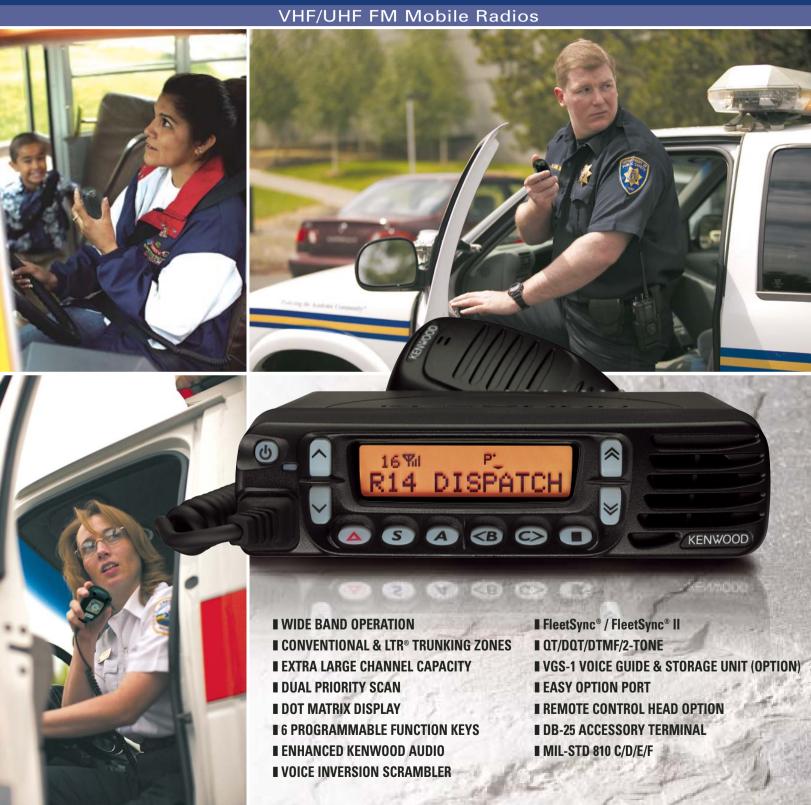
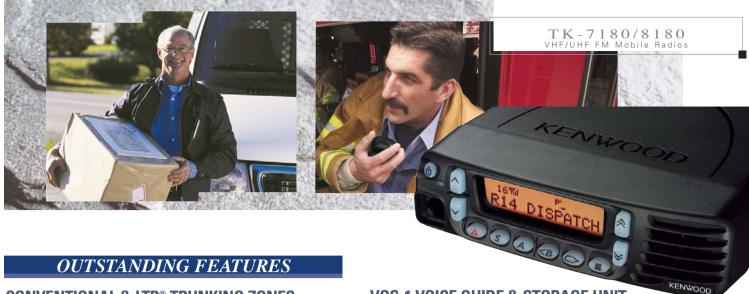
KENWOOD

TK-7180/8180

FleetSync®





CONVENTIONAL & LTR® TRUNKING ZONES

The TK-7180/8180 operates on LTR® trunking systems, conventional channels or any combination of both, facilitating mixed operation today or migration tomorrow.

FleetSync® FleetSync®/FleetSync® II

Kenwood's FleetSync® digital signaling 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 supports either original FleetSync® or FleetSync®II*.

*FleetSync and FleetSync II are incompatible.

DUAL PRIORITY & SCAN FEATURES

Dual-Priority Scan automatically checks two important channels for activity while channel scanning (conventional zones only). Also, each radio can be programmed to scan any table of individual channels, systems and talk groups using the many programmable scan features and parameters. Channel/GID Delete/Add, Nuisance Delete and Priority Temporary Delete provide relief from non-essential voice traffic when scanning multiple channels or trunked talk groups.

SIGNALING

The TK-7180/8180 includes industry standard signaling formats for the most common type radio systems.

- QT/DQT: Sub-audible QT tones and DQT digital codes provide industry standard talk group muting and segregation for conventional radio systems.
- DTMF: DTMF permits DTMF PTT ID. telephone interconnect operation, individual/group selective calling and remote radio disable/enable (remote stun).
- 2-Tone Selective Calling: Four code pairs each with individual and group page settings and audio visual alerts can be assigned per channel.

VGS-1 VOICE GUIDE & STORAGE UNIT

This innovative Kenwood option makes several functions possible. "Voice Guide" announces zone, channel, groups and feature activation/deactivation in a clear synthesized voice. A great tool for radio communications training or as an aid for the sight or physically impaired. "Voice Storage" records up to 300 seconds of receive audio for missed calls or your own voice for memo recording. It also can transmit an "Auto-Reply" greeting and 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). The VGS-1 can be used to store FleetSync® GPS AVL data*.

* Voice functions are not available when the VGS-1 is used for FleetSync GPS data storage.

EASY OPTION PORT

Kenwood's plug-in option port makes the VGS-1 option and compatible after-market board installation quick and simple.



