios

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## CSA US APPROVED MODELS

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 <b>Note:</b> Can be used in Class I Gas Environment only
NX-1200-ISCDVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCDUK	UHF (450-520MHz), 5W, 64 CH, Basic Model, DMR/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCDUK2	UHF (450-520MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCDUK4	UHF (400-470MHz), 5W, 64 CH, Basic Model, DMR/Analog <b>Note:</b> Can be used in Class I Gas Environment only
NX-1300-ISCDUK5	UHF (400-470MHz), 5W, 260 CH, LCD & Standard Keypad, DMR/Analog <b>Note:</b> Can be used in Class I Gas Environment only

## ANTENNAS

KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-27M	UHF whip antenna 440-490 MHz
KRA-27M2	UHF whip antenna 470-520 MHz
KRA-27M3	UHF whip antenna 400-450 MHz



# NX-1200DV/1300DU

VHF/UHF DMR & FM Analog Portable Radios

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## ANTENNAS, CON'T

KRA-41M	VHF stubby antenna 148-162 MHz
KRA-41M2	VHF stubby antenna 162-174 MHz
KRA-41M3	VHF stubby antenna 136-150 MHz
KRA-42M	UHF stubby antenna 440-490 MHz
KRA-42M2	UHF stubby antenna 470-520 MHz
KRA-42M3	UHF stubby antenna 403-430 MHz
KRA-22M	VHF low profile antenna 148-162 MHz
KRA-22M2	VHF low profile antenna 162-174 MHz
KRA-22M3	VHF low profile antenna 136-150 MHz
KRA-23M	UHF low profile antenna 450-490 MHz
KRA-23M2	UHF low profile antenna 470-520 MHz
KRA-23M3	UHF low profile antenna 403-430 MHz

## BATTERIES AND CHARGERS

KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-82LCM	CSA US Intrinsically Safe Battery Li-ion 1900mAh, battery only <b>[Intrinsically Safe Option]</b>
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) <b>Note:</b> 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.
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)

## CARRYING ACCESSORIES

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



# NX-1200DV/1300DU

## VHF/UHF DMR & FM Analog Portable Radios

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### MICROPHONES & AUDIO ACCESSORIES

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



# NX-1200DV/1300DU

## VHF/UHF DMR & FM Analog Portable Radios

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### Field Programming Unit (FPU)

KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable <b>Note:</b> Requires KPT-300LMC for authentication
KPG-22UM	USB Programming interface cable
E30-3410-05	2 pin Clone Cable for NX-P1000 Series

Radio Features		DEALER	LIST
KWD-1201CD	License Key for NXDN Conventional Conversion	25.00	42.00
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption <b>Note:</b> ARC4 Enhanced Encryption is available only in DMR mode.	20.00	34.00
KWD-1501RC	License Key for Remote Control by Subscriber Unit <b>Note:</b> - 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 <b>NOT</b> require the license.	20.00	34.00

SERVICE RELATED ACCESSORIES		DEALER	LIST
<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		DEALER	LIST
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <u>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</u>	72.00	120.00
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check)	22.50	37.50

## 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 Input
- 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

**MDC-1200**

- PTT ID ANI / Caller ID

**RADIO**

NX-205GK	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys
NX-205GK2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad
NX-305GK	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys
NX-305GK2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys
NX-305GK3	450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad
NX-305GK4	400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad

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

**ANTENNAS**

KRA-43GM	VHF helical antenna 146-162 MHz (w/GPS)
KRA-43GM2	VHF helical antenna 162-174 MHz (w/GPS)
KRA-43GM3	VHF helical antenna 136-150 MHz (w/GPS)
KRA-44GM	UHF helical antenna 440-490 MHz (w/GPS)
KRA-44GM2	UHF helical antenna 470-520 MHz (w/GPS)
KRA-44GM3	UHF helical antenna 400-450 MHz (w/GPS)
KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-27M	UHF whip antenna 440-490 MHz
KRA-27M2	UHF whip antenna 470-520 MHz
KRA-27M3	UHF whip antenna 400-450 MHz
KRA-22M	VHF low-profile helical antenna 148-162 MHz
KRA-22M2	VHF low-profile helical antenna 162-174 MHz
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz
KRA-23M	UHF low-profile helical antenna 450-490 MHz
KRA-23M2	UHF low-profile helical antenna 470-520 MHz
KRA-23M3	UHF low-profile helical antenna 403-430 MHz
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz

**BATTERIES AND CHARGERS**

KNB-47LAM	1950 mAh, Li-ion battery - requires KSC-32/326K/326AK charger
KNB-48LAM	2550 mAh, Li-ion battery - requires KSC-32/326K/326AK charger
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <b>Note:</b> Includes 110/220V auto-switching AC adapter with U.S.-style line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).
KSC-326AK	Rapid rate 6-unit charger CEC Compliant
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)
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

**CARRYING ACCESSORIES**

KBH-11	Spring action belt clip (2.5")
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back for KLH-148 leather case
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)
KLH-148K	Heavy duty leather case for TK-5x20, NX-x00/x05 (Non DTMF keypad models)
KLH-148K2	Heavy duty leather case for TK-5x20, NX-x00/x05 (DTMF keypad models)

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

**CARRYING ACCESSORIES, CON'T**

KLH-149K	Nylon carrying case for TK-5x20, NX-x00/x05 (Non DTMF keypad models)
KLH-149K2	Nylon carrying case for TK-5x20, NX-x00/x05 (DTMF keypad models)

**SPECIAL COLOR HOUSING**

KWD-YH20-NX	Yellow Housing Kit for NX-x00/x05 portables (6 Control Keys Version Only) Order <b>L-1714</b> for Factory Install. (required for IP67 radio orders)
KWD-OH20-NX	Orange Housing Kit for NX-x00/x05 portables (6 Control Keys Version Only) Order <b>L-1739</b> for Factory Install. (required for IP67 radio orders)

**MICROPHONES & AUDIO ACCESSORIES**

KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).
KMC-72W	MIL-SPEC, IP54/55/67* Noise-cancelling Speaker Mic <b>Note:</b> Radio does not have an IP67 Immersion spec; meets MIL STD810 rain standards.
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT

**SOFTWARE & USB OPTIONS**

KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*05/*10/*11/*20 Portables & Mobiles Must order <b>L-1812</b> for factory installation, or <b>L-1813</b> for field-upgrade option



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

**SOFTWARE & USB OPTIONS, CON'T**

**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 compensation.

**OPTION MODULES**

<b>KCT-48VU</b>	External Vibration Unit <b>Note:</b> Audio accessories cannot be used when this option installed.
<b>KCT-57MS</b>	Man-Down Internal Tilt Switch (Non-Mercury) Order <b>L-1093</b> for NXDN®/FleetSync® operations
<b>KWD-AE30K</b>	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). <b>Note:</b> GPS Board must be removed to install this option.
<b>KWD-AE31K</b>	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) <b>Note:</b> GPS Board must be removed to install this option.

**SERVICE RELATED ACCESSORIES**

<b>KPG-111DNK</b> <b>(Ver 4.4 or newer)</b>	Windows® Programming Software for NX-*00/*05/*10/*11 Series (Compliant with FCC Part 90 Narrowbanding)
<b>KPG-36XM</b>	USB Programming interface cable

**MPT FIRMWARE/ACCESSORIES/TUNING**

<b>KPG-143DNK</b>	Windows® Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) <b>Note:</b> - Must order <b>L-1727</b> for Network Level License ID & programming privileges.
<b>KWD-NX10MPT</b>	MPT Trunking Field Upgrade Kit for NX series radio Must order <b>L-1729</b> <b>Note:</b> Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.
<b>L-1726</b>	Install MPT option in NX series radio
<b>L-1727</b>	Network Level License ID for KPG-143D(N) NX series Programmer
<b>L-1728</b>	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. <b>Note:</b> see NX series MPT Introduction Sales Bulletin for details.
<b>L-1729</b>	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)
<b>L-1730</b>	Install KCT-57MS (for MPT Emergency Call)

**INSTALLATION / TUNING CHARGES**

<b>L-961</b>	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)
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**VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)****INSTALLATION / TUNING CHARGES, CON'T**

L-1084	NX-x00(S)/x05 Programming (with basic TX/RX check)
L-1093	NX-x00(S)/x05 Portable KCT-57MS Installation (for NXDN® / FleetSync®)
L-1100	Multi-Channel Encoder Modification
L-1714	Assemble Yellow Housing KWD-YH20-NX with NX-x00/x05 portables (6 Control Keys Version Only)
L-1739	Assemble Orange Housing KWD-OH20-NX with NX-x00/x05 portables (6 Control Keys Version Only)
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)
L-1828	Install KWD-AE30K in NX-x00/x05 series Portable (Must purchase module separately)
L-1829	Install KWD-AE31K in NX-x00/x05 series Portable (Must purchase module separately)

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



**210G series portable include:**

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

\* All Accessories / options: 1 Year

*Order packages to include Battery, Charger & Antenna, or purchase Battery, Charger, and Antenna separately.*

Approved by CSA 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, C, D hazardous locations.  
**Note:** Class I, Div 2 Group A & B Gases require use of a portable carrying case.

