

# KENWOOD

Compact Synthesized FM Mobile Radios

## TK-760(H)/860(H)



- Wide/narrow channel bandwidth switching (multi-mode) for existing needs and future compatibility
- 32-channel capability
- Mobile data-ready port for MDT/modem applications
- Installation-ready design
- Compact, lightweight and rugged (MIL-STD 810 C/D/E)
- Large backlit LCD display
- Built-in QT, DQT and two-tone signaling
- DTMF encode and decode options
- Public address function (option)

# Always On-call

**F**or mobile communications with maximum performance and operating convenience in an ultra-compact package, look to Kenwood's new TK-760(H)/860(H) synthesized dash-mount radios.



## User Features

**Synthesized channel frequency generation** provides up to 32 semi-duplex channels for any application, from the simplest to the most sophisticated.

**Wide/narrow channel bandwidth switching** (25 kHz/12.5 kHz) is software controlled and programmed independently for each channel. This approach gives you compatibility with both existing wide band systems and emerging narrow band assignments.

**Wideband design** provides coverage across the most common VHF & UHF bands. **VHF:** 148 ~ 174 MHz and 136 ~ 156 MHz. **UHF:** 450 MHz ~ 476 MHz, 470 MHz ~ 496 MHz, 488 MHz ~ 512 MHz, and 406 MHz ~ 430 MHz.

**Advanced design RF power modules** provide an economic choice between low and high power models, as needs require. Power output is: TK-760H:45 W, TK-760:25 W, TK-860H:35 W, TK-860:25 W. Also, the TK-860 is low power applications-compatible thanks to its very low 2-watt output setting.

**Priority scan** allows users to monitor multiple channels for calls and if need be, prioritize a main channel. Other features such as programmable reverts, delete/add, and off-hook scan allow the radio to be customized for both simple and sophisticated users.

**"Mobile data-ready"** are the watchwords for today's competitive business world and complex governmental requirements. The TK-760/860 mobiles have a connection port specifically designed for system integrators who need to provide voice and/or data communications using PC/modems, MDTs and digital messaging equipment.

**A large, easy-to-read LCD display** renders clear legibility under any lighting conditions. Channel and operational status information are shown using large, easy-to-understand indicators.



**"Installation-ready" ultra-compact and lightweight design.** Today's vehicles are limited in space and mounting surface which makes the 5.5-inch width and the mere 2.2 lbs weight an installer's dream. Each mobile package includes an adjustable mounting bracket and a durable compact microphone that doesn't require a ground connection, making installation fast and easy. Also, the internal speaker's position can be changed 180 degrees by inverting the front panel.



**Die-cast chassis/heatsink and rugged design** that meets tough MIL-STD 810 C, D & E specifications for shock, vibration and dust means that you will have reliable performance and sustained return on your investment for many years.

**The rugged, easy-to-use microphone** has been newly designed with a telephone-style connector and heavy-duty cable to protect against failure.

### Other User Features

- **Horn Alert**
- **Voice scrambler control (on/off & code selection)**
- **User-selectable tone**
- **Ignition sense function with optional KCT-18 or KCT-19**

### Technology Features

**The high-performance transceiver design** means the TK-760(H)/860(H) are equally suited to urban, suburban and rural environments.

**Built-in QT and DQT squelch** segregates talk groups so users only hear traffic from other co-channel users in their own group. This reduces user misunderstandings and confusion.

**The built-in two-tone decoder** is assignable to any channel. An incoming page/message is signaled visually with a call indicator and audibly with an alert tone, and can be followed up by a voice message.

**The user-selectable tone** function allows operators to temporarily re-program the radio's signal tone; this permits communication with talk groups outside of their own.

**DTMF decode** is also available creating a simple, inexpensive "selective call" paging for fleets of any size (10 digit codes, millions of combinations). It can be used to privately call individual mobiles within a fleet and also provide an alert output to trigger a vehicle horn, headlights, or strobe bar (option).

**Voice encryption-ready:** whether protecting sensitive information or eliminating dispatch "pirates", electronic eavesdropping can be made virtually impossible by using many of the encryption or voice scrambler devices available. The TK-760/860 series mobiles have connection provisions specifically made to accommodate any of these devices.

**Programmable time-out timer** cuts off transmissions beyond an adjustable limit preventing accidental keyups and overlong communications.

**Busy channel lock-out** prevents users from transmitting on channels already in use.

**Programmable/assignable keys** provide one-touch control over radio functions such as the **home channel** function. All are customizable by your technician.

