

The ISC-T8411E power amplifier does not have any field adjustable components. The following procedures can be conducted in the event of module replacement to return the unit to operating condition.

## VCO-2 Adjustment Procedure

Perform the VCO-2 adjustment procedure after installing new VCO/RF amplifier board or after setting new channel carrier frequency. If the transmitter is to operate at more than one frequency, perform the multichannel adjustment procedure. If the transmitter is to operate at only one frequency, perform the single-channel adjustment procedure. Refer to the DSP exciter VDT manual as necessary.

### 7.3.1 VCO-2 Multichannel Adjustment Procedure

1. Set up VT-100 VDT and select local control (see VDT manual).
2. Select transmitter channel of lowest frequency if not already selected.
3. Use tuning tool supplied to adjust **VCO ADJ** control through exciter front panel. Adjust for a reading of 2.8 volts (3.5 volts for wideband VCO 263-0082-062), on VCO2 status display.
4. Return transmitter to service. Procedure is complete.

### VCO-2 Single-Channel Adjustment Procedure

This procedure does not apply to wideband option.

1. Set up VT-100 VDT and select local control (see VDT manual).
2. Select transmitter channel of operating frequency if not already selected.
3. Use tuning tool supplied to adjust **VCO ADJ** control through exciter front panel. Adjust for reading of 5.0 Vdc on VCO2 status display.
4. Return transmitter to service. Procedure is complete.

## Forward Power Calibration

- Press K to unkey transmitter if transmitter is keyed.
- Connect wattmeter and dummy load to transmitter RF output.
- Press K on VDT keyboard to key transmitter.
- Press and hold U on VDT keyboard until wattmeter reads correct wattage if wattmeter reads below that wattage.
- Press and hold D on VDT keyboard until wattmeter reads correct wattage if wattmeter reads above that wattage.
- Press Enter on VDT keyboard when the wattmeter reads correct wattage.

- Press N on VDT keyboard if wattmeter does not read correct wattage.
- Press Y on VDT keyboard if wattmeter does read correct wattage.

#### **Caution**

**Wattmeter must read exactly correct wattage to ensure proper metering.**

- Menu displays **TX CALIBRATED**. Press K on VDT keyboard to unkey transmitter.
- Disconnect wattmeter and dummy load; return transmitter to service.

## **Reflected Power Calibration**

Disconnect coax cable from output.

- Press `Enter` to calibrate isolator REF PWR.
- Isolator reflected power is calibrated. Press enter to proceed.
- Reconnect coax cable to output of isolator.
- Turn potentiometer R235 fully counterclockwise.
- Disconnect coax cable from output of PA.
- Press `Enter` to calibrate PA REF PWR.
- Reflected power calibrated, proceed to following steps.
- Adjust R235 until VSWR LED on exciter front panel just indicates red.
- Turn ac power off then reconnect PA RF output to isolator input.
- When ac power is restored, the transmitter will come up in the remote mode.

This procedure is finished.