

## TK-D740H/D840H

# DMR

VHF/UHF Digital Transceiver

FleetSync®

Introducing the new TK-D740H/D840H mobiles, launched together with the new TK-D240/D340 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-D740H/D840H 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 • GPS connectivity (available later) • 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, FleetSync, 2-tone (available later) • Compander 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

<p>■ <b>KMC-30</b> Microphone</p> 	<p>■ <b>KES-3S</b> External Speaker</p> 	<p>■ <b>KCT-36</b> 3m Extension Cable (for KCT-60)</p> 	<p>■ <b>KMB-10</b> Key Lock Adapter</p> 
<p>■ <b>KMC-32</b> 16-Key Keypad Microphone</p> 	<p>■ <b>KES-5</b> External Speaker (requires KCT-60 option)</p> 	<p>■ <b>KCT-60</b> DB 15-to-15 Pin Molex Adaptor Cable</p> 	<p>■ <b>KMB-34</b> Mounting Case for KPS-15</p> 
<p>■ <b>KMC-35</b> Microphone</p> 	<p>■ <b>KCT-18</b> Ignition Sense Cable (Requires KCT-60 option)</p> 	<p>■ <b>KLF-2</b> Line Filter</p> 	<p>■ <b>KPS-15</b> DC Power Supply</p> 
<p>■ <b>KMC-36</b> Microphone with Keypad</p> 			

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

	TK-D740H	TK-D840H
<b>GENERAL</b>		
Frequency Range	136-174 MHz	400-470 MHz 450-520 MHz
Number of Channels	32	
Zones	2	
Max. Channels per Zone	16	
Channel Spacing	25 kHz / 12.5 kHz	
	Analog	Digital
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)	

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.

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	TK-D740H	TK-D840H
<b>RECEIVER</b>		
Sensitivity	Digital (1% BER) Digital (5% BER) Analog (12 dB SINAD)	0.45 μV 0.3 μV 0.25 μV
Selectivity	Analog @ 12.5 kHz Analog @ 25 kHz*	65 dB 75 dB
Intermodulation	Analog	73 dB
Spurious Response Analog		75 dB
Audio Distortion		Less than 5% distortion
Audio Output		4W / 4 Ω
<b>TRANSMITTER</b>		
RF Power Output	50-5 W	45-5 W
Spurious Response	73 dB	75 dB
FM Hum & Noise	Analog 12.5 kHz Analog 25 kHz*	40 dB 45 dB
Audio Distortion		Less than 5%
Modulation		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 11K0F3E, 7K50F2D, 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
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, 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*				

\*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.

# KENWOOD

JVCKENWOOD USA Corporation  
Communications Sector Headquarters  
3970 Johns Creek Court, Suite 100, Suwanee, GA 30024-1265  
Order Administration/Distribution  
P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745  
[www.kenwood.com/usa](http://www.kenwood.com/usa)

JVCKENWOOD Canada Inc.  
Canadian Headquarters and Distribution  
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8  
[www.kenwood.com/ca](http://www.kenwood.com/ca)



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