**GENERAL FEATURES**

- 5 W (136-174 MHz) Model
- 512 CH-GID / 128 Zones
- 12-Key Keypad Model
- 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
- 6 Front PF & Menu Keys
- 2 Side PF Keys
- Emergency/AUX Key
- 500 mW Speaker Audio
- Built-In GPS Unit
- KPG-111D Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- MIL-STD "Driven-Rain"
- IP54/55 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input
- 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
- Remote Check
- Short & Long Data Messages
- GPS Location with Voice
- NXDN® Scrambler Included
- DES Encryption Module Option\*
- 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

**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

**FleetSync®/II (FM)**

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

**MDC-1200**

- PTT ID ANI / Caller ID
- Emergency / Radio Check & Inhibit

\* Must remove GPS module to utilize these options

**RADIO**

NX-210GK2 136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Keypad

**CSA US APPROVED MODELS**

**Must Order L-1750 & an Intrinsically Safe Battery per radio**

NX-210-ISCGK2 136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Key (I.S.)

**PACKAGE**

NX-210GK2-LKP 136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Keypad  
 VHF Li-Ion Battery Package (NX-210K2 + KNB-33L + KSC-32 + KRA-26M)

## VHF Digital &amp; FM Analog Portables (w/ Built-In GPS)

**ANTENNAS**

KRA-43GM	VHF helical antenna 146-162 MHz (w/GPS)
KRA-43GM2	VHF helical antenna 162-174 MHz (w/GPS)
KRA-43GM3	VHF helical antenna 136-150 MHz (w/GPS)
KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-22M	VHF low-profile helical antenna 148-162 MHz
KRA-22M2	VHF low-profile helical antenna 162-174 MHz
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz

**BATTERIES AND CHARGERS**

KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K/326AK charger <b>[CSA-us Intrinsically Safe Option]</b> <b>Note:</b> FM Intrinsically Safe Option and repairs for FM certified radio are no longer available. Once repaired, radio loses FM certification and is required to be recertified to CSA-us to maintain the IS rating.
KNB-54N	2500 mAh, Ni-MH battery - requires KSC-32/326K/326AK charger
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K/326AK charger
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K/326AK charger
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included <b>Note:</b> the color of the case is orange.
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <b>Note:</b> Includes 110/220V auto-switching AC adapter with U.S.-style line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).
KSC-326AK	Rapid rate 6-unit charger CEC Compliant
KMB-30A	Wall Mount Bracket for KSC-326K/326AK/256K/256AK
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)
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

**CARRYING ACCESSORIES**

KBH-10	Low profile spring action belt clip (for use with KNB-33L Only)
KBH-11	Spring action belt clip (2.5")
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back
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)
KLH-154K2	Heavy duty leather carrying case for NX-210K2/410K2/411K2 <b>Note:</b> No belt loop flap is included. Must order KLH-6SW for belt loop.

**MICROPHONES & AUDIO ACCESSORIES**

KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector <b>[Intrinsically Safe Approved Accessory]</b> <b>Note:</b> 5/16" Coax cable hex wrench included (antenna is not included).
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## VHF Digital &amp; FM Analog Portables (w/ Built-In GPS)

<b>MICROPHONES &amp; AUDIO ACCESSORIES, CON'T</b>		<b>DEALER</b>
KMC-72W	MIL-SPEC, IP54/55/67* Noise-cancelling Speaker Mic <b>Note:</b> Radio does not have an IP67 Immersion spec; meets MIL STD810 rain standards. <b>[Intrinsically Safe Approved Accessory]</b>	
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics <b>[Intrinsically Safe Approved Accessory]</b>	
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) <b>[Intrinsically Safe Approved Accessory]</b>	
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) <b>[Intrinsically Safe Approved Accessory]</b>	
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) <b>[Intrinsically Safe Approved Accessory]</b>	
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT <b>[Intrinsically Safe Approved Accessory]</b>	
KHS-15D-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Approved Accessory]</b>	
KHS-15D-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT <b>[Intrinsically Safe Approved Accessory]</b>	
<b>SOFTWARE &amp; USB OPTIONS</b>		
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles <b>Must order L-1812 for factory installation, or L-1813 for field-upgrade option</b>	
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series <b>without ESN.</b> KWD-LIC-USB stores KWD-NX2G-10 options which are purchased separately and includes KPG-97USB software for activating radios. <b>Note:</b> - 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 <b>NOT</b> eligible for warranty compensaton.	
<b>OPTION MODULES</b>		
KCT-48VU	External Vibration Unit <b>[Intrinsically Safe Approved Accessory]</b> <b>Note:</b> Audio accessories cannot be used when this option installed.	
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) <b>[Intrinsically Safe Approved Accessory]</b> - Must be Kenwood installed for I.S.	
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1832 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). <b>[Intrinsically Safe Option]</b> - Must be Kenwood installed for I.S.	
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1833 if installation is required. <b>Note:</b> Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) <b>[Intrinsically Safe Option]</b> - Must be Kenwood installed for I.S.	

## VHF Digital &amp; FM Analog Portables (w/ Built-In GPS)

**SERVICE RELATED ACCESSORIES**

KPG-111DNK	Windows® Programming Software for NX-200/210/300/410/411/700/800/900/901 <b>Note:</b> Version 4.40 is required to program "G" models
KPG-36XM	USB Programming interface cable

**INSTALLATION / TUNING CHARGES**

L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)
L-1633	NX-210 Programming (with basic TX/RX check)
L-1667	Install VGS-1 Voice Guide & Storage Unit in NX-210
L-1671	NX-210/410/411 Portable KCT-57MS Installation (for NXDN® / FleetSync®)
L-1750	Configure NX-210/210G/410/411 for Intrinsically Safe <b>Must order an I.S. battery,</b>
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)
L-1832	Install KWD-AE30K in NX-210G/410/411 series Portable (Must purchase module separately)
L-1833	Install KWD-AE31K in NX-210G/410/411 series Portable (Must purchase module separately)

# NX-1200AV/1300AU

## 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

### 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 Compander (per channel)

#### DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- 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
- 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

### OPTIONAL FEATURES

- NXDN Conventional Upgrade License ([KWD-1200CAK](#))
- 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](#))

### RADIO

NX-1200AVK	VHF (136-174MHz), 5W, 64 CH, Basic, Analog
NX-1200AVK2	VHF (136-174MHz), 5W, 260 CH, LCD & Standard Keypad, Analog
NX-1300AUK	UHF (450-520MHz), 5W, 64 CH, Basic, Analog
NX-1300AUK2	UHF (450-520 MHz), 5W, 260 CH, LCD & Standard Keypad, Analog
NX-1300AUK4	UHF (400-470MHz), 5W, 64 CH, Basic, Analog
NX-1300AUK5	UHF (400-470 MHz), 5W, 260 CH, LCD & Standard Keypad, Analog

### ANTENNAS

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

# NX-1200AV/1300AU

## VHF/UHF Digital Upgradeable Portable Radios

Table of Contents

### BATTERIES AND CHARGERS

KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) <b>Note:</b> 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.
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)

### CARRYING ACCESSORIES

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

### MICROPHONES & AUDIO ACCESSORIES

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



**Field Programming Unit (FPU)**

KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable <b>Note:</b> Requires KPT-300LMC for authentication
KPG-22UM	USB Programming interface cable
E30-3410-05	2 pin Clone Cable for NX-P1000 Series

**Radio Features**

KWD-1200CAK	License Key for NXDN Conventional Upgrade
KWD-1300CAK	License Key for DMR Tier2 Conventional Upgrade
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption <b>Note:</b> ARC4 Enhanced Encryption is available only in DMR mode.
KWD-1501RC	License Key for Remote Control by Subscriber Unit <b>Note:</b> - 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 <b>NOT</b> require the license.

**SERVICE RELATED ACCESSORIES**

<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**

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <b>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</b>
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check)

# NX-1202AV/1302AU

## 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

- 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 Compander (per channel)

#### ■ DIGITAL – NXDN® MODE (Optional)

- NXDN® Conventional & Site Roaming
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias (TX only / No display)
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status, Short Data, Paging Call
- Remote Stun, Kill, Monitor, Check, & Control
- NXDN® Scrambler
- 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 (TX only / No display)
- Late Entry
- ARC4 Encryption Option

### OPTIONAL FEATURES

- NXDN Conventional Upgrade License (**KWD-1200CAK**)
- 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**)

### RADIO

NX-1202AVK	VHF (136-174MHz), 2W, 64 CH, Basic Model, Analog
NX-1302AUK	UHF (450-520MHz), 2W, 64 CH, Basic Model, Analog

### ANTENNAS

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

# NX-1202AV/1302AU

## VHF/UHF Digital Upgradeable Portable Radios

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### BATTERIES AND CHARGERS

KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L
KMB-28AK	Six Unit Charger Adapter for the KSC-35SK chargers (chargers not included) <b>Note:</b> 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.
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger (charger not included)

### CARRYING ACCESSORIES

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

### MICROPHONES & AUDIO ACCESSORIES

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

# NX-1202AV/1302AU

VHF/UHF Digital Upgradeable Portable Radios

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## Field Programming Unit (FPU)

KPG-D6NK	License Key for KPG-D6NK Programming Software for NX-1000 series portable <b>Note:</b> Requires KPT-300LMC for authentication
KPG-22UM	USB Programming interface cable
E30-3410-05	2 pin Clone Cable for NX-P1000 Series

# NX-1202AV/1302AU

## VHF/UHF Digital Upgradeable Portable Radios

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### Radio Features

KWD-1200CAK	License Key for NXDN Conventional Upgrade
KWD-1300CAK	License Key for DMR Tier2 Conventional Upgrade
KWD-1500EE	License key for DMR ARC4 Enhanced Encryption <b>Note:</b> ARC4 Enhanced Encryption is available only in DMR mode.
KWD-1501RC	License Key for Remote Control by Subscriber Unit <b>Note:</b> - 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 <b>NOT</b> require the license.

