KENWOOD

Low Band VHF FM Transceiver

TK-190

The antenna shown is for transmission at 42.5 MHz.

- 16-CHANNEL CAPACITY
- WIDE-BAND COVERAGE
- 7-CHARACTER INVERT DISPLAY
- PRIORITY SCAN
- PROGRAMMABLE POWER PER CHANNEL
- 5 PROGRAMMABLE KEYS
- PROGRAMMABLE TOGGLE SWITCH
- MIL-STD 810 C/D/E
- DIE-CAST CHASSIS
- INTERNAL NOISE-CANCELING MICROPHONE
- OPERATOR SELECTABLE TONE/CODE (OST)
- WEATHER-SEALED UNIVERSAL CONNECTOR
- RECESSED EMERGENCY/ FUNCTION KEY
- SECURITY FEATURES
- “PROGRAMMABLE” MIL-SPEC SPEAKER-MICS (OPTION)
- FLASH MEMORY ADVANTAGE

The Everyday, Ever

The antenna shown is for transmission at 42.5 MHz.

If your world revolves around straightforward and eff
Kenwood's TK-190 VHF FM transceiver. That's because
portables are designed to meet 11 stringent MIL-STD 8
and experience the difference of Kenwood performanc

Serious Radio for Serious Business

STRENGTH & DURABILITY

MIL-STD 810 C/D/E

The TK-190 meets or exceeds tough U.S. Department of Defense environmental standards in addition to Kenwood's own technical and industrial standards. What's more, the TK-190 meets the demanding **driven rain** standard which means that you can count on this water-resistant radio to keep on performing even in storm-like conditions.

DIE-CAST CHASSIS

The aluminum die-cast chassis heat-sink is lightweight yet provides exceptional strength.

WEATHER-SEALED UNIVERSAL CONNECTOR

The universal accessory connector and battery contacts use spring action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties. The universal connector is designed to mate with Kenwood audio accessories, such as the KMC-25A, while meeting MIL-STD 810 C/D/E standards.

PERFORMANCE

HIGH-QUALITY AUDIO OUTPUT

The TK-190 is equipped with an extra-large 1-3/4 inch speaker element and delivers a 500 mW of audio power for robust clarity in noisy crowds and roadside.

NOISE-CANCELING MICROPHONE

The built-in noise-canceling microphone offers crystal-clear communications even in extremely noisy or loud situations.

VERSATILITY

16-CHANNEL CAPACITY

The 16-channel capacity ensures plenty of room for applications today and tomorrow. Once programmed, users simply select channels with the convenient rotary encoder located on the top of the radio.

CHANNEL SCAN FEATURES & PRIORITY SCAN

Scan, channel add/delete, and priority channel are some of the parameters that can be set to accommodate any channel scanning need. Talk-back scan allows users to respond immediately to calls regardless of the pre-programmed or selected scan revert channel. Undesired channels can be deleted temporarily with the nuisance delete feature.

FIVE PROGRAMMABLE FUNCTION KEYS (PF KEYS)

Each key is programmable for virtually any radio feature and this allows the unit to be customized to fit user needs. Additionally, a selected PF key can be programmed as a "shift" function which allows all other PF keys to have a second function or a "secure" two-step activation (e.g. scan delete/add).

ryway Communicator!

fective communications, there is no substitute for these heavy-duty Low Band VHF (29.7 ~ 50 MHz) 810 specifications. Get a grip on the handy TK-190 e.

DTMF SIGNALING
PTT ID provides a DTMF ANI for business and industrial applications.

OPERATOR SELECTABLE TONE/CODE (OST)
The OST feature provides a programmable bank of 16 user-selectable tones (QT & DQT) for accessing different repeaters. Each tone can have an assigned alpha-tag and be directly accessed by radio controls.

BUILT-IN SELECTIVE CALLING (TWO-TONE & DTMF)
Two-tone decode allows for three code pairs, each with individual paging settings. The DTMF selective calling provides individual call, and over-the-air disable/enable. Both signaling types can be assigned on a per channel basis and have audio-visual call alerting.

FLASH MEMORY ADVANTAGE
To facilitate the planning of impending system architectural changes and custom needs, this portable has main and reserve flash memory caches to accommodate future updates and advanced feature sets.

Intuitive User Interface

SEVEN-CHARACTER ALPHANUMERICS & ICONS
The top display provides seven character alphanumeric channel name tags, and non-cryptic easy-to-read operational icons. Special operational modes are also displayed during setting mode for positive visual feedback to the user. These features help to facilitate fast radio user training and ensure continued user-friendly operation. Nighttime viewing is also enhanced by the lighted display capability with programmable manual/automatic timed shutoff and disable features.

INVERT ALPHA-DISPLAY
Any one of the programmable PF keys or the toggle switch can be set to invert the channel alpha-tags for ease of viewing when the unit is worn on a belt, inside a protective suit or on a chest-pack.

PROGRAMMABLE TWO-COLOR LED
The two-color LED provides traditional transmit/warning (red), receive (green), and alert (orange) visual indications. This LED is recessed to limit omni-directional visibility to everyone except the radio operator. If desired, the "green-busy" and "red-transmit" activities can be disabled independently for law enforcement or covert work.

SIXTEEN-POSITION ROTARY CHANNEL SELECTOR
The sure feel of the rotary channel selector and its pre-set mechanical stops facilitates changing channels under a suit, in the dark, or while the operator is keeping an eye on the situation at hand.

KEY LOCK
Any PF key or the toggle switch can be programmed as a "key-lock" function to prevent accidental activation/de-activation of other keys.

