

# TK-D240/D340

## DMR

VHF/UHF DIGITAL TRANSCEIVER

**FleetSync**<sup>®</sup> *2-tone*  
by KENWOOD



Ergonomically styled yet tough enough to comply with both MIL-STD and IP54/55 environmental standards, these portables provide the features and performance needed for a wide range of workplaces – from warehouses and stations to shops and hotels. 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 such KENWOOD added value as Call Interrupt and 1-watt audio output. 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 subscriber calls can be supported in a 12.5 kHz channel, without requiring a base station or repeater, thus doubling channel capacity.

### Call Interruption

In an emergency or whenever a user needs to interrupt a call, Call Interruption is available in both direct and repeater modes, while encoding or decoding. There is also a Lone Worker function to protect employees working alone.

### Tough All-terrain

These portable radios conform to MIL-STD C/D/E/F/G standards for ruggedness, and are IP54/55 rated for water & dust intrusion, making them more than capable of withstanding harsh operating conditions.

### Longer Battery Life

Battery life is always important for radio users. Both Lithium-ion and Ni-MH rechargeable batteries are available, offering up to 17 hours of use.\* Regardless of battery type, operating hours are longer in digital mode.

\*Radio in digital mode with 5-5-90 duty-cycle, battery saver on, using the KNB-69L rechargeable battery. Actual hours vary depending on the usage conditions.

### 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 portables deliver just that. For a start, there is 1 W of audio output power, while 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.

### Slim Styling

Compact dimensions – 54 mm wide and less than 35 mm deep\* – make these radios easy to grip and operate.

\*38 mm when fitted with the KNB-69L rechargeable battery.

### Other features

- Max. 32 ch in 2 zones (16 ch per zone) • Wide 70 MHz UHF coverage • Selectable 8- or 16-channel using channel stopper • 5/1 W (VHF), 4/1 W (UHF) output
- Audio output power 1 W @ 12 Ω • Scanning functions
- Password protection (read/overwrite) • Minimum volume setting • Embedded message • Selective call alert LED • Key lock • 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\*

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

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

## OPTIONS

<p><b>■ KNB-45L</b> Li-ion BATTERY PACK (7.2 V/2000 mAh)</p> 	<p><b>■ KSC-316</b> 6-POCKET MULTIPLE CHARGER (6-pocket for Li-ion KNB-45L/69L &amp; NiMH KNB-53N)</p> 	<p><b>■ KRA-22</b> VHF HELICAL ANTENNA (Low Profile)</p> 	<p><b>■ KMC-21</b> SPEAKER MICROPHONE (Compact Size)</p> 	<p><b>■ KHS-8NC</b> 2-WIRE PALM MIC W/ EARPHONE, NC</p> 
<p><b>■ KNB-53N</b> Ni-MH BATTERY PACK (7.2 V/1400 mAh)</p> 	<p><b>■ KSC-356</b> 6-POCKET MULTIPLE CHARGER (6-pocket for Li-ion KNB-45L/69L)</p> 	<p><b>■ KRA-23</b> UHF HELICAL ANTENNA (Low Profile)</p> 	<p><b>■ KMC-45D</b> SPEAKER MICROPHONE</p> 	<p><b>■ KHS-9BL/BE</b> 3-WIRE LAPEL MIC W/ EARPHONE</p> 
<p><b>■ KNB-69L</b> Li-ion BATTERY PACK (7.2 V/2450 mAh)</p> 	<p><b>■ KMB-35</b> MULTI CHARGER ADAPTER (6-unit for KSC-35SCR)</p> 	<p><b>■ KRA-26</b> VHF HELICAL ANTENNA (Standard Length)</p> 	<p><b>■ KHS-35F</b> HEADSET (with Boom Mic)</p> 	<p><b>■ KHS-22</b> BEHIND-THE-HEAD HEADSET W/PTT</p> 
<p><b>■ KSC-35S</b> RAPID CHARGER (for Li-ion KNB-45L/69L)</p> 	<p><b>■ KSC-355</b> RAPID CHARGER (for Li-ion KNB-45L/69L &amp; Ni-MH KNB-53N)</p> 	<p><b>■ KRA-27</b> UHF WHIP ANTENNA (Standard Length)</p> 	<p><b>■ KEP-2</b> 2.5 mm EARPHONE KIT (for KMC-45D)</p> 	<p><b>■ KHS-8BL/BE</b> 2-WIRE PALM MIC W/ EARPHONE</p> 
<p><b>■ KSC-43</b> RAPID CHARGER (for Li-ion KNB-45L/69L &amp; Ni-MH KNB-53N)</p> 	<p><b>■ KSC-35SCR</b> CHARGER POCKET (for KMB-35)</p> 	<p><b>■ KRA-41</b> VHF STUBBY ANTENNA</p> 	<p><b>■ KHS-8BL/BE</b> 2-WIRE PALM MIC W/ EARPHONE</p> 	<p><b>■ KBH-10</b> BELT CLIP</p> 
<p><b>■ KRA-42</b> UHF STUBBY ANTENNA</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.

