

NEXEDGE®

One Radio with Multi-Protocol Support

NX-5700/5800/5900

VHF/UHF/700-800 MHz TRANSCEIVERS

NXDN™

DMR



DMR-based T3&S

DMR Auto Slot Select



GPS

FleetSync

FEATURE HIGHLIGHTS

- **Multi-Digital** operation in NXDN, DMR, and P25 (Phase 1 & 2) protocols
- **Any combination of two digital protocols** can be selected from NXDN, DMR, and P25
- **Mixed Digital & FM Analog Operation** allows intelligent migration in mixed sites and easy migration with digital radios in other sites
- **Large, Color 2.55" (154 x 422 pixels) TFT Display** for at-a-glance operational status checking
- **Easy to follow GUI** and **Multi-line Text** to convey more information
- **Dual Remote Control Head** and **Multi-Band (Multi RF Deck) Control** Option providing scalable configurations for various operations and applications
- **Built-In GPS Receiver** for effective fleet management
- **Bluetooth® Module built-in** for hands-free operation
- Renowned KENWOOD Audio Quality can be achieved with **Active Noise Reduction (ANR)** that utilizes built-in DSP with two microphones for suppression of ambient noise
- **Built-in 56-bit DES Encryption**
- Optional **256-bit AES Encryption**
- Over-the-Air Programming (OTAP)
- **microSD/SDHC (up to 2GB/32GB) Card Slot**
- **IP54/55** and **MIL-STD-810 C/D/E/F/G**

GENERAL FEATURES

- 50 W to 5 W (136-174 MHz) Models
- 45 W to 5 W (380-470, 450-520 MHz) Models
- 30 W to 2 W (700 MHz) Model
- 35 W to 2 W (800 MHz) Model
- Maximum of 4,000 CH/Radio capacity, 512 CH/Zone, 128 Zones
- DB-25 Accessory Connector
- AMBE+2™ Enhanced Vocoder
- 4 W Speaker Audio

DIGITAL – NXDN MODE

- Gen2 & NXDN Type-C Trunked Operation
- NXDN Conventional Operation
- 6.25 & 12.5 kHz Channel Spacing
- Over-the-Air Alias
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check
- Short & Long Data Messages
- NXDN Digital Scrambler Included

DIGITAL – DMR MODE

- S-Trunking
- DMR Tier III Trunking
- DMR Tier II Conventional
- DMR Auto Slot Select
- Enhanced Encryption (40-bit)
- Site Roaming
- Two-slot TDMA in 12.5kHz channels
- Call Interruption
- Dual-slot Direct Mode
- Energy Efficient

DIGITAL – P25 MODE

- P25 Phase 1 Conventional/Trunked Operation
- P25 Phase 2 Trunked Operation
- Talk Group ID Lists/ Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Zeroize & Retention
- P25 Enhanced Encryption (ARC4)
- Over-the-Air Re-keying

FM MODES – GENERAL

- Conventional & 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
- Built-in Voice Inversion Scrambler

MULTIPLE CONFIGURATIONS

The NX-5000 mobile series allows users to create a variety of configurations to suit different requirements by combining different options. Some of the standard configurations are:

- Single Remote Control Head x Single RF Deck
- Dual Remote Control Heads x Single RF Deck
- Dual Remote Control Heads x Multi RF Decks
- Other combinations are available. Consult your local KENWOOD dealer for more.



OPTIONAL ACCESSORIES

- **NX-5700B/5800B/5900B**
RF DECK

- **KCH-19**
BASIC CONTROL HEAD KIT

- **KCH-20R**
FEATURED CONTROL HEAD

- **KRK-14H**
CONTROL HEAD INTERFACE KIT
(Adapter for the Head)

- **KRK-15B**
CONTROL HEAD REMOTE KIT
(Adapter for the RF Deck)



- **KCT-71**
REMOTE CONTROL CABLE
(Available in 3 lengths of 17 ft (5.2 m), 25 ft (7.6 m), 1.6 ft (0.5 m))



- **KCT-72**
REMOTE CONTROL CABLE



- **KWD-AE30/AE31**
SECURE CRYPTOGRAPHIC MODULE

- **KPG-180AP**
OTAP MANAGER

- **KMC-35/36***
MICROPHONE [IP54/55] (without / with 12-keypad)
*To be discontinued

- **KMC-65/66**
MICROPHONE [IP54/55] (without / with 12-keypad)



- **KES-5 (A)**
EXTERNAL SPEAKER
(40 W max input, Requires KAP-2)



- **KCT-23**
DC POWER CABLE
M: 10 ft (3 m) / M3: 23 ft (7 m)



- **KCT-46**
IGNITION SENSE CABLE



- **KLF-2**
LINE FILTER



- **KMB-10**
KEY LOCK ADAPTER



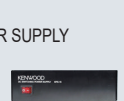
- **KAP-2**
HORN ALERT/P.A. RELAY UNIT



- **KRA-40G**
GPS ACTIVE ANTENNA



- **KPS-15**
DC POWER SUPPLY
(23 A max)



All accessories and options may not be available in all markets. Contact an authorized KENWOOD dealer for details and complete list of all accessories and options.

