

# KENWOOD

## TK-2160/3160

Compact VHF/UHF FM Portable Radios



- COMPACT DESIGN
- CONVENTIONAL FORMAT
- PRIORITY SCAN & TALK BACK
- FleetSync® PTT ID & SELCALL
- FleetSync® EMERGENCY
- VOICE SCRAMBLER
- INTERNAL VOX/HANDS FREE READY
- QT/DQT/DTMF/2-TONE
- PROGRAMMABLE CALL ALERTS
- PROGRAMMABLE FUNCTION KEYS
- HIGH-QUALITY AUDIO
- 8, 9 & 12 HOUR BATTERY PACKS
- IP54/55 DUST/WATER INTRUSION
- MIL-STD 810 C, D, E & F



**Setting the pace with a compact, simple and reliable design, Kenwood's TK-2160/3160 portables are the new benchmark for performance. With such features as priority scan, VOX and MIL-STD 810/IP54/IP55 environmental specifications, these units are ready to work rain or shine.**

### COMPACT DESIGN

Compact enough to carry anywhere with ease, this smart new radio has a distinctively ergonomic form that's handy to hold and operate.

### INTERNAL VOX / HANDS FREE READY

Enjoy the convenience of hands-free operation using any audio accessory. By simply talking, the internal VOX (voice-operated transmission) with 10-level sensitivity adjustment provides PTT action. VOX is also ideal for specialized job tasks and events where hands-free, constant and/or repetitive communications is necessary.

### PRIORITY SCAN & TALK BACK

Scanning is a simple way to monitor multiple channels (16-channel capacity) and the TK-2160/3160 model offers both standard and priority scan modes. Talk Back allows immediate response to a received call without having to manually search or change channels.

### VOICE SCRAMBLER

The TK-2160/3160 includes a voice inversion-scrambling feature that provides basic communications security against casual eavesdropping.





## OUTSTANDING FEATURES

### OPERATING EASE

The rotary and key controls on the TK-2160/3160 have been designed to provide the user with positive detent feedback even if carried and operated under cover or in a pocket.

### FleetSync® PTT ID, SELCALL & EMERGENCY

Utilizing Kenwood's FleetSync® digital signalling protocol, the TK-2160/3160 has PTT ID (ANI; automatic number identification) and Selective Calling capabilities for managed dispatch operations. For hazardous / hostile duty environments, the orange key can also be programmed for Emergency status to alert the dispatcher and/or fleet of a unit in distress.



### QT/DQT/DTMF/ 2-TONE

The industry standard tone/code squelching formats QT (CTCSS) and DQT (digital) provide system access and group segregation on shared frequencies. DTMF PTT ID is included for dispatch operations or for a simple remote control application. The DTMF decode capabilities include a selective call ID, transpond with ID, "wild card" group calling and radio stun. The TK-2160/3160 is also equipped with 2-Tone encode and decode capability for legacy paging systems and selective call use (three tone pairs, A, B, C & D tones; 288.5–3000 Hz). All selective calling formats (FleetSync®, DTMF & 2-Tone) have call alert tones and LED indications.

### PROGRAMMABLE CALL ALERT TONES

The programmable call alert pattern, duration, tone and volume provide personalized and distinctive selective calling alerts.

### PROGRAMMABLE FUNCTION KEYS

The three side PF Keys are programmable to any of the many functions available on the TK-2160/3160, permitting a customized fit for specific users (including the orange key).

### HIGH-QUALITY AUDIO

Clear audio means confident communications. The TK-2160/3160 large speaker, full half-watt of audio output and tailored response characteristics provide optimum audio in even noisy environments.

### 8 TO 12 HOUR BATTERY PACKS

The KNB-25A NiCd 8-hour\* pack is the economical standard for the TK-2160/3160 portables. The optional KNB-24L Lithium Ion 9-hour\* pack offers the ultimate in compact, lightweight carrying comfort. For super high-capacity talk and standby time, the KNB-26N NiMH 12-hour pack is the powerhouse of choice.

\*Battery life is based on 5% transmit-5% receive-90% standby duty cycles.

### TOUGH & WATER RESISTANT

Built tough to take rough treatment in stride, these portables have passed the advanced IP54/55 and MIL-STD 810 "blowing rain" water intrusion tests and meet or exceed eleven other stringent MIL-STD 810 C/D/E/F environmental standards. This proves that whatever conditions may be, the TK-2160/3160 is ready to answer the call.



