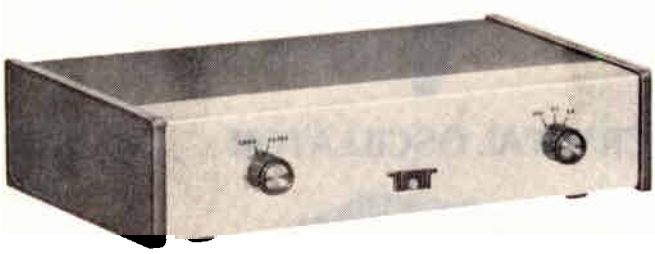
540/544 ACCESSORIES

REMOTE VFO

REMOTE VFO Model 242. Duplicate of the 540/544 VFO to allow two frequencies of operation. MODE switch with LED indicators selects any one of six modes: TRANSCEIVER transmit and receive; REMOTE transmit and receive; TRANSCEIVER transmit-REMOTE receive; REMOTE transmit-TRANSCEIVER receive; TRANSCEIVER transmit-BOTH receive; or REMOTE transmit-BOTH receive. Instant break-in any mode. Two-position crystal oscillator also may be selected for fixed frequency operation or out-of-band use (as much as 100 kHz from 80 and 40 meter band edges and 200 kHz from 20, 15 and 10 meter edges). Includes matching enclosure, cable (less crystals for 29-30 MHz VFO operation or fixed frequency modes). Ten meter crystals required: Model 212 for 29-29.5 MHz; model 213 for 29.5-30 MHz.

SPECIFICATIONS: FREQUENCY RANGE AND STABILITY: same as 540/544 transceivers. ACCURACY: ± 1 kHz from nearest calibration point. SWITCHING: instant break-in. PANEL CONTROLS: MAIN Tuning, BAND Switch, 5 pos. 28-30 MHZ Switch, 4 pos. REMOTE Switch, 3 pos. (VFO, X1 X2). MODE Switch: 6 pos. SEMICONDUCTORS: 1 IC, 13 transistors, 10 diodes. Powered by 540/544 transceivers. SIZE: HWD 4½" × 10⅜" × 8". Wt. 4 lbs.

ONE-SIXTY CONVERTER



ONE-SIXTY CONVERTER Model 240. Provides 540/544 transceivers with transmit and receive capabilities on 160 meters. Crystal controlled mixer converts 1.8-2 MHz signals to 3.5-3.7 MHz which are then tuned in the 80 meter mode. The crystal oscillator also mixes with the 540/544 VFO signal to provide proper injection for the transmitting mixer in the transceiver. A low pass filter is switched into the antenna line to reduce harmonics. Power input is reduced a nominal 25%. Panel switch also selects the two transceiver crystal channels when fixed frequency use is desired. Includes cables (less crystals).

SPECIFICATIONS: FREQUENCY RANGE: 1.8-2 MHz. SENSITIVITY: 1 μV for 10 dB S+N/N max. RECEIVER FEEDTHROUGH: −55 dB typical. POWER INPUT TO FINAL: 150 watts, approx. PANEL CONTROLS: 2 pos. band switch, 1.8-2 and 3.5-30.; 3 pos. mode switch, VFO, X1, X2. SEMICONDUCTORS: 1 IC, 3 transistors, 7 diodes. Powered by 540/544 transceivers. SIZE: HWD 2½" × 10⅜" × 6½". Wt. 2 lbs.

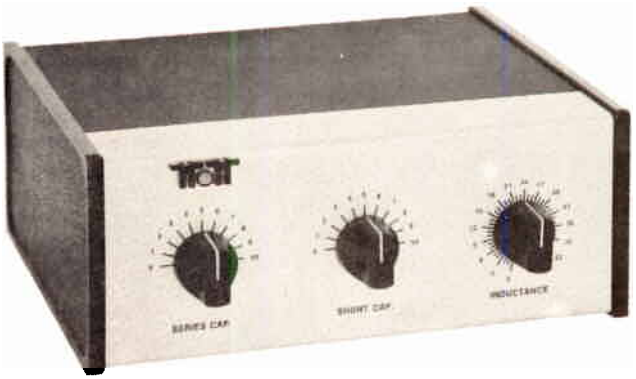
DIGITAL READOUT FOR 540

DIGITAL READOUT Model 244. Displays actual transmitted and received frequencies. The VFO output frequency, which is 9 MHz away from the operating frequency, is counted and a 9 MHz preset is either added to or subtracted from the count by means of the front panel mode switch, thus eliminating all VFO crystal tolerance errors. The 9 MHz oscillator tolerance error is eliminated by setting the time base gating oscillator to WWV. A COUNT position on the mode switch permits using the 244 as a straight frequency counter. Includes cable.

