

KENWOOD

MPT Trunked Mobile Radios

TK-785/885



The microphone is sold separately.

- MAX. 32 CHANNELS
- FULL MPT1327/1343 COMPATIBILITY
- MULTI-NETWORK CAPABILITY
- COMPANDOR
- QT/DT ENCODE & DECODE
- DTMF ENCODE
- TX POWER SELECT
- PROGRAMMABLE FUNCTION KEYS
- LARGE DOT MATRIX LCD

- DATA ACCESS INTERFACE
- FLASH MEMORY
- DIE-CAST CHASSIS
- COMPACT, VERSATILE MOUNTING
- MIL-STD 810 C/D/E
- PUBLIC ADDRESS & HORN ALERT
- RADIO LOCK PASSWORD
- ENCRYPTION CONTROL
- PASSWORD-PROTECTED PROGRAMMING

TK-785/885 — Your Pri

Open architecture is the key to cost-effective trunking — with all the benefits that brings over conventional radios and repeaters. And for truly competitive MPT1327/1343 performance, look to Kenwood's TK-785/885. With its multi-network capability, high-quality audio, and PC programming/tuning, this trunked mobile radio is ready for any challenge.



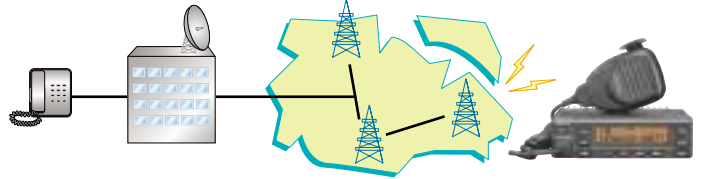
Versatility is the Big Difference

FULL MPT1327/1343 COMPATIBILITY

The TK-785/885 offers full MPT1327/1343 compatibility, ensuring accurate operation on the trunked network. The dialling plan is supported by industry-standard MPT1343.

MULTI-NETWORK CAPABILITY

One radio can be used on up to 8 networks. The independent network profile is able to include either an independent user or radio data. Different channel plans are also available, making this a multi-personality radio that can be used by several people.

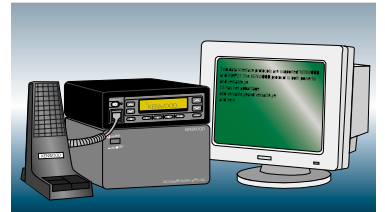


VARIOUS HUNT OPTIONS

For acquiring control channels, various hunt options — defined by MPT1343 — are supported: Comprehensive Hunt, Preferential NDD Hunt, Background Hunt, and Vote Now Advice. These options ensure clear voice operation everywhere.

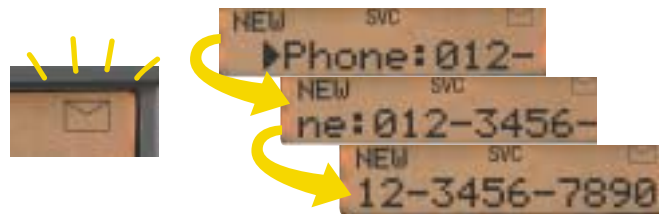
DATA ACCESS INTERFACE

For more power and versatility, Kenwood data interface protocol is supported to make it simple to create dispatch control software.



CALLED-IN-ABSENCE STACK

Calls that are received while you are absent or busy can be recorded in stack memory for later recall. The radio allocates this memory dynamically, meaning that voice calls, status calls, short data message calls and long message calls can all be stacked together as long as there is memory available. The maximum size of the stack is 1024 characters — enough for, say, 10 short data messages of 100 characters each.



