

MESSENGER 123A POSITIVE GROUND INSTALLATION INSTRUCTIONS

These instructions describe the modification of a Johnson Messenger 123A from negative ground operation to positive ground operation using the conversion kit, Part No. 023-3326-001.

1. Remove the cabinet, refer to Figures 1 and 2 for the following steps.
2. Cut the red B+ lead approximately two inches from the DC power input jack, J3.
3. Remove capacitor C40.
4. Disconnect capacitor C78, remove resistor R68 and the jumper from the antenna jack, J2.
5. Loosen the audio transistors, Q11 and Q12, by removing the heat sink hold down screws from the rear chassis rail.
6. Remove the nine metal screws holding the printed circuit board to the chassis rail.
7. Gently separate the printed circuit board and the rear chassis rail. Place a piece of black electrical tape on the rear chassis rail between the rail and the edge of the printed circuit board.
8. Fasten the printed circuit board to the chassis rail using nylon screws. When tightening the nylon screws, avoid excessive torque as the nylon screws will strip easily.
9. Replace capacitor C40 with the short length of red wire from step 2 above.
10. Reconnect capacitor C78 to the center conductor of

J2. Solder the included 47K ohm resistor from the shell of J2 to the center conductor.

11. Replace the jumper from the shell of J2 to ground with the supplied 4700 pF capacitor.
12. Solder the red B+ lead to the shell of J2.
13. Fasten transistors Q11 and Q12 to the rear chassis rail by replacing the heat sink hold down screws.

NOTE

The printed circuit board should be completely isolated from the chassis rail. Tape may be needed between the board and the bottom two screws holding the front panel to the chassis.

14. Attach the enclosed label to the rear panel, near the power connector, indicating that the unit has been modified for positive ground operation.
15. Reassemble the transceiver.

PARTS SUPPLIED

QTY	PART DESCRIPTION	PART NUMBER
9	Nylon screws, 4-40	575-4504-008
1	Capacitor, ceramic disc, 4700 pF $\pm 20\%$	510-3001-472
1	Resistor, 47K ohm 1/2 W	569-1004-473
1	Caution Label	559-4006-003

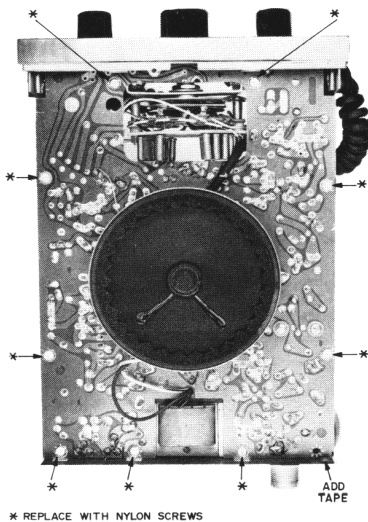


FIGURE 1
MESSENGER 123A BOTTOM VIEW

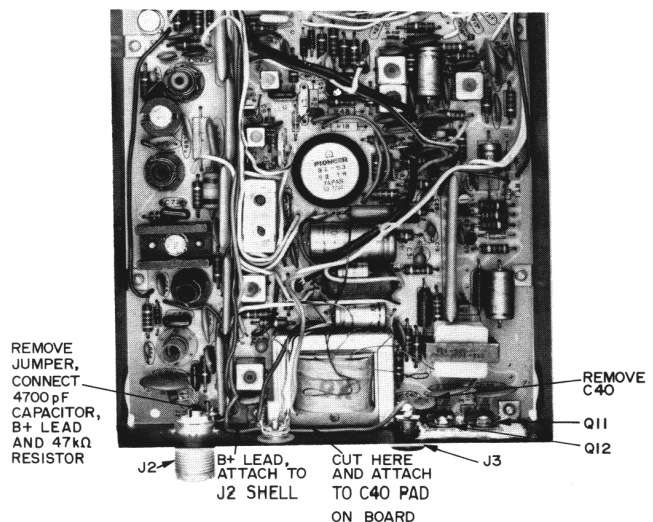


FIGURE 2
MESSENGER 123A TOP VIEW



E. F. JOHNSON COMPANY
WASECA, MINNESOTA 56093

2-75EFJ

004-3326-001

Printed in U.S.A.