### SERVICE RELATED ACCESSORIES

<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

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.
L-5075	NX-1000 Series Portables Programming (with basic TX/RX check)

## 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

PKT-23K 451-470 MHz UHF 1.5W or 500 mW, 4 Ch. Ultra Compact Portable

### BATTERIES AND CHARGERS



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)

KSC-44K Li-Ion Fast rate charger/AC Power Supply (Same as supplied with PKT-23K)

KSC-44MLKS Multi-unit AC Adapter (Connect up to 6 KSC-44K charger cups)

KMB-44K Six unit Charger Cup Mount and Multi-AC Adapter (Charging Cups not included)

### CARRYING ACCESSORIES

KBH-20M Belt Clip (Same as supplied with PKT-23K & bulk PKT-23BKP)

### MICROPHONES & AUDIO ACCESSORIES

KHS-33 Clip Mic w/earphone single pin (only compatible with PKT-23)

KHS-34 C-Ring Ear Hanger w/PTT & Mic single pin (only compatible with PKT-23)

### INSTALLATION / TUNING CHARGES

L-1773 Change channel to other frequencies or program PKT-23



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

- Standard Microphone (KMC-65M)
- Mounting Bracket (KMB-33M)
- DC Cable
- Blade Fuse
- User Guide
- Premium Warranty: 3 Years

All Accessories / options: 1 Year

\*BK-version comes with a RF deck only

**STANDARD**

**GENERAL FEATURES**

- 50 W (136-174 MHz) Models
- 45 W (380-470, 450-520 MHz) Models
- 35 W (700/800 MHz) Models
- 1024 CH-GID / 128 Zones
- Full Color 2.55" (154 x 422 pixels) TFT Display
- Multi-line Text Display
- Function/Status Icons
- Multi-Language Display
- Date & 12/24 Hour Time Clock
- Transmit/Busy/Call Alert/Warn LED
- Emergency/AUX Key
- 4W Speaker Audio
- DB-25 Accessory Connector
- Multi Digital Protocol <sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth® Module
- Built-in 56-bit DES Encryption (4 keys programmable by KPG-D1(N)K)
- Mobile Relay Station<sup>2</sup> (DMR Mode<sup>3</sup>)
- Cross Band Repeater (Only)
- Active Noise Reduction (ANR)
- KPG-D1N Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP54/55

1. Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.

2. Requires **L-5023** DB25 Cable between Decks.

**DIGITAL – NXDN® MODE**

- NXDN® Conventional
- NXDN® TYPE-C (Gen1/Gen2) Trunking (except 700MHz)
- AMBE+2™ VOCODER
- 6.25 & 12.5 kHz Channels
- Over-the-Air Alias
- Over-the-Air Programming (requires KPG-180AP OTAP Manager Software)
- Paging Call
- Emergency Call
- All Group Call
- 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
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC4 Encryption Optional
- Site Roaming

**ANALOG MODE**

- Conventional Zones
- LTR® Zones
- FleetSync®/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

**Multi-Deck Compatible Models & Modes**

Models	Bands	Power	Operable Modes
NX-5600H	Lowband VHF (39-50)	110 Watts	Analog/NXDN
NX-5700	VHF (136-174)	50 Watts	Analog/NXDN/DMR/P25
NX-5700H	VHF (136-174)	110 Watts	Analog/NXDN/P25
NX-5800H	UHF (380-470, 450-520)	100 Watts	Analog/NXDN/P25
NX-5800	UHF (380-470, 450-520)	50 Watts	Analog/NXDN/DMR/P25
NX-5900	7/800	35 Watts	Analog/NXDN/DMR/P25

**OPTIONAL FEATURES & CONFIGURATIONS**

**GENERAL FEATURES**

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control by Subscriber Units (KWD-5007RC)

**DIGITAL – P25 MODE**

- Conventional Features (KWD-5100CV)
- Phase 1 Trunking Features (KWD-5100CV & 5101TR)
- Phase 2 Trunking Features (KWD-5100CV & 5101TR & 5102TR)
- Conventional OTAR (KWD-5103RK)
- Trunking OTAR (KWD-5103RK & 5106DT)
- Conventional Voting Scan (KWD-5105VT)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)

**DIGITAL – DMR MODE**

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

**MOUNTING & REMOTE CONFIGURATIONS**

(See NX-5000 Accessory page for details)

- KCH-20R Featured Control Head
  - KCH-21R Handheld Control Head
  - Single Remote Control Head (KRK Kit & KCT-71 or KCT-77 Cable required)
  - Dual Remote Control Heads (KCH-19/20R/21R & KRK Kit & KCT-71 or KCT-77 Cables required)
  - Multiple RF Decks (KRK Kit & KCT-71 or KCT-77 Control Cable + KWD-5004MR License Key Activation required\*)
- \* ONLY for the radios with S/N: B5900000 or earlier.



**RADIO**

NX-5700K	VHF (136-174MHz), 50 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5800K	UHF (450-520MHz), 45 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5800K2	UHF (380-470MHz), 45 Watts	NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking
NX-5900K	700 / 800 MHz, 30/35 Watts	NXDN Conventional / 800MHz TYPE-C (Gen1/Gen2) Trunking

**RF Deck Only**

*MUST purchase necessary accessories separately*

NX-5700BK	NX-5700K (50W, 136-174 MHz)	<b>RF Deck Only</b>
NX-5800BK	NX-5800K (45W, 450-520 MHz)	<b>RF Deck Only</b>
NX-5800BK2	NX-5800K2 (45W, 380-470 MHz)	<b>RF Deck Only</b>
NX-5900BK	NX-5900K (35W, 700/800 MHz)	<b>RF Deck Only</b>



- 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

**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®/I: 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

**OPTIONAL FEATURES & CONFIGURATIONS**

**GENERAL FEATURES**

- 4000 Channel (KWD-5000CH)
- Front Panel Programming (KWD-5001FP)
- microSD/microSDHC Memory Card Slot (KWD-5002SD)
- Built-in Bluetooth® Module for Data (KWD-5003BT)
- Remote Control by Subscriber Units (KWD-5007RC)

**DIGITAL – P25 MODE**

- Conventional Features (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-5105VI)
- Packet Data required for Trunked OTAR/GPS (KWD-5106DT)

**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)



**RF Deck Only**

*MUST purchase necessary accessories separately*

NX-5700HBF	NX-5700HBF (110W, 136-174 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)
NX-5800HBF	NX-5800HBF (100W, 450-520 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)
NX-5800HBF2	NX-5800HBF2 (100W, 380-470 MHz) RF Deck Only, NXDN Conv & P25 Conv (Remote Control Head, Microphone, Bracket, DC Cable not included)





**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)
- DTMF
- Built-in Voice Inversion Scrambler
- Noise Blanker

**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)

**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)
- Multiple RF Decks (KRK Kit & KCT-71 or KCT-77 Control Cable)



**RF Deck Only**

*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)

## MICROPHONES AND SPEAKERS

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> Requires KCT-72M to connect to Remote Control Head
KCT-72M	External Accessory Connection Cable for KCH-19M / KCH-20RM
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note:</b> NOT compatible with TDMA operations
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug)

## DC POWER CABLES

KCT-23M	DC Cable, 35-50W, 10 feet <b>Note:</b> For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.
KCT-23M3	DC Cable, 35-50W, 23 feet <b>Note:</b> For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.
KCT-23M2	DC Cable, 75-110W, 10 feet <b>Note:</b> For high power mobiles (NX-5600HB/5700HB) only.
KCT-23M4	DC Cable, 75/110W, 23 feet <b>Note:</b> For high power mobiles (NX-5600HB/5700HB) only.

## MOUNTING BRACKETS

KMB-33M	Mounting Bracket <b>Note:</b> For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.
KMB-36	Mounting Bracket <b>Note:</b> For high power mobiles (NX-5600HB/5700HB) only.