OTHER FEATURES

- 6 PROGRAMMABLE FUNCTION KEYS EMERGENCY FEATURES
- OPERATOR-SELECTABLE TONE (CONVENTIONAL) ENCRYPTION & ANI MODULE CONTROL ■ DB-25 ACCESSORY CONNECTOR (FEMALE) ■ REMOTE CONTROL I/O'S ■ MOBILE DATA I/O PORTS ■ PROGRAMMABLE AUX I/O'S
- REAL-TIME CLOCK FOR TIME STAMPING EMBEDDED MESSAGES
- RADIO LOCK PASSWORD TIMED POWER OFF (8-HOUR) IGNITION SENSE INPUT & CABLE OPTION ■ HORN ALERT & PUBLIC ADDRESS OPTION
- FLASH MEMORY WINDOWS PC PROGRAMMING & TUNING CLONING



Catch the New Wave in Professional Mobile Communications

Kenwood's TK-7180/8180 offers a superb range of advanced features that play a key role in the latest dispatch and fleet control applications.

WIDE BAND OPERATION

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

MOBILE ELEGANCE

Kenwood employed premium industrial design concepts to make the TK-7180/8180 mobiles functionally practical, rugged and attractive whether vehicle or base station installed

512 CHANNELS /128 ZONES

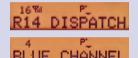
The large 512 channel / 128 zone capability* accommodates virtually any current or future capacity requirement for single or multiple site radio systems.

Maximum capacity notes*

- 128 Conventional & LTR Zones cumulative maximum per radio
- 512 Conventional Channels & Group ID's (GID's) cumulative maximum per radio
- 250 Channels maximum per any Conventional Zone
- 250 GID's maximum per any LTR Zone

12-CHARACTER DOT-MATRIX DISPLAY WITH ICONS

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/group ID numbers and icons for function/status indicators make for intuitive operation.





The built-in voice inversion scrambler provides basic protection against casual eavesdropping.

ENHANCED KENWOOD 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 especially on narrow bandwidth systems.



The TK-7180/8180 has connection ports (internal or external) for GPS receiver units with a standard NMEA-0183 data output. This enables a FleetSync-compatible AVL system to track a fleet of TK-7180/8180 mobiles.

REMOTE CONTROL HEAD OPTION

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

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



Options

KMC-35

Microphone (supplied microphone)



KMC-9C Control Station Desktop Microphone



KCT-23M3 DC Cable (Remote mount / 23 feet)



KES-5 External Speaker (requires KAP-2)



KMC-36



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

KCT-46



Horn Alert/Public Address Relay Unit

KMB-10 Key Lock Adapter



KMC-30 Microphone



Ignition Sense Cable **KCT-40** Radio Interface Cable

VGS-1 Voice Guide & Storage Unit



KLF-2 Line Noise Filter



KMC-32 Keypad Microphone



(for KDS-100, KGP-2A/2B)

KCT-23M DC Cable (Dash mount / 10 feet)

KES-3 External Speaker



DC Power Supply

KPS-15



Mobile Data Terminal All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and a complete list of all accessories and options

45 dB

 600Ω

Specifications

	TK-7180	TK-8180		
GENERAL				
Frequency Range				
Type 1	136~174 MHz			
Type 2		400~470 MHz		
Number of Channels*				
Zone	Max.128 per Radio			
Ch/GID	Max.250 per Zones			
	(Max.512 [Conv.Ch's	+GID's] total per Radio)		
Channel Spacing				
Wide	25 kHz, 30 kHz	25 kHz		
Narrow	12.5 kHz, 15 kHz	12.5 kHz		
Operating Voltage	13.6 V DC±15 %			
Current Drain				
Standby).4 A		
Receive	1.0 A			
Transmit	9.0 A			
Duty Cycle	Transm	Transmit: 20 %		
Operating Temperature Range	-22 °F ~ +140 °F (-30 °C ~ +60 °C)			
	±0.00025 % (-22 °F ~ +140 °F)			
Antenna Impedance	50	50 Ω		
Channel Frequency Spread				
Type 1	38 MHz	70 MHz		
Type 2		70 MHz		
Dimensions (W x H x D), Projection	ons not included 6-5/16" x 1-3	3/4" x 6-3/16"		
Differenciation (VV X TT X D), Trojectic	(160 mm x 45	mm x 157 mm)		
Weight (net)	3.3 lbs. (1.5 kg)			
FCC ID				
Type 1	K4437303110			
Type 2	14407000110	K4437313120		
FCC Compliance		N443731312U		
Type 1	FCC parts 22,74,90,90.210	FCC parts 22,74,90,95		
Type 1	1 00 parts 22,74,50,50.210	FCC parts 22,74,90,90.210		
IC Certification				
Type 1	282F-37303110			
Type 2	2021 07000110	282F-37313120		

	TK-7180	TK-8180	
RECEIVER (Measurements m	ade per EIA/TIA-603)		
Sensitivity (12dB SINAD)			
Wide	0.25 μV		
Narrow	0.28 µV		
Selectivity*			
Wide	80 dB	80 dB	
Narrow	70 dB	67 dB	
Intermodulation Distortion			
Wide/Narrow	75 dB (±50, 100 kHz)		
Spurious Response*	90 dB	85 dB	
Audio Output			
4 Ω impetance)	4 W with less than 5 % distortion		
TRANSMITTER (Measureme	ents made per EIA/TIA-603)		
RF Output Power	-		
Type 1	30 to 1 W	30 to 1 W	
Type 2		30 to 1 W	
Spurious Response	70 dB		
Type of Emission			
Wide	16K0F3E		
Narrow	11K0F3E		
FM Hum & Noise			
Wide	50 dB	}	

Audio Distortion Wide/Narrow * Typical specifications

Narrow

Microphone Impedance

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice. FleetSync® is a registered trademark of Kenwood Corporation. LTR® is a registered trademark of Transcrypt International.

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 Pro	tection 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.

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