

ALIGNMENT INSTRUCTIONS

WARNING

Any repairs or adjustment should be made under the supervision of a qualified radio-telephone technician.

1. TRANSMITTER

1-1. Power Supply Voltage

The power supply voltage should be set for 6.0 V DC measured at the radio during transmit. Periodically check the supply voltage during the alignment procedure.

1-2. Frequency Setting

- A. Connect a frequency counter or Communications Service Monitor to the antenna connector through an RF power attenuates (5 watt minimum rating, 20 dB minimum attenuation).
- B. Depress the PTT switch.
- C. Adjust the TCXO such that output frequency is equal to the channel. Frequency with a maximum error of ± 300 Hz.
- D. Adjust CT301 for ± 300 Hz.
- E. Release the PTT switch.

1-3. Output Power Alignment

- A. Set the power supply voltage for 6.0 V DC.
- B. Connect a communications Service Monitor or a wattmeter and dummy load to the antenna connector.
- C. Depress the PTT switch.
- D. To be convinced for 2.0 watt output power with a maximum error of ± 0.2 watt.
- E. Release the PTT switch.

1-4. Deviation Adjustment

- A. Connect an audio generator to the microphone jack JIG. The audio frequency should be set at 1 kHz
- B. Connect an FM deviation meter or communication Service Monitor to the antenna connector
- Through an RF power attenuates (5 watt minimum rating, 20 dB minimum attenuates). Set the monitor to read peak deviation.
- C. Depress the PTT switch.
- D. Adjust the audio generator level 100 mV rms.
- E. Adjust RV801 for 2.3 kHz maximum deviation.
- F. Release the PTT switch.

2-2. RECEIVER

Note : Insure that the proper channel has been selected before proceedings with the alignment procedure.

2-1. Power Supply Voltage.

The proper voltage for testing is 6.0 V DC.

2-2. Receiver Alignment

- A. Connect an RF signal generator or Communications Service Monitor to the antenna connect.
- B. Connect a SINAD meter and oscilloscope across the speaker terminals.
- C. Set the output level of the RF signal generator for -47 dBm the generator should be set for 1.5 kHz deviation of a 1 kHz tone.
- D. Set the audio output level for 0.6 Vrms by adjusting volume.
- E. Adjust L106 for maximum audio output.
- F. Reduce the output level of the RF signal generator for produce a 12 dB SINAD indication.