

WARNING

THE TX100 EMPLOYS 650 VOLTS. DO NOT OPEN CASE
UNLESS LINE CORD IS REMOVED FROM AC OUTLET.

TX100 TRANSMITTER

GENERAL

The TX100 was designed to provide the Novice Radio Amateur with a transmitter that will operate at full legal power on the allocated Novice bands. It also may be used by a holder of a General class or higher license in the entire spectrum of the 80, 40 and 15 meter bands that are legally authorized to the license holder.

This transmitter is made for 115 volts, 50-60 cycles, AC power source.

ADDITIONAL EQUIPMENT REQUIRED

Antenna System: Individual or multiband

Key: With phono plug and cable

Crystals: FT-243 case size

INSTALLATION

Unpack carefully and inspect for shipping damage. If there appears to be external damage, immediately file a claim/with the carrier.

Remove the top cover by removing the two upper screws on the back. The top will then slide back and off. Install the three tubes, 6LQ6 output, 6CL6 oscillator, and 0A2 voltage regulator, that are packed inside the case. Be sure to press the white plate cap onto the top contact of the 6LQ6- output tube. Replace the top cover with its two screws and you are now ready to connect it for operation. Be sure the interlock switch is closed.

KEY (Back Panel)

Connect a telegraph key or electronic keyer to the phono jack provided. This takes a standard phono plug. (Two are provided with the TX100.)

GROUND (Back Panel)

Connect with #14 or larger wire to a good earth ground such as a cold water pipe or an eight foot metal ground rod driven completely into moist earth.

SIDE-TONE (Back Panel)

This is to be used with the TEN-TEC RX10 receiver. The output of this connection actuates the internal oscillator in the RX10 to provide a monitor tone. If the RX10 is used as your receiver, connect this "SIDE-TONE" output to the jack marked "KEY" on the RX10 receiver.

ANTENNA (Back Panel)

Connect your antenna to this receptacle. The antenna to be fed directly must be 50-75 ohms unbalanced, usually a dipole fed with a coaxial line. If an open wire fed antenna or long wire is used, a suitable coupler must be provided. The ARRL Handbook and other publications describe these in great detail.

Be sure to use an antenna for the particular band you are operating. Multiband antennas are also frequently used and work well with the TX100.

REC ANT (Back Panel)

This is a connection to your receiver input. The TX100 has a built-in relay that automatically keeps the antenna connected to the receiver when receiving, and transfers it to the transmitter when the key is closed. The relay circuit provides a delay time to keep the relay in the "TRANSMIT" condition for a short time after the key is released. This prevents the relay from following each dit and dah cycle of the key. The delay time of the relay circuit may be adjusted by a small control located on the printed circuit board, near the relay.

BIAS (Back Panel)

This control determines the bias level on the 6L06 output tube. To set this level, key the transmitter, then release the key. In the delay time before the relay opens, notice the plate current reading on the meter. This should be approximately .025 amperes (the lower indicator mark on the meter face). Adjust the bias control until the proper meter reading is accomplished.

POWER (Front Panel)

Push the power button to turn on the TX100. When "ON", the pilot light in the TEN-TEC logo will light. To turn off, again push the power button. NOTE: This transmitter is equipped with an interlock device that disconnects the AC power from the unit when the top cover is loosened or off. We strongly recommend that you do not attempt to operate this equipment with the top or end panels removed as the high voltages present may easily cause injury or death. It is always good practice to remove the line cord from the power connection when opening the case.

PLATE TUNE (Front Panel)

With all the previous connections completed, turn the TX100 "ON" and allow 30 seconds for the tubes to warm up. Be sure to install a crystal (front panel socket) and antenna for the particular band you have selected.

Starting with the "PLATE TUNE" control fully counter-clockwise, key the transmitter (depress the telegraph key). Note the plate meter reading. Quickly "dip the final" by rotating the "PLATE TUNE" control for minimum reading on the meter. Now set the bias level as outlined in an earlier paragraph,

LOADING (Back Panel)

Adjust with a screw driver to the particular band and antenna you have selected. Adjust this control for a maximum reading on the Plate Current meter. During the loading process, continually re-adjust the "PLATE TUNE" control for minimum.

Alternate between TUNE CONTROL (for minimum) and LOAD CONTROL (for maximum) until further adjustments are unnecessary.

With most antennas you need not re-adjust the loading. The advantage of three separate Loading Controls is that they can be pre-set for the individual bands.

NOTICE: WHILE TRANSMITTING, DO NOT EXCEED .15 AMPERES ON THE METER IF YOU HAVE A NOVICE LICENSE: In the event that your plate current (power input) does read in excess of .15 amperes, reduce the loading control. The TX100 meter has an indicator marking the .15 ampere level.

WARNING

Operate this transmitter where there is a free flow of air. Do not obstruct the vents on top or bottom of this equipment.

WARRANTY

The TX100 is guaranteed to be free from defects in workmanship and materials for one year from date of purchase. Please return your warranty card to TEN-TEC immediately after purchase.

SPECIFICATIONS

Power Source: 115 Volts, 50-60 cycle, AC

Power Output: Maximum 80 watts

Size: 4 1/2" H x 12 1/2" W x 6 1/2" D

Shipping Weight: 9 1/2 lbs.

Tubes Used: 6LQ6 Output, 6CL6 Oscillator, 0A2 Voltage Regulator
(If 0A2 regulator tube is replaced, use only RCA brand tube.)

Crystals Required: FT-243 Socket size---15 Meters, Triple; 40 Meters, or 80 Meters.

To: _____ Date: 5-18-04

We have received, for repair, your Ten-Tec

Model _____ Job No.: _____

has been assigned and any future correspondence regarding this repair should reference this number.

Ten-Tec, Inc. Repair Department, 865/428-0364

Hours: Monday-Friday, 8 am - 4 pm EST

Thank-you for your order -

Special Note: In answer to your question, how
many TX-100's were manufactured?

Approx - 165