KENWOOD

TK-780(H)/880(H)

- ■ 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 w

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.

Versatility is the Big Difference

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.

FleetSync™ ALPHANUMERIC TWO-WAY PAGING
Kenwood takes voice communications and adds a new dimension with FleetSync™ Alphanumeric Two-Way Messaging which provides the built-in capability to send and receive both pre-stored status messages and custom alphanumeric text messages. Much like an alphanumeric pager, athe received pages are stored in memory so they can be reviewed.

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.

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.

FLASH MEMORY ADVANTAGE
Flash memory permits updates, advanced feature sets and system architectural changes cab to be made electronically without ever opening the unit. This means fast changes for the system operator and less downtime for users.
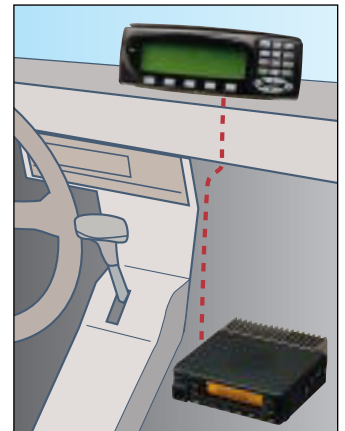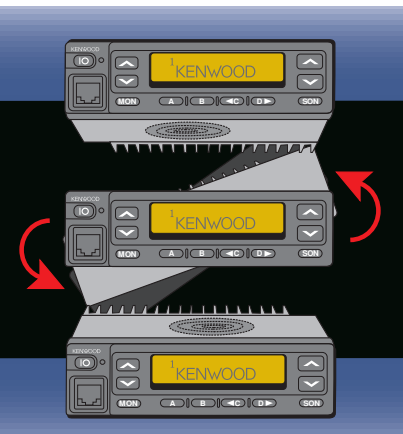
ithout compromise…

PERFORMANCE

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.

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.

WIDE/NARROW CHANNEL BANDWIDTH
The TK-780(H)/880(H) can be programmed for wide or narrow bandwidth operation per channel to accommodate all channel allocations now and in the future.

STRENGTH & DURABILITY

MIL-STD 810C/D/E ENVIRONMENTAL TESTS
In addition to Kenwood's own technical and industrial standards, the TK-780(H)/880(H) meets or exceeds a full range of tough U.S. Department of Defense MIL-STD 810 C, D & E environmental standards in categories.

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.

INTUITIVE USER INTERFACE

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 sub-line can be programmed for channel or group number. The seven icons provide easy-to-remember feature and status indications in all modes of operation.

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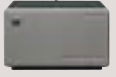
EMBEDDED MESSAGE
The radio's flash memory can store an electronic message containing owner identification, property I.D. numbers, user and department names, service records, etc. A radio can be electronically identified even if external labels markings or factory serial numbers have been removed.

OTHER FEATURES
■ BUILT-IN QT, DQT ■ DTMF AND 2-TONE (CONVENTIONAL MODE ONLY)
■ BUSY CHANNEL LOCKOUT ■ TIME OUT TIMER ■ MINIMUM VOLUME

Options

KMC-9C
Control Station
Desktop Microphone

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

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

KMC-27B
Dynamic Mobile
Microphone (supplied)

KCT-18
Ignition Sense Cable

KCT-19
Accessories
Connector Cable

KES-3
External Speaker

KES-4
External Speaker
(requires KCT-19)

KSP-1A
External Speaker
(requires KCT-19)

KMB-2B
Mounting Case

KMB-10
Key Lock Adapter

KPS-10A
DC Power Supply

KLF-2
Line Noise Filter

KAP-1
PA/HA Unit

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

Specifications

GENERAL		TK-780	TK-780H	TK-880	TK-880H
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
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	FCC parts 22,74,80, 90, 90.210	FCC parts 22, 74, 90, 90.210	FCC parts 22, 74, 90, 90.210
	Type 3			FCC part 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)		TK-780	TK-780H	TK-880	TK-880H
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 W	70 W	65 W
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.

These devices have not been approved by the Federal Communications Commission. These devices are not, and may not be, offered for sale or lease, or sold or leased until the approval of the FCC has been obtained.

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