

# KENWOOD

Listen to the Future

## TK-7360E | TK-8360E

VHF FM Mobile Transceiver

UHF FM Mobile Transceiver

We are pleased to send you the product information on our **newest PMR** Mobile Transceivers, the **TK-7360E** and **TK-8360E**. These new PMR Mobile Transceivers are the successors of the TK-7160E and TK-8160E.



## 1. MAIN FEATURES

### 128 Channels or 128 Zones Total Capacity

The 128 channel or 128 zone capacity provides room for virtually any current or future requirement for single- or multi-site analogue radio systems.

### UHF Wide Band Coverage

These new mobile transceivers offer wide frequency coverage, 70MHz for UHF, making them ideal for a wide range of customers.

### Variety of Signalling

#### • QT | DQT

The Encoder | Decoder function uses QT/DQT to segregate talk groups, so users only hear calls from their own group. DTMF PTT ID is included for dispatch operations or for a simple remote control application.

#### • 5-tone Signalling

Built-in 5-tone encoder | decoder provides 6-different formats, ZVEI, ZVEI2, CCIR, EIA, EEA and the Kenwood format.

It is also possible to set not only 5-tone but also 6-tone, 7-tone, 8-tone, 2-frames 5-tone and the 3-frames 5-tone signalling.

#### • FleetSync® PTT ID, SelCall & Emergency

Utilizing Kenwood's FleetSync® signalling protocol, the TK-7360 | TK-8360 series have PTT ID (ANI: automatic number identification) and Selective Calling capabilities for managed dispatch operations. For hazardous/hostile duty environments, a PF key can also be programmed for Emergency status to alert the dispatcher and/or operator to a user in distress.

#### • MDC-1200 Signalling Compatible

The following features are available with the built-in MDC signalling. The function can be set per zone.

PTT ID Encode | Emergency Encode | Stun/Revive Decode | Radio Check Decode

### Variety of Connectivity for External Equipment

#### • External D-sub 15 pin Interface / Molex 15 Interface

A D-sub 15 pin external terminal enables you to connect various external equipment with simple connection. It can be used for Ignition Sense, External Switch, Horn Alert, External Mic, etc.



A Molex interface is also available by using the KCT-60 optional cable.

#### • Scrambler & GPS Board Spaces inside the Radio Unit

The TK-7360 | TK-8360 series have connectors and spaces inside the radio unit, for both the GPS module<sup>1</sup> and Scrambler module<sup>1</sup>.

#### • ø 3.5 mm Audio Jack

Connection for external speaker, such as the KES-3.

#### • Built-in HA | PA Function

The TK-7360 | TK-8360 series have Horn Alert and Public Address functions built-in. The D-sub 15 pin terminal can load maximum 2 A for HA.

<sup>1</sup>Third party products such as GPS-15xL-W (Garmin), KW21-460 (Transcrypt).

## Large Display & Programmable Blue LED

The large display provides quick recognition of channel numbers and function status. It can also indicate the status of Signal Strength and GPS. The brightness can be selected from High, Low and Off to suit your preference. Besides the main display, a Blue LED indicator can be used for the status display of a pre-programmed function.

## Emergency Functions for Various Scenes

These functions provide security and safety for users who work remotely as well as for those who work in hazardous areas. If the operator is in an emergency situation, the transceiver sends a help signal to a pre-determined person or system.

### • Lone Worker Function

This ingenious feature provides an extra layer of security and safety for individuals. As long as the buttons are pressed regularly, the radio operates normally. However, if there is a long lapse (programmable), it will sound an alert. In the absence of further response from the user, the TK-7360 | TK-8360 will place an emergency call to a pre-determined person or group of people.

Lone Worker function can be used in combination with Emergency function.

### • Emergency Function

Emergency function can be used exclusively for emergency signalling to send a help signal to a pre-determined person or group of people.