SPECIFICATIONS: RESOLUTION: 6 digits; least significant reads hundreds of Hertz. DIGIT SIZE: 0.4". DIGIT COLOR: MHz and kHz digits red; hundreds of Hertz digit green. INPUT VOLTAGE: 75 mV, min. 1-25 MHz, rising to 500 mV @ 50 kHz. FREQUENCY RANGE: 500 kHz to 22 MHz, min. PANEL CONTROLS: 5 pos. MODE Switch (OFF, 1.8-2, 3.5-7.5, 14-30, COUNT). SEMICONDUCTORS: 1 LSI (large scale integrated circuit), 6 ICs, 20 transistors, 9 diodes. Powered by 540/544 transceivers (requires 12-14 VDC @ 500 mA, max.). SIZE: HWD 2½" × 10⅜" × 6½". Wt. 1 lb., 14 oz.

ANTENNA TUNERS

- Unique New Design and Construction
- 47-Tap Silver Plated 18 Gauge Toroid Inductor
- 1,000 Volt Variable Capacitors
- 200 Watts, RF, Continuous Duty
- Covers 1.8 — 30 MHz
- Universal Transmatch Circuit
- Matches 50-75 Ohm Transceiver Outputs to Variety of Antennas
- Built-in Balun For Balanced Loads
- Reduces Harmonic Radiation
- Two Models — Tuner and Tuner/SWR Bridge
- Attractive Styling Complements Most Equipment



MODEL 247 ANTENNA TUNER. The design and construction of this new TEN-TEC antenna tuner is unique — so different that a patent is pending on it. A 47-tap toroid, two inches in diameter, with silver plated 18 gauge wire and silver plated tap selector, is the heart of this unusual tuner. Used in the popular universal Transmatch circuit with 1,000 volt variable capacitors, it permits vernier tuning for easy, accurate adjustment. Model 247 will match the conventional 50-75 ohm unbalanced output of transmitters or transceivers to a variety of load impedances, both balanced and unbalanced. A balun is built in. Antennas such as dipoles, inverted "V"s, long random wires, windoms, beams, rhombics, mobile whips, end fed Zepp and Hertz and similar types can be matched over a frequency range from 1.8 to 30 MHz. Power rating is 200 watts, rf, continuous duty. Housed in an attractive aluminum case with black end panels, the Model 247 matches TEN-TEC models 540 and 544 transceivers as well as many other models.

SPECIFICATIONS: Model 247. CIRCUIT: Universal Transmatch. RF POWER: 200 watts, continuous. CAPACITOR BREAKDOWN: 1 kV. INDUCTOR: 47 taps; 18 gauge silver-plated wire; silver-plated tap selector; 2" dia. core. INPUT Z: 50-75 ohms, unbalanced. OUTPUT: Matches all loads, balanced and unbalanced (max. *balanced* load on 160 and 80 meters is 600 ohms). FREQUENCY RANGE: 1.8 — 30 MHz. FINISH: Etched aluminum chassis and front panel; black textured sides and top. SIZE: HWD $2^{15}/_{16}$" × $7^{3}/_{4}$" × $6^{11}/_{16}$". WT. 3 lbs.

MODEL 277 ANTENNA TUNER/SWR BRIDGE. This versatile antenna tuner offers the same unique features of the model 247 above plus the handy addition of a built-in SWR bridge and meter. The SWR meter shows ratios of 1:1 up to 5:1 and values in-between; has panel mounted Sensitivity Control and Forward-Reverse Switch. Makes an ideal accessory to the TEN-TEC Century/21 transceiver with its added capabilities and black and gray styling; its easy, accurate adjustment and its dual functions make it a great addition to any operating set-up.

SPECIFICATIONS: Model 277. Same as model 247 except: SWR BRIDGE: metered readings to 5:1 ratios. FINISH: Gray chassis and front panel; black textured sides and top. SIZE: HWD 3½" × 10¼" × 6½". WT. 3 lbs.

TEN-TEC

ULTRAMATIC

MODEL KR50 ELECTRONIC KEYER

A completely automatic electronic keyer that is fully adjustable to your operating style and preference, speed, touch and weighting, the ratio of the length of dits and dahs to the space between them. It is a keyer you control, not the other way around, to transmit your thoughts clearly, articulately and almost effortlessly. The iambic (squeeze) feature allows the insertion of dits and dahs with perfect timing. It greatly reduces manual effort, prevents errors. Full instructions are included in the manual.

