KENWOOD

2-m FM HANDHELD TRANSCEIVER

TR-2600E

TR-2600E 2-m FM Handheld Transceiver

The TR-2600E 2-m FM handheld transceiver has been designed placing special emphasis on compactness in size, superlative performance, and ruggedness of construction incorporating the latest in mechanical and electronic technology. Key features include an LCD display, a 10 channel memory with memory back-up, memory scan with programmable memory channel lock-out, programmable automatic band scan, keyboard frequency selection, and an easy-to-operate front panel keyboard layout. Flexibility of use is further expanded through availability of a wide selection of optional accessories. Of particular interest to the technology-oriented Amateur is KENWOOD's new DCS Digital Code Squelch, which allows selective calling, and automatic station call sign transmission.

<FEATURES>

COMPACT SIZE AND LIGHT WEIGHT.

The TR-2600E package is designed to be compact in size and light in weight. It measures only 66 (2-5/8) W×168 (6-5/8) H×40 (1-5/8) D, mm (inches), with a weight of only 510 grams (1.12 lbs.), including the manganese battery pack.

HIGH IMPACT COLOR MOLDED CASE.

The case is constructed using a special, high impact color molded material that is extra rugged and scuff-resistant, and features a molded-in color to further enhance its attractive styling.

DCS (DIGITAL CODE SQUELCH)

Allows the operator to program the transceiver to respond only to those transmissions that incorporate a preselected digital data signal.

LARGE LCD DIGITAL FREQUENCY READOUT.

Easy to read, in direct sunlight or in the dark (with lamp switch). Virtually no current drain. Displays transmit and receive frequencies, as well as those of memory channels. Display panel includes five "Arrow" indicators: "F. LOCK" (Frequency Lock), "REV" (Repeater Reverse), "PROG. S" (Programmed Scan), "MS" (Memory Scan), and "ALERT". (Alert Scan). A "star" indicates "MEMORY LOCK-OUT" has been activated. Simplex or standard repeater offset is indicated by "+", "S", or "—" in the display panel. Non standard offset (Mϕ) is indicated by "M".

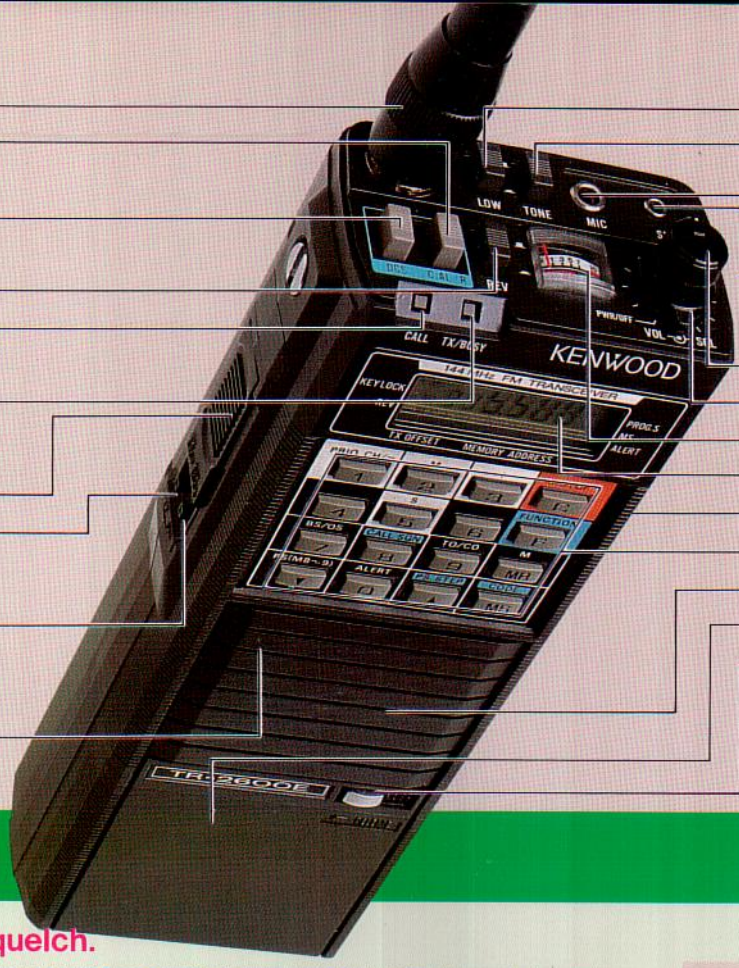
TEN-CHANNEL MEMORY.

Nine memories may be operated in the simplex mode, or with keyboard selectable transmit frequency offset ±600-kHz, permitting access to most repeaters. The tenth memory (Mϕ) may be used to shift the transmit frequency any amount desired, to allow operation on repeaters having non-standard split frequencies.