## CONTROL HEADS

KCH-19M	Basic Control Panel
KRK-14HM	Control Head Interface Kit for KCH-19M Full Featured Remote Control Panel <b>Note:</b> - Remote configuration only. No Internal Speaker included. KES-5A is required.
KCH-20RM	- microSD License (KWD-5002SD) and Bluetooth SPP License (KWD-5003BT) are <b>NOT</b> required for both <b>KCH-20RM</b> and <b>connected RF Decks</b> . KCH-20RM and connected RF Decks can be used of microSD and Bluetooth SPP with <b>NO</b> License Activation.
KCH-21RM	Hand Held Control Head for Long Cable <b>*Requires KCT-77M2 (17 ft.)</b> <b>Note:</b> - 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.
KCH-21RM-S	Hand Held Control Head with Short Cable (4 ft.) <b>Note:</b> - 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.

## CONTROL HEAD REMOTE KIT (for Mid Power Mobiles)

KRK-15BM Control Head Remote Kit  
**Note:** For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.

## REMOTE & MULTI RF DECK CABLES

KCT-71M2 Remote Control Cable (17 feet)

KCT-71M3 Remote Control Cable (25 feet)

KCT-71M4 Remote Control Cable (1.6 feet)

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.

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.

KCT-77M2 Remote Control Cable for KCH-21RM (17 feet)

## OTHER ACCESSORIES

KCT-46 Ignition sense cable  
**Note:** For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.

KCT-18 Ignition sense cable  
**Note:** For high power mobiles (NX-5600HB/5700HB) only.

KAP-2 Horn Alert/P.A. Relay Option  
**Note:** For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.

KCT-72M External Accessory Connection Cable for KCH-19M / KCH-20RM

KLF-2 Line Filter (suppresses alternator whine, 25dB, 25A max).

KMB-10 Key lock adapter  
**Note:** For mid power mobiles (NX-5700/5700B/5800/5800B/5900/5900B) only.

KRA-40GM GPS Antenna

KCT-90USB USB Mobile Cable for SD Card Direct Access Support  
**Note:** microSD function requires KWD-5002SD license.

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

KPS-15 DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)

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.

## Offline Authentication Option

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) Account Registration Key.  
- Requires KPT-300LMC V1.10 or higher.  
- Cancellation rule is difference with 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.

## ENCRYPTION MODULES

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

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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

## 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

#### 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)
- KCH-21RM Handheld Control Head

#### 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:  
17ft. (KCT-77M2)

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

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

## CONVENIENT REMOTE & MULTI-RF DECK ACCESSORY KITS

### MID POWER / Remote Kit - Single Head / Single RF Deck

5ABM	KMC-65M, KCH-19M, KRK-14HM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M
5AFM	KMC-65M, KCH-20RM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KES-5A, KCT-72M
5AHM	KCH-21RM, KRK-15BM, KCT-77M2, KCT-23M3, KMB-33M

### MID POWER / Remote Kit - Dual Head / Single RF Deck

5ABBM	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M
5AFFM	KMC-65M(x2), KCH-20RM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KES-5A(x2), KCT-72M(x2)

### MID POWER / Remote Kit - Single Head / Dual RF Deck

5ABMM	KMC-65M, KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2)
5AFMM	KMC-65M, KCH-20RM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A, KCT-72M
5AHMM	KCH-21RM, KRK-15BM(x2), KCT-77M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2)

### MID POWER / Remote Kit - Single Head / Dual RF Deck, External Speakers per deck

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)
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)
5AHMM-MR	KCH-21RM, KRK-15BM(x2), KCT-77M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KES-5A(x2), KAP-2(x2)

### MID POWER / Remote Kit - Dual Head / Dual RF Deck

5ABBM	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2)
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)

### MID POWER / Remote Kit - Dual Head / Dual RF Deck, External Speakers per deck

5ABBM-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)
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)

### HIGH POWER / Single Head Remote Mount Kit

6ABMIG	KMC-65M, KCH-19M, KRK-14HM, KCT-71M2, KCT-23M4, KCT-18, KMB-36
6AFMIG	KMC-65M, KCH-20RM, KCT-71M2, KCT-23M4, KCT-72M, KES-5A, KCT-18, KMB-36
6AHMIG	KCH-21RM, KCT-77M2, KCT-23M4, KCT-18, KMB-36

### HIGH POWER / Single Remote Mount / Dual High Power RF Deck

6AFMMIG	KMC-65M, KCH-20RM, KCT-71M2, KCT-23M4(x2), KCT-72M, KES-5A, KCT-18(x2), KMB-36 (x2), KCT-71M4
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### HIGH POWER / Single Deck Dual Head Remote Mount

6ABBMIG	KMC-65M(x2), KCH-19M(x2), KRK-14HM(x2), KCT-71M2(x2), KCT-23M4, KCT-18, KMB-36
6AFFMIG	KMC-65M(x2), KCH-20RM(x2), KCT-71M2(x2), KCT-23M4, KCT-72M(x2), KES-5A(x2), KCT-18, KMB-36

## REMOTE & MULTI-RF DECK ASSEMBLY LABORS

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
L-5030	Factory Assembly & Factory Packing for Dual Head Remote Kit and Radio
L-5031	Factory Assembly & Factory Packing for Single Head Remote Kit and Dual Deck Radio
L-5032	Factory Assembly & Factory Packing for Single Head / Dual Deck / Ext. Speakers
L-5033	Factory Assembly & Factory Packing for Dual Head and Dual Deck Radio
L-5034	Factory Assembly & Factory Packing for Dual Head / Dual Deck / Ext. Speakers
L-5035	Factory Assembly & Factory Packing for Single Head Remote and Triple Deck Radio
L-5037	Factory Assembly & Factory Packing for Dual Head and Triple Deck Radio

## INSTALLATION / TUNING SERVICES

L-5001	<p>Factory Activation of Radio Feature Licenses (per Radio)</p> <p><b>Note:</b> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</p>
L-5006	NX-5000 Mobile Programming (with basic TX/RX check)
L-5007	<p>Install KWD-AE30K in NX-5000 series Mobile (Must purchase module separately)</p>
L-5008	<p>Install KWD-AE31K in NX-5000 series Mobile (Must purchase module separately)</p>
L-5015	<p>Install KAP-2 (Default) HR1/<b>INTERNAL</b> Sp./PA. <b>Note:</b> 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.</p>
L-5019	<p>Install KAP-2 (Default) HR1/<b>EXTERNAL</b> Sp./PA. <b>Note:</b> 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.</p>
L-5051	P25 CAP Compliance of Non-Encrypted Radio - Disable Built-in DES
L-5077	<p>FSFS++ Forest Service Feature Set - Factory Installation Adds Tactical Zone improvements and Analog Conv &amp; P25 Conv Zone Cloning</p> <p><b>Note:</b> Must purchase <u>per Radio</u></p> <ul style="list-style-type: none"> <li>• This feature set is provided by custom firmware based on V4.21.00 firmware.</li> <li>• Feature set is applicable for analog conventional / P25 conventional modes only.</li> <li>• Feature set does not support mobile multi-deck configuration.</li> <li>• Feature set will not work with any other firmware options or customized firmware.</li> <li>• Custom firmware is not eligible for warranty compensation.</li> </ul>
L-5078	<p>FSFS++ Forest Service Feature Set - Field Installation Adds Tactical Zone improvements and Analog Conv &amp; P25 Conv Zone Cloning</p> <ul style="list-style-type: none"> <li>• This feature set is provided as custom firmware based on V4.21.00 firmware.</li> <li>• Feature set is applicable for analog conventional / P25 conventional modes only.</li> <li>• Feature set does not support Mobile multi-deck configuration.</li> <li>• Feature set will not work with any other firmware options or customized firmware.</li> <li>• Custom firmware is not eligible for warranty compensation.</li> </ul>

## PROGRAMMING CABLES

KPG-115 Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000

KPG-115AUT KVL-4000 Radio Authentication Cable

**Note:** Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.

KPG-46XM Full Speed USB Programming interface cable

**Note:** This cable with USB mode may be used for SD Card Direct Access.

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

KPG-CLN-RJ45 Mobile-to-Mobile Cloning Cable (RJ45:RJ45), 3m

## FIELD PROGRAMMING UNIT (FPU)

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

## Programming for P25 Trunked system



L-5005	<p>KPG-D1NK System Key File (SKF)</p> <p><b>Note:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <p><b>- Restricted Purchase Requirements -</b></p> <ul style="list-style-type: none"> <li>• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Must have KPG-D1NK.</li> <li>• 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.</li> <li>• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> <li>• 3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> </ul>
KWD-ASK-MK	<p>Master Key for activating KWD-ASK-AK Access Keys</p> <p><b>- Restricted Purchase Requirements -</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• For NX-5000 series only.</li> <li>• Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>• Must have KPG-D1NK</li> <li>• SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> <li>• Purchase KWD-ASK-AK Access Keys if needed.</li> </ul>
KWD-ASK-AK	<p>Access Key for KPG-D1NK P25 trunked programming</p> <p><b>Notes:</b> Enables P25 Trunked system programming privileges in a KPG-D1NK.</p> <ul style="list-style-type: none"> <li>• For NX-5000 series only</li> <li>• Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>• Must have KPG-D1NK</li> <li>• Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in battery. USB Key must be replaced since the expiration set up dose not work after 3 years.</li> </ul>