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CALL FACILITIES

- ◆ Individual Call
- ◆ Conference (Group) Call
- ◆ Broadcast Call
- ◆ Inter-fleet/Inter-prefix Call
- ◆ PABX Call
- ◆ PSTN Call
- ◆ Priority Call
- ◆ Emergency Call
- ◆ Status Message Call
- ◆ Short Data Message Call (SST/MST)*
- ◆ Non-prescribed Data Transfer
- ◆ Call Diversion
- ◆ Don't Disturb Facility
- ◆ Queue Incoming Call

CONVENTIONAL FACILITIES

- ◆ Maximum of 32 channels
- ◆ QT/DQT encode and decode
- ◆ DTMF encode**
- ◆ Time-Out Timer
- ◆ Name Tag
- ◆ Busy Channel Lockout
- ◆ Compandor
- ◆ TX Power Select

* PC or other external equipment required

** Requires optional keypad microphone

LARGE DOT MATRIX LCD

A "12 + 3" character LCD display provides clear legibility under all lighting conditions, from bright sunshine to total darkness (with the backlight on). The main display line has room for 12 alphanumeric characters to indicate the call address tag or call process status. A 3-character sub-line shows RSSI (5-level signal strength bar), which facilitates comfortable conversation. The LCD can also display European characters.



PROGRAMMABLE FUNCTION KEYS

These can be programmed for virtually any radio function, allowing the unit to be customised to fit user needs. Of course programming for just the simpler functions results in an extremely user-friendly radio that answers all the basic requirements of a transceiver.

FLASH MEMORY

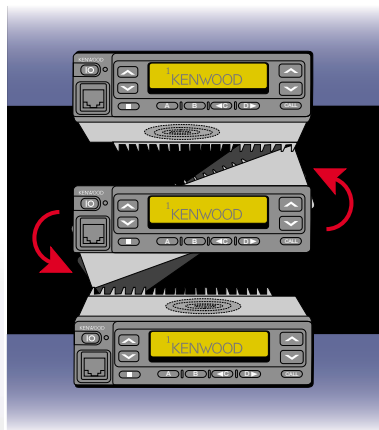
Flash memory permits updates, advanced feature sets and system architectural changes to be made electronically without ever opening the unit. This results in simplicity for the system operator and reduced downtime for users.

HIGH-QUALITY AUDIO OUTPUT

The TK-785/885 is equipped with an extra-large 57mm speaker element and produces 4W of audio power for robust clarity in noisy crowds and industrial environments.

COMPACT, VERSATILE MOUNTING

The lightweight and compact design facilitates easy mounting even in tight or awkward locations. The front panel can be inverted for correct viewing while leaving the built-in speaker facing away from the mounting surface.



COMPANDED AUDIO

The built-in compandor uses compression technology to enhance audio clarity by reducing noise. It can be switched on for voice communications on the trunk channel, or set for individual channels when communicating in conventional mode.

MIL-STD 810 C/D/E ENVIRONMENTAL TESTS

The TK-785/885 meets or exceeds the tough U.S. Department of Defense MIL-STD 810 C, D & E environmental standards in categories such as vibration, shock and dust.

DIE-CAST CHASSIS

The aluminium die-cast chassis contributes to the radio's exceptional strength while providing natural heat dissipation. Interlocking metal covers and seals shut out moisture and dust.

PUBLIC ADDRESS & HORN ALERT

Both Public Address (PA) and Horn Alert (HA) are available with the optional KAP-1 unit. The former outputs mic audio through the radio's external speaker or feeds a more powerful external PA amplifier. Horn Alert can be used to trigger a vehicle's horn and/or lights when an individual call is received in trunking mode.

PC PROGRAMMING AND TUNING

Radio parameter programming and tuning can be accomplished using a PC — without ever having to open the radio — thus saving both time and expense. The connection is made via the modular jack on the front of the radio. (Software and cable option required.)

ENCRYPTION CONTROL

Encryption control provides secure voice communications on the traffic channel for law enforcement or private security. An internal port permits the addition of optional modules to provide high-level encryption voice scrambling.

PASSWORD-PROTECTED PROGRAMMING

All radios can have the programming password(s) protected to prevent unauthorised program information extraction and duplication.

RADIO LOCK PASSWORD

As a means of preventing unauthorised use of lost or stolen mobiles, this feature requires an access code to be entered every time the radio is powered up. This password — with a maximum of 6 digits — can be easily field-programmed or modified by an authorised user.

