

GENERAL ELECTRIC

Models P745A, P746A

TO REMOVE CIRCUIT BOARD

1. Remove cabinet back by twisting a coin in the two slots provided along bottom of the cabinet.
2. Remove the four screws that secure the circuit board to cabinet bosses. (SEE COMPONENT WIRING DIAGRAM FOR MOUNTING SCREW POSITIONS).
3. Remove the two screws that secure circuit board to speaker. (SEE COMPONENT WIRING DIAGRAM FOR MOUNTING SCREW POSITIONS).
4. Swing circuit board out of cabinet front. Leave all connecting leads attached to volume control and tuning capacitor.

TO REMOVE TUNING CAPACITOR

1. Follow steps 1 and 2 as above.
2. Remove tuning knob by unscrewing the thumbscrew in its center in a counterclockwise direction.
3. Remove the flat head screws located under tuning knob.

TO REMOVE VOLUME CONTROL

1. Follow steps 1 through 3 as above.
2. Remove on-off volume knob by unscrewing the screw in the center of the knob.
3. Remove hex nut from volume control shaft.
4. Move tuning capacitor slightly and lift out volume control.

TROUBLESHOOTING

A check of the battery condition and total current drain of the receiver should be made first. All current measurements are made at quiescence with the receiver turned on, volume control at maximum, tuning gang closed, and with no signal conditions.

CAPACITORS

RS-1378	CA, B, C, D	Tuning Capacitor.....
RS-1022	C1, 3	.01mf., 450V.....
	C2, 7	.01mf., 50V.....
	C4	150mmf., 300V.....
RS-1462	C5	8mf., 6V.....
	C6, 9	390mmf., 300V.....
RS-1024	C10, 17, 19	.05mf., 50V.....
	C18	.003mf., 100V.....
RS-1463	C16	32mf., 6V.....
RS-1460	C11, 12, 14, 15	3mf., 6V.....

The total receiver current drain is 15 to 20 mls. This is measured by inserting a milliammeter in series with the batteries.

If an excessive total current drain is recorded, the individual collector current readings of each transistor should be checked. An excessive current reading may mean a shorted transistor; no current will indicate that a transistor or associated circuit components are defective.

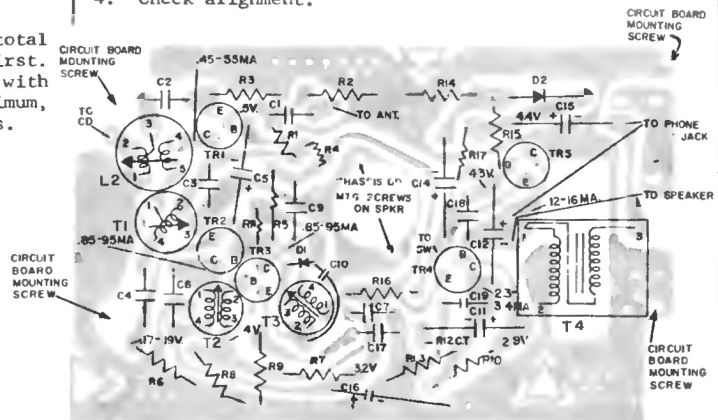
A single-edge razor blade is a satisfactory tool for cutting the copper circuit wiring, so that a milliammeter can be inserted in series with the break to measure the current flow. After each current check is completed, solder the cut carefully to complete the circuit again.

NO RECEPTION:

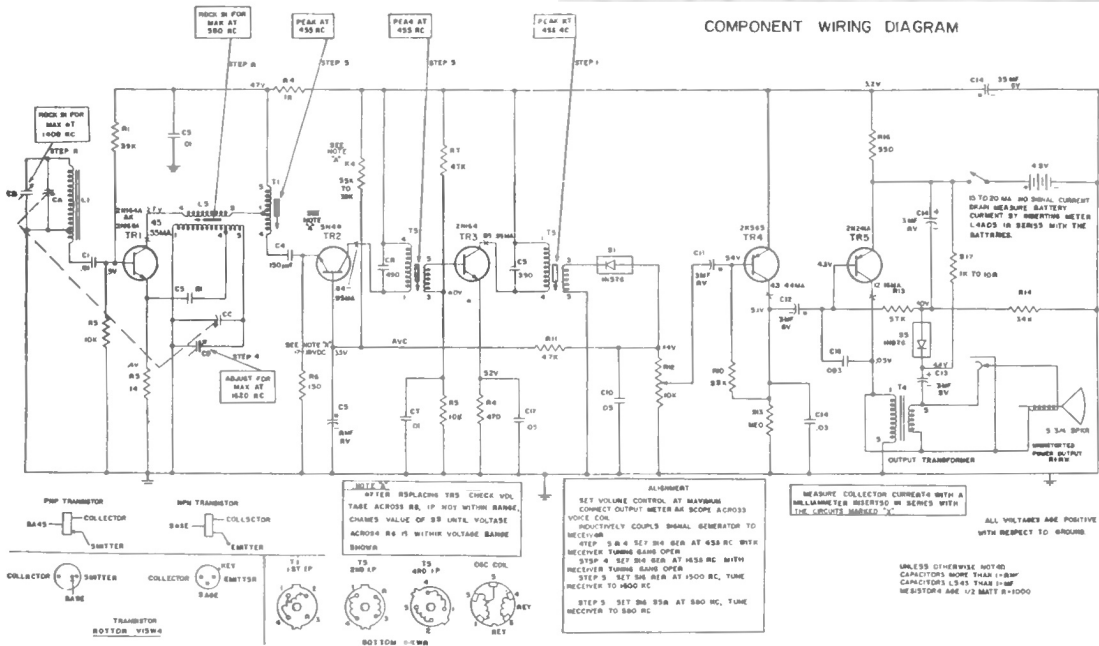
1. Check battery voltage and battery contacts.
2. Check on-off switch.
3. Check all antenna lead connections.
4. Check coil L2.