SPECIFICATIONS

GENERAL	NX-5700	NX-5800	NX-5900
Frequency Range	136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz	RX: 763-776, 851-870 MHz TX: 763-776, 793-806, 806-825, 851-870 MHz
Max. Channels Per Radio	1024 (Up to 4000 channels with option)		
Number of Zones	128		
Max. Channels Per Zone	512		
Channel Spacing	Analog: 12.5 / 15 / 20 / 25* / 30* kHz Digital: 6.25 / 12.5 kHz	12.5 / 25* kHz 6.25 / 12.5 kHz	12.5 / 25 kHz 6.25 / 12.5 kHz
Power Supply	13.6 V DC ±15 %		
Current Drain	Standby: 0.45 A RX: 2.3 A TX: 13 A		
Operating Temperature	-22° F to +140 °F (-30 °C to +60 °C)		
Frequency Stability (-30°C to +60°C; +25°C Ref.)	±0.5 ppm		
Dimensions (W x H x D) Radio with Control Head, Projections Not Included	6.69 x 1.89 x 6.93 in. (170 x 48 x 176 mm)		6.73 x 1.89 x 7.72 in. (171.0 x 48.0 x 196 mm)
Weight: Radio with Control Head	3.53 lbs (1.6 kg)		3.53 lbs (1.6 kg)
FCC ID	Type 1: K44471100 Type 2: —	K44471200 K44471201	K44478500 —
IC Certification	Type 1: 282F-471100 Type 2: —	— 282F-471201	282F-478500 —

*25 and 30 kHz are not included in the models sold in the USA or US territories. P25 Digital measurements made per TIA 102CAA, analog measurements made per EN Standards or TIA 603 and specifications shown are typical. Specifications are subject change without notice, due to advancements in technology.

RECEIVER	NX-5700	NX-5800	NX-5900
Sensitivity	NXDN 6.25 kHz Digital (3 % BER)	0.20 µV	
	NXDN 12.5 kHz Digital (3 % BER)	0.25 µV	
	DMR Digital (6 % BER)	0.25 µV	
	DMR Digital (1 % BER)	0.40 µV	
	P25 Digital (5 % BER)	0.25 µV	
	P25 Digital (1 % BER)	0.40 µV	
Selectivity	Analog (12dB SINAD)	0.25 µV	
	Analog @ 12.5 kHz	71 dB	70 dB
	Analog @ 25 kHz	81 dB	78 dB
Intermodulation	80 dB		
Spurious Rejection	85 dB		
Audio Distortion	2 %		
Audio Output Power	4 W (Remote Control Head: 3 W)		
TRANSMITTER	NX-5700	NX-5800	NX-5900
RF Power Output Power	50 to 5 W	45 to 5 W	30 W to 2 W (700 MHz) 35 W to 2 W (800 MHz)
Spurious Emission	-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	45 dB	
	Analog @ 25 kHz	50 dB	
Audio Distortion	2 %		
Emission Designator	16K0F3E, 14K0F3E**, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 8K30F1E, 8K30F1D, 8K30F7W, 7K60FXE, 7K60FXD, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D		

**NX-5900 model only.

APPLICABLE MIL-STD & IP*

MIL Standards	810C Methods/ Procedures	810D Methods/ Procedures	810E Methods/ Procedures	810F Methods/ Procedures	810G Methods/ Procedures
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, II, V	516.3/ I, IV, V	516.4/ I, IV, V	516.5/ I, IV, V	516.6/ I, IV, V
International Protection Standards					
Dust & Water	IP54: RF Deck of the mobile radio; IP55: Remote Control Head for the mobile radio				

*All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

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KCH-21R

NXDN™

DMR



HANDHELD CONTROL HEAD

OPTION FOR THE NX-5000 SERIES MOBILE RADIOS

KENWOOD



FEATURE HIGHLIGHTS

- Speaker microphone with full-featured control head
- Handheld design offering one-handed operation of PTT, volume and channel selection
- Designed to work with the NX-5000 Series mobile radios using Control Head Remote Kit
- Intuitive operation similar to that of the KCH-19 and KCH-20R control heads

