

VFO (Variable Frequency Oscillator)

- () Turn the calibrated receiver on and allow it to warm up. Tune the receiver to approximately 7.0 MHz.
- () Press the 7.0 MHz pushbutton on the Transceiver.
- () Connect one end of a suitable length of wire to the antenna terminal on the calibrated receiver. Loop the other end of this wire around coil L19/L21 as shown in inset drawing #2 on Figure 1-2.
- () Turn the Transceiver on and allow it to warm up for at least 30 minutes before you proceed with the following adjustments.

NOTE: In the following steps, you will zero beat the calibrated receiver; first against its own crystal calibrator, and then against the Transceiver. A zero beat is a point where the two frequencies being combined (or beat against each other) are exactly the same. As you approach zero beat, the tone caused by the two combined frequencies will gradually decrease in pitch and volume until it stops. This point is very sharp so you must tune very carefully.

- () Set the calibrated receiver's Function switch to the SSB or CW position.
- () Tune the calibrated receiver to 7.0 MHz. Then turn on its crystal calibrator and zero beat the receiver frequency against the crystal calibrator frequency.
- () Turn off the crystal calibrator. NOTE: Be careful that you do not change the setting of the receiver frequency.
- () Refer to inset drawing #1 of Figure 1-2 and insert the metal blade (#205-778) into the small end of the plastic nut starter.

NOTE: Use the alignment tool that you made from the nut starter and blade for all trimmer adjustments. DO NOT use a screwdriver.

- () Turn the Transceiver tuning dial to 0.
- () Adjust trimmer capacitor C302B until you hear a zero beat from the calibrated receiver.

- () Turn the Transceiver dial to 250.
- () Turn the calibrated receiver dial to 7.250 MHz.
- () Use the larger alignment tool to turn the slug in coil L9 until you hear a zero beat from the calibrated receiver. It may be necessary to turn down the calibrated receiver's AF gain control.
- () *Repeat the VFO alignment steps several times until the calibrated receiver's dial coincides with the 0 and 250 marks on the Transceiver's dial.*
- () Turn off the calibrated receiver and remove the wire from around coil L19/L21 in the Transceiver. The calibrated receiver will no longer be used.

MIXER AMPLIFIER

- () Turn the Transceiver tuning dial to 100.
- () Connect the RF Probe of the VTVM to test point TP2. This is the lead at the indicated end of R49, a 270 Ω (red-violet-brown) resistor.
- () Press the 3.5 MHz pushbutton and adjust coil L13 for a peak reading on the VTVM.
- () Press the 7.0 MHz pushbutton and adjust coil L14 for a peak reading on the VTVM.
- () Press the 14.0 MHz pushbutton and adjust coil L15 for a peak reading on the VTVM.
- () Turn the Transceiver tuning dial to 150.

NOTE: When you perform the next step, you may have to turn the coil slug several turns counterclockwise before you obtain a peak reading on the VTVM.

- () Press the 21.0 MHz pushbutton and adjust coil L16 for a peak reading on the VTVM.
- () Disconnect the RF Probe from Test point TP2.