

## **FRS 300 ALIGNMENT INSTRUCTIONS**

### **WARNING**

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

### **TRANSMITTER**

#### **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.

#### **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  $\pm 300$  Hz.

D. Adjust CT301 for  $\pm 300$  Hz.

E. Release the PTT switch.

#### **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 0.5 watt output power with a maximum error of  $\pm 0.1$  watt.

E. Release the PTT switch.

#### **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 attenuater (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.