## Built-in Voice Inversion Scrambler

The built-in voice inversion scrambler provides basic protection against casual eavesdropping. Each channel can have a unique scrambler setting per channel by changing its voice inversion frequency.

## Enhanced Kenwood Audio

The TK-7360 | TK-8360 series provide loud clear audio even in noisy environments. Kenwood has utilized its longstanding audio heritage to optimize voice frequency components so that the audio output cuts through typical ambient noise. This enhancement and the companded noise reduction provide clarity and low distortion, especially on narrow bandwidth systems.

## Programmable Function Keys

10 x PF Keys are programmable for any features allowing the transceiver to be customized to fit users' specific requirements.

A PF key also can be programmed for Emergency function to send a help signal to a pre-determined person or group of people, by using DTMF, FleetSync® or MDC-1200 signalling.

## Priority Scan

Scanning is a simple way to monitor multiple channels. There are both standard and priority scan modes available to the TK-7360 | TK-8360 series. And Talk Back allows you to respond immediately to a call regardless of the pre-programmed or selected scan revert channel.



## Independent Setting per Channel

The TK-7360 | TK-8360 series can be dealer-programmed with Scrambler, Wide | Narrow setting and Comander function "per channel". If you program the same frequency on different channels, you can easily switch the function on/off by selecting the alternative channel

## GPS Feature

Connecting an external GPS receiver unit to the TK-7360 | TK-8360 series enables the operator to transmit accurate vehicle location data (GPS position data) to the central base station for fleet management purpose. It supports FleetSync®+GPS.

## Voice Guide & Storage — OPTION —

The optional VGS-1, voice guide & storage unit serves two roles:

### • Enhanced Voice Guide

Vocal confirmation of frequency, key operation, etc.

### • Voice storage

4 CH voice memory, 1 CH continuous reception recording for 30 seconds.

## Voting

In addition to the Priority Scan function, the new TK-7360 | TK-8360 series support a Voting function, which looks for and locks on to the best repeater signals automatically in the multi sites system. This feature allows end-users to communicate without compromise

## Radio Stun

The radio stun function disables a radio over the air. It eliminates security risks from unauthorised operators.

## Programmable Channel Spacing (12.5 | 20 | 25 kHz)

It can be programmed for 12.5 kHz, 20 kHz and 25 kHz spacing operation per channel.

## Other Features

- B.C.L. (Busy Channel Lockout)
- Talk Around
- Horn Alert Function
- Companded Audio (Narrow | Wide)
- Three colours LED (Green | Red | Orange)
- Password Protection
- Time Out Timer
- Minimum Volume Setting (by FPU)
- Operator Selectable Tone Settings
- Embedded Message
- 8 x Programmable Accessory Port for External Control
- Key Lock
- Scan Del/Add Function
- Kenwood ESN (Electronic Serial Number)
- Adjustable Microphone Gain by FPU only: High, Normal or Low
- Microsoft Windows® PC Programming & Tuning
- Antenna: BNC type connector



## 2. QUALITY CONTROL

### ISO 9001 Quality Management for Manufacturing

The TK-7360 | TK-8360 series are manufactured in Kenwood's Singapore factory which has been assessed and registered as ISO9001 compliant. ISO9001 is the international standard for Quality Management Systems

### Kenwood Original Quality Test Standards for Products

Each transceiver has passed Kenwood's original quality tests, which simulate years of sustained, demanding use in harsh operating conditions. These tests are more extreme than any of the accepted Industry Standards.

### Excellent Environmental Performances

The TK-7360 | TK-8360 series are designed to operate even under tough conditions. Their aluminium die-cast chassis can cope with years of sustained, demanding use in harsh operating conditions.



#### • Robust, IP54 Dust & Water Resistant

The TK-7360 | TK-8360 series are built to survive the various environmental circumstances of their users. They meet the stringent IP54 dust and water intrusion standards.

