OPTIONS

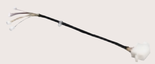
KMC-9C
Control Station Desktop Microphone

KMC-27A
Dynamic Mobile Microphone (MIL-SPEC, Noise Canceling)

KMC-27B
Dynamic Mobile Microphone (supplied)

KMC-28A
Dynamic Mobile Microphone with Keypad (MIL-SPEC, Noise Canceling)

KCT-18
Ignition Sense Cable



KCT-19
Accessories Connector Cable

KCT-31
PC Serial Interface Cable

KCT-34
Connection Cable

KCT-36
Extension Cable

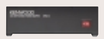
KES-3
External Speaker

KES-5
External Speaker (requires KCT-19)

KMB-2B
Mounting Case

KMB-10
Key Lock Adapter

KMB-20
Mounting Case for KPS-14/15



KPS-14
DC Power Supply (for 25W)

KPS-15
DC Power Supply (for high power)

KLF-2
Line Noise Filter

KDS-100
Mobile Data Terminal

KGP-2A
GPS Receiver Modem (for KCT-34 option)

KGP-2B
GPS Controller Modem (for KCT-34 option)

KAP-1
PA/HA Unit

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-780	TK-780H	TK-880	TK-880H
GENERAL				
Frequency range Type 1	146 ~ 174 MHz		450 ~ 490 MHz	
Type 2	136 ~ 162 MHz		485 ~ 512 MHz	
Type 3			400 ~ 430 MHz	
Systems (Trunked mode)	Max. 32			
Groups (Trunked mode)	Max. 250			
Channels Trunked	Max. 600			
Conventional	Max. 250			
Channel spacing Wide	25, 30 kHz		25 kHz	
Narrow	12.5, 15 kHz		12.5 kHz	
PLL step	1.25, 2.5, 5, 6.25, 7.5 kHz	2.5, 5, 6.25, 7.5 kHz	5, 6.25 kHz	
Operating voltage	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	12.0 A	8.0 A	12.0 A
Duty cycle	Transmit: 20 %			
Operating temperature range	-22° F ~ +140° F (-30° C ~ +60° C)			
Frequency stability	±0.00025% (-22° F ~ +140° F)			
Antenna impedance	50 Ω			
Channel frequency spread Type 1	28 MHz		40 MHz	
Type 2	26 MHz		27 MHz	
Type 3			30 MHz	
Dimensions (W x H x D)	5-1/2 x 5-3/4 x 1-1/2 in. (140 x 145 x 40 mm)	5-1/2 x 6-3/4 x 1-1/2 in. (140 x 173 x 40 mm)	5-1/2 x 5-3/4 x 1-1/2 in. (140 x 145 x 40 mm)	5-1/2 x 6-3/4 x 1-1/2 in. (140 x 173 x 40 mm)
Weight (net)	2.07 lbs. (940 g)	2.42 lbs. (1.1 kg)	2.07 lbs. (940 g)	2.42 lbs. (1.1 kg)
FCC ID Type 1	ALH24583110	ALH24583210	ALH24593110	ALH24593210
Type 2	ALH24583120	ALH24583220	ALH24593120	ALH24593220
Type 3			ALH24593130	ALH24593230

	TK-780	TK-780H	TK-880	TK-880H
FCC compliance Type 1	FCC parts 22, 74, 90, 90.210	FCC parts 22, 74, 80, 90, 90.210	FCC parts 22, 74, 90, 95	FCC parts 22, 74, 90, 90.210, 95
Type 2	FCC parts 22, 74, 90, 90.210	FCC parts 22, 74,80, 90,	FCC parts 22, 74, 90, 90.210	FCC parts 22, 74, 90, 90.210
Type 3			FCC parts 90, 90.210	FCC parts 90, 90.210
IC certification Type 1	282195512A	282195560A	282195511A	282195559A
Type 2	282195531A	282195588A		
Type 3			282195521A	282195587A
RECEIVER (Measurements made per EIA/TIA-204-D)				
Sensitivity (12 dB SINAD)	0.25 µV			
Selectivity* Wide	80 dB		80 dB	
Narrow	70 dB		67 dB	
Intermodulation distortion Wide	75 dB			
Narrow	65 dB			
Spurious response*	90 dB		85 dB	
Audio output	4 W with less than 5% distortion			
TRANSMITTER (Measurements made per EIA-152-C)				
RF power output	25 W	45 W	25 W	40 W
Spurious response	70 dB	70 dB	70 dB	65 dB
Modulation Wide	16KØF3E			
Narrow	11KØF3E			
FM noise Wide	50 dB			
Narrow	45 dB			
Audio distortion Wide	Less than 3%			
Narrow	Less than 5%			
Microphone impedance	600 Ω			

