

## POWER SUPPLY SOURCE CURRENT CONSIDERATIONS

**NOTE:** The information in this section does not apply to the Heath Models HP-13 and HP-23 Power Supplies.

When using an AC power supply where primary current is of little concern, or when the Transceiver is used with a linear amplifier, the small **OPTIONAL** jumper should be installed in section 4A of the circuit board.

Where conservation of primary current is important, such as in mobile use, about 1 ampere of current can be saved when operating in the receive mode by making the following changes, if the **OPTIONAL** resistors have been installed.

- ( ) Remove the short **OPTIONAL** jumper in section 4A of the circuit board. Connect one end of a wire to point V on the foil side of the circuit board. Pass this wire through grommet AA and along the cable assembly to the relay. Connect the wire end to lug 3 of the relay, with the yellow-white wire of the relay. With the relay wired in this manner, bleeder current will flow only when the Transceiver is operated in the transmit mode. However, the Ext Relay jack can no longer be used to control an external circuit, such as a linear amplifier, therefore, this modification is not always practical.

## ALTERNATE POWER SUPPLY CONSIDERATION

Power supplies other than those previously mentioned may be used with the Transceiver. The power supply used must meet the requirements listed in the Specifications of this manual, with the following possible exception: If the power supply meets all requirements except that its B+ screen voltage is too high (275 to 325 volts), the following changes can be made on the Transceiver circuit board. These changes will provide the proper screen voltage to tubes V5, V6, and V7. **NOTE:** The **OPTIONAL** resistors mentioned below are not supplied in the kit. These resistors can be obtained from a local parts supplier.

1. Remove the long jumper in section 4A of the circuit board.
2. Install a 1000  $\Omega$  4 to 7 watt resistor and a 10 K $\Omega$  7 to 10 watt resistor at the **OPTIONAL** locations in section 4A of the circuit board. These resistors should be placed about 1/4" above the circuit board to prevent heat damage to the board. Use 1/2" of sleeving on each lead.
3. Install the short **OPTIONAL** jumper at V in section 4A of the circuit board. **NOTE:** Be sure the power cable of the power supply has #18 or larger wire for the filament circuit. All other wires can be as small as #22 wire.

## ALIGNMENT AND ADJUSTMENT

Refer to Pictorial 19 (fold-out from Page 47) for the following steps.

Set the controls as follows:

RF GAIN: fully clockwise.

VOX, VOX DELAY, AF GAIN, and TUNE LEVEL: half rotation.

FINAL BIAS and MIC GAIN: fully counterclockwise.

Meter Switch: BIAS SET.

FUNCTION switch: OFF.

Using an ohmmeter, make the following resistance checks at the Power plug:

- Pin 1: 30 K $\Omega$
- Pin 3: 50 K $\Omega$  (10 K $\Omega$  when using **OPTIONAL** resistors)
- Pin 4: Infinity

If any of these resistance readings vary more than  $\pm 20\%$ , refer to the In Case Of Difficulty section of the manual before proceeding.

## RECEIVER ALIGNMENT

**NOTE:** Phono plugs are provided for making connections to the sockets on the rear of the Transceiver.

Connect an 8  $\Omega$  speaker (a 3.2  $\Omega$  to 16  $\Omega$  speaker may be used with reduced efficiency) to the SPKR socket, and a 50  $\Omega$  dummy load to the ANT socket. With the power supply wired according to the instructions in the Power Supply section of the Manual, connect it to the Transceiver Power plug. Make sure the VOX DELAY control is at the center of its rotation.