KENWOOD
Listen to the Future

TK-7180/8180

VHF/UHF FM Mobile Radios

TK-7180/8180

TK-7189/8189

5-tone   FleetSync® by KENWOOD

▮ REMOTE CONTROL HEAD (OPT.)
▮ WIDE BAND COVERAGE
▮ EXTRA LARGE CHANNEL CAPACITY
▮ DUAL PRIORITY SCAN
▮ DOT MATRIX DISPLAY
▮ ENHANCED KENWOOD AUDIO
▮ VOICE INVERSION SCRAMBLER
▮ FleetSync® / FleetSync® II
▮ 5-TONE SIGNALLING
▮ LONE WORKER

▮ TRANSPARENT DATA MODE
▮ GPS READY (NMEA0183 COMPATIBLE)
▮ VGS-1 VOICE GUIDE & STORAGE UNIT
  (OPTION)
▮ EASY OPTION PORT (26-PIN)
▮ DB-25 ACCESSORY CONNECTOR
▮ REAL-TIME CLOCK FOR TIME STAMPING
▮ MEETS/EXCEEDS MIL-STD BLOWING RAIN &
  IP54/55
▮ FULL KEYPAD MODEL AVAILABLE
  (TK-7189/8189)

Catch the New Wave in Professional Mobile

Kenwood's TK-7180/8180 offers a superb range of advanced features to play a key role in the latest dispatch and fleet control applications. And if you prefer a radio with full keypad for quick input, just specify Kenwood's TK-7189/8189.

TK-7180/8180

REMOTE CONTROL HEAD (OPT.)

The optional KRK-10 remote kit converts the front panel into a space-saving remote control head for today's smaller vehicles and console mounting.

WIDE BAND OPERATION

The TK-7180/8180/7189/8189 models feature wide band UHF (70 MHz) and VHF (38 MHz) coverage in one radio model.

KENWOOD "K"LARITY — ENHANCED AUDIO

Kenwood utilizes its long standing audio heritage to optimize voice frequency components so that the audio output cuts through typical ambient noise. This enhancement and the companded noise reduction provide clarity and low distortion.

EXTRA LARGE CHANNEL CAPACITY

The large 512 channel / 128 zone capability* accommodates virtually any current or future capacity requirement.

*Maximum capacity notes

128 Conventional Zones cumulative maximum per radio
512 Conventional Channels cumulative maximum per radio
250 Channels maximum per any Conventional Zone

DUAL PRIORITY & VARIOUS SCANNING FUNCTIONS

Dual-Priority Scan automatically checks two important channels for activity while channel scanning. Also, each radio can be programmed to scan any organization of channels and talk groups using the many programmable scan features and parameters.

DOT MATRIX DISPLAY

The backlighting and high-resolution dot matrix 12-character alphanumeric display provides easy-to-read channel aliases day or night. Also a 3-digit sub-display for zone/channel numbers and icons for function/status indicators make for intuitive operation. The display can be dealer customised for indication in languages other than English.

FleetSync® / FleetSync® II

FleetSync® by KENWOOD

Kenwood's FleetSync® digital signalling system includes PTT ID digital ANI for instant radio call identification and Emergency status for personnel safety. FleetSync also includes status messaging, selective calling and short/long text dispatch messaging features. The TK-7180/8180/7189/8189 supports either original FleetSync® or FleetSync® II*.

FleetSync and FleetSync II are incompatible

5-TONE SIGNALLING

In addition to FleetSync®, the TK-7180/8180/7189/8189 includes the industry standard signalling formats: QT/DQT, DTMF and 5-tone. In particular, 5-tone signalling has been significantly enhanced for greater flexibility, and current users of this format will welcome the fact that it can be used in combination with FleetSync® for Short/Long Text Messaging.

VOICE GUIDE & STORAGE* (OPT.)

This innovative Kenwood option makes several functions possible. "Voice Guide" announces channel, zone, feature activation/deactivation, etc. in a clear synthesised voice. "Voice Storage" records up to 300 seconds of receive audio for missed calls or your own voice for memo recording. It also has an "Auto-Reply" greeting and can record voice messages for unattended radios while away from the radio or while in a meeting (the calling unit must send a FleetSync® selective call for activation).

Announcement only available in English.

MEETS/EXCEEDS MIL-STD BLOWING RAIN & IP54/55

The TK-7180/8180/7189/8189 is built to survive the hard knocks and harsh weather environments of many type mobile installations. These mobiles meet or exceed the stringent IP54/55 dust and water intrusion standards* and the MIL-STD 810 C, D, E & F environmental standards including the demanding "blowing rain" test.**

Applies to control head only when KRK-10 kit is installed.
**IP/MIL-STD compatibility requires the KMC-35 or KMC-36 heavy-duty microphone.*

REAL-TIME CLOCK FOR TIME STAMPING

A new Kenwood feature, this real-time clock can be used for basic time-stamping.

LONE WORKER

This ingenious feature, provides an extra layer of security and safety for individuals who work remotely as well as for those who work in hazardous areas. As long as the buttons are pressed regularly, the radio operates normally; however, if there is a long lapse (programmable), it will sound an alert. In the absence of further response from the user, the TK-7180/8180/7189/8189 will place an emergency call to a pre-determined person or group of people.

