KENWOOD

TK-7150/8150

VHF/UHF FM Transceivers

- TRUNKED & CONVENTIONAL CAPABILITY MODES
- 128 CHANNELS (1 CH X 128 ZONES, 128 CH X 1 ZONE)
- 32 LTR ZONES/250 TALK GROUP IDS (MAX.)
- POWERFUL AUDIO
- ALPHANUMERIC DISPLAY
- PROGRAMMABLE FUNCTION KEYS
- SINGLE HEAD REMOTE OPTION
- QT/DQT SIGNALING
- 2-TONE SELECTIVE CALLING
- DTMF SELECTIVE CALLING
- OPERATOR SELECTABLE TONE/CODE (OST)
- FleetSync/FleetSync™ II COMPATIBLE
- MOBILE DATA INPUT PORT
- ENCRYPTION & ANI MODULE CONTROL
- INDIVIDUAL LED INDICATORS
- ERGONOMIC AND SPACE-SAVING DESIGN
- BACKLIT FRONT PANEL
- FLASH MEMORY
- MIL-STD COMPLIANT

Keep in Touch with Top Performance

Kenwood's TK-7150/8150 mobile radios offer premium performance and features required for today's private system fleets in a cost-effective platform. Included are extras such as LTR trunking system capability and FleetSync/FleetSync™ II signaling compatibility. Specifically designed for easy installation and operation, these units combine welcome versatility with unbeatable Kenwood reliability.

TRUNKED & CONVENTIONAL CAPABILITY MODES

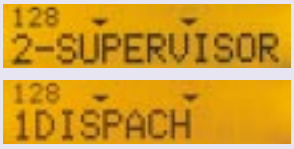
The TK-7150/8150 mobiles operate on Conventional systems with dual priority scan and LTR trunking systems or a combination of both systems.

BACKLIT FRONT PANEL

The easy to read, wide-angle LCD and operation keys are backlit for night or day operation.

ALPHANUMERIC DISPLAY

The brilliant LCD provides a user-friendly operator interface for the TK-7150/8150 mobiles with a high resolution 12-character alphanumeric dot matrix display for channel aliases, a 3-digit sub display for zone/channel/GID numbers and status/function icons.



128 CHANNELS

The dynamic memory allocation of the TK-7150/8150 permits up to 128 Conventional and/or LTR zones to be programmed to match the type, size and quantity of radio systems available to the mobile fleet. Conventional zones (channel groups) have a 1 x 128 range [1 channel x 128 zones to 128 channels x 1 zone]*. A maximum total of 512 conventional channels and LTR GIDs are permitted per radio**.

** During simultaneous operation of conventional and LTR modes. Conventional channel/trunking ID can be programmed up to 512.*

***This total will vary depending on the number of repeater channels programmed in LTR zones.*

Operation with optional KRK-9 connected.

PROGRAMMABLE FUNCTION KEYS

The 6 PF keys of the TK-7150/8150 mobiles are each programmable for one of many functions. A set of key labels is provided for labeling each key accordingly.

POWERFUL AUDIO

The internal front panel speaker provides clear crisp 3.5 watts of audio as an integral attribute of the mobile's compact, low profile installation footprint. A powerful 12 watts of audio is also available with an external speaker option.

SINGLE HEAD REMOTE OPTION

These mobiles can be converted to a space saving, installation friendly remote mount unit using a KRK-9 remote kit and a KCT-22 remote cable option (8, 17 or 25 feet).

Versatile Signaling

Various signal encode/decode selective calling features are available to facilitate the smooth setup of a dispatch system.

- **QT/DQT Signaling:** QT/DQT tone/code signaling permits users to be segregated into their own talk groups.
- **2-Tone Selective Calling:** Two-tone decode allows for four code pairs, each with individual and group paging settings. This signaling is assignable on a per-channel basis and has audio and visual call alert.
- **DTMF:** The DTMF selective calling provides individual call, group call, and over-the-air disable/enable. This signaling is assignable on a per-channel or group basis and has audio and visual call alert.
- **Operator Selectable Tone/Code (OST):** Designed specifically for forestry, cooperative fire and wildlife management departments, the OST feature provides a programmable bank of 16 user-selectable tones (QT & DQT) for accessing different repeaters. Each tone can have an assigned alpha-tag and be directly recalled by the KMC-28A DTMF keypad mic or other radio controls.

FleetSync / FleetSync™ II

Kenwood's FleetSync™ ANI/messaging provides PTT ID digital ANI, Selective Calling and Status Messaging system for dispatch operations. Special reserved Emergency, Emergency Mode Off, Horn Alert and Radio Stun statuses are also provided for enhanced safe and secure mobile operations. The FleetSync™ enhanced features enable the radio to display custom Short Text Messages in its own LCD. Both original FleetSync and FleetSync II air protocols are included in the TK-7150/8150.

Mobile Data Input Port

Integration with external modems and mobile data equipment is possible via the accessory connectors data compatible port supporting data speeds of up to 9600 bits per second*.

** 4800/9600 bps is typical for base band frequency shift keying modulation methods. Baud rate will vary depending on channel spacing (12.5/25 kHz), modulation type, modem compression algorithms, protocols and pre-distortion techniques utilized.*

Encryption & ANI Module Control

Secure voice and ANI capabilities are possible using vendor modules interfaced with the mobiles internal ports. This offers a variety of formats, performance options and cost levels for the radio system owner.

