

## **CRYSTAL CALIBRATOR FREQUENCY ADJUSTMENT**

Adjustment of the Crystal Calibrator must be made with an outside source, such as an external receiver that will tune to WWV. Remove transceiver cabinet and bottom. Locate the R.F. Amplifier tube socket, V6. Wrap one end of an insulated wire lead loosely around Pin 1. Connect the other end to the antenna terminal of the external receiver. Tune external receiver to zero beat WWV. Now turn on calibrator in 500-CX (either 100 or 25 KC position) and by listening to it on the external receiver, adjust trimmer capacitor C1603 (located on top of chassis next to 100 KC crystal) to zero beat with WWV.

## **25 KC MULTIVIBRATOR ADJUSTMENT**

The calibrator circuit board, located underneath the chassis has a trimmer type potentiometer which is used to adjust the multivibrator circuit so it divides the 100 KC calibrator output by a factor of 4, thus providing calibration markers every 25 KC. If markers are received every 20 KC, or every 33-1/3 KC, adjustment is required. Use a small screwdriver, and carefully turn the control to the location where calibration markers are properly received. An oscilloscope may also be used as an aid, if available.

## **S-METER ADJUSTMENT**

With antenna disconnected and with RF Gain fully clockwise, set R906, located on rear panel, for zero meter reading. Make sure no local signals are being received.

## **CARRIER BALANCE**

A carrier balance control is provided on the front panel, and is labeled CAR. BAL. This control permits insertion of carrier during CW operation for power control, as well as carrier insertion for AM operation, and as an aid in tuning the transmitter circuits. In addition to the carrier control, there is another located under the chassis near the balanced modulator tube socket, V13, the 6JH8. This control is called a "Quadrature control," and is of the screwdriver adjust, trimmer type. It will seldom require adjustment, but is recommended particularly when if the 6JH8 tube is replaced. A dummy load must be connected to the transceiver. Connect a sensitive VTVM across the dummy load, or across the coax. line. First tune for maximum output in normal manner. Then switch to TRANS. mode, and balance carrier with CAR. BAL. panel control. Finally, adjust trimmer, the Quadrature control, for carrier null.

## **L601 TRAP ADJUSTMENT**

Set bandswitch to 14 mc range. Feed strong 11.9 mc signal from signal generator into antenna jack. Tune around 14,225 until signal is found. Adjust L601 for minimum.