

## NX-1700H/1800H VHF/UHF TRANSCEIVERS



[Suffix on the model no. stands for CAI: N=NXDN, D=DMR, and A=Analog Versions]

### SOUND PERFORMANCE, SMOOTH OPERATION

Emulating the distinguished NX-3000 and NX-5000 series, the NX-1700H/1800H mobile radio supports multiple protocols – including NXDN and DMR – as well as mixed digital & FM analog operation. As it's packed with all the features essential for making the most of these digital CAIs, it clearly qualifies as a cost-effective solution for numerous enterprise- and operation-critical applications. It's also equipped with optimizable TX/RX audio quality, and a smart front panel that prioritizes simple convenience: operational status is clear at a glance from the white backlit LCD display and 7-color LED indicator.

#### GENERAL FEATURES

- **"One Radio" with Multi-protocol Support:** Designed to operate under an NXDN or DMR digital CAI, and FM analog protocols
- **Upgradable Digital/Analog mode by software option** (no firmware upgrade required)
- **Easy visible, white backlit LCD display:** Alphanumeric, 10-digit, 13-character frame (aliases and icons)
- **7-color LED indicator** used to display various radio status
- Renowned KENWOOD Audio Quality: **6 W (max) loud audio** and **optimizable TX/RX audio profile:** Audio Equalizer, Auto Gain Control (TX/RX) and Microphone type settings
- **Max. 260 Channels per radio, 128 Zones per radio, and 250 Channels per zone**
- **Wide band UHF 70 MHz coverage**
- **Various scan functions:** Dual/Single Priority scan, Multi/Single Zone scan and more
- **Orange-colored Emergency button & Customizable Emergency functions**
- **Lone Worker**
- **Remote Stun, Kill, Check**
- **Max/Min Volume setting**
- **Voice Announcement**
- **Electronic Serial Number (ESN)**
- **Display Customization**
- **D-sub, 15-pin connector** on the rear panel
- **GPS connectivity**
- **Horn Alert and Public Address**
- **Ignition Sense**
- **3.5 mm audio jack** for external speaker
- **IP54 and MIL-STD 810C/D/E/F/G/H**

#### DIGITAL – NXDN

- FDMA – Very Narrow 6.25 kHz and Narrow 12.5 kHz Bandwidths
- NXDN Conventional: Voice and Data Services
- NXDN Type-D Trunking (Optional)
- Site Roaming
- Digital / Analog Mixed Mode
- Group / Individual Call
- Status / Short Data, Paging Call
- Remote Stun Kill, Monitor, Check & Control
- GPS Combination with additional module
- Mixed mode
- Late Entry
- Digital Bit Scrambler
- Over-the-Air Alias (OAA)

- Site Roaming
- DMR Auto Slot Select
- Dual-slot Direct Mode
- Call Interruption
- Group / Individual Call
- Status / Short Data, Paging Call
- Remote Stun Kill, Monitor, Check & Control
- GPS Combination with additional module
- Digital Analog Mixed Mode
- Digital bit Scrambler
- ARC4 Enhanced Encryption (Optional)
- Late Entry
- Over-the-Air Alias (OAA)

#### ANALOG – FM

- FM Conventional
- FleetSync/II: PTT ID, Stun/Revive, Mute hold, Talk back, Selcall
- MDC-1200: PTT ID ANI / Radio Inhibit / Uninhibit, Radio Check, Emergency
- QT / DQT, DTMF, 2-Tone
- Built-in Voice Inversion Scrambler per channel
- Compander Function per channel

#### DIGITAL – DMR

- TDMA – 2-slot 12.5 KHz Bandwidth Equivalent to 6.25 KHz Very Narrow Bandwidths
- DMR Tier II Conventional: Voice and Data services



## OPTIONAL ACCESSORIES

- **KMC-9C**  
DESKTOP MICROPHONE  
(non TDMA)



- **KMC-60**  
MICROPHONE

- **KMC-62**  
KEYPAD MICROPHONE  
(with 16-keypad)



- **KMC-65**  
MICROPHONE  
[IP54/55]



- **KMC-66**  
MICROPHONE  
[IP54/55]  
(with 12-keypad)



- **KES-5A**  
EXTERNAL SPEAKER  
(requires KCT-60)



- **KCT-18**  
IGNITION SENSE CABLE  
(requires KCT-60)



- **KCT-23**  
DC POWER CABLE



- **KCT-60**  
CONNECTION CABLE  
(D-sub 15 to Molex 15 Pin Connector)



- **KLF-2**  
LINE FILTER



- **KMB-10**  
KEY LOCK ADAPTER



- **KPS-15**  
DC POWER SUPPLY

- **KMB-34**  
MOUNTING CASE FOR KPS-15  
AND MOBILE RADIOS

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-1700H                                    | NX-1800H    |
|-----------------------------------------------------|-------------------|---------------------------------------------|-------------|
| Frequency Range                                     |                   | 136-174 MHz                                 | 400-470 MHz |
| Max. Channels per Radio                             |                   | 260                                         |             |
| Number of Zones                                     |                   | 128                                         |             |
| Number of Channel per Zone                          |                   | 250                                         |             |
| Channel Spacing                                     | Analog*1          | 25 / 12.5 kHz                               |             |
|                                                     | Digital           | 12.5 / 6.25 kHz                             |             |
| Operating Voltage                                   |                   | 13.6 V DC +/- 5 %                           |             |
| Current Drain                                       | Standby           | 0.45 A max                                  |             |
|                                                     | RX                | 2.4 A max                                   |             |
|                                                     | TX                | 13 A max                                    |             |
| Operating Temperature                               |                   | -22°F to +140°F (-30°C to +60°C)            |             |
| Frequency Stability<br>(-30°C to +60°C; +25°C Ref.) |                   | ± 0.5 ppm                                   |             |
| Dimensions<br>(W x H x D)                           | Incl. Projections | 6.34 x 1.69 x 6.62 in (161 x 43 x 168.2 mm) |             |
|                                                     | Excl. Projections | 6.30 x 1.69 x 5.42 in (160 x 43 x 137.7 mm) |             |
| Weight (net)                                        |                   | 2.67 lb (1.21 kg)                           |             |
| FCC ID (Pending)                                    | Type 1            | K44517000                                   | —           |
|                                                     | Type 2            | —                                           | K44517100   |
| ISED Certification<br>(Pending)                     | Type 1            | 282F-517000                                 | —           |
|                                                     | Type 2            | —                                           | 282F-517100 |