Individual LED indicators

Two user-friendly LED indicators provide at-a-glance recognition of operational status. The red LED indicates transmission and the green LED is lit during reception. If preferred by the user, these LED indicators can also be switched off.

MIL-STD Compliant

The TK-7150/8150 meets the tough US MIL-STD 810C, D, E, and F standards.

OTHER FEAUTURES:

▮ FLASH MEMORY ▮ DUAL PRIORITY SCAN (CONVENTIONAL ONLY) ▮ EMERGENCY KEY ▮ IGNITION SENSE INPUT ▮ HORN ALERT OUTPUT ▮ PUBLIC ADDRESS ▮ REMOTE CONSOLE I/O'S ▮ PROGRAMMABLE AUX INPUTS / OUTPUTS ▮ PROGRAMMABLE AUX INPUT (EMERGENCY) ▮ TALK GROUP ID DELETE/ADD

Options

KMC-9C
Desktop Microphone

KMC-27A
Microphone
(noise-canceling)

KMC-27B
Microphone

KMC-28A
Keypad Microphone
(noise-canceling)

KCT-18
Ignition Sense Cable

KCT-22
Remote Control Cable

8 feet

17 feet

25 feet

KCT-23
DC Power Cable

Medium Power
Dash (10 feet)

Medium Power Remote
(Positive: 23 feet,
Negative: 3.3 feet)

KES-4
External Speaker

KES-5
External Speaker
(available Jan. 2003)

KLF-2
Line Filter

KPS-10A
Regulated DC
Power Supply

KPS-15
DC Switching
Power Supply

KRK-9
Single Control Head
Remote Kit

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-7150	TK-8150
GENERAL		
Frequency range		
Type1:	136~174MHz	450~500MHz
Number of channels (Zone)*		
Conventional CH:	Max.128 (1 zone x 128ch ~ 128 zones x 1ch)	
Trunking ID:	Max. 250/zone (max.32 zones)	
Channel spacing		
Wide:	25kHz, 30kHz	25kHz
Narrow:	12.5kHz, 15kHz	12.5kHz
Operating voltage	13.6V DC±15%	
Current drain		
Standby:	0.5A	0.5A
Receive:	2.3A	2.3A
Transmit:	Less than 12A	Less than 13A
Duty Cycle	Transmit: 20%	
Operating Temperature range	-22ºF ~ +140ºF (-30ºC ~ +60ºC)	
Frequency stability (-22ºF ~ +140ºF)	±0.00025%	
Antenna impedance	50 Ω	
Dimensions (W x H x D)	7-1/12" x 2" x 7" (180mm x 50mm x 170mm)	
Weight (net)	5.9 lbs (2.7kg)	
FCC ID	ALH32273110	ALH32283110
FCC Compliance		
16K0F3E/20K0F1D	74, 90	90, 95G
11K0F3E/11K2F1D	74, 90.210	90.210, 95G
Band spread	38MHz	50MHz

** During simultaneous operation of conventional and LTR modes.*
Conventional channel/trunking ID can be programmed up to 512.

	TK-7150	TK-8150
RECEIVER (Measurements made per EIA/TIA-603)		
Sensitivity		
12dB SINAD:	0.35µV	
20dB Quieting:	0.45µV	
Selectivity		
Wide:	84dB (±30kHz)	80dB (±25kHz)
Narrow:	76dB (±15kHz), 76dB (±12.5kHz)	73dB (±12.5kHz)
Intermodulation		
Wide:	77dB (±30, 60kHz)	79dB (±25, 50kHz)
Narrow:	75dB (±15, 30kHz)	73dB (±12.5, 25kHz)
Spurious response	85dB	
Audio output		
External:	12W (@4Ω 3% distortion) 13W (@4Ω 5% distortion)	
Internal:	3.2W (@16Ω 3% distortion) 3.5W (@16Ω 5% distortion)	
TRANSMITTER (Measurements made per EIA/TIA-603)		
RF output power	50 to 15 watts	45 to 15 watts
High:	50 watts	45 watts
Low:	15 watts	15 watts
Type of emission		
Wide:	16K0F3E, 20K0F1D	
Narrow:	11K0F3E, 11K2F1D	
Spurious response	75dB	
FM Hum & noise		
Wide:	48dB	
Narrow:	42dB	
Microphone impedance	600 Ω	
Audio distortion	Less than 1% at 1000Hz	

Kenwood follows a policy of continuous advancement in development.
For this reason specifications may be changed without notice.
FleetSync™ is a trademark of Kenwood Corporation.

Applicable MIL-STD

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 Cat. A1	501.3/Procedure I, II Cat. A1	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II Cat. C1	502.3/Procedure I, II Cat. C1	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I Cat. A1, C1	503.3/Procedure I Cat. A1, C1	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain	506.1/Procedure II	506.2/Procedure II	506.3/Procedure II	506.4/Procedure III
Humidity	507.1/Procedure II	507.2/Procedure II	507.3/Procedure II	507.4
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
Dust	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 Cat. 8	514.4/Procedure I Cat. 8	514.5/Procedure I Cat. 20
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

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JQA-1205 091-A
ISO9001 Registered
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

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CL489K-E-4(00) 021105B Printed in Japan