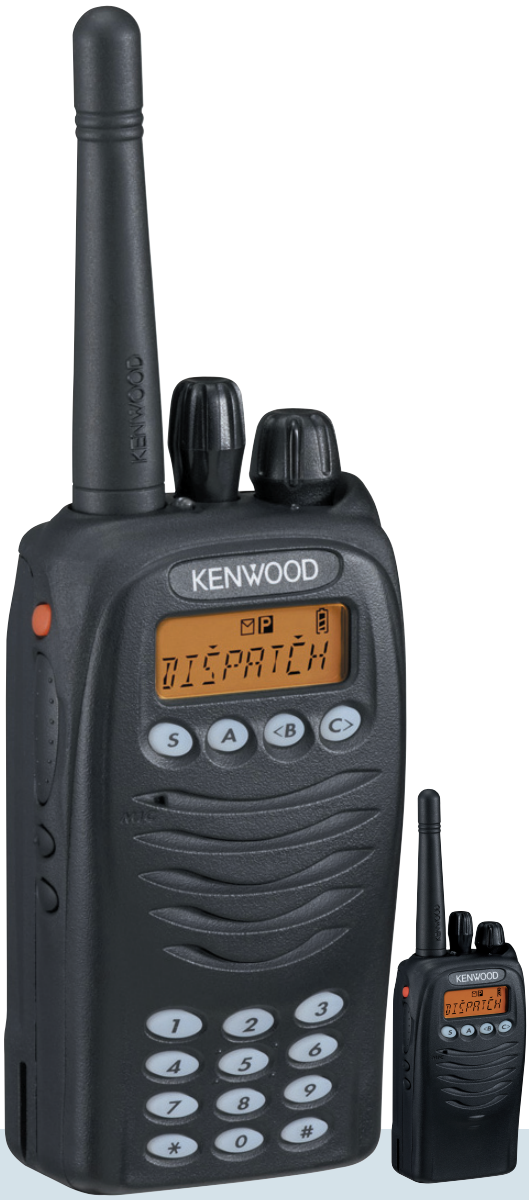
KENWOOD

Listen to the Future

TK-2170/3170

VHF/UHF FM Portable Radios

5-tone FleetSync® by KENWOOD



Kenwood's TK-2170/3170 VHF/UHF portable radios provide easy operation plus versatility and reliability in a compact yet rugged package. Advanced features include a 128-channel/128-zone capacity, 5-Tone Signalling, FleetSync® and easy-to-see 13-segment/8-character backlit LCD.

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.

ENHANCED KENWOOD AUDIO
The TK-2170/3170 provides loud, clear audio even in noisy environments.

128 CHANNELS/128 ZONES
The convenient 128 channel/128 zone capability accommodates virtually any current or future capacity requirement for single or multiple site radio systems.

8-CHARACTER LCD DISPLAY
The backlit LCD with 8-character, 13 segment aliases and icons provides an easy-to-read channel, function and FleetSync® messaging display day or night.

BATTERY STATUS INDICATOR
For extra convenience, a 4-step battery status indicator notifies the user immediately of the amount of charge remaining by visual indication (icons) or tone alert.

ROBUST & RELIABLE
The TK-2170/3170 is built to survive the hard knocks, drops and all weather environments of its users. It meets or exceeds the stringent IP54/55 dust and water intrusion standards and the MIL-STD 810 C, D, E & F environmental standards including the demanding "driven rain" test.

*MIL-STD/IPXX compatibility requires use of the terminal cover supplied with the SP-Mic.

FleetSync® DIGITAL SIGNALLING
Kenwood's FleetSync® digital signalling system includes PTT ID digital ANI for instant radio call identification and Emergency status for personnel safety. FleetSync® also includes status messaging, selective calling and short/long text dispatch messaging features. Emergency Calling notifies a dispatcher of personnel in distress by activation of an orange colored emergency key.

5-TONE SIGNALLING
In addition to FleetSync®, the TK-2170/3170 includes 5-Tone selective calls in 6-different formats, EIA, EEA, CCIR, ZVEI, ZVEI2 and the Kenwood format.

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-2170/3170 will place an emergency call to a pre-determined person or group of people.

VOTING FUNCTION
The TK-2170/3170 supports Voting function, which is to look for and lock on to the best repeater signals automatically in the multi-sites system. This feature enables customers to make communications without compromise.

WIDE BATTERY SELECTION
The TK-2170/3170 offers a lightweight Li-Ion battery (KNB-35L), ideal for low-temperature environments; a durable Ni-Cd battery (KNB-25A); and a powerful Ni-MH battery (KNB-26N) for extra-long life.

VOICE INVERSION SCRAMBLER
The built-in voice inversion scrambler provides basic protection against casual eavesdropping.

EASY OPTION PORT (20-PIN)
Kenwood's plug-in option port makes compatible after-market board installation quick and simple.

VOX READY
The TK-2170/3170 offers convenient hands-free operation with a compatible headset. The TK-2170/3170 internal VOX (voice-operated transmission) circuitry provides automatic PTT and a 10-level sensitivity adjustment for different ambient noise levels.

