

## TK-D740HV/D840HU

# DMR

### VHF/UHF Digital Transceiver

Introducing the new TK-D740HV/D840HU mobiles, launched together with the new TK-D240V/D340U portables and completing KENWOOD's impressive DMR system line-up. Thanks to compliance with MIL-STD and IP54 environmental standards, they can be relied on through thick and thin. As well as handling both analog and digital communications, these user-friendly DMR radios can even operate in direct mode, without a repeater. They also offer KENWOOD Call Interrupt and also benefit in having KENWOOD enhanced audio quality. These truly resourceful team members will enable you to make the most of your legacy analog equipment while also benefitting from digital communications.

#### Two-Slot TDMA

Belonging to the DMR Tier II category, which covers licensed conventional systems, these radios are specified for 2-slot Time Division Multiple Access (TDMA) operation in 12.5 kHz channels. This means they can offer greater spectrum efficiency.

#### Two-In-One - Digital & Analog

These DMR radios can operate in both digital and FM analog modes, switching automatically as needed. Interoperability with legacy analog radios allows organizations to migrate to full digital at their own pace.

#### Dual-Slot Direct Mode

Up to two simultaneous direct-mode subscriber calls can be supported in a 12.5 kHz channel, without requiring a repeater, thus doubling channel capacity.

#### Call Interruption

In an emergency or whenever a user needs to interrupt a call, Call Interrupt is available in both direct and repeater modes, while encoding or decoding. Also featured are emergency functions to help protect staff in remote areas, etc.

#### Tough All-Terrain

These TK-D740HV/D840HU mobile radios conform to MIL-STD C/D/E/F/G standards for ruggedness, and are IP54 rated for dust & water protection, making them more than capable of withstanding harsh operating conditions.\*

#### 2-Digit LED Channel Display with Brightness Control

The large 2-digit LED display provides a clear indication of which channel is being used, and the brightness level can be adjusted (high/low) to suit the time of day and ambient light conditions. The front panel also features 9 programmable function keys for enhanced operating ease.

#### Programmable Blue LED

The blue LED indicator can be customized to provide useful status information. For example, it can be used in combination with the orange LED for Selective Call differentiation.

#### Clear, Powerful Audio

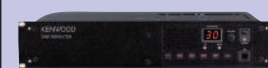
A radio's most important quality is clarity – being able to hear, loud and clear, what the other party is saying, and these mobiles deliver just that. For instance, the AMBE+2™ VOCODER technology accurately replicates natural human speech nuances for superior voice quality, even with high levels of ambient noise. Additionally, Voice Announcement can confirm the channel number, so there is no need to look at the display. English is the default language, but Spanish and French are also available.

#### Other Features

- Max. 32 ch in 2 zones (16 ch per zone)
- Wide 70 MHz UHF coverage
- External D-sub 15-pin (DE-15) interface
- External speaker connector (3.5 mm diameter phone jack)
- Audio output power 4 W @ 4 Ω
- Single zone and Normal scanning functions
- Horn alert/P.A. function
- Ignition sensing
- Password protection (read/overwrite)
- Minimum volume setting
- Embedded message
- Selective call alert LED
- Late entry
- Analog signalling: QT/DQT
- Compaander per channel
- Squelch level

#### TKR-D710/D810

VHF/UHF DIGITAL REPEATER



KTI-5  
INTERFACE BOX

- DMR Tier II Compatible Air Interface
- DMR Digital Conventional & FM Analog Conventional modes
- 136-174 MHz, 50-5 W; 450-520 MHz, 40-5 W; 400-470 MHz, 40-5 W
- 30 Channel Capacity
- 6 Backlit Programmable Function Keys
- Two-digit LED Display
- Conventional IP Network\*\*
- AIS IP Console Interface\*\*

Note: The TKR-D710/D810 is not compatible with duplex/simplex base operation but only for repeater operation.

\*Applies only when using a microphone KMC-35 or KMC-36.

