KENWOOD

NEXEDGE®

# NX-740HV/840HU

## 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-740HV/840HU 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 4W (4Ω impedance) audio output, providing undeniably clearer and crisper audio.

### ULTIMATE PERFORMANCE

Maximum RF output power is 50W on the NX-740HV VHF model, 45W on the NX-840HU UHF model. Additionally, the UHF frequency coverage on the NX-840HU is 70 MHz.

### 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-740HV/840HU is effectively two radios in one – analog and digital – operating on 12.5/ 25* kHz in analog zones, and on 6.25/12.5 kHz NXDN in digital zones. For convenience, a PF key can be used to switch between zones.

*25 kHz is not included in the models sold in the USA or US territories.

### 6.25/12.5 kHz NXDN DIGITAL CHANNELS

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.

### NXDN TYPE-D DIGITAL TRUNKING*

The NX-740HV/840HU supports the NXDN Type-D digital trunking protocol.* With this architecture, also known as distributed or decentralized trunking, all channels can operate as traffic channels without the need for a dedicated control channel. This makes it possible to develop an efficient and reliable yet affordable trunking system. Type-D trunking is thus suitable for users considering migration to a small-scale digital trunking system.

*Requires activation

### GPS FEATURE

Connecting a GPS unit to the NX-740HV/840HU 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, French, or Russian) • Emergency Call • Remote Stun/Kill • Lone Worker Alert • Time Out Timer • Busy Channel Lockout • Horn Alert • Ignition Sense • Wired Cloning • Password Protection • PTT Release Tone • Minimum Volume • Mic Sense • MIL-STD-810 C/D/E/F/G • IP54 Water & Dust Intrusion

## Options

**KMC-35**
Microphone

**KES-5**
External Speaker
(requires KCT-60 option)

**KCT-60**
DB 15-to-15 Pin
Molex Adaptor Cable

**KMB-34**
Mounting Case
for KPS-15

**KMC-36**
Microphone
with Keypad

**KCT-18**
Ignition Sense Cable
(Requires KCT-60 option)

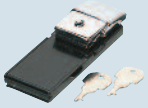
**KLF-2**
Line Filter

**KPS-15**
DC Power Supply

**KES-3S**
External Speaker

**KCT-36**
3m Extension Cable
(for KCT-60)

**KMB-10**
Key Lock Adapter



## Main Specifications

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.

| | | NX-740HV | NX-840HU |
|---|---|---|---|
| **GENERAL** | | | |
| **Frequency Range** | | 136-174 MHz | 450-520 MHz |
| **Number of Channels** | | Max. 32 | |
| **Zones** | | 2 | |
| **Max. Channels per Zone** | | 16 | |
| **Channel Spacing** | **Analog** | 30*/25*/15/12.5 kHz | 25*/12.5 kHz |
| | **Digital** | 12.5*/6.25 kHz | |
| **Operating Voltage** | | 13.6 V DC ± 15% | |
| **Operating Temperature Range** | | -22˚ F to +140˚ F (-30˚ C to +60˚ C) | |
| **Frequency Stability** | | ± 2.0 ppm | ± 1.0 ppm |
| **Antenna Impedance** | | 50 Ω | |
| **Dimensions (W x H x D)** Projections not included | | 6.29 x 1.69 x 4.82 in (160 x 43 x 122.6 mm) | |
| **Weight (net)** | | 2.42 lb (1.10 kg) | |
| **FCC ID** | | K44452600 | K44452700 |

| | | NX-740HV | NX-840HU |
|---|---|---|---|
| **RECEIVER** | | | |
| **Sensitivity** | **Digital @ 6.25 kHz (3% BER)** | 0.28 µV | |
| | **Digital @ 12.5 kHz (3% BER)** | 0.28 µV | |
| | **Analog (12 dB SINAD)** | 0.28 µV | |
| **Selectivity** | **Analog @ 25*/12.5 kHz** | 75 / 65 dB | |
| **Intermodulation** | **Analog** | 70 dB | |
| **Spurious Response** | **Analog** | 75 dB | |
| **Audo Distortion** | | Less than 5 % distortion | |
| **Audio Output** | | 4W / 4 Ω | |
| **TRANSMITTER** | | | |
| **RF Power Output** | **High / Mid / Low** | 50-5 W | 45-5 W |
| **Spurious Response** | | 70 dB | |
| **FM Hum & Noise** | **Analog 25*/12.5 kHz** | 45 / 40 dB | |
| **Audio Distortion** | | Less than 5% | |
| **Modulation** | | 16K0F3E, 11K0F3E, 4K00F1E, 4K00F1D, 4K00F7W 4K00F2D, 8K30F1E, 8K30F1D, 8K30F7W | |

Measurements made per CAI measurement procedures (digital) and TIA-603 (analog); specification are typical.
Details and timing of firmware and software updates are subject to change without notice.
Specifications are subject change without notice, due to advancements in technology.



* Ver. 2.0 models are compatible with Analog 25 and 30 kHz as well as Digital 12.5 kHz Channel Spacing. However, Analog 25 and 30 kHz are not included in the models sold in the USA or US territories.

## ACCESSORIES INCLUDED

- KMC-35 Microphone
- DC Cable
- Fuse
- Set of screws
- Mic. Hanger
- Bracket

Supplied accessories may vary depending on the market.

## 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 |
| **International Protection Standard** | | | | | |
| **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.

KENWOOD

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