**A high-quality speaker** with 4-watt amplifier delivers loud, clear audio output.

The **rotatable front panel** is design-engineered to the operator's ergonomic requirements, providing the optimum in safety and operating ease. Volume and channel controls are up/down switches instead of traditional knobs, and the large LCD display is easily viewed from any angle.

**Public address capability** is available with the plug-in KAP-1 PA switching option. This furnishes a simple PA audio output for internal vehicular use (school buses, airport shuttles, tour buses, etc.) or external horn speakers.

**Wired cloning function** (requires optional interface cable)

## Kenwood Radios Mean Business.

### OPTIONS



**KMC-23**  
Hand Microphone



**KAP-1**  
PA/HA Unit



**KES-3**  
External Speaker



**KMC-9**  
Control Station Desktop  
Microphone



**KLF-2**  
Line Noise Filter



**KPS-10A**  
DC Power Supply



**KCT-18**  
Ignition Sense Cable



**KCT-19**  
Accessories Connection  
Cable



**KMB-2B**  
Mounting Case

# Specifications

	TK-760/760H	TK-860/860H
<b>GENERAL</b>		
Frequency range	Type 1: 148 ~ 174 MHz Type 2: 136 ~ 156 MHz* <i>*TK-760 only</i>	Type 1: 450 ~ 476 MHz Type 2: 470 ~ 496 MHz
Number of channels	32 semi-duplex channels	32 semi-duplex channels
Channel spacing	30/25/15/12.5 kHz (PLL channel step 5/6.25 kHz)	25/12.5 kHz (PLL channel step 5/6.25 kHz)
Input voltage	13.6 V DC negative ground	13.6 V DC negative ground
Current drain		
Standby	0.4 A	0.4 A
Receive	1.0 A	1.0 A
Transmit (standard)	8.0 A	8.0 A
Transmit (H-model)	12.0 A	10.0 A
Duty cycle	RX: 100%; TX: 20%	RX: 100%; TX: 20%
Operating temperature range	-30° C ~ +60° C	-30° C ~ +60° C
Dimensions (W x H x D)	140 x 40 x 170 mm	140 x 40 x 170 mm
Weight (net)	1.0 kg	1.0 kg
FCC ID		
Type 1:	ALHTK-760-1 (TK-760) ALHTK-760H-1 (TK-760H)	ALHTK-860-1 (TK-860) ALHTK-860H-1 (TK-860H)
Type 2:	ALHTK-760-2 (TK-760)	ALHTK-860-2 (TK-860) ALHTK-860H-2 (TK-860H)
Applicable environmental EIA/TIA standard	Shock, vibration, high humidity	Shock, vibration, high humidity

	TK-760/760H	TK-860/860H
<b>RECEIVER (Measurements made per EIA/TIA-204D)</b>		
RF input impedance	50 Ω	50 Ω
Sensitivity (12 dB SINAD)	0.25 μV/wide 0.33 μV/narrow	0.28 μV/wide 0.35 μV/narrow
Selectivity	78 dB/wide 68 dB/narrow	75 dB/wide 65 dB/narrow
Intermodulation	73 dB/wide 63 dB/narrow	70 dB/wide 63 dB/narrow
Spurious & image rejection	80 dB	75 dB (except 1/2 IF)
Audio output	4 W at 4 Ω, with less than 5% distortion	4 W at 4 Ω, with less than 5% distortion
Frequency stability	±0.0003%	±0.0003%
Channel frequency spread	26/20 MHz	26 MHz
<b>TRANSMITTER (Measurements made per EIA-152C)</b>		
RF power output		
Standard	25 W	25 W
H-model	45 W	35 W
Modulation	F3E, ±5 kHz/±2.5 kHz for 100% at 1000 Hz	F3E, ±5 kHz/±2.5 kHz for 100% at 1000 Hz
Spurious & harmonics	70 dB	70 dB (H-model: 65 dB)
FM noise	50 dB (wide) 43 dB (narrow)	48 dB (wide) 42 dB (narrow)
Microphone impedance	low	low
Audio distortion	3% at 1 kHz	3% at 1 kHz
Frequency stability	±0.0003%	±0.0003%
Channel frequency spread	26/20 MHz	26 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, III, V	516.3/Procedure I, III, IV, V, VI	516.4/Procedure I, III, IV, V, VI



ISO9001 FM34304 JQA-1205  
Communications Equipment Division  
Kenwood Corporation  
ISO9001 certification

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