## SOFTWARE KEYLOADER

KPG-AE1K	<p>AES/DES Encryption Software Key Loader for KWD-AE31K</p> <p><b>Authentication by KPT-300LMC is required</b></p> <p><b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)</p>
KPG-DE1K	<p>DES Encryption Software Key Loader for KWD-AE31K</p> <p><b>Authentication by KPT-300LMC is required</b></p>

## OVER THE AIR PROGRAMMING (OTAP)

<b>KPG-180AP</b>	<p><b>OTAP Manager Software (Windows® Vista/7/8/8.1/10)</b> License includes: Software manages up to fifty(50) radio program files, one communication profile for each NXDN serial connection, DMR serial connection, NXDN Type-C IP, and DMR AIS IP connection <b>Note:</b> For each serial or IP connection to radio or base station, one applicable communication profile is required. <b>Note:</b> Requires KPT-300LMC for license authentication</p>
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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.**

<b>KWD-AP5100</b>	<p>Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.</p>
<b>KWD-AP5250</b>	<p>Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.</p>
<b>KWD-AP5500</b>	<p>Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.</p>
<b>KWD-AP1-CA</b>	<p>Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).</p>
<b>KWD-AP2-CP</b>	<p>Additional <b><u>NXDN Conventional and Type-C Trunking IP</u></b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .</p>
<b>KWD-AP3-P25</b>	<p>P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.</p>
<b>KWD-AP4-DA</b>	<p>Additional DMR Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.</p>
<b>KWD-AP5-DP</b>	<p>Additional <b><u>DMR AIS IP</u></b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway</p>

### -- IMPORTANT NOTES--

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

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

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

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters

DMR licenses are supported in KPG-180AP version 3.00 and higher

## FleetSync® & NEXEDGE® AVL & MESSAGING

<b>KAS-10</b>	<p>FleetSync &amp; NEXEDGE AVL &amp; Messaging Software with NEXEDGE Trunking VoIP Dispatch <b>Note:</b> - Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with Windows® XP, VISTA &amp; 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, Trunking and DMR System not supported.</p>
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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  $\pm 7.5$ kHz ranges) are not allowed ;**

- |            |            |            |
|------------|------------|------------|
| • 139.2000 | • 403.2000 | • 460.8000 |
| • 144.0000 | • 408.0000 | • 465.6000 |
| • 146.8000 | • 412.8000 | • 470.4000 |
| • 153.6000 | • 417.6000 | • 475.2000 |
| • 158.4000 | • 422.4000 | • 480.0000 |
| • 163.2000 | • 427.2000 | • 484.8000 |
| • 168.0000 | • 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 <sup>1</sup>
- 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

**■ 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 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
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2™ VOCODER
- 12.5 kHz Channels
- 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 & S-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**)

**RADIO**

NX-3720HGK	VHF (136-174MHz), 50 Watts, 512 CH, 128 Zones
NX-3820HGK	UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones
NX-3820HGK2	UHF (400 - 470MHz), 45 Watts, 512 CH, 128 Zones

**RADIO TRUNKING PACKAGE**

NX-3720HGK-TR	VHF (136-174MHz), 50 Watts, 512 CH, 128 Zones with NXDN Trunking and S-Trunking
NX-3820HGK-TR	UHF (450 - 520MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking and S-Trunking
NX-3820HGK2-TR	UHF (400 - 470MHz), 45 Watts, 512 CH, 128 Zones with NXDN Trunking and S-Trunking

**Field Programming Unit (FPU)**

KPG-D3NK License Key for KPG-D3NK  
Programming Software for NX-3000 Portable/Mobile  
**Note:** Requires KPT-300LMC for authentication

**Over The Air Programming (OTAP)**

KPG-180AP **OTAP Manager Software (Windows® Vista/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 serial or IP connection to radio or base station, one applicable communication profile is required.  
**Note:** Requires KPT-300LMC for license authentication

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**

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

KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.
KWD-AP1-CA	Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).
KWD-AP2-CP	Additional <b>NXDN Conventional and Type-C Trunking IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .
KWD-AP4-DA	Additional DMR Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.
KWD-AP5-DP	Additional <b>DMR AIS IP</b> Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway

**– IMPORTANT NOTES–**

Base radios are connected to a computer using the KPG-22UM USB adapter for portables, or a KPG-46XM for mobiles.  
Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters.

DMR licenses are supported in KPG-180AP version 3.00 and higher

**Over The Air Programming (OTAP), CON'T**

KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .
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**- IMPORTANT NOTES-**

Base radios are connected to a computer using the KPG-22XM USB adapter for portables, or a KPG-46XM for mobiles.

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

Requires firmware version 1.0 or higher for the NXR-5xxx repeaters

**Encryption Software Keyloaders**

KPG-AE1K	License Key for AES/DES Encryption Software Key Loader for KWD-3503AE
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**Note:**

- Requires KPT-300LMC for authentication
- KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).

KPG-DE1K	License Key for DES Encryption Software Key Loader for KWD-3503AE
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**Note:**

- Requires KPT-300LMC for authentication

**Offline Authentication Option**

KWD-OFL-USB	USB License Storage Hardware key for Radio Feature License
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**Note:**

- Must purchase Radio Feature Licenses separately.
- Can be used with only one (1) Account Registration Key.
- Requires KPT-300LMC V1.10 or higher.
- Cancellation rule is difference with 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.

**Radio Features**

KWD-3000CH	License Key for 1000 Channel Expansion
KWD-3001FP	License Key for Front Panel Programming
KWD-3002BT	License Key for Bluetooth Data (Required for Data Communication) <b>Note:</b> Voice Communication for Bluetooth Head Set does NOT require KWD-3002BT. You can pair with any Bluetooth audio device without this option.
KWD-3302TR	License Key for DMR Tier 3 Trunking
KWD-3501TR	License Key for Digital Trunking (Includes NXDN Type-C, Type-C Gen2 and S-Trunking)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	License Key for AES/DES Encryption <b>Note:</b> 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 Units <b>Note:</b> - 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 <b>NOT</b> require the license.

**Radio Features, CON'T**

KWD-3505DE	License Key for DES Encryption <b>Note:</b> Requires KPG-AE1/DE1 software key loader to load encryption keys
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**CONTROL HEAD REMOTE KIT**

KRK-18HM	Interface Kit for a Control Head
KRK-19BM	Interface Kit for an RF Deck

**Note:** Remote Control Cable must be purchased separately.

**REMOTE CONTROL CABLES**

KCT-71M2	Remote Control Cable (17 feet)
KCT-71M3	Remote Control Cable (25 feet)
KCT-71M4	Remote Control Cable (1.6 feet)
KCT-71A50	KCT-71A Extended Control Head Cable (up to 50 ft. max.) <b>Note:</b> Please specify exact length at 1ft. increments when ordering. <b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.
KCT-71A100	KCT-71A Extended Control Head Cable (up to 100 ft. max.) <b>Note:</b> Please specify exact length at 1ft. increments when ordering. <b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.

**MOBILE INSTALLATION ACCESSORIES**

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

**CONTROL STATION INSTALLATION ACCESSORIES**

KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)

**MICROPHONES AND SPEAKERS**

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: NOT compatible with TDMA operations</b>
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KCT-60M installed.

**SERVICE RELATED ACCESSORIES**

KPG-46XM	Full Speed USB Programming interface cable <b>Note:</b> This cable with USB mode may be used for SD Card Direct Access.
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**INSTALLATION / TUNING CHARGES**

L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory.
L-5053	NX-3720HG/3820HG/3920G/3921G Programming (with basic TX/RX check)

**INSTALLATION / TUNING CHARGES, CON'T**

L-5054	Installation for NX-3000 Portable/Mobile AES
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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 ±6.25kHz 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 <sup>1</sup>
- Emergency Call Features
- Built-in GPS Receiver
- Built-in Bluetooth<sup>®</sup> Module
- Active Noise Reduction (ANR)
- KPG-D3N Windows<sup>®</sup> 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<sup>®</sup> Zones
- FleetSync<sup>®</sup>/I/I: 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<sup>®</sup> MODE**

- NXDN<sup>®</sup> Conventional
- NXDN<sup>®</sup> TYPE-C (Gen1/Gen2) Trunking
- AMBE+2<sup>™</sup> 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<sup>®</sup> Scrambler

**■ DIGITAL – DMR MODE**

- DMR Tier 2 Conventional Option
- S-Trunking Option
- DMR Tier 3 Trunking Option
- DMR Auto Slot Select (DASS)
- AMBE+2<sup>™</sup>VOCODER
- 12.5 kHz Channels
- 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<sup>®</sup> Module for Data (**KWD-3002BT**)
- Digital NXDN Trunking (**Factory Installed**)
- DMR Tier 2 Conventional & S-Trunking (**KWD-3301CV**)
- DMR Tier 3 Trunking (**KWD-3301CV & KWD-3302TR**)
- DMR ARC4 Enhanced Encryption (**KWD-3502EE**)
- AES/DES Encryption (**KWD-3503AE**)

**RADIO**

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

**Field Programming Unit (FPU)**

**KPG-D3NK** License Key for KPG-D3NK  
Programming Software for NX-3000 Portable/Mobile  
**Note:** Requires KPT-300LMC for authentication

**Over The Air Programming (OTAP)**

**KPG-180AP** **OTAP Manager Software (Windows® Vista/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 serial or IP connection to radio or base station, one applicable communication profile is required.  
**Note:** Requires KPT-300LMC for license authentication

**SOFTWARE UPGRADE LICENSES FOR KPG-180AP**

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

**KWD-AP5100** Additional 100 Radio Package License for 1 PC  
Note: License includes 100 subscriber radios OTAP License.