MIL-SPEC SPEAKER MIC WITH UNIQUE CONTROLS
The KMC-25A MIL-SPEC speaker microphone option meets MIL-STD 810 C, D & E specifications. The weather-sealed quick disconnecting plug keeps out moisture, dirt and grime. These mics have two unique top PF keys for repetitive operations such as monitor or high/low volume control to add an extra element of convenience and safety for law enforcement officers and security forces. In addition, the recessed orange key is ideally positioned as an auxiliary emergency ANI key.

Security

ENCRYPTION CONTROL
Add secure voice communications for law enforcement. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types. The radio's programming provides both automatic and manual control for clear and coded modes.

DIGITAL ANI AND EMERGENCY CONTROL
Unit ID and emergency ANI for computer-aided dispatch operations can be added with optional modules. A recessed orange key is specifically provided for emergency ANI triggering (any PF key can be programmed for emergency use).

EMERGENCY KEY & CALL
The orange emergency key (or any PF key) can be programmed to trigger an ANI option device. The emergency call feature switches the radio automatically to a pre-programmed channel for dispatcher alert.

PASSWORD-PROTECTED PROGRAMMING AND CLONING
Cloning enables duplicating of radios in the field via a simple interface cable without the use of a PC or special test jigs. For users who do not require cloning capability, a secure password can be programmed to prevent cloning of a lost or stolen portable. Additionally, all radios can have the programming password(s) protected to prevent unauthorized extraction and duplication.

EMBEDDED MESSAGE
Deep inside the flash memory of the radio, an electronic message can be stored containing owner identification, property I.D. numbers, user and department names, service records, etc.. A radio can be electronically identified even if external labels, markings or factory serial numbers have been removed.

PC PROGRAMMING AND TUNING
To save both time and costs, radio parameter programming and tuning can be accomplished via the universal accessory connector from a PC-compatible computer without ever having to open the radio (optional software and cable required).

OTHER FEATURES
▮ PROGRAMMABLE TOGGLE SWITCH ▮ BUSY CHANNEL LOCKOUT ▮ BCL OVERRIDE ▮ LOW BATTERY ALERT ▮ HIGH/LOW POWER ▮ MINIMUM VOLUME ▮ ANNUNCIATION TONE CONTROL

Options

KNB-17A
Ni-Cd Battery
(7.2 V, 1500 mAh)

KNB-17BK
Ni-Cd Battery
Intrinsically Safe
(7.2 V, 1500 mAh)

KNB-21N
Ni-MH Battery
(7.2 V, 1500 mAh)

KNB-22N
Ni-MH Battery
(7.2 V, 2100 mAh)

KBP-4
AA Refillable Battery Pack
(holds 12 AA-size alkaline cells)

KRA-21
Field Tuneable VHF
Low Band Antenna
(1 MHz bandwidth)

KSC-19
Regular Charger
Ni-Cd Charger

KSC-24
Radip Charger
Dual-chemistry
Ni-Cd/Ni-MH Chager

KVC-3
Regular Rate
Vehicular Charger
Adapter

KVC-4
Rapid Rate Vehicular
Charger Adapter for
KSC-24 (charger not included)

KEP-1
Earphone Coil Cord Kit

KMC-25A
Speaker Microphone
(MIL-SPEC, Noise Canceling)

KBH-8DS
Swivel Belt Loop with
D-Stub Backplate

KLH-78B
Leather Case

KLH-6SW
Swivel belt loop with
detachable swivel back for KLH-78B

Not all accessories may be available, please contact dealers for details.
**The antenna should be cut to the appropriate length for optimum performance with the unit's specific transmission/reception frequency.*

Specifications

	TK-190
GENERAL	
Frequency range Type 1 Type 2	 29.7 ~ 37.0 MHz 35.0 ~ 50.0 MHz
Number of channels	16
Channel spacing	20 kHz / 25 kHz (PLL step: 5 kHz)
Channel frequency spread Type 1 Type 2	 7.3 MHz 15 MHz
Antenna Impedance	50 Ω
Operating voltage	7.5 V DC
Battery life with KNB-17A (5-5-90 duty cycle with battery saver off)	9 hours at 6 W
Operating temperature range	-22°F~ +140°F (-30°C ~ +60°C)
Frequency stability	±5 ppm (-22°F ~ +140°F)
Dimensions (W x H x D)	2-5/16 x 6-1/8 x 1-1/2 in. (58 x 155 x 38 mm) with KNB-17A battery
Weight (net)	21.2 oz. (600 g) with KNB-17A battery (without antenna)

	TK-190
RECEIVER (Measurements made per EIA/TIA-603)	
Sensitivity (12 dB SINAD)	0.25 µV
Selectivity	70 dB
Intermodulation	65 dB
Spurious response	70 dB
Audio output	500 mW at less than 3% distortion
TRANSMITTER (Measurements made per EIA/TIA-603)	
RF power output (Hi/Low)	6 W/1 W
Spurious/Harmonics	55 dB/60 dB
FM noise	45 dB
Modulation distortion	Less than 3%
Modulation	16K0F3E
Microphone impedance	1.6 kΩ

Kenwood reserves the right to change specifications and features without prior notice.
Intrinsically safe approvals are pending.

Applicable MIL-STD

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II Cat. A1	501.3/Procedure I, II Cat. A1
Low Temperature	502.1/Procedure I	502.2/Procedure I, II Cat. C1	502.3/Procedure I, II Cat. C1
Temperature Shock	503.1/Procedure I	503.2/Procedure I Cat. A1, C1	503.3/Procedure I Cat. A1, C1
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II
Humidity	507.1/Procedure II	507.2/Procedure II	507.3/Procedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I Cat. 8	514.4/Procedure I Cat. 8
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV

KENWOOD

Kenwood U.S.A. Corporation
Communications Sector Headquarters
3970 Johns Creek Court, Suite 100, Suwanee, GA 30024-1265

Order Administration/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

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