\*\*Requires Interface Box KTI-5 installed with the IP Network Software.



# Options

■ **KMC-35**  
Microphone  
(Supplied)



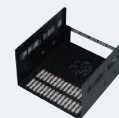
■ **KES-5**  
External Speaker  
(requires KCT-60 option)



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



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



■ **KMC-36**  
Microphone  
with Keypad



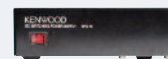
■ **KCT-18**  
Ignition Sense Cable  
(Requires KCT-60 option)



■ **KLF-2**  
Line Filter



■ **KPS-15**  
DC Power Supply



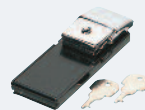
■ **KES-3S**  
External Speaker



■ **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.

		TK-D740HV	TK-D840HU
<b>GENERAL</b>			
<b>Frequency Range</b>	Type 1	136-174 MHz	450-520 MHz
	Type 2	-	400-470 MHz
<b>Number of Channels</b>			32
<b>Zones</b>			2
<b>Max. Channels per Zone</b>			16
<b>Operating Voltage</b>		13.6 V DC ± 15%	
<b>Operating Temperature Range</b>		-22° F to +140° F (-30° C to +60° C)	
<b>Frequency Stability</b>		± 2.0 ppm ± 1.0 ppm	
<b>Antenna Impedance</b>		50 Ω	
<b>Dimensions (W x H x D)</b>	Projections not included	6.29 x 1.69 x 4.82 in (160 x 43 x 122.6 mm)	
<b>Weight (net)</b>		2.42 lb (1.10 kg)	
<b>FCC ID</b>	Type 1	K44475600	K44475701
	Type 2	-	K44475700

Analog measurements made per TIA 603 and specifications shown are typical. Analog 25 kHz is not included in the models sold in the USA or US territories. Due to advancements in technology, specifications are subject to change without notice. Details and timing of firmware and software updates are subject to change without notice.

AMBE+2™ is a trademark of Digital Voice Systems Inc. All other trademarks are the property of their respective holders.

		TK-D740HV	TK-D840HU
<b>RECEIVER</b>			
<b>Sensitivity</b>	Digital (1% BER)		0.45 μV
	Digital (5% BER)		0.3 μV
	Analog (12 dB SINAD)		0.25 μV
<b>Selectivity</b>	Analog @ 25/12.5 kHz	75 dB / 65 dB	
<b>Intermodulation</b>	Analog	73 dB	
<b>Spurious Response Analog</b>		75 dB	
<b>Audio Distortion</b>		Less than 5 % distortion	
<b>Audio Output</b>		4W / 4 Ω	
<b>TRANSMITTER</b>			
<b>RF Power Output</b>		50-5 W	45-5 W
<b>Spurious Response</b>		73 dB	75 dB
<b>FM Hum &amp; Noise</b>	Analog 25/12.5 kHz	45 dB / 40 dB	
<b>Audio Distortion</b>		Less than 5%	
<b>Emission Designator</b>		16K0F3E, 11K0F3E, 7K60FXE, 7K60FXD	

## 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
<b>Low Pressure</b>	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
<b>High Temperature</b>	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
<b>Low Temperature</b>	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
<b>Temperature Shock</b>	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
<b>Solar Radiation</b>	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
<b>Rain*</b>	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
<b>Humidity</b>	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
<b>Salt Fog*</b>	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
<b>Dust*</b>	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III	510.5/Procedure I
<b>Vibration</b>	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I	514.6/Procedure I Cat.20
<b>Shock</b>	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>					
<b>Dust &amp; Water Protection</b>	IP54*				

\*Testing requirements are : (a) Microphone (KMC-35/36) is connected; (b) cap is installed on D-sub 15pin connector; (c) external antenna is connected to antenna receptacle; and (d) neither the KCT cable nor speaker cable is connected.

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ADS#41415 Printed in USA