**KWD-AP5250** Additional 250 Radio Package License for 1 PC  
Note: License includes 250 subscriber radios OTAP License.

**KWD-AP5500** Additional 500 Radio Package License for 1 PC  
Note: License includes 500 subscriber radios OTAP License.

**KWD-AP1-CA** Additional NXDN Conventional Type-C Air Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).



**KWD-AP2-CP** Additional **NXDN Conventional and Type-C Trunking IP** Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .

**KWD-AP4-DA** Additional DMR Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used as DMR Base Station Serial Interface for DMR Tier 2, Tier 3 and S-Trunking.

**KWD-AP5-DP** Additional **DMR AIS IP** Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used only with KAIROS based system. Tier 2 can be directly connected. Tier 3 and S-Trunking requires KAIROS IP Gateway

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-22UM USB adapter for portables, or a KPG-46XM for mobiles.  
Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.  
Requires firmware version 1.0 or higher for the NXR-5xxx repeaters.  
DMR licenses are supported in KPG-180AP version 3.00 and higher

**KWD-AP2-CP** Additional NXDN Conventional Type-C IP Communication Profile for 1 PC.  
Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .

**-- IMPORTANT NOTES--**

Base radios are connected to a computer using the KPG-22XM USB adapter for portables, or a KPG-46XM for mobiles.  
Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.  
Requires firmware version 1.0 or higher for the NXR-5xxx repeaters

**Encryption Software Keyloaders**

**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).

**KPG-DE1K** License Key for DES Encryption Software Key Loader for KWD-3503AE

**Note:**  
- Requires KPT-300LMC for authentication

**Offline Authentication Option**

**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) Account Registration Key.  
- Requires KPT-300LMC V1.10 or higher.  
- Cancellation rule is difference with 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.

**Radio Features**

**KWD-3000CH** License Key for 1000 Channel Expansion

**KWD-3001FP** License Key for Front Panel Programming

**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.

**KWD-3301CV** License Key for DMR Tier 2 Conventional & S-Trunking

KWD-3302TR	License Key for DMR Tier 3 Trunking (Requires KWD-3301CV)
KWD-3502EE	License Key for DMR ARC4 Enhanced Encryption
KWD-3503AE	License Key for AES/DES Encryption <b>Note:</b> 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 Units <b>Note:</b> - 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 <b>NOT</b> require the license.
KWD-3505DE	License Key for DES Encryption <b>Note:</b> Requires KPG-AE1/DE1 software key loader to load encryption keys
<b>CONTROL HEAD REMOTE KIT</b>	
KRK-18HM	Interface Kit for a Control Head
KRK-19BM	Interface Kit for an RF Deck
<b>Note:</b> Remote Control Cable must be purchased separately.	
<b>REMOTE CONTROL CABLES</b>	
KCT-71M2	Remote Control Cable (17 feet)
KCT-71M3	Remote Control Cable (25 feet)
KCT-71M4	Remote Control Cable (1.6 feet)
KCT-71A50	KCT-71A Extended Control Head Cable (up to 50 ft. max.) <b>Note:</b> Please specify exact length at 1ft. increments when ordering. <b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.
KCT-71A100	KCT-71A Extended Control Head Cable (up to 100 ft. max.) <b>Note:</b> Please specify exact length at 1ft. increments when ordering. <b>Caution:</b> Extended control head cables exhibit a loss in speaker audio power to the control heads.
<b>MOBILE INSTALLATION ACCESSORIES</b>	
KCT-60M	DB15-to-15pin Molex Adapter Cable
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)
KCT-72M	External Accessory Connection Cable for KRK-18HM
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).
KMB-10	Key lock adapter
KRA-40GM	GPS Antenna
<b>CONTROL STATION INSTALLATION ACCESSORIES</b>	
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)
<b>MICROPHONES AND SPEAKERS</b>	
KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: NOT compatible with TDMA operations</b>
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA (DMR) Operation.</b>
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KCT-60M installed.
<b>SERVICE RELATED ACCESSORIES</b>	
KPG-46XM	Full Speed USB Programming interface cable <b>Note:</b> This cable with USB mode may be used for SD Card Direct Access.
<b>INSTALLATION / TUNING CHARGES</b>	
L-5001	Factory Activation of Radio Feature Licenses (per Radio) <b>Note:</b> Must purchase Radio Feature Licenses separately. <b>KPT-300LMC's History Menu will not display the Radio Features activated by Factory.</b>
L-5053	NX-3720HG/3820HG/3920G/3921G Programming (with basic TX/RX check)
L-5054	Installation for NX-3000 Portable/Mobile AES

## VHF/UHF Digital & FM Analog Mobile Radios



**All NX series mobiles include:**

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

\* All Accessories / options: 1 Year

\* TX Power is derated at 490-512 MHz

NX-800K:	450-489 MHz (30 W)
	490-512 MHz (25 W)
NX-800HK:	450-489 MHz (45 W)
	490-512 MHz (40 W)

**GENERAL FEATURES**

- 30W / 50W (136-174 MHz) Models
- 30W / 45W (400-470, 450-520 MHz) Models
- 512 CH-GID / 128 Zones
- Dash & Remote Mount
- 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 Power Control
- 4 Up/Down Selectors
- 6 Front PF Keys
- Emergency/AUX Key
- 4W Speaker Audio
- DB-25 Accessory Connector
- 9 Programmable AUX I/Os
- 2 Programmable AUX Outputs
- KPG-111D Windows® FPU
- Flash Firmware Upgrading
- MIL-STD-810 C/D/E/F/G
- IP-54/55 Water & Dust Intrusion
- PC Serial Interface
- SDM Manual Input
- Transparent Data Mode
- GPS Receiver Option

**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
- DES Encryption Module Option
- 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

**SCAN**

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

**ANALOG MODES - 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

**MDC-1200**

- PTT ID ANI / Caller ID
- Emergency, Radio Check & Inhibit

MODEL	
NX-700K	136-174 MHz 30W, 512 CH / 128 Zone
NX-700HK	136-174 MHz 50W, 512 CH / 128 Zone
NX-800K	450-520 MHz 30W, 512 CH / 128 Zone
NX-800K2	400-470 MHz 30W, 512 CH / 128 Zone
NX-800HK	450-520 MHz 45W, 512 CH / 128 Zone
NX-800HK2	400-470 MHz 45W, 512 CH / 128 Zone
MOBILE INSTALLATION ACCESSORIES	
KAP-2	Horn Alert/P.A. Relay Option
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).
KMB-10	Key lock adapter
KRK-10	Remote Control Kit (a remote control cable (23 ft) is included)

## VHF/UHF Digital &amp; FM Analog Mobile Radios

**MOBILE INSTALLATION ACCESSORIES, CON'T**

KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)

**CONTROL STATION INSTALLATION ACCESSORIES**

KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA operations.</b>
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)

**MICROPHONES AND SPEAKERS**

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA operations.</b>
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) installed

**SOFTWARE & USB OPTIONS**

KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required <b>Note:</b> KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles <b>Must order L-1812 for factory installation, or L-1813 for field-upgrade option</b> <b>Note:</b> <b>MPT Firmware and FPU do NOT compatible.</b>
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series <b>without ESN.</b> KWD-LIC-USB stores KWD-NX2G-10 options which are purchased separately and includes KPG-97USB software for activating radios.  <b>Note:</b> - 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 <b>NOT</b> eligible for warranty compensaton.

**OPTION MODULES**

KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1830 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).
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## VHF/UHF Digital &amp; FM Analog Mobile Radios

**OPTION MODULES, CON'T**

KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1831 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)
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**FleetSync® & NEXEDGE® AVL & MESSAGING**

GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <b>Note:</b> shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install; Refer to 180/NX-Series In-depth Technical Manuals for mobile installation.
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync & NEXEDGE AVL <b>Note:</b> • Conventional & LTR operation • NEXEDGE® Conventional & Trunking operation • Requires GA25 MCX GPS antenna • Refer to 180/NX-Series & KAS-10 In-Depth Technical Manuals for installation, programming & KAS-10 software setup. Refer to www.garmin.com for GPS-15L-W technical specifications. • Option: Order L-1098 for Kenwood Long Beach installation
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch <b>Note:</b> - 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, Type-D Trunking and DMR System not supported.

