KENWOOD

TK-D740/D840

VHF/UHF DIGITAL TRANSCEIVER

DMR

FleetSync® 5-tone

Introducing the new TK-D740/D840 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 analogue 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 analogue 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 & Analogue

These DMR radios can operate in both digital and FM analogue modes, switching automatically as needed. Interoperability with legacy analogue 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-D740/D840 mobile radios conform to MIL-STD C/D/E/F/G standards for ruggedness, and are IP54 rated for water & dust intrusion, making them more than capable of withstanding harsh operating conditions.*

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

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, French, German, Italian, Dutch and Russian are also available.

5-Tone Signalling

A series of programmed audio tones is used to specify one or more radios and initiate a conversation; all other radios will remain muted. Several signalling formats are available.

Other features

- Max. 128 ch in 4 zones (32 ch per zone)
- Wide 70 MHz UHF coverage
- 25-5 W Output
- 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 (future firmware update)
- 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
- Analogue signalling: QT/DQT, FleetSync, 5-tone signalling
- Compander per channel
- Squelch level

OPTIONS

- **KMC-30** MICROPHONE
- **KMC-32** KEYPAD MICROPHONE
- **KMC-35** MICROPHONE
- **KMC-36** KEYPAD MICROPHONE

- **KMC-9C** BASE MICROPHONE
- **KMC-53** DESK TOP MICROPHONE
- **KES-3** EXTERNAL SPEAKER

- **KES-5** EXTERNAL SPEAKER
- **KCT-18** IGNITION SENSE CABLE
- **KCT-36** EXTENSION CABLE

- **KCT-60** CONNECTION CABLE
- **KLF-2** LINE FILTER
- **KMB-10** 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.

SPECIFICATIONS

GENERAL		TK-D740	TK-D840
Frequency Range		136-174 MHz	400-470 MHz
Number of Channels		128 ch/4 zones (Max. 32ch/zone)	
Channel Spacing	Analogue	25/20/12.5 kHz	
	Digital	12.5 kHz	
Operating Voltage		13.2 V DC (10.8 - 15.6 V DC)	
Operating Temperature Range		-30℃ to +60℃	
Frequency Stability		±2.0 ppm	±1.0 ppm
Antenna Impedance		50 Ω	
Dimensions (W x H x D)	Projections not included	160 x 43 x 122.6 mm	
Weight (net)		1.1 kg	
RECEIVER			
Sensitivity	Digital 1 % BER	-1 dBµV (0.45 µV)	
	Digital 5 % BER	-4.5 dBµV (0.3 µV)	
	Analogue (20 dB SINAD) @ 25/20/12.5 kHz	-3 dB µV (0.35 µV) / -3 dB µV (0.35 µV) / -1 dB µV (0.45 µV)	
Adjacent Channel Selectivity	Analogue @ 25/20/12.5 kHz	75/73/69 dB	
Intermodulation Distortion	Analogue	65 dB	
Spurious Response	Analogue	75 dB	
Audio Distortion		Less than 5 %	
Audio Output		4 W/4 Ω	

TRANSMITTER		TK-D740	TK-D840
RF Power Output		25-5 W	
Spurious Response		<1 GHz ≤ -36 dBm, 1 GHz - 4 GHz ≤ -30 dBm	
FM Hum & Noise	Analogue @ 25/20/12.5 kHz	45/45/40 dB	
Audio Distortion		Less than 5 %	
Emission Designator		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 8K50F3E, 7K50F2D, 7K60FXD, 7K60FXE	

Specifications shown are typical.
Analogue measurements accord with TIA 603, EN 300 086 & 219.
Digital measurements accord with EN 300 113.
R&TTE & Safety Standards: EN 300 086-2, EN 300 113-2, EN 300 219-2, EN 301 489-5, EN 60065, EN 60950-1, EN 60215, EN 62209 (SAR)
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.

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

MIL-STD	Method / Procedures				
	810C	810D	810E	810F	810G
Low Pressure	500.1/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501.1/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502.1/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temperature Shock	503.1/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505.1/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain*[1]	506.1/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III
Humidity	507.1/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog*[1]	509.1/ I	509.2/ I	509.3/ I	509.4	509.5
Dust*[1]	510.1/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ 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
International Protection Standard					
Dust & Water Protection			IP54*[1]		

*1: 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.