

an external receiver that will tune to WWV. To adjust the calibrator using the 600-R/600-T/Swan Transceiver combination, tune in WWV using the procedures described under "WWV RECEPTION WITH 600-R/600-T/Swan Transceiver Combinations" in the OPERATION section. These same tuning procedures apply when using the Model 508 with the 600-R. When the Model 330 General Coverage Tuner is used, tune in WWV direct. After WWV has been tuned in, turn on the 100 kc calibrator, and if the calibrator can be heard in the speaker, adjust C1302 (see Figure 7) to zero-beat with WWV. If an external receiver is used, locate the R.F. Amplifier tube socket, V1. 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. Turn on 100 kc calibrator, and by listening to it on the external receiver, adjust C1302 to zero-beat with WWV.

25 KC MULTIVIBRATOR ADJUSTMENT:

The calibrator circuit board 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. A small adjusting hole will be found on top of the R.F. tuner, directly back of V1, the R.F. Amplifier tube. Use a small insulated screwdriver, and carefully turn the trimmer control, R1308, until calibration markers are received every 25 kc (see Figure 7).

S-METER ADJUSTMENT.

Disconnect antenna, detune "PRESELECTOR" control for minimum noise, and turn R.F. GAIN to maximum clockwise position. Set R405, located on the rear panel, for zero meter reading. Make sure that no local signals are being received (see Figure 6).

BFO OSCILLATOR (CARRIER FREQUENCY) ADJUSTMENT:

NOTE

If the 600-R is mated to a 600-T, or to a Swan Transceiver, refer to "CARRIER SYNCHRONIZATION" paragraph in the INSTALLATION SECTION, and follow that procedure. If the 600-R is not mated to a Swan Transmitter, then use the following procedure.

To adjust the BFO oscillator:

1. Set **SIDEBAND SELECTOR** switch to **NORMAL** position.

2. Set **BAND** switch to 3.8 position.
3. Rotate **Main Tuning Dial** off of any 100 kc or 25 kc markers.
4. Detune **PRESELECTOR** control.
5. Turn on 100 kc calibrator.
6. If the 5500 kc BFO oscillator crystal is off frequency, an audible signal will be heard in the speaker of the receiver. Adjust C907 until the BFO is zero-beat with the calibrator (see Figure 8).
7. Since the **OPPOSITE BFO** crystal is 5503.3 kc, it cannot be adjusted with the 100 kc calibrator. To adjust the **OPPOSITE BFO** crystal frequency, it is necessary to use either a frequency counter; a 5503.3 kc crystal controlled frequency input; or have a receiver that has been accurately calibrated and can be tuned to exactly 5503.3 kc. Whichever method is used, adjust the receiver 5503.3 kc **OPPOSITE BFO** crystal frequency using C908 (see figure 8).

VFO ALIGNMENT:

A trimmer is provided for each VFO range. Trimmer adjustment for the five VFO ranges is through the top cover of the VFO compartment. An insulated adjusting tool is recommended. Dial tracking has been factory set by pruning the coils, and will not ordinarily require further adjustment.

When dial calibration changes beyond the adjusting range indicated on the **DIAL SET** dial, calibration may be restored by carefully adjusting the trimmer for that range (see Figure 7).

L106, 11.9 mc. TRAP ADJUSTMENT:

1. Set **SIDEBAND SELECTOR** in **NORM** position.
2. Set **BAND SWITCH** to 14.2.
3. Set **MAIN TUNING** dial to 0.
4. Set **DIAL SET** control to 0.
5. Peak **PRESELECTOR** in the 14 mc. range.
6. Feed an unmodulated 11.9 mc. R.F. signal into the antenna jack.
7. Set **Signal Generator** output level at 100 mv or better.
8. Tune the generator for audible beat note in the receiver.
9. Adjust L106 for minimum S-Meter reading (see Figure 7).