MEMORY SCAN AND PROGRAMMABLE BAND SCAN MODE SELECTIONS

During memory scan or band scan, scanning may be programmed to stop automatically on busy channels (Busy Scan), or when a vacant channel is encountered (Open stop). When the scan mode is programmed in "Time Operated Resume", and a busy channel (or a vacant channel) is encountered, scanning will stop on the channel, hold for approximately 5 seconds, and then resume scanning. When the scan mode is programmed in "Carrier Operated Resume", scanning will stop on the busy channel and will resume immediately when the signal ceases.

1. **Memory Scan plus Programmable Memory Channel Lock-Out.**
   Scans only those channels in which frequency data is stored. Programmable memory channel lock-out allows programming of memory scan to skip selected memory channels during scan without loss of data previously stored in that channel.
2. **Programmable Automatic Band Scan.**
   Memory channels 8 and 9 set the lower and upper frequency limits of scan. Scan steps of 5-kHz or larger (10, 15, 20, 25-kHz, etc.) may be programmed into memory, for increased operational efficiency.
3. **UP/DOWN Manual Scanning.**
   UP/DOWN scanning proceeds in 5-kHz steps. Depressing the UP or DOWN key momentarily, shifts the frequency up or down one step. Holding the key depressed for over one second initiates automatic scanning, UP or DOWN, as selected.



Antenna with BNC connector

C. AL/R switch
Used to restore code squelch that has been opened by a DSC signal.

DCS switch
Set to ON when operating the DCS system.

REV (Reverse) switch

DCS CALL indicator
Lights orange when proper DCS code is received.

TX/BUSY indicator
Lights red when transmitting. Lights green when receiving with squelch opened by incoming signal.

Push-To-Talk switch

TX STOP switch
This switch prevents accidental transmission if PTT switch is accidentally depressed in handling.

KEY LOCK switch
Place this switch "ON" and the displayed frequency will remain unchanged if the keyboard is accidentally depressed in handlings.

High quality electret condenser microphone

HI/LOW power output switch

Tone switch
The tone switch activated the accurate 1,750 Hz repeater access tone oscillator

Microphone jack

Speaker jack
To connect an earphone, external speaker, or an SMC-30 speaker microphone.

Power switch and volume control

SQL control

S meter, with battery check

LCD indicator

LAMP switch

Keyboard

High quality speaker

Battery case

Release button

DCS = Digital Code Squelch.

DCS "Digital Code Squelch", a revolutionary signalling concept for Amateur radio that utilizes the most advanced technology, has just been announced by TRIO-KENWOOD.
Not to be confused with CTCSS (Continuous Tone Coded Squelch System), DCS uses digital code information to open squelch on a receiver that has been programmed to accept the specific code being transmitted. The system recognizes 100,000 different 5 digit code signals, making it possible for each station to have its own "private call" code, as well as to have a "group call" or "common call" code. DCS is also effective in suppressing unwanted signals. A 6 digit (maximum) Amateur station call sign is programmed in ASCII code, and transmitted in conjunction with the DCS code. This digital data is transmitted automatically, whenever the transmit key is pressed and released, when the DCS switch is on. An optional "Call Sign Display" is available that stores the calling station call sign in its memory, for future reference, and also displays it on an LCD readout. The "Call Sign Display" is capable of storing the call sign data of up to 20 stations, allowing the operator to quickly check for calls, if he has been absent from his radio, and to review his contacts for logging purposes.
The DCS code uses mark and space frequencies within the normal speech bandwidth, which can easily be handled by a repeater.

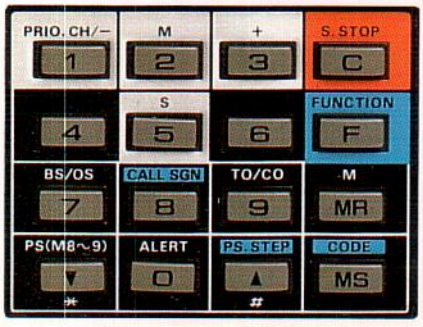
CD-10 Call Sign Display

BUILT-IN "S" METER, WITH BATTERY CHECK.

An analog-type "S" meter is located on the top panel of the TR-2600E. In the transmit mode, this meter indicates the charge condition of the battery.

KEYBOARD FREQUENCY SELECTION.

To set the operation frequency (across the full range) simply press the five appropriate keys to call out each digit of 10 MHz, 1 MHz, 100 kHz, 10 kHz, and 5 or 0 kHz.



LITHIUM BATTERY MEMORY BACK-UP.

Built-in Lithium battery memory back-up prevents loss of memory in case of complete discharge or removal of the Ni-Cd battery pack. Estimated life, 5 years.

TWO "LOCK" SWITCHES.

