

## NEXEDGE®

# NX-740/840

NEXEDGE® VHF/UHF Digital & FM Mobile Radios

## NXDN®

## FleetSync®

It's true that analog radios are still playing a role in mobile communications. But the future is unquestionably digital, and the new NEXEDGE® NX-740/840/740H/840H demonstrates why, offering increased effective coverage area, low noise for superior clarity, and inherent secured voice. As you would expect from KENWOOD, intuitive operation, high-powered performance, and round-the-clock reliability come as standard. But there's more. This mobile radio has a dual personality: it operates in both analog FM and NXDN® digital modes, enabling smooth migration from legacy systems.

### ● NXDN® DIGITAL AIR INTERFACE

NEXEDGE® radios employ NXDN®, an FDMA digital air interface with AMBE+2™ voice coding technology, unique filtering and a 4-level FSK modulation technique with low bit error rate (BER) even at weak RF signal strengths.

### ● ENHANCED AUDIO QUALITY

AMBE+2™ VOCODER technology accurately replicates natural human speech nuances for superior voice quality, even at highway speeds. Additionally, the powerful 2-1/4" x 1-3/8" oval speaker delivers up to 4 watt (4Ω impedance) audio output, providing undeniably clearer and crisper audio.

### ● ULTIMATE PERFORMANCE

Maximum RF output power is 50W on the NX-740H VHF model, 45W on the NX-840H UHF model, and 25W on the NX-740/840 VHF/UHF models. Additionally, the UHF frequency coverage on the NX-840 Series is 70MHz.

### ● HIGH SECURITY

Confidentiality in radio communications is a KENWOOD priority, and helping to maintain a high level of security in analog mode is a 16-code voice inversion scrambler, while robust NXDN® encryption is available in digital mode.

### ● 32 CHANNELS / 2 ZONES

This radio can be used with two conventional zones, offering up to 16 channels per zone.

### ● SWITCHABLE DIGITAL AND ANALOG DUAL MODES

The NX-740/840 Series is effectively two radios in one – analog and digital – operating on 12.5kHz in analog zones, and on 6.25kHz NXDN® in digital zones.\* For convenience, a PF key can be used to switch between zones.

\*12.5kHz in digital zones and 25kHz in analog zones are not covered.

### ● 6.25kHz NXDN® DIGITAL CHANNEL

Digital communications are more spectrum-efficient and offer wider area coverage than analog.

### ● NXDN® DIGITAL CONVENTIONAL

Compatible with NEXEDGE® Digital Conventional Mode, this radio offers 64 RAN (Radio Access Numbers) and individual & conference group calling to ensure expeditious communications.

### ● GPS FEATURE

Connecting a GPS unit to the NX-740/840 Series enables you to transmit accurate vehicle location (GPS) data to the central base station for fleet management purpose.

### ● EXTERNAL D-SUB 15-PIN INTERFACE

The radio's D-Sub 15-pin terminal can be used to connect peripherals, enabling Ignition Sense, External Switch, Horn Alert, etc. Molex interface compatibility is provided by the optional KCT-60 cable.

### ● OTHER FEATURES

**DIGITAL:** • Over-The-Air Alias (TX only) • Paging Call • Individual Call & Conference Group Call • Status Messaging • Remote Monitor • Site Roaming • Late Entry • NXDN® ESN

**ANALOG:** • FleetSync®, MDC-1200, DTMF • QT/DQT/2-tone • Compander • Squelch Level

**GENERAL:** • Multiple Scan • 4-Color LED (Blue / Red / Green / Orange) • 9 PF Keys • Voice Announcement (select a language from English, Spanish, or Russian) • Emergency Call • Remote Stun/Kill • Lone Worker Alert • Time Out Timer • Busy Channel Lockout • Horn Alert • Ignition Sense • KPG-175D Windows® FPU • Wired Cloning • Password Protection • PTT Release Tone • Minimum Volume • Mic Sense • MIL-STD-810 C/D/E/F/G • IP54 Water & Dust Intrusion



