

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

For 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.

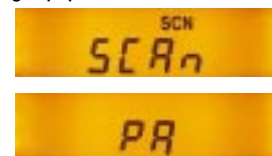
Wideband design provides coverage across the most common VHF & UHF bands. **VHF:** 148 ~ 174 MHz and 136 ~ 156 MHz. **UHF:** 450 MHz ~ 476 MHz, 470 MHz ~ 496 MHz, 488 MHz ~ 512 MHz, and 406 MHz ~ 430 MHz.

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 |
|---|--|--|
| GENERAL | | |
| 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 |
|--|--|--|
| RECEIVER (Measurements made per EIA/TIA-204D) | | |
| 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 |
| TRANSMITTER (Measurements made per EIA-152C) | | |
| 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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