| RECEIVER                           | NX-1700H                                                                                                                              | NX-1800H                  |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Sensitivity                        | NXDN 12.5 kHz Digital, 3 % BER                                                                                                        | 0.22 µV                   |
|                                    | NXDN 6.25 kHz Digital, 3 % BER                                                                                                        | 0.18 µV                   |
|                                    | DMR 12.5 kHz Digital, 5 % BER                                                                                                         | 0.18 µV                   |
|                                    | Analog 25 kHz, 12 dB SINAD                                                                                                            | 0.24 µV                   |
|                                    | Analog 12.5 kHz, 12 dB SINAD                                                                                                          | 0.20 µV                   |
| Selectivity                        | Analog @ 25 kHz                                                                                                                       | 75 dB                     |
|                                    | Analog @ 12.5 kHz                                                                                                                     | 65 dB                     |
| Intermodulation (Analog)           |                                                                                                                                       | 73 dB                     |
| Spurious Response (Analog)         |                                                                                                                                       | 75 dB                     |
| Audio Output (Max / Rated) at 4 Ω  |                                                                                                                                       | 6 / 4 W                   |
| Audio Distortion at Rated Audio    |                                                                                                                                       | 3 %                       |
| TRANSMITTER                        | NX-1700H                                                                                                                              | NX-1800H                  |
| RF Power Output (High / Mid / Low) | 50 / 25 / 5 W                                                                                                                         | 45 / 25 / 5 W             |
| Spurious Emission                  | -73 dB                                                                                                                                | -75 dB                    |
| FM Hum & Noise                     | Analog @ 25 kHz                                                                                                                       | 45 dB                     |
|                                    | Analog @ 12.5 kHz                                                                                                                     | 40 dB                     |
| Audio Distortion                   |                                                                                                                                       | 3 %                       |
| Digital Protocol (DMR)             |                                                                                                                                       | ETSI TS 102 361-1, -2, -3 |
| Emission Designator                | 16K0F3E, 11K0F3E, 8K30F1E, 8K30F1D, 8K30F7W, 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D, 7K60FXD, 7K60FXW, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W |                           |

\*1: 25 and 30 kHz in VHF/UHF bands are not included in the models sold in the USA or US territories.  
Analog measurements made per TIA603. Specifications are measured according to applicable standards.  
Specifications shown are typical and subject to change without notice, due to advancements in technology.

## APPLICABLE MIL-STD & IP

| MIL Standards                      | Methods / Procedures  |                 |                 |                 |                 |                     |
|------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|---------------------|
|                                    | 810C                  | 810D            | 810E            | 810F            | 810G            | 810H                |
| Low Pressure                       | 500.1/ I              | 500.2/ I, II    | 500.3/ I, II    | 500.4/ I, II    | 500.5/ I, II    | 500.6/ I, II        |
| High Temperature                   | 501.1/ I, II          | 501.2/ I, II    | 501.3/ I, II    | 501.4/ I, II    | 501.5/ I, II    | 501.7/ I, II        |
| Low Temperature                    | 502.1/ I              | 502.2/ I, II    | 502.3/ I, II    | 502.4/ I, II    | 502.5/ I, II    | 502.7/ I, II        |
| Temp. Shock                        | 503.1/ I              | 503.2/ I        | 503.3/ I        | 503.4/ I, II    | 503.5/ I        | 503.7/ I            |
| Solar Radiation                    | 505.1/ I              | 505.2/ I        | 505.3/ I        | 505.4/ I        | 505.5/ I        | 505.7/ I            |
| Rain*2                             | 506.1/ I, II          | 506.2/ I, II    | 506.3/ I, II    | 506.4/ I, III   | 506.5/ I, III   | 506.6/ I, III       |
| Humidity                           | 507.1/ I, II          | 507.2/ II, III  | 507.3/ II, III  | 507.4           | 507.5/ II       | 507.6/ II           |
| Salt Fog                           | 509.1/ I              | 509.2/ I        | 509.3/ I        | 509.4           | 509.5           | 509.7               |
| Dust*2                             | 510.1/ I              | 510.2/ I        | 510.3/ I        | 510.4/ I, III   | 510.5/ I        | 510.7/ I            |
| Vibration                          | 514.2/ VIII, X        | 514.3/ I        | 514.4/ I        | 514.5/ I        | 514.6/ I        | 514.8/ I            |
| Shock                              | 516.2/ I, II, III, V  | 516.3/ I, IV, V | 516.4/ I, IV, V | 516.5/ I, IV, V | 516.6/ I, IV, V | 516.8/ I, IV, V, VI |
| International Protection Standards |                       |                 |                 |                 |                 |                     |
| Dust & Water                       | IP54*2 (per IEC60529) |                 |                 |                 |                 |                     |

\*2: All interfaces must be fully sealed with appropriate covers or by designated genuine accessories.

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