**SERVICE RELATED ACCESSORIES**

KPG-46XM	USB Programming interface cable
KPG-111DNK	Windows® Programming Software for NX-200/210/300/410/411/700/800/900/901 (Compliant with FCC Part 90 Narrowbanding)

**INSTALLATION / TUNING CHARGES**

L-1085	NX-700/800 Programming (with basic TX/RX check)
L-1094	Install KAP-2 (Default) HR1/Internal Sp./PA
L-1098	Install Garmin GPS15XL-W in NX-Series mobile for FleetSync® AVL
L-1099	Assemble NX-700/800/900/901 with KRK-10 Remote Kit
L-1830	Install KWD-AE30K in NX-700/800/900/901 series Mobile (Must purchase module separately)
L-1831	Install KWD-AE31K in NX-700/800/900/901 series Mobile (Must purchase module separately)

**INSTALLATION / TUNING CHARGES, CON'T**

L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)

## VHF/UHF Digital &amp; FM Analog Mobile Radios

**MPT FIRMWARE/ACCESSORIES/TUNING**

KPG-143DNK	Windows® Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) <b>Note:</b> - Must order <b>L-1727</b> for Network Level License ID & programming privileges. - Gen2 Enhanced Option (KWD-NX2G-10) for MPT will be available on 3Q FY2016.
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio Must order <b>L-1729</b> <b>Note:</b> Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.
L-1726	Install MPT option in NX series radio
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer
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. <b>Note:</b> see NX series MPT Introduction Sales Bulletin for details
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)

# TK-7180/8180

## VHF/UHF Trunking & Conventional Mobile Radios



**All 180 series mobiles include:**

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

\* All Accessories / options: 1 Year

\* TX Power is derated at 490-512 MHz

TK-8180K:	450-489 MHz (30 W)
	490-512 MHz (25 W)
TK-8180HK:	450-489 MHz (45 W)
	490-512 MHz (40 W)

**GENERAL FEATURES**

- 30/50 W (136-174 MHz)
- 30/45 W (450-520\*, 400-470 MHz)
- Conventional & LTR® Zones
- MPT1327 Trunking Option
- Remote Control Head Option
- 12 Character Alphanumeric Aliases
- Backlit Dot Matrix LCD
- 3-Digit Sub-Display
- Function / Status LCD Icons
- RSSI Indicator
- Date & 12/24 Hour Time Clock
- Transmit / Busy / Call Alert / Warn LED
- 6 Backlit PF Keys
- Emergency / AUX Key
- Enhanced Kenwood Audio
- Front Panel Speaker
- Companded Audio
- Voice Inversion Scrambler Built-in
- Easy Option Port
- Encryption / ANI Board Control
- Emergency Call Features
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Call Key
- Time Out Timer
- Busy Channel Lockout
- Timed Power Off
- DB-25 Accessory Connector
- 9 Programmable AUX I/Os
- 2 Programmable AUX Outputs
- Ignition Sense
- Public Address / Horn Alert Option
- MIL-Spec Standard Mic
- MIL-Spec 12-Key DTMF Mic Option
- Windows® Programming & Tuning
- Windows® Firmware Uploading
- Front Panel Test / Tune
- Cloning
- MIL-STD-810 C/D/E/F/G
- MIL-STD "Driven-Rain"
- IP-54/55 Water & Dust Intrusion

**CONVENTIONAL ZONES**

- 512 Channels / 128 Zones
- QT / DQT
- Two-Tone Decode
- Single / Two-Tone Encode
- Operator Selectable Tone
- Dual Priority Scan
- Single & Multi-Zone Scan
- List Scan

**TRUNKED ZONES**

- 512 GID / 128 Zones
- Kenwood LTR® Features

**FleetSync®**

- FleetSync® or FleetSync® II
- PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Short & Long Text Messages
- Power On/Off Status Messages
- Input / Output Status Messages
- FleetSync® GPS Ready
- Send GPS PF Key
- PTT ID & Emergency GPS Reporting
- Status Message Block GPS Reporting
- Ignition On/Off GPS Reporting
- VGS-1 GPS Data Storage
- PC Serial Interface

**MPT ZONES (option)**

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

**MDC-1200**

- PTT ID Digital ANI
- Caller ID Display
- Emergency Status
- Radio Check
- Radio Inhibit

**MODEL**

TK-7180K	136-174 MHz 30W, 512 CH / 128 Zone CONV-& LTR
TK-7180HK	136-174 MHz 50W, 512 CH / 128 Zone CONV-& LTR
TK-8180K	450-520 MHz 30W, 512 CH / 128 Zone CONV-& LTR
TK-8180HK	450-520 MHz 45W, 512 CH / 128 Zone CONV-& LTR
TK-8180HK2	400-470 MHz 45W, 512 CH / 128 Zone CONV-& LTR

**MOBILE INSTALLATION ACCESSORIES**

KAP-2	Horn Alert/P.A. Relay Option <b>Note:</b> For MPT, HA operates in Trunked Mode only.
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line).
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).
KMB-10	Key lock adapter.
KRK-10	Remote Control Kit (a remote control cable (23 ft) is included).

**CONTROL STATION INSTALLATION ACCESSORIES**

KMC-9C	Control Station Desktop Microphone (8-pin mod. plug).
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog / NXDN) and TDMA operations.</b>
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak).

# TK-7180/8180

## VHF/UHF Trunking & Conventional Mobile Radios

### MICROPHONES AND SPEAKERS

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KAP-2 (PA/HA unit) installed.

### FleetSync® AVL & MESSAGING

KAS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch <b>Note:</b> 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.
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync® AVL <b>Note:</b> <ul style="list-style-type: none"><li>• Conventional &amp; LTR operation only</li><li>• Requires GA25 MCX GPS antenna</li><li>• Option: Order <b>L-1033</b> for Kenwood Long Beach installation</li></ul>
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <b>Note:</b> shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install; Refer to 180/NX-Series In-depth Technical Manuals for mobile installation.

### FIRMWARE OPTIONS

KWD-180MPT	MPT Trunking Field Upgrade Kit for 180-Series Must order <b>L-1620</b> <b>Note:</b> Refer to 180-Series MPT Price Pages and 180-Series MPT In-Depth Technical Manuals for feature details (available from technical support). Not compatible with any other firmware options Radio does not retain all normal 180-Series conventional or LTR trunking features once the MPT option is installed.
KWD-180TFS	TFS-- Tactical Feature Set-- Field Upgrade Kit for 180-Series Must order <b>L-1625</b> <b>Note:</b> Refer to 180-Series "Tactical Feature Set" In-Depth Technical Manual for feature details (available from technical support). Not compatible with any other firmware options.

### SERVICE RELATED ACCESSORIES

KPG-46XM	USB Programming interface cable
KPG-89DNK	Windows® Programming Software for TK-2180/3180/7180/8180 (Compliant with FCC Part 90 Narrowbanding) <b>Note:</b> Self-programming & Tactical Feature Set* functions are not available. <b>* KPG-89DK is required for Tactical Feature Set. KPG-89DK is no longer supported or distributed by Kenwood.</b>



# TK-7180/8180

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## VHF/UHF Trunking & Conventional Mobile Radios

### INSTALLATION / TUNING CHARGES

L-965	TK-7180/8180 Programming (with basic TX/RX check)
L-966	Install KAP-2 (Default) HR1/Internal Sp./PA
L-968	Assemble TK-7180/8180 with KRK-10 Remote Kit
L-1010	Install KAP-2 (External Sp.) HR1/External Sp./PA
L-1033	Install Garmin GPS15XL-W in 180-Series mobile for FleetSync® AVL <b>Note:</b> The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.
L-1052	TK-7180/8180 TFS INSTALLATION <b>Note:</b> KPG-89DK is required to program the TFS (Tactical Feature Set). KPG-89DK is no longer supported or distributed by Kenwood. TFS will not work with KPG-89DNK.
L-1620	180 Portable KWD-180MPT FIELD-UPGRADE (Must purchase KWD-180MPT separately)
L-1625	180 Portable KWD-180TFS FIELD-UPGRADE (Must purchase KWD-180TFS separately)

### MPT FIRMWARE/ACCESSORIES/TUNING

KMC-32	Standard mobile microphone with 16-key DTMF (8-pin mod. plug)
KPG-96DNK	Windows® Programming Software for 180-Series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) <b>Note:</b> Must order <b>L-1013</b> for Network Level License ID & programming privileges.
L-1012	Install MPT option in 180-Series radio
L-1013	Network Level License ID for KPG-96D(N) 180-Series Programmer
L-1014	Retrofit Install of MPT option in 180-Series radio (for previously purchased 180-Series radios.) Order <b>L-1014</b> through LMR order desk/rep. Ship radios to attn: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1014 provided by order desk & copy of company P.O. or P.O. number. <b>Note:</b> Only certain Serial Number Lots produced in late 2004 and later can be retrofitted - see 180-Series MPT Introduction Sales Bulletin for details.

