KENWOOD

Listen to the Future

TK-90

HF TRANSCEIVER

- Compact Rugged Design
- 300 Memory Channels
- Single Head Remote Option
- 6 Programmable Function Keys
- Enhanced Kenwood Audio
- 100W Transmit Power*
- High-stability TCXO
- Enhanced Security Features
- Selective Call & Status Call
- VGS-1 Voice Guide and Storage Option
- GPS & Voice Scrambler Port
- Data Modem Port
- KPE-2 MIL-STD Automatic Link Establishment Option
- MIL-STD 810 & IP54

** SSB/CW/FSK modes*

All-Terrain HF – The New Kenwood TK-90 Takes On All Challenges

Kenwood's TK-90 is a high-performance HF Transceiver designed to provide user-friendly operation wherever and whenever you need reliable communications. The new, highly compact design, advanced features and remote control head option make it ideal for mobile and base station applications.

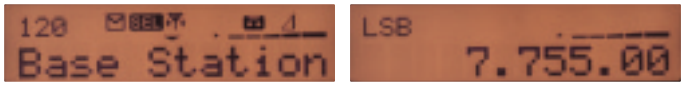
Compact and easy to use

Extremely small dimensions mean the TK-90 is transportable and installation-friendly for vehicles and base stations. The low-power settings facilitate battery- and solar-powered usage in the field.

300 memory channel capacity provides for custom operation and monitor frequency settings. Each channel has a programmable 12-character alphanumeric name for user-friendly channel selection via the backlit LCD.

The KRK-5 Remote Control Head option makes vehicular installation in any type vehicle possible. The control head can be mounted up to 7.6 meters from the transceiver unit mounted securely out of sight and out of the way under a seat, in the trunk or other compartment.

The wide viewing angle of the LCD panel makes operation easy from any position.



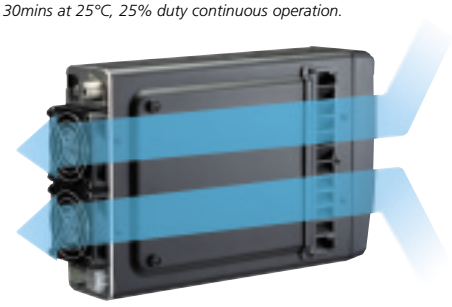
6 programmable backlit keys customize the unit to the specific needs and features of the operator day or night.

Enhanced Kenwood Audio optimizes voice frequency components for greater audio quality and clarity in even the most challenging ambient noise conditions and HF applications.

Powerful, tough and reliable

100W heavy-duty TX* provides the punch for long-distance communications. The twin cooling fans and the enhanced heat sink dissipation characteristics mean reliable, stable transmission performance hour after hour.

**100% duty for 30mins at 25°C, 25% duty continuous operation.*



Compliance with 6 MIL-STD specifications – including shock, vibration, dust, driven rain and salt fog – assures reliable performance under the toughest conditions. The cooling intake has integral dust protection and the remote control head meets IP54 dust and water intrusion standards.

High-Stability TCXO ensures excellent frequency stability performance in most severe temperature environments.

Enhanced safety & security features include an emergency mode in all transmission modes – voice, CW, and Status Call. Status Call includes GPS positioning report (GPS interfaced board required). Also, the TK-90 has a non-erasable electronic serial number, a password-protected rewriteable embedded message and password-protected program data features for added security and ownership protection. Other security features support a data password.

Versatile and expandable

Selective Call enables individual, group or open calling ideal for distributed networks of HF transceivers with a silent standby feature for operators. The TK-90 Selcall is compatible with its predecessor model TK-80 and handles up to 999 IDs and with a programmable ID list to assign alphanumeric names to 100 IDs.

Status Call provides up to 70 pre-canned status numbers for simple non-voice messaging and a 50 status number list with programmable alphanumeric names that provides a user-friendly display of the status message.

The optional VGS-1 Voice Guide and Storage Unit offers an audible announcement of channel numbers. Voice Storage provides four 15-second memory banks for recording memos and outgoing messages; it can also record incoming messages – 15sec. x 2 channels – for unattended response (the calling unit must send a status call for activation). Additionally, a convenient continuous recording function means you can always play back the last 30 seconds of reception for confirmation.

Easy-installation port accommodates the optional VGS-1 unit, aftermarket GPS receiver boards or voice scrambler boards.

Data port connects external radio data modems (KCT-39 accessory interface cable option required). The KCT-39 auxiliary inputs/outputs can also be used for sensor inputs or to control external equipment.

Automatic Link Establishment (ALE) functions provided by the KPE-2 option establish automatic optimum channel links between units rather than operators searching for a frequency under varying atmospheric and noise conditions.

