KENWOOD

Listen to the Future

TK-7302(H)/8302(H)

VHF/UHF Compact FM Mobile Radios

FleetSync® | COMPLIANT IP54 | COMPLIANT MIL-810C/D/E/F | GPS

Kenwood's new TK-7302/8302 delivers reliable mobile performance with **extra wideband coverage (UHF: 70MHz)** and such features as QT/DQT signaling, multiple scan functions and a voice inversion scrambler. Yet this tough **IP54/MIL-STD-compliant radio** is decidedly user-friendly, providing high-quality audio, voice announcement, and a large display with adjustable brightness for simple operation, day and night.

16 CHANNELS, 2 ZONES

The TK-7302/8302 offers ample capacity for multiple channels and radio systems: 16 channels and 2 zones. And once it is programmed, users can select specific channels within a set range.

ENHANCED KENWOOD AUDIO

Clear audio means confident communications, but power output is not the only factor that determines how easy it is to use a radio in varying noisy environments. As an audio specialist experienced in psychoacoustics, Kenwood can draw on decades of expertise at every step: component selection, construction, optimization, evaluation and analysis. The resulting audio performance – specially engineered for transceivers and with frequency response optimized for the human voice – is undeniably clearer and crisper.

EXTERNAL D-SUB 15-PIN INTERFACE

A D-sub 15-pin terminal enables the simple connection of various types of external equipment. It can be used for Ignition sense, External Switch, Horn Alert, and External Mic, among others. A Molex interface is also available with the optional KCT-60M cable.

MULTIPLE SIGNALING

▌ QT/DQT/DTMF

Encoder/decoder function uses QT/DQT to segregate talk groups, so users only hear calls from their own group. DTMF PTT ID is included for dispatch operations or for a simple remote control application.

▌ FleetSync® PTT ID, SelCall & Status

Utilizing Kenwood's FleetSync® signaling protocol, the TK-7302/8302 has PTT ID (ANI: automatic number identification) and Selective Calling capabilities for managed dispatch operations. Programmed Status (by FPU) can also be sent.

▌ 2-tone (encode/decode)

The 2-tone signaling format is provided for use with the most common radio systems.

▌ MDC-1200 signaling

Built-in MDC signaling means the following features are available:

- PTT ID Encode
- Stun/Revive Decode
- Emergency Encode
- Radio Check Decode

▌ Emergency alert

For hazardous/hostile duty environments, a PF key can be programmed for emergency use to alert the dispatcher or other group members via DTMF, FleetSync® or MDC-1200 signaling.

PROGRAMMABLE VOICE INVERSION SCRAMBLER[1]

The built-in programmable voice inversion scrambler provides basic protection against casual eavesdropping. It is possible to have a unique scrambler setting for each channel by picking the voice inversion frequency from one of 16 tables.

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.

GPS FEATURE

Connected to an external GPS receiver, the TK-7302/8302 can transmit accurate vehicle location data to the central base station for fleet management purposes. Designated scrambler and GPS modules can be installed internally.

OTHER FEATURES

- Multiple Scan Functions, including Priority Scan • Voting (automatic repeater search & selection) • Independent Setting Per Channel (compander, scrambler) • BCL (Busy Channel Lockout) • 9 Programmable Function Keys • Talk Around • Horn Alert Function • Companded Audio (narrow/wide) • 3-colour LED (red, orange, green) • Voice Announcement (choice of language between English, Spanish, French, German, Italian, Dutch, Russian and Chinese) • Password Protection • Time-out Timer • Minimum Volume Setting (by FPU) • Operator Selectable Tone Settings • Embedded Message • 8 Programmable Accessory Ports (for external control) • Scan Del/Add Function • Kenwood ESN (Electronic Serial Number) • Radio Stun • Adjustable Microphone Gain (FPU only): High/Normal • Microsoft Windows® PC Programming & Tuning

*1 This function cannot be used in certain countries. Please contact your Kenwood dealer for further information.