"F. LOCK" switch prevents accidental loss of selected frequency when in "LOCK" position.
"TX STOP" switch prevents accidental transmission if PTT switch is accidentally depressed.

TONE SWITCH

The tone switch activates the accurate 1,750 Hz repeater access tone oscillator.

HI/LOW POWER OUTPUT SELECTION.

HI/LOW power output switch allows operation at 2.5 W or, for extended battery life, 300 mW RF output.

REVERSE OPERATION.

Depressing the "REV" switch transposes the transmit and received frequencies. Useful for checking signals on the input of a repeater, to determine whether you are in simplex range, and to check for an "upside down" repeater on a specific frequency pair.

OPTIONAL POWER SOURCES.

Using the optional MS-1 or ST-2 charger/power supplies, the TR-2600E may be operated simultaneously during the charging process. When the unit is placed in position on the stand, automatic switching is accomplished that separates the battery charging circuit from the transceiver power supply circuit, allowing operation of the radio during charge without affecting the charge rate or the time required to reach completion of the charge cycle. (Automatic drop-in connections.)

"SLIDE-LOCK" BATTERY PACK.

Slides into position using special support guides, locks into place to prevent accidental loss during use. Optional extra battery pack, model PB-26, available. (manganese battery supplied)

HIGH EFFICIENCY, EXTRA THIN, QUALITY SPEAKER.

400 mW of audio output power combined with a highly efficient speaker permits use under less than ideal ambient noise level conditions.

OPTIONAL ACCESSORIES

CD-10
Call Sign Display
The CD-10 stores the call sign of the calling station in its memory and displays it on an LCD display. Call signs of up to 20 of the most recently calling stations are stored, allowing the operator to quickly check for and return any call.
(Option) AC-10: AC Adaptor

ST-2
Base Stand
●1 hour quick charge switches automatically to trickle ●Full operation while charging. Separate battery charge and power feeds for extended base operations. ●Drop-in connections.

MS-1
Mobile Stand
Cigar plug for instant connection. Full operation while charging at regular charge rate. Separate power feeds for extended mobile operations. Light for front keyboard is built-in. (Automatic drop-in connections.)

PB-26
Ni-Cd Battery

BT-3
AA Manganese/ Alkaline Battery Case

HMC-1
Headset with VOX

SMC-30
Speaker Microphone

HS-8
Micro Headphone

AX-2
Shoulder Belt with Ground Plane Antenna Base

SC-9
Soft Case with Belt Hook

LH-3
Deluxe Leather Case

EB-3
External C Manganese/ Alkaline Battery Case

DC-26
DC-DC Converter

RA-2/3/5
Antennas

VB-2530
RF Power Amplifier (25W output)

TR-2600E SPECIFICATIONS

[GENERAL]

Frequency Range	W 144—146 MHz
	W* 140.0—159.995 MHz (NOTE. 2)
Mode	F3 (F3E), F2 (F2D) = in DCS mode
Operating voltage	8.4 V DC ±25%
Power Requirement	9 V manganese or alkaline (not Ni-Cd) 6 pcs. battery case
	8.4 V, 450 mAH (Ni-Cd battery pack)
Current Drain	Transmit HI Less than 800 mA
	(at 8.4 V) LOW Less than 400 mA
	Receive (no input signal) approx. 35 mA
	Memory back-up: Less than 1 μA
Grounding	Negative
Operating Temperature	−20°C to+50°C
Antenna Impedance	50 Ω
Dimensions	With manganese battery: 66(2.6)
(Projections not included)	W×176 (7.0) H×39.5 (1.6) D mm (inch)
	With Ni-Cd battery: 66 (2.6) W×168
	(6.7) H×39.5 (1.6) D mm (inch)
Weight	With manganese battery: 510 g (1.12 lbs.)
	With Ni-Cd battery: 520 g (1.15 lbs.)

[TRANSMITTER]

RF Output Power	HI=2.5 W
	LOW=0.3 W approx.
Modulation	Variable Reactance Direct Shift
Frequency Tolerance	Better than $\pm 20 \times 10^{-6}$
	(−10°C~+50°C)
Maximum Frequency Deviation	±5 kHz
Spurious Radiation	Better than−60 dB

[RECEIVER]

Circuitry	Double Conversion Superheterodyne
Intermediate Frequency	1st IF=10.7 MHz
	2nd IF=455 kHz
Sensitivity	12 dB SINAD Less than 0.25 μV
Selectivity	More than 12 kHz (−6 dB)
	Less than 24 kHz (−40 dB)
Spurious Response	Better than 50 dB
Squelch Sensitivity	Less than 0.20 μV (threshold)
Audio Output Power	More than 400 mW (at 10% distortion and 8 Ω load)

NOTE 1. Circuit and ratings are subject to change without notice due to developments in technology.
2. Specifications are guaranteed for the 144~146 MHz Amateur Band only.

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