# TK-7360HV/8360HU v2.0

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## VHF/UHF Trunking & Conventional Mobile Radios



### All 360 series mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- 15A Fuse
- Instruction Manual
- Standard Warranty: 2 Years\*

\* All Accessories / options: 1 Year

### GENERAL FEATURES

- 50 W (136-174 MHz) Model
- 45 W (450-520 MHz) Model
- Conventional & LTR® Zones
- 10-Character Alphanumeric Aliases
- Backlit LCD & Keys
- Function/Status LCD Icons
- Blue Function / Status LED
- Transmit /Busy / Call Alert LED
- 10 Programmable Function Keys
- Emergency / AUX Key
- Front Panel Speaker
- Companded Audio
- Voice Inversion Scrambler Built-in
- 16 Scrambler Codes (per CH)
- Encryption / Board Control
- Emergency Call Features
- Lone Worker Alert
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Busy Channel Lockout
- Time Out Timer
- Timed Power Off
- DB15 Accessory Interface
- 8 Programmable I/O Ports
- Ignition Sense
- Public Address / Horn Alert Output
- MIL-Spec Standard Mic
- MIL-Spec 12-Key DTMF Mic Option
- Windows® Programming & Tuning
- Easy Option Ports (26-pin)
- Cloning
- MIL-STD-810 C/D/E/F/G
- IP54 Water & Dust Intrusion

### CONVENTIONAL ZONES

- 128 Channels / 128 Zones
- QT / DQT
- Two-Tone Decode
- Single & Two-Tone Encode
- Operator Selectable Tone
- Single Priority Scan
- Single / Multi-Zone Scan

### TRUNKED ZONES

- 128 GID / 128 Zones
- Kenwood LTR® Feature

### FleetSync® /II (FM)

- PTT ID Digital ANI
- Selective Call & Group Call
- Paging Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Input / Output Status Messages
- FleetSync® GPS Ready
- Send GPS PF Key
- PTT ID & Emergency GPS Reporting
- GPS Auto Reporting

### MDC-1200

- PTT ID Digital ANI
- Caller ID Display
- Emergency Status
- Radio Check
- Radio Inhibit

### MODEL

TK-7360HVK	136-174 MHz 50W, 128 CH / 128 Zone CONV-& LTR
TK-8360HUK	450-520 MHz 45W, 128 CH / 128 Zone CONV-& LTR

### MOBILE INSTALLATION ACCESSORIES

KCT-60M	DB15-to-15pin Molex Adapter Cable
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).
KMB-10	Key lock adapter

### CONTROL STATION INSTALLATION ACCESSORIES

KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)

### MICROPHONES AND SPEAKERS

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog) and TDMA operations.</b>
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KCT-60M installed.

# TK-7360HV/8360HU v2.0

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## VHF/UHF Trunking & Conventional Mobile Radios

### **FleetSync® AVL**

GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync® AVL <b>Note:</b> <ul style="list-style-type: none"><li>• Conventional operation only</li><li>• Requires GA25 MCX GPS antenna</li><li>• Refer to <a href="http://www.garmin.com">www.garmin.com</a> for GPS-15L-W technical specifications.</li><li>• Option: Order <b>L-1690</b> for Kenwood Long Beach installation</li></ul>
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <b>Note:</b> shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.

### **SERVICE RELATED ACCESSORIES**

KPG-135DNK	Windows® Programming Software for TK-7360/8360
KPG-46XM	USB Programming interface cable

### **INSTALLATION / TUNING CHARGES**

L-1689	TK-7360/8360 Programming (with basic TX/RX check)
L-1690	Install Garmin GPS15XL-W in 360-Series mobile for FleetSync® AVL
L-1693	Install VGS-1 Voice Guide & Storage Unit <b>Note:</b> VGS-1 installation precludes any ANI or encryption board installation.

# TK-7302HV/8302HU

## VHF/UHF Conventional Mobile Radios

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### All 302 series mobiles include:

- Standard Microphone (KMC-65M)
- Mounting Bracket
- DC Cable
- 15A Fuse
- Instruction Manual
- Standard Warranty: 2 Years\*

\* All Accessories / options: 1 Year

### GENERAL FEATURES

- 50 W (136-174 MHz) Model
- 45 W (450-520 MHz) Model
- Conventional Zones
- 16 Channels / 2 Zones
- Single Priority Scan
- Single / Multi-Zone Scan
- 2-Digit LED Channel Display
- Function/Status LED Dots
- Blue Function/Status LED
- Transmit / Busy / Call Alert LED
- Backlit Keys
- 9 Programmable Function Keys
- Emergency / AUX Key
- Front Panel Speaker
- Companded Audio
- Voice CH# Announcement (8 Languages)
- Voice Inversion Scrambler Built-in
- 16 Scrambler Codes (per CH)
- Encryption Board Control
- Emergency Call Features
- Lone Worker Alert
- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode
- Single & Two-Tone Encode
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Busy Channel Lockout
- Time Out Timer

- DB15 Accessory Interface
- 8 Programmable I/O Ports
- Ignition Sense
- Public Address / Horn Alert Output
- MIL-Spec Standard Mic
- MIL-Spec 12-Key DTMF Mic Option
- Windows® Programming & Tuning
- Cloning
- MIL-STD-810 C/D/E/F/G
- IP-54 Water & Dust Intrusion

### FleetSync® /II (FM)

- PTT ID Digital ANI
- Selective Call & Group Call
- Paging Call
- Status Messaging
- Emergency Status
- Input / Output Status Messages
- FleetSync® GPS Ready
- Send GPS PF Key
- PTT ID & Emergency GPS Reporting
- Ignition On/Off GPS Reporting

### MDC-1200

- PTT ID Digital ANI
- Emergency Status
- Radio Check
- Radio Inhibit

### MODEL

TK-7302HVK	136-174 MHz 50W, 16 CH / 2 Zone Conventional
TK-8302HUK	450-520 MHz 45W, 16 CH / 2 Zone Conventional

### MOBILE INSTALLATION ACCESSORIES

KCT-60M	DB15-to-15pin Molex Adapter Cable
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).
KMB-10	Key lock adapter

### CONTROL STATION INSTALLATION ACCESSORIES

KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KMC-59C	Control Station Desktop Microphone (8-pin mod. plug) <b>Note: Compatible with FDMA (analog) and TDMA operations.</b>
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Mobiles (excludes TK-5x10/6110 series). (mobile mounting hardware included)
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)

### MICROPHONES AND SPEAKERS

KMC-65M	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)
KMC-66M	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)
KES-8K	External speaker, 10W, 4-Ohm, 3.5mm phone plug
KES-5A	External speaker, 40W max input <b>Note:</b> requires KCT-60M installed.

# TK-7302HV/8302HU

## VHF/UHF Conventional Mobile Radios

Table of Contents

### **FleetSync® AVL**

GPS15XL-W      Garmin Internal GPS Receiver Board for FleetSync® AVL

**Note:**

- Conventional operation only.
- Requires GA25 MCX GPS antenna.
- Refer to [www.garmin.com](http://www.garmin.com) for GPS-15L-W technical specifications.
- Option: Order **L-1643** for Kenwood Long Beach installation.

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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.

### **SERVICE RELATED ACCESSORIES**

KPG-46XM      USB Programming interface cable

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KPG-124DNK      Windows® Programming Software for TK-7302/8302  
(Compliant with FCC Part 90 Narrowbanding).

### **INSTALLATION / TUNING CHARGES**

L-1642      TK-7302/8302 Programming (with basic TX/RX check)

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L-1643      Install Garmin GPS15XL-W in 302-Series mobile for FleetSync® AVL

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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
- UHF: 25 & 12.5 kHz Channels
- 16 QT/DQT Repeater Control Built-in
- Hang Timer / Time Out Timer / CW ID
- External FM Controller Interface
- External LTR® Controller Interface

### REPEATER

NXR-710K	Repeater, Analog/NXDN, VHF, 136-174MHz, 5-50W Default TX power setting 25W - 50W
NXR-810K	Repeater, Analog/NXDN, UHF, 450-520MHz, 5-40W Default TX power setting 25W - 40W
NXR-810K2	Repeater, Analog/NXDN, UHF, 400-470MHz, 5-40W Default TX power setting 25W - 40W

### Field Programming Unit (FPU)

KPG-129DNK	Repeater Programming Software
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### SERVICE RELATED ACCESSORIES

KPG-46XM	Programming Cable
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# TKR-D710/D810

## DMR VHF/UHF Repeaters



**All TKR-D710/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

- 50 W (136-174 MHz) Models
- 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

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

### REPEATER

TKR-D710K	Repeater, Analog/DMR, VHF, 136-174MHz, 5-50W Default TX power setting 25W - 50W
TKR-D810K	Repeater, Analog/DMR, UHF, 450-520MHz, 5-40W Default TX power setting 25W - 40W
TKR-D810K2	Repeater, Analog/DMR, UHF, 400-470MHz, 5-40W Default TX power setting 25W - 40W

### Field Programming Unit (FPU)

KPG-174DNK	Repeater Programming Software
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### SERVICE RELATED ACCESSORIES

KPG-46XM	Programming Cable
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