

ALIGNMENT

The coils and transformers in your Transceiver have been preset at the factory. Only minor readjustments should be necessary during the following alignment procedure.

The following equipment is necessary for alignment of the Transceiver.

1. A test meter, such as an 11 megohm input voltmeter. (Vacuum tube and solid-state models are found in the Heath catalog.) A 20,000 ohm-per-volt VOM may be used, but will load the circuits to a greater extent.
2. A 50 Ω nonreactive dummy load that is capable of 100 watts dissipation, such as the Heathkit Antenna. Do not use light bulbs for a dummy load as they present an impedance which varies with power and frequency.
3. A receiver capable of receiving WWV at 2.5, 5, 10, or 15 MHz. If this type of receiver is not available, a receiver tunable to a standard broadcast station which is operating at an even multiple of 100 kHz (such as 600 kHz, 1000 kHz, etc.) can be used.
4. An accurate 100 kHz standard oscillator may be used for the alignment of tuned circuits. **DO NOT** use such an oscillator to adjust the Transceiver crystal calibrator. For this purpose refer to the "Crystal Calibrator Alignment" section of this Manual.

For the alignment of the transmitter section it is recommended that you use an oscilloscope, such as the Heathkit Signal Monitor Scope to observe the output RF envelope.

WARNING: Do not place the Transceiver in the transmit mode of operation until directed to do so or the Transceiver may be seriously damaged.

(✓) Connect a 50 Ω dummy load, capable of 100 watts dissipation, to the ANTENNA jack on the rear of the chassis. **CAUTION:** Do not use light bulbs as a dummy load.

(✓) Be sure an 8 Ω speaker is connected to the 8 Ω jack on the rear of the chassis.

(✓) Preset the CAL XTAL trimmer so its notch is towards the 100 kHz crystal as shown in Figure 1-2 (fold-out from Page 100).

(✓) Preset the front panel controls as follows:

DRIVER PRESELECTOR – 12 o'clock position.

MIC/CW LEVEL – fully counterclockwise.

MODE – LSB.

BAND – 3.5.

MAIN TUNING Dial (VFO) – 200.

FUNCTION – PTT.

RF GAIN – fully clockwise.

METER – ALC.

AF GAIN – 9 o'clock position.

S METER ADJUSTMENT

(✓) Adjust the ZERO ADJ control (on the right side of the chassis) for a zero indication on the meter with the antenna disconnected and the RF GAIN control at the full clockwise position.