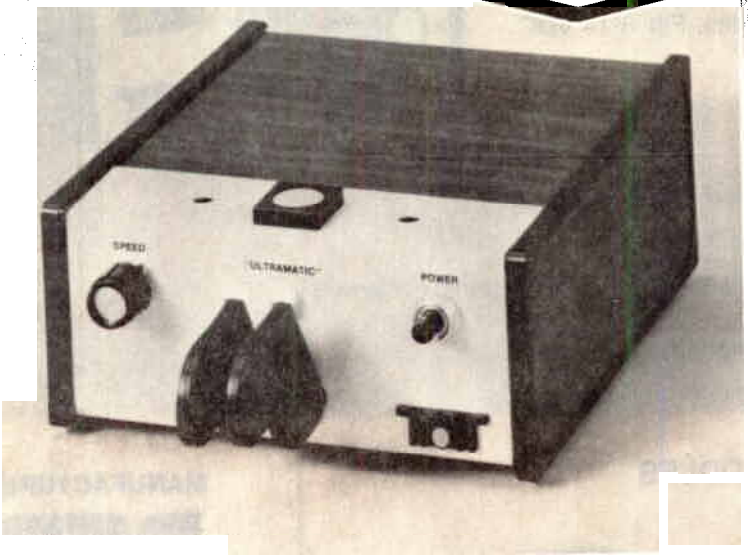
An automatic weighting system, pre-set by you. provides increased character to space ratio at slower speeds, decreasing as the speed is increased, keeping the balance between smoothness at low speeds and easy to copy higher speed. High intelligibility and rhythmic transmission is maintained at all speeds, automatically. Or, if a single preset constant weighting is desired, a switch provides it.

The paddles are the famous "Torque Drive" which are pivoted on low-friction ball bearing assemblies. Electro-magnetic return force is adjustable from nearly zero to over 50 grams. At any desired value, the "feel" is precise and smooth, for the kind of CW that is relaxing to send and a joy to copy.

Memories are provided for both dits and dahs but either may be defeated by switches on the rear panel. Thus, the KR50 may be operated as a full iambic (squeeze) keyer, with a single memory or as a conventional type keyer. All characters are self-completing, of course.

In addition, a convenient "straight key" button is provided for emphasis, QRS sending or transmitter tune-up.

The KR50 is designed to occupy a permanent place in your shack for the years, perhaps decades ahead. A permanent investment that will pay big dividends in the enjoyment of CW.

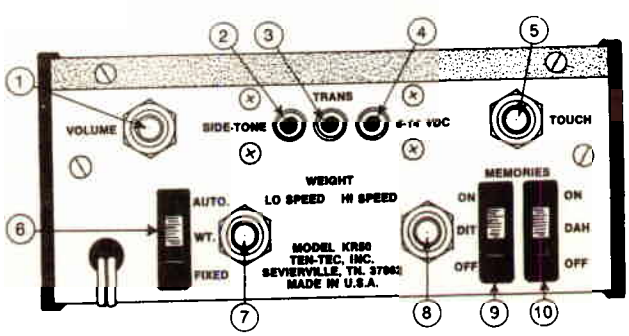


SPECIFICATIONS

Speed Range: 6-50 w.p.m.
Weighting Ratio Range: 50% to 150% of classical dit length.
Memories: Dit and dah. Individual defeat switches.
Paddle Actuation Force: 5-50 gms
Power Source: 117VAC, 50-60 Hz, 6-14 VDC
Finish: Etched Aluminum front, black textured top and sides.
Output: Reed relay. Contact rating 15 VA, 400 V. max.
Paddles: Torque drive with ball bearing pivot.
Side-tone: 500 Hz tone. Adjustable output to 1 volt.
Size HWD: 2½" X 5½" X 8¼"
Weight: 1¾ lbs.

REAR PANEL CONTROLS

1. Side-tone level control.
2. Side-tone output jack.
3. Keyed output jack to transmitter.
4. Input power jack for 6 to 14 VDC operation.
5. TOUCH control. Adjusts amount of electromagnetic force on paddles.
6. Weighting selection switch. In AUTO position weighting will change between preset limits as SPEED control is varied. In FIXED position, weighting will remain constant at preset amount regardless of SPEED setting.
7. LO SPEED weight control. Lengthens character ratio. Adjusts weighting limit to be obtained when SPEED control is at minimum when automatic weighting is used, or sets fixed weighting on heavy side, i.e. character length longer than normal.
8. HI SPEED weight control. Shortens character ratio. Adjusts weighting limit to be obtained when SPEED control is maximum when automatic weighting is used, or sets fixed weighting on light side, i.e. character length shorter than normal.
9. DIT MEMORY defeat switch.
10. DAH MEMORY defeat switch.