#### • MIL-STD 810 C | D | E | F | G

The TK-7360 | TK-8360 series are fully compliant with U.S. Department of Defense environmental standards US MIL-STD 810 C/D/E/F/G for:

- Low Pressure
- High Temperature
- Low Temperature
- Temperature Shock
- Solar Radiation
- Rain (incl. Drip Rain)
- Humidity
- Salt Fog
- Dust
- Vibration
- Shock

## 3. SUPPLIED ACCESSORIES

- Users Manual
- Mounting Bracket
- DC Cable

## 4. OPTIONAL ACCESSORIES

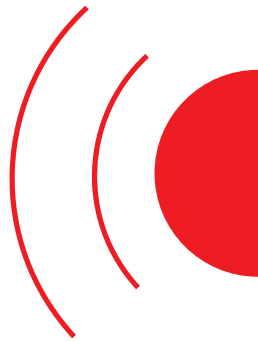
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- KCT-18 Ignition Sense Cable (requires KCT-60)
- KCT-36 Extension Cable
- KCT-60 Connection Cable (D-Sub 15 pin <> MOLEX 15 pin)
- KES-3 External Speaker
- KES-5 External Speaker
- KLF-2 DC Line Noise Filter
- KMB-10 Keylock Adapter
- KMC-30 Hand Microphone
- KMC-32 Hand Microphone (with 16 Keys)
- KMC-35 Heavy Duty Hand Microphone
- KMC-36 Heavy Duty Hand Microphone (with 12 Keys)
- KMC-9C Desktop Microphone
- VGS-1 Voice Guide and Storage Unit

## 5. PROGRAMMING ACCESSORIES

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- **NEW** — • KPG-135D Programming Software (Dealer Option)
- KPG-46A Programming Interface Cable (Dealer Option)
- **NEW** — • KPG-46U USB Programming Interface Cable (Dealer Option)



## 6. TECHNICAL SPECIFICATIONS

General Specifications	TK-7360E	TK-8360E
Frequency Range	136 - 174 MHz	400 - 470 MHz
Number of Channels	Max. 128 (128 Zones)	
Channel Spacing	12.5 kHz   20 kHz   25 kHz	
Antenna Impedance	50 Ohm	
Operating Voltage	13.2 V DC $\pm$ 15%	
Current Drain		
	Stand-By	0.3 A
	Receive	1.0 A
	Transmit	8.0 A
Operating Temperature Range	-30 °C ~ +60 °C	
Frequency Stability	$\pm$ 2.5 ppm (-30 °C ~ +60 °C)	
Dimensions (W x H x D)	160 x 43 x 136 mm – Projections not included –	
Weight (net)	1.18 kg	

### Applicable Standards

Environmental	IP54
ETSI R&TTE	EN 300 086   EN 300 113   EN 300 219   EN 301 489
ETSI Safety	EN 60065   EN 60950-1   EN 60215

Receiver Specifications	TK-7360E	TK-8360E
Sensitivity		
	EIA 12 dB SINAD	0.28 $\mu$ V   0.28 $\mu$ V   0.35 $\mu$ V
Channel Selectivity	70 dB   70 dB   60 dB	
Intermodulation	67 dB	
Spurious & Image Rejection	70 dB	
Audio Output (4 Ohm impedance)	4 W with less than 5% distortion	

Transmitter Specifications	TK-7360E	TK-8360E
RF Power Output	5 - 25 W	
Modulation Limiting	$\pm$ 5.0 kHz at 25 kHz $\pm$ 4.0 kHz at 20 kHz $\pm$ 2.5 kHz at 12.5 kHz	
Spurious Emission	-36 dBm $\leq$ 1 GHz -30 dBm $>$ 1 GHz	
FM Noise (EIA) – 25 kHz   20 kHz   12.5 kHz	45 dB   45 dB   40 dB	
Modulation Distortion	Less than 3%	

Measurements made per EN Standards.  
 Specifications shown are typical. Radios meet applicable regulatory requirements.  
 Kenwood follows a policy of continuous advancement in development.  
 For this reasons, specifications may be changed without notice.

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