** Typical specifications*

Kenwood reserves the right to change specifications and features without prior notice.
FleetSync® is a registered 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	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 (Sunshine)	505.1 /Procedure I	505.2 /Procedure I	505.3 /Procedure I	505.4 /Procedure I
Humidity	507.1 /Procedure I, II	507.2 /Procedure II, III	507.3 /Procedure II, III	507.4 /Procedure I
Sand & 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

KENWOOD CORPORATION
2967-3, Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan
KENWOOD U.S.A. CORPORATION
Communications Sector Headquarters
3975 Johns Creek Court, Suwanee, GA 30024-1265
Order Administration/Distribution
P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745
KENWOOD ELECTRONICS CANADA INC.
Canadian Headquarters and Distribution
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

ISO 9001 JQA-QMA1205 001-A
ISO9001 Registered
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

ADS#101204(0) Printed in USA

KENWOOD

TK-780(H)/880(H) Version 2.0 FleetSync®

VHF/UHF FM Mobile Radios

- TRUNKED OR CONVENTIONAL MODES
- 32 SYSTEMS/250 GROUPS (TRUNKED MODE)
- MAX. 600 CHANNELS (TRUNKED MODE)
- MAX. 250 CHANNELS CAPACITY (CONVENTIONAL MODE)
- MIL-STD 810 C/D/E
- DIE-CAST CHASSIS
- HIGH-OUTPUT SPEAKER
- MULTIPLE SCAN FUNCTIONS
- 12 CHARACTER DOT MATRIX LCD
- 10 CHARACTER ALPHANUMERIC ALIAS
- TELEPHONE DIALING FEATURES
- CODED SQUELCH (QT/DQT)
- SECURITY FEATURES
- FLASH MEMORY ADVANTAGE
- FleetSync® ALPHANUMERIC TWO-WAY PAGING
- DATA-READY CONNECTION PORT

TK-780(H)/880(H)—Multi-Mode without compromise...

The changing telecommunications landscape mandates products and services that can fill both your current needs and grow with the challenges of tomorrow.The Kenwood TK-780(H)/880(H) Multi-Mode wireless mobile units operate on multiple systems types: conventional, trunking, wide or narrow bandwidth with built-in FleetSync® alphanumeric two-way paging. Compromise is not a part of your plans and Kenwood's TK-780(H)/880(H) mobiles are ready to answer any need. The nimble software driven modes, features sets and state-of-the-art technology have been crafted into a tough compact package that meets military environmental specifications.

DIE-CAST CHASSIS

The lightweight aluminum die-cast chassis contributes to the TK-780(H)/880(H) units' exceptional strength while providing natural transmit heat dissipation. Inter-locking metal covers and seals lockout moisture and dust.

HIGH-QUALITY AUDIO OUTPUT

The TK-780(H)/880(H) is equipped with an extra-large 2.25-inch speaker element and delivers four watts of audio power for robust clarity in noisy crowds and industrial environments.

DOT MATRIX LCD DISPLAY

The high-resolution dot matrix liquid crystal display furnishes the user with a simple easy-to-read interface and is recessed for protection. The main display line has ten alphanumeric characters for system/group/channel name aliases and two characters for operational/status indications. A three-character subline can be programmed for channel or group number. The seven icons provide easy-to-remember feature and status indications in all modes of operation.

FLASH MEMORY ADVANTAGE

Flash memory permits updates, advanced feature sets and system architectural changes to be made electronically without ever opening the unit. This means fast changes for the system operator and less down-time for users.