GPS READY (NMEA0183 COMPATIBLE)

The TK-7180/8180/7189/8189 has connection port (internal or external) for GPS receiver unit with a standard NMEA0183 data output. This enables a FleetSync compatible-AVL system to track a fleet of TK-7180/8180/7189/8189 mobiles.
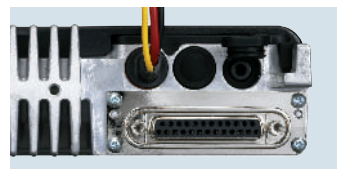
TRANSPARENT DATA MODE

Kenwood's Transparent Data mode works in combination with FleetSync® to enable full character transparency for exchanging data with a transceiver linked to a PC or peripheral equipment. This can be used for remote control and remote maintenance of status monitoring, etc.

DB-25 ACCESSORY CONNECTOR

The TK-7180/8180/7189/8189 is equipped with a DB-25 Accessory Connector (female), which allows easy connection of external equipment, such as PC, External GPS unit, Data Modem and other various accessories. Remote operation in CAD (Computer Aided Dispatch) command or BCD control is also possible via the connector.

AVAILABLE SOFTWARE (OPT.)

ZVEI-Digital signalling and a voting function that utilises the signalling can be added as optional software.

OTHER FEATURES

■ VOICE INVERSION SCRAMBLER ■ PROGRAMMABLE FUNCTION KEYS
■ WIDE/NARROW PER CHANNEL ■ RSSI LEVEL INDICATOR
■ EMBEDDED MESSAGES ■ TRANSCEIVER PASSWORD
■ IGNITION SENSE INPUT & CABLE OPTION
■ HORN ALERT & PUBLIC ADDRESS OPTION ■ FLASH MEMORY
■ WINDOWS PC PROGRAMMING & TUNING ■ QT/DQT & DTMF
■ EASY OPTION PORT (26-PIN)

Options

- **KMC-30**
  Microphone

- **KMC-32**
  Keypad Microphone

- **KMC-35**
  Microphone
  (heavy-duty)

- **KMC-36**
  Keypad Microphone
  (heavy-duty)

- **KMC-9C**
  Control Station
  Desktop Microphone

- **KRK-10**
  Control Head
  Remote Kit (23ft/7m)

- **KCT-46**
  Ignition Sense Cable

- **KCT-40**
  Radio Interface Cable
  (for KDS-100, KGP-2A/2B)

- **KCT-23M3**
  DC Cable (Remote
  mount / 23ft/7m)

- **KAP-2**
  Horn Alert/Public
  Address Relay Unit

- **VGS-1**
  Voice Guide &
  Storage Unit

- **KES-3**
  External Speaker

- **KES-5**
  External Speaker
  (requires KAP-2)

- **KMB-10**
  Key Lock Adapter

- **KLF-2**
  Line Noise Filter

- **KPS-10A**
  DC Power Supply

- **KDS-100**
  Mobile Data Terminal

- **KGP-2A/2B**
  GPS Receiver /
  Modem Unit
  KGP-2A
  KGP-2B

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-7180 E/7189 E	TK-8180 E/8189 E
GENERAL		
Frequency Range	136~174 MHz	400~470 MHz
Number of Channels*	Max.512 Ch's total per Radio	
Zone	Max.128 per Radio	
Ch	Max.250 per Zone	
Channel Spacing	25 kHz/20 kHz/12.5 kHz	
Operating Voltage	13.2 V DC (10.8 ~ 15.6V DC)	
Current Drain		
Standby	0.4 A	
Receive	1.0 A	
Transmit	9.0 A	
Operating Temperature Range	-30 ℃ ~ +60 ℃	
Frequency Stability	±2.5 ppm (-30 ℃ ~ +60 ℃)	
Antenna Impedance	50 Ω	
Channel Frequency Spread	38 MHz	70 MHz
Dimensions (W x H x D), Projections not included	160 mm x 45 mm x 157 mm	
Weight (net)	1.5 kg	
Applicable Standards	EN300 086, EN300 113, EN300 219, EN301 489 EN60065, EN60950-1, EN60215 EU directive 95 / 54 / EC	

*Maximum capability depends on the number of programmed Zone and repeater channels.

	TK-7180 E/7189 E	TK-8180 E/8189 E
RECEIVER		
Sensitivity (EIA 12dB SINAD)	0.25 µV/0.25 µV/0.28 µV	
Sensitivity (EN 20dB SINAD) 25 kHz/20 kHz/12.5 kHz	-3 dB µV/-3 dB µV/-2 dB µV	
Adjacent Channel Selectivity 25 kHz/20 kHz/12.5 kHz	80 dB/75 dB/70 dB	
Intermodulation	70 dB	
Spurious Response Rejection	80 dB	75 dB
Audio Output (4 Ω impedance)	4 W with less than 5 % distortion (Typical)	
Measurement	EN standard	
TRANSMITTER		
RF Output Power	Max. 25 W	
Modulation Limiting	±5.0 kHz at 25 kHz	
	±4.0 kHz at 20 kHz	
	±2.5kHz at 12.5 kHz	
Spurious Emission	-36 dBm ≤ 1 GHz, -30 dBm > 1 GHz	
FM Noise (EIA)	50 dB/48 dB/45 dB	
Modulation Distortion	Less than 3%	
Microphone Impedance	600 Ω	
Measurement	EN standard	

Kenwood reserves the right to change specifications and features without prior notice.
FleetSync® is a registered trademark of Kenwood Corporation.

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	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	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	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: Radio itself			
	IP54/55: Remote Head with KRK-10			

*To meet above Mil810 and IP grade, weather proof microphone KMC-35 or KMC-36 has to be connected.

CE 0168 !

ISO 9001
JQA-QMA1205
UKAS QUALITY MANAGEMENT
091-A
ISO9001 Registered
Communications Equipment Division
Kenwood Corporation

KENWOOD
MEANS BUSINESS

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