KENWOOD

TK-7102/8102

Compact Synthesized FM Mobile Radios

Simple operation and solid performance in a compact package — Kenwood's new TK-7102/8102 VHF/UHF FM transceivers offer clear, reliable mobile communications with 25W RF output and such features as QT/DQT signalling, phone/repeater access, and PC programming.

BUILT-IN QT/DQT SIGNALLING

Continuous QT (Quiet Talk) and DQT (Digital QT) tone-coded squelch circuits eliminate unwanted signals from others using the same channel. Once a technician has programmed the radio, the user hears only calls with the specified talk group tone (39 for QT) or code (104 for DQT).

BUSY CHANNEL LOCKOUT

If another talk group is already on the air, this feature enhances channel management by preventing transmission.

SELECTABLE WIDE/NARROW CHANNEL BANDWIDTH

The TK-7102/8102 can handle both existing wideband systems and emerging narrow band applications, making it possible to future-proof your investment.

DTMF

Code Squelch mode provides a 3- to 10-digit ID for basic DTMF paging operations, while DTMF encode allows access to phone patches .

A standard PTT ID (max. 16-digit DTMF code) is sent automatically at the start (leading edge) and finish (trailing edge) of a transmission.

EASY OPERATION

Simplicity characterizes all operations. The front panel features just 4 channel keys, 2 function keys and 2 volume keys. All keys except for the power switch are backlit to facilitate nighttime operation.

SCAN

Channel scanning provides the user with a simple way to monitor multiple channels for activity, with extra flexibility offered by adjustable scan resume.

HIGH-QUALITY SPEAKER

Assuring not only powerful output but also excellent clarity is the large-diameter oval (58mm x 35mm) speaker mounted in the front panel.

TOUGH, COMPACT CONSTRUCTION

Built to take rough treatment in stride, the TK-7102/8102 meets the stringent MIL-STD 810 C/D/E standards for resistance to dust, vibration and shock. The "bathtub" construction of the chassis assures excellent heat dissipation characteristics, and installation is simplified thanks to the compact external dimensions — 160mm (W) x 43mm (H) x 107mm (D).

PC PROGRAMMING & CLONING CAPABILITY

Using the optional interface cable, the TK-7102/8102 can be connected to a PC for programming. One-to-one wired cloning is also possible. And password protection (1 to 10 digits) prevents unauthorized data access.

EMERGENCY MODE

One of the security features of these mobile radios is the emergency mode — useful, say, if a taxi driver is held up. This engages automatic transmission, alerting other stations and enabling them to monitor the situation as it develops.

EMBEDDED MESSAGE & KENWOOD ESN

The radio's EEPROM can store an embedded message containing ID number, user and department names, etc. Additionally, a unique electronic serial number (ESN) helps to protect against theft: it cannot be removed or altered. A unit can thus be identified even if the external labels, marking or factory serial numbers have been removed.

TIME OUT TIMER

TOT terminates transmission after a set time, returning the unit to receive mode. There is also an alarm to alert the user to imminent TOT activation.

Options

KES-3
External Speaker

KMC-30
Microphone

KMC-32
16-keypad Microphone

KPS-10A
DC Power Supply

KMB-10
Key Lock Adapter

KLF-2
Line Noise Filter

Not all accessories may be available. Please contact your dealer for details.

Specifications

	TK-7102	TK-8102
GENERAL		
Frequency range		
Type 1	146–174 MHz	450–490 MHz
Type 2	136–162 MHz	485–520 MHz
Type 3		400–430 MHz
Channels	4 CH	4 CH
Channel spacing (Wide/Narrow)	25 kHz / 12.5 kHz	25 kHz / 12.5 kHz
PLL channel stepping	2.5 kHz, 5 kHz, 6.25 kHz, 7.5 kHz	5 kHz, 6.25 kHz
Operating voltage	13.6 V DC ±15%	13.6 V DC ±15%
Current drain		
Standby	0.4A	0.4A
Receive	1.0A	1.0A
Transmit	8.0A	8.0A
Operating temperature range	-30° ~ +60°C	-30° ~ +60°C
Frequency stability (-30° ~ +60°C)	±2.5 ppm	±2.5 ppm
Dimensions (WxHxD)	160 x 43 x 107 mm	160 x 43 x 107 mm
Weight (body only)	Approx. 1.0 kg	Approx. 1.0 kg
Antenna impedance	50 Ω	50 Ω
Channel frequency spread		
Type 1	28 MHz	40 MHz
Type 2	26 MHz	35 MHz
Type 3	–	30 MHz
RECEIVER (TIA/EIA-603)		
Sensitivity (Wide/Narrow)		
(12 dB SINAD)	0.28 µV / 0.35 µV	0.28 µV / 0.35 µV
Selectivity (Wide/Narrow)	75 dB / 65 dB	75 dB / 65 dB
Intermodulation distortion (Wide/Narrow)	70 dB / 60 dB	70 dB / 60 dB
Spurious response	75 dB	75 dB
Audio output (4Ω 5% distortion)	4.0 W	4.0 W
TRANSMITTER (TIA/EIA-603)		
RF power output	25 W	25 W
Spurious & harmonics (High)	70 dB	70 dB
Modulation (Wide/Narrow)	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E
FM noise (Wide/Narrow)	45 dB / 40 dB	45 dB / 40 dB
Audio distortion (Wide/Narrow)	Less than 3%	Less than 3%
Microphone impedance	600 Ω	600 Ω

Kenwood reserves the right to change specifications and features without prior notice.

Applicable MIL-STD

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV

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