

KENWOOD

Listen to the Future



TK-2160/3160

Compact VHF/UHF FM Portable Radios

5-tone FleetSync® **Lone Worker**
by KENWOOD You'll never work alone.

Setting the pace with a compact, simple and reliable design, Kenwood's TK-2160/3160 portables are the new benchmark of performance. With such features as priority scan, VOX, and MIL-STD 810 & IP54/55 weatherproofing, these units are all set 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.

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.

LONE WORKER

This ingenious feature provides an extra layer of security and safety for individuals who work remotely as well as for those who work in hazardous areas. 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-2160/3160 will place an emergency call to a pre-determined person or group of people.

INTERNAL VOX/HANDS FREE READY

Enjoy the convenience of hands-free operation using an optional headset like the KHS-21. 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.

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 operator in distress.

BUILT-IN VOICE SCRAMBLER

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

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).

QT/DQT/DTMF/5-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 5-Tone encode and decode capability for legacy paging systems and selective call use. All selective calling formats (FleetSync™, DTMF & 5-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.

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 even in noisy environments.

8- AND 12-HOUR BATTERY PACKS

The KNB-25A Ni-Cd 8-hour* pack is the economical standard for the TK-2160/3160 portables. The optional KNB-26N Ni-MH 12-hour* pack offers high-capacity talk and standby times, whereas the KNB-35L Lithium Ion 12-hour* pack delivers ultimate performance not only in terms of power but also comfort thanks to its compact, lightweight design.

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

TOUGH & WATER RESISTANT

Built tough to take rough treatment in its stride, these portables have passed the advanced IP54/55 and MIL-STD 810 "blowing rain" water-proof tests and meet/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.

OTHER FEATURES

- Option Board
- Scan Configuration
- Talk Around



Actual size

Options

■ **KNB-35L**
Li-ion Battery Pack
(1,950mAh)



■ **KNB-25A**
Ni-Cd Battery Pack
(1,200mAh)



■ **KNB-26N**
Ni-MH Battery Pack
(2,000mAh)



■ **KBP-5**
Battery Case



■ **KSC-25**
Rapid Charger



■ **KSC-30**
Charger for KNB-25A
and KNB-26N



■ **KRA-22**
VHF Low Profile
Helical Antenna



■ **KRA-23**
UHF Low Profile
Helical Antenna



■ **KRA-26**
VHF Helical Antenna



■ **KRA-27**
UHF Whip Antenna



■ **KMC-17**
Speaker Microphone



■ **KMC-21**
Speaker Microphone



■ **KHS-1**
Head Set with VOX/PTT



■ **KHS-21**
Head Set



■ **KBH-12**
Belt Clip



■ **EMC-6**
Clip Microphone
with Earphone



■ **KHS-28F**
Headset with
PTT



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

	TK-2160	TK-3160
GENERAL		
Frequency Range		
Type 1	136-174MHz	440-470MHz
Type 3	—	400-430MHz
Number of Channels		Max. 16
Channel Spacing		
Type 1	25kHz/20kHz/12.5kHz	25kHz/20kHz/12.5kHz
Type 3	—	25kHz/12.5kHz
PLL Channel Stepping		5, 6.25kHz
Antenna Impedance		50Ω
Operating Voltage		7.5V DC±20%
Battery Life (5-5-90 duty cycle with battery saver off)		
with KNB-35L (1950mAh)		Approx. 12 hours
with KNB-25A (1200mAh)		Approx. 8 hours
with KNB-26N (2000mAh)		Approx. 12 hours
Operating Temperature Range		-30°C ~ +60°C
Frequency Stability		±2.5ppm (-30°C ~ +60°C)
Channel Frequency Spread		
Type 1	38MHz	30MHz
Type 3	—	30MHz
Dimensions (W x H x D), Projections not included		
Radio Only	56 x 109.3 x 18.4mm	
with KNB-35L	56 x 109.3 x 34.5mm	
with KNB-25A	56 x 109.3 x 40.7mm	
with KNB-26N	56 x 109.3 x 40.7mm	
Weight (net)		
Radio Only		165g
with KNB-35L		282g (without antenna)
with KNB-25A		355g (without antenna)
with KNB-26N		400g (without antenna)
Applicable Standards	EN300 086, EN300 113, EN301 489, EN300 279	IP54, IP55

	TK-2160	TK-3160
RECEIVER		
Sensitivity		
EIA 12dB SINAD		0.25μV/0.25μV/0.32μV
EN 20dB SINAD		0.63μV/0.63μV/0.7μV
25kHz/20kHz/12.5kHz		
Adjacent Channel Selectivity		
25kHz/20kHz/12.5kHz		70dB/70dB/62dB
Intermodulation		65dB
Spurious Response Rejection		70dB
Audio Output		500mW with less than 10% distortion
TRANSMITTER		
RF Power Output		
Hi/Low	5W/1W	4W/1W
Modulation Limiting		
±5.0kHz at 25kHz		±5.0kHz at 25kHz
±4.0kHz at 20kHz		±4.0kHz at 20kHz
±2.5kHz at 12.5kHz		±2.5kHz at 12.5kHz
Spurious Emission		
-36dBm (≤1GHz)		-36dBm (≤1GHz)
-30dBm (>1GHz)		-30dBm (>1GHz)
FM Noise (EIA)		
25kHz/20kHz/12.5kHz		45dB/43dB/40dB
Microphone Impedance		2kΩ
Modulation Distortion		Less than 5%
Measurement		EN standard

Kenwood reserves the right to change specifications and features without prior notice. FleetSync® is a registered trademark of Kenwood Corporation.

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

Listen to the Future

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery, inspiration and enjoyment.

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