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Title: Ten-Tec KR-40 and KR-5 Electronic Keyers

Author: W4WFL

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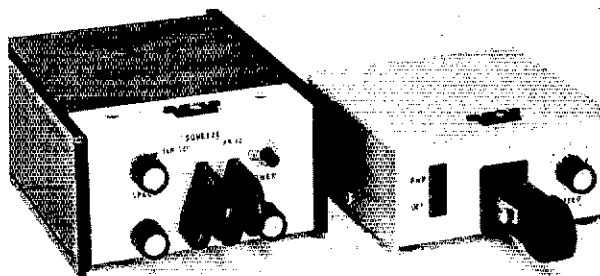


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Recent Equipment

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The Ten-Tec KR-40 and KR-5 Electronic Keyers

OUTWARDLY, the collection of Ten-Tec keyers appear pretty much alike, owing to the fact that the classic brown and white Ten-Tec cabinets are used as enclosures. Generally speaking, the paddles are similar too, and are fashioned from molded plastic. The KR-40, however, goes a step beyond the lower priced units by offering an adjustable weighting circuit, squeeze-keying paddle and a built-in sidetone monitor.

The KR-40

When this reviewer first began using the KR-40 some odd manifestations took place with respect to the keying speed. Without warning, the sender's speed would increase abruptly or decrease for short periods, causing what can only be called a trauma! It is a rather startling event when one is sending cw at, say, 20 wpm, then suddenly that person finds himself hustling along at 30 wpm! The immediate solution was to turn down the speed control and proceed with the QSO. But, alas, no sooner was the situation remedied then the speed jumped from 20 to 10 wpm! After doing some investigating it was learned that the problem resulted from a lack of regulation in the built-in power supply of the KR-40. Changes in ac line voltage (especially when the XYL was ironing) would cause the anomaly to occur. The matter was brought to the attention of the engineering staff at Ten-Tec, and the recommendation was made to them that a Zener-diode regulator be installed between the base of the pass transistor and ground in the power supply. After studying the situation for a few days, Ten-Tec notified us that a Zener diode would be used in all future models of the KR-40. They supplied us with a diode, it was installed, and no more problems with keying-speed glitches were observed.

It is difficult to comment about the features of any brand of keyer without reflecting the personal

biases of the reviewer. Certainly, no two cw operators share like views when it comes to overall performance. Therefore the observations to be listed are purely those of this writer, and may not apply with respect to the evaluations made by others.

Good Points

- 1) The electronics of the KR-40 provided faultless operation during six months of daily use.
- 2) No difficulty was experienced from stray rf getting into the keyer.
- 3) The unit is very compact, thereby being useful for portable operation when space is at a premium, and when one must travel in "schooner-rig" fashion.

Some Other Observations

- 1) The unit is rather lightweight. It was necessary sometimes to operate with a book atop the keyer to keep it in place on the desk.
- 2) The reed relay sticks and locks up when using the keyer with some grid-block-keyed rigs.

The Ten-Tec KR-40 Keyer

Dimensions (HWD) and Weight:

2-1/2 x 4-3/4 x 8 inches, 2-1/2 pounds.

Power requirements: 105 to 125 V ac at 0.125 A, 50 to 60 Hz.

Keying function: Iambic.

Price class: \$90.

Manufacturer: Ten-Tec Inc., Sevierville, TN 37862.

3) No terminals are available for attaching an external paddle.

4) There is no provision for external dc power connection.

5) No built-in speaker is provided for sidetone monitoring.

6) No switch exists for locking the keyer on during tune-up of the transmitter (some rigs do not have a tune function).

The foregoing may not represent operating inconveniences to other users, and should not be taken as bad points against the KR-40.

Features

This equipment has dot and dash memories. It is completely solid state. The KR-40 is a squeeze-type keyer, but can be used in the normal fashion by those who do not subscribe to the squeeze-keying concept. Speed is variable from 6 to 60 wpm. — *WICER*

The KR-5

The KR-5 may be Ten-Tec's low-priced keyer but it provides the user with the feel and performance normally experienced only with some more expensive units. The paddle is the first thing that catches the eye. Molded from black high-impact plastic, the paddle utilizes spring-loaded adjustment screws accessible from the front panel

which may be set for optimum actuation force and return time. This provides a surprisingly smooth and expensive feel. A traffic-handling friend who is a confirmed "bug" operator gave it his endorsement, saying that it was the only keyer he had ever used which had the right feel.

The completely solid-state circuitry is simple and straightforward. The weight ratio is fixed and favors the lower speeds (below 25 wpm) but may be varied by changing a single resistor. There is no sidetone monitor built in. Keyed output is obtained by a reed relay rated at 15 volt-amperes. Maximum keying voltage is 400. Its modest power requirement (6 volts dc at 150 mA or 12 volts dc at 200 mA) makes it a likely candidate for battery operation in the field or at home. — *W4WFL*

The Ten-Tec KR-5 Electronic Keyer

Dimensions (HWD) and Weight:

2 x 4 x 6 inches, 1 pound, 6 ounces.

Power requirements: 6 volts dc at 150 mA
or 12 volts dc at 200 mA.

Price class: \$35.

Manufacturer: Ten-Tec, Inc., Sevierville, TN
37862.

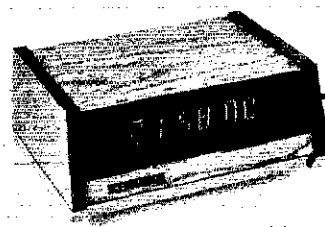
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The Heath GC-1005

Electronic Clock



THE REALLY "IN" THING to own for time keeping these days is a digital clock. What simpler way is there to obtain the information necessary for entry in the station log? With a digital clock you can merely glance at the display and write down four digits that are indicated (or six digits, if you're interested in keeping track of seconds, too).

Of course digital clocks in mechanical form have been with us for years. A relative newcomer to the clock field, however, is the moderately priced all-electronic digital clock. Some, by comparison, are quite expensive, and here is where the "do-it-yourself" approach can pay dividends. The Heath GC-1005 Electronic Clock kit, while costing more than an ordinary wall clock, can be obtained for considerably less cash outlay than most ready-to-plug-in devices with equivalent features. The time-to-build factor isn't bad, either. Heath rates

this clock as a "3-evening kit"; the working time between laying out the parts and checking off the last step in the instruction manual was just 9 hours for this writer.

The outside and inside views of the completed clock are shown in the photos. The cabinet is of jet-black molded plastic, and included with the kit is simulated wood-grain self-adhesive paper for optional decorative use. Inside the clock may be seen a power transformer and a pair of circuit boards, on which nearly all of the other components are mounted. The vital functions of the clock are handled inside a single integrated circuit — a big 24-pin job — which performs all of the timing and display-control tasks for the instrument. Most of the remaining components are associated with the display, serving to drive the indicators. Of course the advantage of an electronic clock over a mechanical one is that there are no moving parts to