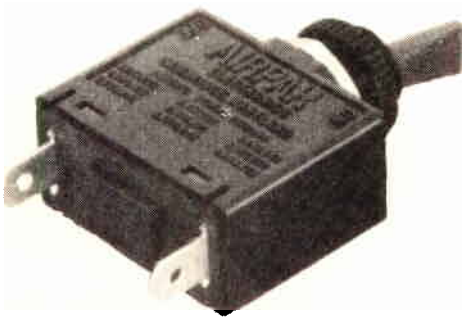


New! FROM TEN-TEC

NEW PRODUCT RELEASE

Models 1140 and 1170
Magnetic Circuit Breakers

FAST-ACTING MAGNETIC CIRCUIT BREAKERS NOW PROVIDE OVERCURRENT PROTECTION FOR TEN-TEC TRANSCEIVERS WHEN OPERATED FROM DC POWER SOURCES



Increasing interest in operating the TEN-TEC Century/21 on 12 volts DC for mobile and portable work prompted a search for an acceptable protective device to be used in these installations. Heretofore the required protection was incorporated in the AC power supplies by means of an electronic circuit breaker that tripped on over-current demand. Now, with Model 1170 Circuit Breaker for Century/21 installations and Model 1140 for Model 540/544 systems, the transceivers can be protected in DC situations.

Model 1170 has operating and trip current ratings of 5 and 6.75 amperes respectively, and Model 1140 has 18 and 24.3 amperes ratings. Both are furnished with installation instructions and necessary hardware for mounting either in the dashboard or on the rear panel of the transceiver. These breakers are manufactured by Airpax Electronics and mount in a 1/2" diameter hole.

Available in January, 1978.

Model 1140 Circuit Breaker, for Models 540/544.	Amateur Net Price	$ 8.75
Model 1170 Circuit Breaker, for Century/21	Amateur Net Price	$ 8.75

TEN-TEC, INC.
SEVIERVILLE, TENNESSEE 37862
EXPORT:5715 LINCOLN AVE., CHICAGO, ILL. 60646

REGULATED 12-14 VDC POWER SUPPLIES

TEN-TEC offers five power supplies in three current/wattage ranges. All have well regulated output voltages and overload protection circuits. These power supplies are designed to convert 117 VAC into a nominal 13 VDC. They are ideal for powering all types of mobile communications and electronic equipment from an AC power source. Their high degree of regulation eliminates possible malfunctions in equipment that present a varying load to the supply, such as Class AB, B, and C amplifiers. And their low ripple content, even at rated output current, guards against unwanted hum and modulation components entering the equipment.

All supplies are available with dual 115/230 VAC inputs at slight additional cost.

MODEL 262M HIGH CURRENT SUPPLY WITH BUILT-IN VOX

Designed especially for use with TEN-TEC transceivers, this deluxe power supply offers metered output, high current, and VOX facilities. The 262M will deliver up to 225 watts of DC power, just right for TEN-TEC transceiver models 540 and 544. An integral overload current protection circuit is activated when more than 20 amperes are drawn from the supply. This electronic circuit breaker is a latching type, requiring manual reset. Primary power is switched from the front panel or remotely from the transceiver. All solid-state circuitry with DC panel ammeter.

The VOX circuitry of the 262M provides this valuable operating facility without taking up more space at the operating position. A panel switch is provided for PTT operation and a unique circuit eliminates the Anti-VOX control. Your low-frequency voice components, not present in the transceiver speaker output, control the T/R switching. Model 262M/E (115-230 VAC)

SPECIFICATIONS — Power Supply:
INPUT VOLTAGE: 117 VAC, 50-60 Hz. OUTPUT VOLTAGE: 13.0 VDC, ±0.5 V. REGULATION: Better than 1%, no load to full load @ 117 VAC. OUTPUT CURRENT: Zero to 18 amperes. RIPPLE: Less than 60 mV, peak-to-peak @ 18 amperes and 117 VAC. CIRCUIT BREAKER: Trips at 20 amperes. Manual reset. OUTPUT CONNECTIONS: One 4-pin AMP MATE-N-LOK type. Two Phono Jacks for low current. FINISH: Satin aluminum front panel, black pebble-grain sides and top. SIZE: HWD 4½″×8¼″×13″. WEIGHT: 15 lbs.

SPECIFICATIONS — VOX:
MICROPHONE INPUT IMPEDANCE: Greater than 3 megohms, for crystal, ceramic, or hi-z dynamic mikes. TRANSMITTER MICROPHONE CHANNEL GAIN: Unity. MAXIMUM MICROPHONE INPUT LEVEL: 250 mV. SENSITIVITY OF VOX CHANNEL: Less than 1 mV @ 200 Hz trips T/R. DELAY: Adjustable from 0.1 to 1.0 sec.