OTHER FEATURES

- LCD Brightness Control (HI/LOW/OFF)
- Preferred & Normal Scan
- Minimum Volume Settings
- Direct Channel Access
- Flash ROM Upgradeable
- Frequency Direct Entry (KMC-32/36 required)
- Ignition Sense (KCT-18/39 cables required)
- Time-out Timer
- Wired Channel Clone
- Power-on Text
- Receiver Pre-Amp & Attenuator
- Noise Blanker
- Clarifier
- Front Panel Self Programming
- Windows® PC Programming
- PC Control (KCT-31 required)
- VOX
- VFO Mode

Options

- **KES-3** External Speaker
- **KMC-30** Microphone
- **KMC-32** 16-key Microphone
- **KMC-35** IP54/55 Rated Microphone
- **KMC-36** IP54/55 Rated 12-key Microphone
- **KRK-5** Single Control Head Remote Kit
- **KCT-22 M** Remote Control Cable (2.4m/8 ft)
- **KCT-22 M2** Remote Control Cable (5.2m/17 ft)
- **KCT-22 M3** Remote Control Cable (7.6m/25 ft)
- **PG-20** DC Cable (7m/23 ft)
- **KLF-2** Line Filter
- **KMB-9** Mounting Bracket
- **KMB-10** Key Lock Adapter
- **PS-53** DC Power Supply
- **KAT-1** External Automatic Antenna Tuner (single wire output)
- **KCT-18** Ignition Sense Cable (KCT-39 required)
- **KCT-31** Interface Cable for PC Connection
- **KCT-39** Connection Cable
- **VGS-1** Voice Guide & Storage Unit
- **KIF-2** SSB Filter (2.7 kHz Bandwidth)
- **YF-107C** CW Filter (500 Hz Bandwidth)

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-90
GENERAL	
TX Frequency Range	1.8 ~ 30.0 MHz*1
RX Frequency Range	0.5 ~ 30.0 MHz
Number of Channels	300 Channels
Emission Type	J3E, J2B*2 (SSB) A1A (CW) A3E (AM) F1B (FSK)
Operating Temperature	-20°C ~ +60°C
Operating Voltage	13.6V±15%
Frequency Stability	±0.5ppm (-10°C ~ +50°C) ±1.0ppm (-20°C ~ +60°C)
Current Drain	20.5A (TX) 1.2A (Stand-by)
Antenna Impedance	50 Ω
Dimensions (W x H x D)	Projections not included
Radio only	179 x 60 x 276 mm
Remote Panel	179 x 60 x 58 mm
Weight	3.5 kg

*1 Guarantee Frequency : 1.8 ~ 2.4 MHz / 3.5 ~ 4.5 MHz / 6.0 ~ 8.0 MHz / 11.0 ~ 14.5 MHz / 16.0 ~ 21.5 MHz / 24.0 ~ 30.0 MHz
*2 ALE mode

	TK-90
RECEIVER	
Sensitivity	
SSB/CW/FSK	4 µV (0.5 ~ 1.605 MHz) 0.25 µV (1.605 ~ 30.0 MHz)
AM	32 µV (0.5 ~ 1.605 MHz) 2.5 µV (1.605 ~ 30.0 MHz)
Selectivity	
SSB/CW/FSK	2.2 kHz (-6dB) 4.8 kHz (-60dB)
With KIF-2	2.7 kHz (-6dB) 6.2 kHz (-60dB)
AM	5.0 kHz (-6dB) 40.0 kHz (-60dB)
Spurious Response	
IF Image Rejection	70 dB
IF Rejection	80 dB
Audio Output	3.5 W (4 Ω / 10% distortion)
TRANSMITTER	
RF Power Output	
SSB/CW/FSK	100 W / 50 W / 25 W / 5 W
AM	25 W / 5 W
Spurious Emission	-46 dB
Carrier Suppression	40 dB
Unwanted Sideband Suppression	50 dB (1.0 kHz tone)
Microphone Impedance	600 Ω

Kenwood reserves the right to change specifications and features without prior notice.
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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/I	500.2/I, II	500.3/I, II	500.4/I, II
Temperature Shock	503.1/I	503.2/I	503.3/I	503.4/I, II
Solar Radiation	505.1/I	505.2/I	505.3/I	505.4/I
Rain / Blowing Rain *1	506.1/I, II	506.2/I, II	506.3/I, II	506.4/I, III
Humidity	507.1/I, II	507.2/II, III	507.3/II, III	507.4
Salt Fog *1	509.1/I	509.2/I	509.3/I	509.4
Dust *1	510.1/I	510.2/I	510.3/I	510.4/I, III
Vibration	514.2/VIII, X	514.3/I	514.4/I	514.5/I
Shock	516.2/I, II	516.3/I, V	516.4/I, V	516.5/I, V
International Protection Standard				
Dust & Water Protection *1	IP54			

*1 Remote Panel Only

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.

Kenwood U.S.A. Corporation
Communications Sector Headquarters
3975 Johns Creek Court, Suwanee, GA 30024-1265

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

JQA-QMA1205 091-A
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Communications Equipment Division
Kenwood Corporation
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