## Options

<p><b>KNB-24L</b> Li-Ion Battery Pack (1,400mAh)</p> 	<p><b>KMB-16</b> Six Unit Charger Adapter</p> 	<p><b>KMC-21</b> Speaker Microphone</p> 	<p><b>KHS-7A</b> Lightweight Single Muff Headset</p> 
<p><b>KNB-25A</b> Ni-Cd Battery Pack (1,200mAh)</p> 	<p><b>KRA-22</b> VHF Low Profile Helical Antenna</p> 	<p><b>KHS-1</b> Head Set with VOX/PTT</p> 	<p><b>KHS-8BL</b> 2-wire Palm Mic with Earphone (Black)</p> 
<p><b>KNB-26N</b> Ni-MH Battery Pack (2,000mAh)</p> 	<p><b>KRA-23</b> UHF Low Profile Helical Antenna</p> 	<p><b>KHS-22</b> Head Set</p> 	<p><b>KHS-8BE</b> 2-wire Palm Mic with Earphone (Beige)</p> 
<p><b>KBP-5</b> Battery Case</p> 	<p><b>KRA-26</b> VHF Helical Antenna</p> 	<p><b>KVC-3</b> Regular Rate Vehicular Charger Adapter (for KSC-30)</p> 	<p><b>KHS-8BL</b> 3-wire Lapel Mic with Earphone (Black)</p> 
<p><b>KSC-25</b> Rapid Charger</p> 	<p><b>KRA-27</b> UHF Whip Antenna</p> 	<p><b>KVC-4</b> Rapid Rate Vehicular Charger Adapter (for KSC-25)</p> 	<p><b>KHS-8BE</b> 3-wire Lapel Mic with Earphone (Beige)</p> 
<p><b>KSC-30</b> Charger for KNB-25A and KNB-26N</p> 	<p><b>KMC-17</b> Speaker Microphone</p> 	<p><b>KEP-2</b> Earphone Cord Kit for KMC-17/21</p> 	<p><b>KLH-117</b> Leather Case</p> 

All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.

## Specifications

Model	TK-2160	TK-3160
<b>GENERAL</b>		
Frequency Range		
Type 1	136-174 MHz	450-490 MHz
Number of Channels		Max. 16
Channel Spacing		
Wide/Narrow	25, 30kHz/12.5, 15kHz	25kHz/12.5kHz
Channel Step	2.5, 5, 6.25, 7.5kHz	5, 6.25kHz
Operating Voltage	7.5V DC±20%	
Battery Life (5-5-90 duty cycle)		
with KNB-24L (1400mAh)	Approx. 9 hours	
with KNB-25A (1200mAh)	Approx. 8 hours	
with KNB-26N (2000mAh)	Approx. 12 hours	
Operating Temperature Range	-22°F ~ +140°F (-30°C ~ +60°C) [-14°F ~ +140°F (-10°C ~ +60°C) when KNB-24L/26N in use]	
Frequency Stability	±2.5ppm (-22°F ~ +140°F)	
Antenna Impedance	50Ω	
Channel Frequency Spread		
Type 1	38MHz	40MHz
Dimensions (W x H x D), Projections not included		
Radio Only	2.2" x 4.3" x 0.72" (56 x 109.3 x 18.4mm)	
with KNB-24L	2.2" x 4.3" x 1.35" (56 x 109.3 x 34.5mm)	
with KNB-25A	2.2" x 4.3" x 1.6" (56 x 109.3 x 40.7mm)	
with KNB-26N	2.2" x 4.3" x 1.6" (56 x 109.3 x 40.7mm)	
Weight		
Radio Only	5.8oz (165g)	
with KNB-24L	10.2oz (290g) without antenna	
with KNB-25A	12.5oz (355g) without antenna	
with KNB-26N	14.1oz (400g) without antenna	
FCC ID		
Type 1	ALH36413110	ALH36423110
FCC Compliance		
Type 1	Parts 22/74/80/90	Part 90
IC Certification	282D-36413110	282D-36423110

Model	TK-2160	TK-3160
<b>RECEIVER</b> (Measurements made per TIA/EIA-603)		
Sensitivity (12dB SINAD)		
Wide/Narrow		0.25µV/0.28µV
Selectivity		
Wide/Narrow		70dB/62dB
Intermodulation Distortion		
Wide/Narrow		65dB/60dB
Spurious Response		65dB
Audio Output	500mW with less than 10% distortion	
<b>TRANSMITTER</b> (Measurements made per TIA/EIA-603)		
RF Power Output		
High/Low	5W/1W	4W/1W
Spurious Response		70dB
Modulation		
Wide/Narrow	16K0F3E/11K0F3E	
FM Noise		
Wide/Narrow	45/43dB	45/40dB
Audio Distortion	Less than 5%	

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice. FleetSync® is a registered trademark of KENWOOD Corporation in the United States and/or other countries.

## Applicable MIL-STD

Military Standards	Methods/Procedures MIL-STD 810C	Methods/Procedures MIL-STD 810D	Methods/Procedures MIL-STD 810E	Methods/Procedures MIL-STD 810F
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV

## KENWOOD CORPORATION

2967-3, Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan

### KENWOOD U.S.A. CORPORATION

Communications Division

Division Headquarters

3975 Johns Creek Court, Suwanee, GA 30024-1265

Order Administration/Customer Support/Distribution

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745

### KENWOOD ELECTRONICS CANADA INC.

Canadian Headquarters and Distribution

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8



This has been printed on recycled paper. CL528KP-E-4(00) 030710B Printed in Japan