OTHER FEATURES
- PRIORITY SCAN
- BUILT-IN QT/DQT, DTMF SIGNALLING
- SmarTrunk II™ OMNI CAPABILITY (REQUIRES SmarTrunk BOARD*)
- PROGRAMMABLE FUNCTION KEYS
- EMERGENCY KEY
- OPERATOR-SELECTABLE TONE
- ENCRYPTION & ANI MODULE CONTROL
- EMBEDDED MESSAGE WITH PASSWORD
- RADIO LOCK PASSWORD
- POWER-ON LCD MESSAGE
- FLASH MEMORY
- MICROSOFT WINDOWS® PC PROGRAMMING & TUNING

*SmarTrunk board is available from SmarTrunk Systems, Inc.

Options

- **KNB-25A** Ni-Cd Battery Pack (7.2V/1200mAh)
- **KNB-26N** Ni-MH Battery Pack (7.2V/2000mAh)
- **KNB-35L** Li-ion Battery Pack (7.4V/1950mAh)
- **KSC-25** Rapid Charger Tri-Chemistry
- **KSC-30** Charger for KNB-25A and KNB-26N
- **KBP-5** Alkaline Battery Case
- **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** Compact Speaker Microphone
- **KHS-1** Headset with VOX/PTT
- **KHS-21** Headset
- **EMC-6** Clip Microphone with Earphone
- **KHS-28F** Headset with PTT
- **KBH-12** Belt Clip

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-2170	TK-3170
GENERAL		
Frequency Range		
E Type	136 ~ 174 MHz	440 ~ 470 MHz
E3 Type	136 ~ 174 MHz (Non-key)	400 ~ 430 MHz
E4 Type	—	440 ~ 470 MHz (Non-key)
E6 Type	—	400 ~ 430 MHz (Non-key)
Number of Channels	Max.128 Total per Radio	
Zone	Max.128 per Radio	
Channel	Max.128 per Zone	
Channel Spacing		
E Type	25 kHz/20 kHz/12.5 kHz	25 kHz/20 kHz/12.5 kHz
E3 Type	25 kHz/20 kHz/12.5 kHz	25 kHz/12.5 kHz
E4 Type		25 kHz/20 kHz/12.5 kHz
E6 Type		25 kHz/12.5 kHz
Battery Voltage	7.5 V DC ±20 %	
Battery Life	(5-5-90 duty cycle, during hi-power)	
with KNB-25A (1200 mAh)	Approx. 8 hours	
with KNB-26N (2000 mAh)	Approx. 12 hours	
with KNB-35L (1950 mAh)	Approx. 11 hours	
Operating Temperature Range	-30°C ~ +60°C	
Frequency Stability	±2.5 ppm (-30°C ~ +60°C)	
Antenna Impedance	50 Ω	
Channel Frequency Spread		
E Type	38 MHz	30 MHz
E3 Type	—	30 MHz
Dimensions (W x H x D), Projections not Included		
Radio Only	56 x 109 x 16.6 mm	
with KNB-35L	56 x 109 x 31.7 mm	
with KNB-25A/26N	56 x 109 x 37.9 mm	
Weight (net)		
Radio Only	205 g (includes supplied accessories)	
with KNB-25A	415 g [with antenna (KRA-22/23) and belt clip (KBH-12)]	
with KNB-26N	455 g [with antenna (KRA-22/23) and belt clip (KBH-12)]	
with KNB-35L	340 g [with antenna (KRA-22/23) and belt clip (KBH-12)]	
Applicable Standards	EN300 086, EN300 113, EN300 219, EN301 489	

	TK-2170	TK-3170
RECEIVER		
Sensitivity		
EIA 12 dB SINAD	0.25 µV/0.25 µV/0.32 µV	0.25 µV/0.25 µV/0.32 µV
EN 20 dB SINAD	0.63 µV/0.63 µV/0.70 µV	0.63 µV/0.63 µV/0.70 µV
25 kHz/20 kHz/12.5 kHz		
Adjacent Channel Selectivity	70 dB/70 dB/62 dB	70 dB/70 dB/62 dB
25 kHz/20 kHz/12.5 kHz		
Intermodulation	65 dB	65 dB
Spurious Response Rejection	70 dB	70 dB
Audio Output (4 Ω impedance)	500 mW with less than 5 % distortion	
Measurement	EN Standards	
TRANSMITTER		
PF Power Output (High/Low)	5 W/1 W	4 W/1 W
Modulation Limiting	±5.0 kHz at 25 kHz	±5.0 kHz at 25 kHz
	±4.0 kHz at 20 kHz	±4.0 kHz at 20 kHz
	±2.5 kHz at 12.5 kHz	±2.5 kHz at 12.5 kHz
Spurious Emission	-36 dBm≤1 GHz, -30 dBm>1 GHz	
FM Noise (EIA)	45 dB/43 dB/40 dB	45 dB/43 dB/40 dB
25 kHz/20 kHz/12.5 kHz		
Modulation Distortion	Less than 5 %	
Microphone Impedance	2 kΩ	
Measurement	EN Standards	

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.
SmarTrunk II™ is a trademark of SmarTrunk Systems, Inc.

Applicable MIL-STD & IP

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
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
International Protection Standard				
Dust & Water Protection	IP54/55			

*To meet MIL 810 and IP grade, the 2-pin connector cover has to be connected.

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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