PROGRAMMABLE FUNCTION KEYS (PF KEYS)

Each key is programmable for virtually any radio feature allowing the unit to be customized to fit user needs. Simple feature sets meet basic needs and reduce training time. Sophisticated feature sets are available for special applications and supervisory personnel.

TK-780(H)/880(H)
VHF/UHF FM Mobile Radios

VERSATILITY

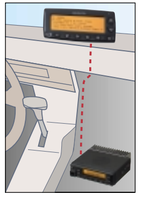
TRUNKED AND CONVENTIONAL MODES

The Kenwood TK-780(H)/880(H) Conventional Mode offers traditional two-way conventional repeater and simplex operations with priority channel scanning. The Trunked Mode allows operation on both conventional and LTR® trunking systems in one unit.

LTR is a registered trademark of Transcrypt, International.

LARGE CHANNEL CAPACITY

In Trunked Mode, the 600-channel capacity can handle all your trunked system requirements now and in the future should the network expand. Each programmed system can be either set for either conventional or trunked operation. The unit dynamically allocates the 32 system and 250-group memory capacity as system parameters are programmed. In Conventional Mode, the 250-channel capacity provides more than enough room for company-wide, departmental, divisional requirement plus room for auxiliary or special use channels.



DATA-READY CONNECTION PORT

The TK-780(H)/880(H) mobiles have a data connection port for external mobile data terminals, PC-modems (requires KCT-19 option), or AVL units.

FleetSync® by KENWOOD

FleetSync® ADVANTAGE

FleetSync® DIGITAL MESSAGING & SIGNALING "BASIC"

The FleetSync® "Basic" feature set is included in each radio providing a cost-effective fleet unit identification, selective calling and messaging system for dispatch operations[1]. Each radio can have an ID comprised of a Fleet and Unit number which is used for all FleetSync® signaling and data messaging (250 fleets/4000 units per fleet), allowing large fleets or multiple fleets to share the same radio system(s).

- **PTT ID** is a digital ANI (Automatic Number Identifier), which can be sent on each PTT using the FleetSync® ID. An associated alphanumeric user name can be displayed on an 80-Series base mobile LCD (Caller ID* enabled), a base station decoder unit or dispatch software. Personnel are clearly identified during mission critical tasks so the dispatcher/supervisor can immediately identify who is talking for efficient fleet management and call processing.
- **Caller ID*** decodes an incoming PTT ID and uses the pre-stored ID List with alphanumeric name tags to identify the caller in the radio's LCD. This is available for fleet portables and mobiles as well as base stations.
- **Caller ID Stack*** stores (in volatile memory) the three most recently received PTT IDs for recall and review, allowing a user to check for missed voice calls.
- **Extended ID List Capacity (100*)** allows a base station radio to select up to 100 target fleet radios by nametag to send FleetSync® Selective Calls and Status Messages. Fleet radios can display up to 100 caller names upon decoding PTT ID's, (Caller ID enabled), Selective Calls, Status and Text Messages.
- **Extended Status Message List (50*)** provides up to 50 pre-stored sixteen-character alphanumeric messages permitting a base to send a larger variety of job task messages. Fleet radios can display and respond accordingly with complimentary acknowledgements. Also, special reserved Emergency, Emergency Man-down*, Emergency Mode Off *, Horn Alert (mobiles)* and Radio Stun/Acknowledge/Resurrect statuses are provided.

[1] *FleetSync® "Basic" dispatch features are available using just 80-Series mobile/portable fleet radios and an 80-Series mobile base/control station. More advanced FleetSync® dispatch systems may require the FleetSync® Enhanced option and FleetSync®-compatible peripherals and/or software.*

FleetSync® DIGITAL MESSAGING & SIGNALING "ENHANCED OPTION"

The FleetSync® Enhanced option extends the FleetSync® Basic feature set to include custom Short Text Messaging, Long Text Messaging (mobiles) and 80-Series PC Serial Interface (mobiles) capability.