AUDIO FEATURES

- Built-in speaker with 1 W output
- Active noise reduction for a single microphone enabled by DSP on the radio
- 3.5mm-diameter earphone jack on the bottom

DISPLAY FEATURES

- Large 44 mm/1.74 inch TFT/transflective LCD for at-a-glance operational status checking
- Intuitive GUI – 14-character full-color display with 5 lines for menus and icons
- 7-color programmable LED located at the top for easy recognition

OTHER FEATURES

- Multi-head/Multi-deck Configuration
- Built-in Bluetooth® with HSP (headset) and SPP (serial port) profiles
- Data interface for radio programming, keyloading and data I/O
- Optional adapter for the RF Deck (KRK-15BM Control Head Remote Kit) is required for connection to the mobile radio

MULTIPLE REMOTE CONTROL HEAD CONFIGURATION

Intuitive graphical UI is used even for the selection of multiple RF decks.

- Dual Remote Control Heads x Multi RF Decks
- Dual Remote Control Heads x Single RF Deck

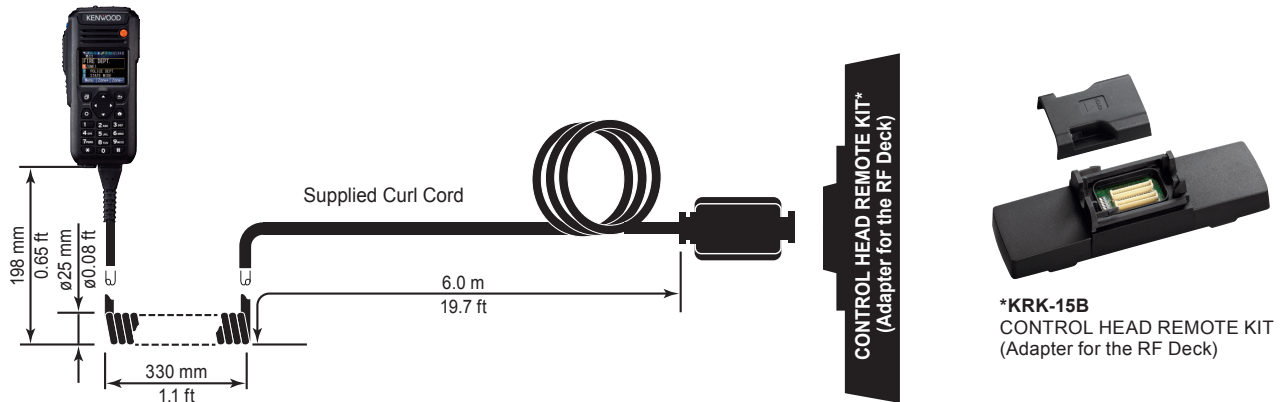


KEYS ON THE PANEL (All keys except for Power and PTT are programmable)



CONNECTION & CABLING

- Connecting the HANDHELD CONTROL HEAD to the CONTROL HEAD REMOTE KIT (KRK-15B): Because the supplied connection cable is long enough, flexible cabling is enabled to remote control the vehicle-mount RF deck even from the outside of the vehicle.



SPECIFICATIONS

KCH-21R (M2 Type)	
Audio Output Power	1.0W max. /8 Ω (5 % distortion)
Operating Temperature	-30 °C to +60 °C
Dimensions (W x H x D) Projections not included	57 x 135 x 30 mm
Weight (net) W/Cable	900 g

APPLICABLE MIL-STDs

MIL Standard*	Methods/Procedures				
	810C	810D	810E	810F	810G
Low Pressure	500.1/I	500.2/I, II	500.3/I, II	500.4/I, II	500.5/I, II
High Temperature	501.1/I, II	501.2/I, II	501.3/I, II	501.4/I, II	501.5/I, II
Low Temperature	502.1/I	502.2/I, II	502.3/I, II	502.4/I, II	502.5/I, II
Temp. Shock	503.1/I	503.2/I	503.3/I	503.4/I, II	503.5/I
Solar Radiation	505.1/I	505.2/I	505.3/I	505.4/I	505.5/I
Rain	506.1/I, II	506.2/I, II	506.3/I, II	506.4/I, III	506.5/I, III
Humidity	507.1/I, II	507.2/II, III	507.3/II, III	507.4	507.5/II
Salt Fog	509.1/I	509.2/I	509.3/I	509.4	509.5
Dust	510.1/I	510.2/I	510.3/I	510.4/I, III	510.5/I
Vibration	514.2/ VIII, X	514.3/I	514.4/I	514.5/I	514.6/I
Shock	516.2/I, II, V	516.3/I, IV	516.4/I, IV	516.5/I, IV	516.6/I, IV
International Protection Standards					
Dust & Water	IP54, IP55				

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