## Options

 <b>KMC-27A</b> Microphone	 <b>KMC-35</b> Microphone	 <b>KCT-18</b> Ignition Sense Cable	 <b>KPS-10A</b> DC Power Supply
 <b>KMC-27B</b> Microphone	 <b>KMC-36</b> Keypad Microphone	 <b>KCT-36</b> Extension Cable	 <b>KPS-15</b> DC Power Supply
 <b>KMC-28B</b> Keypad Microphone	 <b>KMC-9C</b> Base Microphone	 <b>KCT-60</b> Connection Cable	 <b>KMB-24</b> Mounting Case for KPS-15
 <b>KMC-30</b> Microphone	 <b>KES-3</b> External Speaker	 <b>KLF-2</b> Line Filter	
 <b>KMC-32</b> Keypad Microphone	 <b>KES-5</b> External Speaker	 <b>KMB-10</b> Key Lock Adapter	

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.

## Main Specifications

		NX-740/740H	NX-840/840H
<b>GENERAL</b>			
Frequency Range		[Type 1] 136-174 MHz	[Type 1] 450-520 MHz [Type 2] 400-470 MHz
Number of Channels		Max. 32	
Number of Zones		2	
Max. Channels per Zone		16	
Channel Spacing	Analog Digital	12.5 kHz 6.25 kHz	
Operating Voltage		13.6V DC $\pm$ 15%	
Operating Temperature Range		-30°C ~ +60°C	
Frequency Stability		$\pm$ 2.0 ppm	$\pm$ 1.0 ppm
Antenna Impedance		50 $\Omega$	
Dimensions (W x H x D)	Projections Not Included	160 x 43 x 122.6 mm	
Weight (net)	Radio only	1.10 kg	

		NX-740/740H	NX-840/840H
RECEIVER			
Sensitivity	Digital	0.28 μV	
	Analog (12 dB SINAD)	0.28 μV	
Selectivity	Analog	65 dB	
Intermodulation Distortion	Analog	65 dB	
Spurious Response	Analog	75 dB	
Audio Output (4Ω impedance)		4W with less than 5 % distortion	
TRANSMITTER			
RF Power Output		5 W – 50 W (NX-740H) 5 W – 25 W (NX-740)	5 W – 45 W (NX-840H) 5 W – 25 W (NX-840)
Spurious Response		70 dB	
FM Hum & Noise	Analog	40 dB	
Audio Distortion		Less than 5%	
Modulation		11K0F3E, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D	

Specifications are subject to change without notice, due to advancements in technology.  
Measurements made per EIA/TIA-603 and Specification are typical. Digital measurements made per CAI measurement procedure.

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AMBE+2™ is a trademark of Digital Voice Systems Inc.

NXDN® is a registered trademark of JVCKENWOOD Corporation and Icom Inc.

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## Applicable MIL-STD & IP

MIL Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures	MIL 810G Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain*	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III	506.5/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog*	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust*	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I cat. 20
Shock	516.2/Procedure I, II, III, V	516.3/Procedure I, IV, V	516.4/Procedure I, IV, V	516.5/Procedure I, IV, V	516.6/Procedure I, IV, V
<b>International Protection Standard</b>					
Dust & Water Protection	IP54*				

\* Required conditions: Microphone (KMC-35 or KMC-36) is connected; Cap shall be installed on the speaker connector; Cover shall be installed at D-sub connector (15pin); and KCT cable and/or SP cable are not connected.

## ACCESSORIES INCLUDED

- KMC-30 Microphone (for the NX-740H/840H)
- DC Cable
- Fuse
- Set of screws
- Mic. Hanger
- Bracket

Supplied accessories may vary depending on the market.

# JVCKENWOOD Corporation

## Communications Equipment Division

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CL-788KM-E-2