## SPECIFICATIONS

		TK-D240	TK-D340
<b>GENERAL</b>			
Frequency Range		136-174 MHz	400-470 MHz 450-520 MHz
Number of Channels		32 ch/2 zones	
Channel Spacing	Analog	12.5/25 kHz	
	Digital	12.5 kHz	
Operating Voltage		7.5 V DC ± 20%	
Battery Life* (5-5-90, battery saver on)	Analog/Digital	approx 12/14 hrs w/KNB-45L approx 14/17 hrs w/KNB-69L approx 8/9 hrs w/KNB-53N	
Operating Temperature Range		-30°C to +60°C (with KNB-45L/69L: -10°C to +60°C)	
Frequency Stability		±2.0/±1.0 ppm	
Antenna Impedance		50 Ω	
Dimensions (W x H x D)	w/KNB-45L w/KNB-69L w/KNB-53N	54 x 122 x 33.7 mm 54 x 122 x 37.8 mm 54 x 122 x 33.7 mm	
Weight	Radio only w/KNB-45L w/KNB-69L w/KNB-53N	165 g 281 g 305 g 351 g	

		TK-D240	TK-D340
<b>RECEIVER</b>			
Sensitivity	Digital 1 % BER Digital 5 % BER Analog (12 dB SINAD)	0.45 µV 0.25 µV 0.28 µV	
Adjacent Channel Selectivity	Analog@12.5/25 kHz	62 dB	
Intermodulation Distortion	Analog	70 dB (±50/100 kHz)	
Spurious Response	Analog	70 dB	
Audio Distortion		Less than 10%	
Audio Output		1 W/12 Ω (Internal speaker) 500 mW/8 Ω (External speaker)	
<b>TRANSMITTER</b>			
RF Power Output		5/1 W	4/1 W
Spurious Response		70 dB	
FM Hum & Noise	Analog@12.5/25 kHz	40 dB	
Audio Distortion		Less than 10%	
Emission Designator		16K0F3E, 14K0F2D, 14K0F3E, 12K0F2D, 8K50F3E, 7K50F2D, 7K60FXD, 7K60FXE	

\* Based on actual measurements.  
Specifications shown are typical.  
Analog measurements accord with TIA/EIA 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 to change without notice, due to advancements in technology.  
FleetSync® is a registered trademark of JVCKENWOOD Corporation.  
AMBE+2™ is a trademark of Digital Voice Systems Inc.

## 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, V	516.3/I, IV	516.4/I, IV	516.5/I, IV	516.6/I, IV
<b>International Protection Standard</b>					
Dust & Water Protection	IP54/55*1				

\*1: The 2-pin connector cover has to be connected to the radio, or the locking bracket has to be attached to the KMC-45D external speaker microphone.

**JVCKENWOOD Corporation**  
Professional Systems Segment  
Communications Equipment Business Unit  
1-16-2 Hakusan, Midori-ku, Yokohama-shi, Kanagawa, 226-8525 Japan  
www.jvckenwood.co.jp/en

**ELECTRÓNICA VILLBAR, S.A.**  
DESDE 1965  
C/ Barón del Castillo de Chirel, 3  
28039 - Madrid - Telf. 915 703 951  
www.walkies.es

ISO9001 Registered  
Communications Systems Business Unit  
JVC KENWOOD Corporation

XXXXXX-0-0