EMBEDDED MESSAGE

The radio's flash memory can store an electronic message (of up to 64 characters) containing owner identification, property ID numbers, user and department names, service records, etc. A radio can thus be electronically identified even if external labels, markings and factory serial numbers have been removed.

OTHERS

- Maximum of 32 Group Addresses
- 99 Call Address Table supports MPT1343 dialling format
- Full Off-Air Call Set Up
- Selectable Display Language: English, Spanish or Portuguese
- Minimum Volume
- Power-On Status
- Redial (last 3 called)
- Timed Power-Off
- Power-On Text

Options

KMC-27A Microphone (MIL-SPEC, Noise Cancelling)		KMC-9C Base Microphone		KES-4 External Speaker (requires KCT-19)		KMB-10 Key Lock Adapter	
KMC-27B Microphone (MIL-SPEC)		KCT-18 Ignition Sense Cable		KSP-1A External Speaker (requires KCT-19)		KPS-10A DC Power Supply	
KMC-28A Keypad Microphone (with 12 keypad, MIL-SPEC, Noise Cancelling)		KCT-19 Accessories Connection Cable		KMB-2B Mounting Case		KLF-2 Line Filter	
KMC-30 Mobile Microphone		KES-3 External Speaker		KMB-8 Mounting Bracket		KAP-1 PA/HA Unit	
KMC-32 Keypad Microphone							

*Not all accessories may be available, please contact dealers for details.

Specifications

	TK-785	TK-885
GENERAL		
Frequency range		
Type 1: RX	217 – 235 MHz	450 – 470 MHz
TX	218 – 235 MHz	450 – 470 MHz
Type 2: RX	250 – 270 MHz	
TX	250 – 270 MHz	
Channels	Max. 32 (conventional)	Max. 32 (conventional)
Channel spacing	12.5 kHz	12.5 kHz
PLL channel stepping	6.25/12.5 kHz	6.25/12.5 kHz
Operating voltage	13.6 VDC ±15 %	13.6 VDC
Current Drain		
Standby	0.4 A	0.4 A
Receive	1.0 A	1.0 A
Transmit	8.0 A	8.0 A
Operating temperature range	-30° C ~ +60° C	-30° C ~ +60° C
Frequency stability (-30° C ~ +60° C)	±2.5 ppm	±2.5 ppm
Dimensions (W x H x D)	140 x 40 x 145 mm	140 x 40 x 145 mm
Weight (net)	940 g	940 g

	TK-785	TK-885
RECEIVER (Measurements made per ETS standard)		
Antenna impedance	50 Ω	50 Ω
Sensitivity (EIA) / 12 dB SINAD	0.28 μV	0.35 μV
Adjacent channel selectivity	73 dB	67 dB
Intermodulation	70 dB	70 dB
Spurious & image rejection	80 dB	80 dB
Audio output (at 4Ω)	4 W with less than 10 % distortion	4 W with less than 10 % distortion
Channel frequency spread		
Type 1	18 MHz	20 MHz
Type 2	20 MHz	
TRANSMITTER (Measurements made per ETS standard)		
Antenna impedance	50 Ω	50 Ω
RF power output:	25 W	25 W
Modulation limiting	±2.5 kHz at 12.5 kHz	±2.5 kHz at 12.5 kHz
Spurious & harmonics	-36 dBm ≤1GHz -30 dBm >1GHz	-36 dBm ≤1GHz -30 dBm >1GHz
FM hum & noise (EIA)	40 dB	40 dB
Modulation distortion	Less than 3 % at 1 kHz	Less than 3 % at 1 kHz
Microphone impedance	600 Ω	600 Ω
Channel frequency spread		
Type 1	17 MHz	20 MHz
Type 2	20 MHz	

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.

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



JQA-1205 ISO 9001
 Communications Equipment Division
 Kenwood Corporation
 ISO9001 certification

KENWOOD CORPORATION

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