

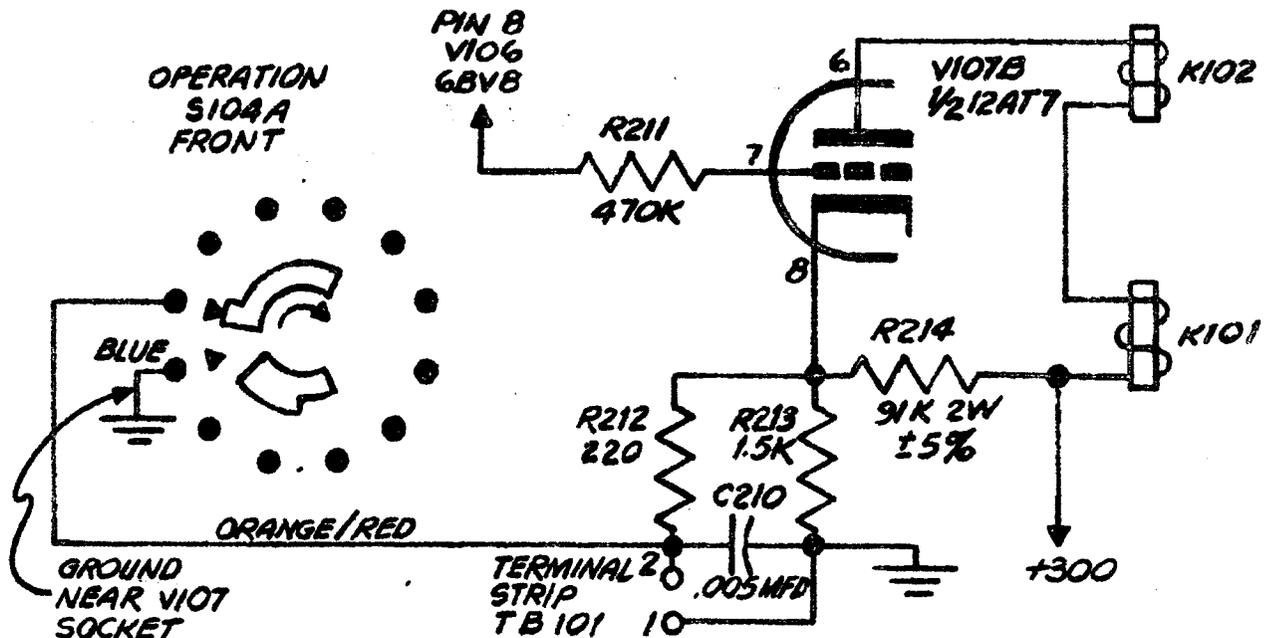
HAMMARLUND MANUFACTURING COMPANYHX-50 RELAY TRIP MODIFICATION INSTRUCTIONS

The purpose of this modification is to eliminate the tendency of the VOX relays to "hang up". This modification reduces the idling current through the relays to a value considerably below the drop-out point to which the relays have been adjusted.

In addition, this modification will permit the push-to-talk switch to be operated against ground.

1. Unsolder the ground wire and capacitor from the antenna relay coil terminal and remove the wire and the capacitor.
2. Feed a 5½ inch long insulated wire through the grommet hole and solder one end of it to the relay coil terminal.
3. Remove R151, 18K, 2 w. resistor from the terminal strip adjacent to the output shield compartment.
4. Remove R152, 8.2K, 2 w. resistor from the terminal strip and replace it with a 91K, 2 w. ±10% resistor.
5. Solder the other end of the wire installed in step (2) to the terminal strip lug to which a red wire is connected.
6. Install a 220 ohm ½ watt resistor between the lug to which the orange and white lead is connected and the lug to which the yellow and red lead is connected.
7. Remove both blue leads and capacitor C161, .01 mf from pin 8 of V107b.
8. Remove the orange and white lead and C149 .22 mf from pin 6 of V107b and solder it to pin 8 of V107b.
9. Install a 1.5K ½ watt resistor from pin 8 of V107b and ground.
10. Find the blue lead which connects to the VOX relay K102 and solder it to pin 6 of V107b.
11. Solder the other blue lead to ground near V107b.

12. Remove the red and yellow lead and C147 .22 mf from pin 7 of V107b, lengthen lead of the capacitor, slip a piece of spaghetti over it and connect it to pin 8 of V106. Cut the red and yellow lead short to the cable run.
13. Remove the jumper between pin 8 of V106 and pin 7 of V107b and install a 470K, ½ watt resistor in place of the jumper.
14. Replace R148 (470K, ½ watt) with a 1 meg, ½ watt +10% resistor.
15. Remove the red and yellow lead from terminal 2 of TB101, cut it short to the cable run and install a 2½ inch long insulated wire between terminal 2 of TB101 and the yellow and red wire on the terminal strip junction of yellow and red wire and 220 ohm resistor.
16. Remove C210 (.005 mf disc ceramic) and R154, 10 meg resistor from terminal 1 of TB101 and terminal lug strip.
17. Ground terminal 1 of TB101.



PARTS REQUIRED FOR MODIFICATION

<u>Symbol No.</u>	<u>Description</u>
R212	Resistor, Fixed 220 ohms <u>+10%</u> , ½ w.
R213	Resistor, Fixed 1.5K <u>+10%</u> , ½ w.
R214	Resistor, Fixed 91K, <u>+5%</u> , 2 w.