

COMMANU

# TK-2302/3302

## **Compact VHF/UHF FM Portable Radios**

For clear, reliable communications indoors or out, rain or shine, there's no beating Kenwood's compact TK-2302/3302 transceiver. Based on a proven design, but refined and updated with enhanced features, it has the power and performance to satisfy even the toughest job requirements, due in part to the MIL-STD 810 & IP54/55 weather-proofing. A model of ergonomic excellence on the outside, inside it's packed with such features as priority scan, built-in VOX and a voice scrambler. No wonder the smart new TK-2302/3302 is attracting such attention.

### **COMPACT DESIGN**

The rounded ergonomic contours of the TK-2302/3302 naturally provide a superbly comfortable hold, while the non-slip elastomer channel knob with improved torque characteristics and enlarged PTT button ensure a positive tactile response during operation.

### **TOUGH & WATERPROOF**

KENWOOD

Built tough to take rough treatment in its stride, the TK-2302/3302 has passed the demanding IP54/55 dust and water intrusion tests, both with and without the KMC-45 optional speaker microphone. It also meets or exceeds 11 stringent MIL-STD 810 C/D/E/F environmental standards, including "driven rain". So whatever the weather, the TK-2302/3302 is ever ready for action.

### ENHANCED AUDIO QUALITY

Clear audio means confident communications, but power output is not the only factor that determines how easy it is to use a radio in varying noisy environments. As an experienced audio specialist, Kenwood can draw on decades of expertise at every step: component selection, construction, optimization, evaluation and analysis. The resulting audio performance, specially engineered for transceivers, is undeniably clearer and crisper. Just listen to the difference.

### QT/DQT SIGNALLING

The radio's encoder/decoder function uses QT/DQT to segregate talk groups so you only hear calls from your own group.

### 5-TONE SIGNALLING (Encode only)

The 5-tone encoder function can send 5-tone ID to another radio with 5-tone decode.

### **PROGRAMMABLE FUNCTION KEYS**

The two PF Keys can be programmed for any of the many functions available on the TK-2302/3302, permitting a customized fit for your requirements.

### **VOICE ANNUNCIATION**

The rotary and key controls on the radio can provide voice confirmation of radio status or operating mode, which is convenient when you are not able to look at the TK-2302/3302 – for example, if it's in your pocket. English is the default language, but you can switch to French, German, Dutch, Italian, Spanish, Russian or Chinese.

# INDEPENDENT SETTINGS PER CHANNEL (VOX, COMPANDER, SCRAMBLER)

Radio channels can be programmed\* independently for VOX, scrambler and compander functions. This means you can switch a function on or off simply by changing channels (on the same frequency). \*By the dealer

### **16 CHANNELS**

The TK-2302/3302 provides ample capacity for operating with multiple channels or radio systems.

### **BUILT-IN VOICE-INVERSION SCRAMBLER**

The voice-inversion scrambler provides basic protection against casual eavesdropping.

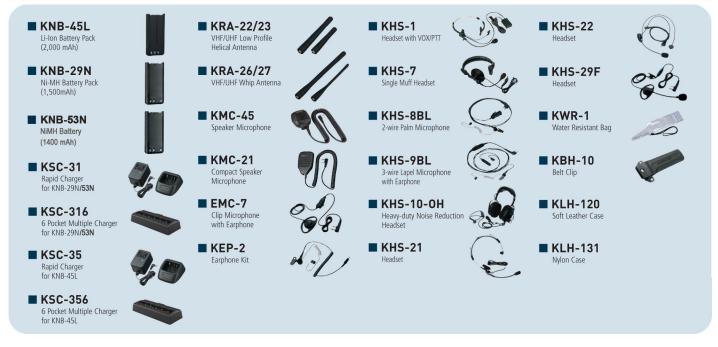
#### **VOX READY**

Enjoy the convenience of hands-free operation using any optional headset. Offering a 10-level sensitivity adjustment, the internal VOX (voice-operated transmission) function automatically activates PTT when you start talking. This is great for specialized tasks or events that require hands-free, constant or repetitive communications.

### **OTHER FEATURES**

Read/Write Password Protection
Wide/Narrow per Channel
Companded Audio per Channel
Talk Around
B.C.L. (Busy Channel Lockout)
Key Lock
S-colour LEDs (red, orange, green)
Scan Del/Add
KENWOOD ESN (Electronic Serial Number)
Adjustable Microphone Gain (by FPU): High or Normal
Microsoft Windows<sup>®</sup> PC Programming & Tuning

# Options



**Specifications** 

	TK-2302	TK-3302	
GENERAL			
Frequency Range			
Type 1	136 - 174 MHz	440 - 470 MHz	
Type 3		400 - 430 MHz	
Number of Channels	Max.16		
Channel Spacing			
Wide / Wide 4K* / Narrow	25 kHz / 20 kHz / 12.5 kHz		
Battery Voltage	7.5 V DC ±20 %		
Battery Life (5-5-90 duty cycle,	during hi-power battery :	saver: OFF/ON)	
with KNB-45L (2,000 mAh)	Approx. 12 hours / 18 hours		
with KNB- <b>53</b> N (1, <b>4</b> 00 mAh)	Approx. 9 hours / 12 hours		
Operating Temperature Range	-30°C ~ +60°C		
Frequency Stability	±2.5 ppm (-30°C ~ +60°C)		
Antenna Impedance	50 Ω		
Dimensions (W x H x D), Projectio	ns not Included		
with KNB-45L / <b>53</b> N	54 x 122 x 33.8 mm		
Weight (net)			
Radio only	160 g		
with KNB-45L	280 g		
with KNB-53N	3 <b>5</b> 0 g		

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.

	TK-2302	TK-3302		
RECEIVER				
Sensitivity				
EIA 12 dB SINAD	0.28 µV / 0.28	0.28 μV / 0.28 μV / 0.35 μV		
EN 20 dB SINAD	-3 dB μV (0.35 μV) / -3 dB μV (0.35 μV) / -2 dB μV (0.40 μV)			
Wide / Wide 4K* / Narrov	v			
Adjacent Channel Selectivity				
Wide / Wide 4K* / Narrov	v 70 dB / 70	70 dB / 70 dB / 62 dB		
Intermodulation	65 dB	65 dB		
Spurious Response Rejection	70 dB	70 dB		
Audio Output	500 mV	500 mW / 8 O		
Measurement		EN Standards		
TRANSMITTER				
RF 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 (Type 1 only)	±4.0 kHz at 20 kHz (Type 1 only		
	±2.5 kHz at 12.5 kHz	±2.5 kHz at 12.5 kHz		
Spurious Emission	-36 dBm ≤ 1GHz, -30 dBm > 1GHz	-36 dBm ≤ 1GHz, -30 dBm > 1GHz		
Modulation				
Wide / Wide 4K* / Narrov	v 16K0F3E / 14K0	16K0F3E / 14K0F3E / 11K0F3E		
FM Noise (EIA)				
Wide / Wide 4K* / Narrov	45 dB / 43 dB / 40 dB			
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. Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

# 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 Protectiv	on Standard			

International Protection Standard

**Classic**International

Experts in Wireless Communication

Dust & Water Protection\* IP54/55

\*To meet IP54/55, the 2-pin connector cover has to be connected on the radio; the locking bracket has to be attached to the KMC-45 external speaker microphone.

### 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.



Minimunications Equipment Division Kenwood Corporation

COMTK2032CAT

GERMANY | Mönchengladbach Tel. +49 (0)2166-33061 www.classicinternational.eu

Tel. +31 (0)475-327390

ed Kingdorffwww.classicinternational.eu

NETHERLANDS | Roermond