Options

■ **KMC-35** Microphone	■ **KMC-9C** Desktop Microphone	■ **KLF-2** Line Filter
■ **KMC-36** Keypad Microphone	■ **KES-3** External Speaker	■ **KCT-18** Ignition Sense Cable (requires KCT-60 option)
■ **KMC-30** Microphone	■ **KES-5** External Speaker	■ **KCT-36** 3m Extension Cable (for KCT-60)
■ **KMC-32** 16-key Keypad Microphone	■ **KMB-10** Key Lock Adapter	■ **KCT-60** Connection Cable

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-7302	TK-7302H	TK-8302	TK-8302H
GENERAL				
Frequency Range				
Type 1	136~174 MHz		450~520 MHz	
Type 2	–		400~470 MHz	
Number of Channels				
Zone	2		2	
Channel	Max.16		Max.16	
Channel Spacing	12.5 kHz / 25 kHz		12.5 kHz / 25 kHz	
Operating Voltage	13.6 V DC±15 %		13.6 V DC±15 %	
Current Drain				
Standby	0.4 A	0.4 A	0.4 A	0.4 A
Receive	1.0 A	1.0 A	1.0 A	1.0 A
Transmit	8.0 A	14.0 A	8.0 A	14.0 A
Operating Temperature Range	-22 ℉ ~ +140 ℉ (-30 ℃ ~ +60 ℃)		-22 ℉ ~ +140 ℉ (-30 ℃ ~ +60 ℃)	
Frequency Stability	±2.5 ppm (-22 ℉ ~ +140 ℉)		±2.5 ppm (-22 ℉ ~ +140 ℉)	
Antenna Impedance	50 Ω		50 Ω	
Dimensions (W x H x D), Projections not included	160 mm x 43 mm x 137 mm		160 mm x 43 mm x 137 mm	
Weight (net)	1.18 kg		1.18 kg	

Kenwood reserves the right to change specifications and features without prior notice.
FleetSync® is a trademark of Kenwood Corporation.
Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

	TK-7302	TK-7302H	TK-8302	TK-8302H
RECEIVER (Measurements made per EIA/TIA-603)				
Sensitivity (12dB SINAD)				
Wide	0.28 µV		0.28 µV	
Narrow	0.35 µV		0.35 µV	
Selectivity				
Wide	75 dB		75 dB	
Narrow	65 dB		65 dB	
Intermodulation Distortion				
Wide	70 dB		70 dB	
Narrow	60 dB		60 dB	
Spurious Response	75 dB		75 dB	
Audio Output (4 Ω impedance)	4 W with less than 5 % distortion		4 W with less than 5 % distortion	
TRANSMITTER (Measurements made per EIA/TIA-603)				
RF Output Power	5 W ~ 25 W	5 W ~ 50 W	5 W ~ 25 W	5 W ~ 45 W*[1]
Spurious Response	70 dB		70 dB	
Type of Emission				
Wide	16K0F3E		16K0F3E	
Narrow	11K0F3E		11K0F3E	
FM Hum & Noise				
Wide	45 dB		45 dB	
Narrow	40 dB		40 dB	
Microphone Impedance	600 Ω		600 Ω	
Audio Distortion				
Wide	3 %		3 %	
Narrow	5 %		5 %	

*1: 490 ~ 512 MHz: 5 ~ 40 W, 512 ~ 520 MHz: 5 ~ 35 W

Applicable MIL-STD & IP

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.1 / Procedure I	500.2 / Procedure I, II	500.3 / Procedure I, II	500.4 / 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
Low Temperature	502.1 / Procedure I	502.2 / Procedure I, II	502.3 / Procedure I, II	502.4 / Procedure I, II
Temperature Shock	503.1 / Procedure I	503.2 / Procedure I	503.3 / Procedure I	503.4 / Procedure I, II
Solar Radiation	505.1 / Procedure I	505.2 / Procedure I	505.3 / Procedure I	505.4 / Procedure I
Rain*[2]	506.1 / Procedure I, II	506.2 / Procedure I, II	506.3 / Procedure I, II	506.4 / Procedure I, III
Humidity	507.1 / Procedure I, II	507.2 / Procedure II, III	507.3 / Procedure II, III	507.4
Salt Fog*[2]	509.1 / Procedure I	509.2 / Procedure I	509.3 / Procedure I	509.4
Dust*[2]	510.1 / Procedure I	510.2 / Procedure I	510.3 / Procedure I	510.4 / Procedure I, III
Vibration	514.2 / Procedure VIII, X	514.3 / Procedure I	514.4 / Procedure I	514.5 / Procedure I
Shock	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
International Protection Standard				
Dust & Water Protection	IP54*[2]			

*2: Necessary conditions are: (1) KMC-35/36 microphone is connected; (2) cap is installed on speaker connector;
   (3) cover is installed on D-sub 15-pin connector; and (4) neither KCT cable nor SP cable is connected.

Listen to the Future

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery, inspiration and enjoyment.

Kenwood Corporation

1-16-2 Hakusan, Midori-ku, Yokohama-shi, Kanagawa, 226-8525 Japan
www.kenwood.com

JQA-QMA1205 **091-A**
ISO9001 Registered
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

CL654M-E-2