- **Short Text Messaging** permits fleet radios to receive, store, review and display up to four 48-character text messages (requires compatible base dispatch software)[2]. Fleets can be sent detailed custom text messages, thereby increasing fleet efficiency and productivity even while unattended.
- **Long Text Messaging** enables 1024-character text messages to be sent for advanced dispatch calls and job tasking requirements, giving companion 80-Series fleet mobiles extended data messaging capabilities (requires a compatible mobile data device and dispatch software).
- **PC Serial Interface** enables serial communications between an 80-Series mobile radio and a FleetSync® compatible peripheral device or computer application for an advanced FleetSync® communications system.

[2] *Short Text Messaging (both portables and mobiles) requires the base station mobile to be interfaced with a computer running FleetSync®-compatible dispatch software.*

PERFORMANCE

COMPACT VERSATILE MOUNTING

The TK-780(H)/880(H) lightweight and compact size facilitates easy mounting even in the tight or awkward positions of today's vehicles. The front panel can be inverted for correct viewing while leaving the built-in speaker facing away from the mounting surface.

COMPANDED AUDIO

The compandor noise-reduction feature enhances audio clarity on narrow bandwidth systems and is programmable per channel. Voice intelligence components are amplified and compressed at the transmit end then re-expanded on the receive end to reproduce the original audio signal.

STRENGTH & DURABILITY

MULTIPLE SCANNING FUNCTIONS

System scan and group scan permit monitoring multiple systems and talk groups for calls. Priority scanning is available within programmed conventional systems. Talk Back scan permit users to respond immediately to calls ragardless of the pre-programmed or selected scan revert channels. Scan lists can be altered with the Add/Delete features.

DTMF SIGNALING & DIALING FEATURES

DTMF PTT ID provides a built-in ANI for business and industrial applications (operates with KMC-27A/B or optional KMC-28A keypad microphone)*. The optional KMC-28A keypad microphone adds manual DTMF for selective calling, system access, remote control applications and access to automatic dialing features such as the auto-dial memory for telephone interconnect and/or integrated Radio-PABX systems.

**DTMF PTT ID is available in Conventional or Trunked Systems; DTMF PTT ID does not have an emergency ANI feature nor does it operate in conjunction with any of the emergency key or emergency calling features.*

PUBLIC ADDRESS & HORN ALERT

Public Address (PA) and Horn Alert (HA) capability is available with the optional KAP-1 unit. The PA functions outputs mic audio through the radios external speaker or can feed a more powerful external public address amplifier. The Horn Alert output can be used to trigger a vehicle horn/light when a valid DTMF or Two-tone selective call is received.

SECURITY

ENCRYPTION CONTROL

Encryption control provides secure voice communications for law enforcement or private security. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types. The radio's programming also provides both automatic and manual control for clear and coded modes.

DIGITAL ANI AND EMERGENCY CONTROL

Unique ID and emergency ANI operations can be added with optional modules. The recessed orange key is specifically designed for emergency ANI triggering.

PASSWORD-PROTECTED PROGRAMMING AND CLONING

Cloning enables duplicating of radios in the field via a simple interface cable without the use of a PC or special test jigs. For users who do not require cloning capability, a secure password can be programmed to prevent cloning of a lost or stolen portable. Additionally, all radios can have the programming password(s) protected to prevent unauthorized program information extraction and duplication.

RADIO LOCK PASSWORD

Preventing unauthorized use of stolen radios, this feature requires an access code to be entered every time the radio is powered up. This password — with a maximum of six digits — can be easily field programmed or modified by an authorized user (requires optional KMC-28A keypad microphone).

EMBEDDED MESSAGE

The radio's flash memory can store an electronic message containing owner identification, property I.D. numbers, user and department names, service records, etc. A radio can be electronically identified even if external labels markings or factory serial numbers have been removed.

OTHER FEATURES

▮ BUILT-IN QT, DQT ▮ DTMF AND 2-TONE (CONVENTIONAL MODE ONLY)
▮ BUSY CHANNEL LOCKOUT ▮ TIME OUT TIMER ▮ MINIMUM VOLUME
▮ MIL-STD 810C/D/E ENVIRONMENTAL TESTS

Features or specifications marked with an asterisk (*) are only available in version 2.0 or later radio products. Contact Kenwood for details.