WEAK AUDIO:

1. Check battery voltage for 4.5 volts.
2. Check battery current.
3. Check transistor collector currents.
4. Check alignment.



COMPONENT WIRING DIAGRAM



TROUBLESHOOTING

A check of the battery condition and total current drain of the receiver should be made first. All current measurements are made at quiescence with the receiver turned on, volume control at maximum, tuning gang closed, and with no signal conditions.

The total receiver current drain is 15 to 20 mls. This is measured by inserting a milliammeter in series with the batteries.

If an excessive total current drain is recorded, the individual collector current readings of each transistor should be checked.

NO RECEPTION:

1. Check battery voltage and battery contacts.
2. Check on-off switch.
3. Check all antenna lead connections.
4. Check coil L2.

WEAK AUDIO:

1. Check battery voltage for 4.5 volts.
2. Check battery current.
3. Check transistor collector currents.
4. Check alignment.

INTERMITTENT:

1. Check battery contacts for corrosion.
2. Check solder connections on dip-soldered side of circuit board.

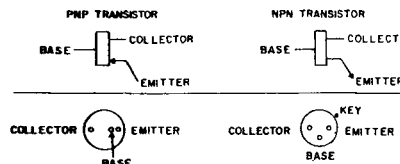
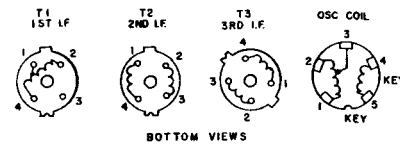
Intermittent audio, motorboating, and poor reception is frequently caused by poor battery contact. The battery terminals should be cleaned to insure positive electrical contact.

ALIGNMENT

SET VOLUME CONTROL AT MAXIMUM.
CONNECT OUTPUT METER OR SCOPE ACROSS VOICE COIL.
INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER
STEP 1.2 & 3 - SET SIG. GEN AT 455 KC, WITH RECEIVER TUNING GANG OPEN
STEP 4 - SET SIG. GEN. AT 1620 KC, WITH RECEIVER TUNING GANG OPEN
STEP 5 - SET SIG. GEN AT 1400 KC, TUNE RECEIVER TO 400 KC.
STEP 6 - SET SIG. GEN AT 580 KC, TUNE RECEIVER TO 580 KC.

NOTES—

- (1) TRANSISTOR 2N169A, 2N169B, 2N169C, 2N169D, 2N169E, 2N169F, 2N169G, 2N169H, 2N169I, 2N169J, 2N169K, 2N169L, 2N169M, 2N169N, 2N169O, 2N169P, 2N169Q, 2N169R, 2N169S, 2N169T, 2N169U, 2N169V, 2N169W, 2N169X, 2N169Y, 2N169Z, 2N169AA, 2N169AB, 2N169AC, 2N169AD, 2N169AE, 2N169AF, 2N169AG, 2N169AH, 2N169AI, 2N169AJ, 2N169AK, 2N169AL, 2N169AM, 2N169AN, 2N169AO, 2N169AP, 2N169AQ, 2N169AR, 2N169AS, 2N169AT, 2N169AU, 2N169AV, 2N169AW, 2N169AX, 2N169AY, 2N169AZ, 2N169BA, 2N169BB, 2N169BC, 2N169BD, 2N169BE, 2N169BF, 2N169BG, 2N169BH, 2N169BI, 2N169BJ, 2N169BK, 2N169BL, 2N169BM, 2N169BN, 2N169BO, 2N169BP, 2N169BQ, 2N169BR, 2N169BS, 2N169BT, 2N169BU, 2N169BV, 2N169BW, 2N169BX, 2N169BY, 2N169BZ, 2N169CA, 2N169CB, 2N169CC, 2N169CD, 2N169CE, 2N169CF, 2N169CG, 2N169CH, 2N169CI, 2N169CJ, 2N169CK, 2N169CL, 2N169CM, 2N169CN, 2N169CO, 2N169CP, 2N169CQ, 2N169CR, 2N169CS, 2N169CT, 2N169CU, 2N169CV, 2N169CW, 2N169CX, 2N169CY, 2N169CZ, 2N169DA, 2N169DB, 2N169DC, 2N169DD, 2N169DE, 2N169DF, 2N169DG, 2N169DH, 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TRANSISTOR
BOTTOM VIEWS

MEASURE COLLECTOR CURRENTS WITH A MILLIAMMETER INSERTED IN SERIES WITH THE CIRCUITS MARKED "X".

ALL VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND.

UNLESS OTHERWISE NOTED—CAPACITORS MORE THAN 1 μMF CAPACITORS LESS THAN 1 μMF RESISTORS ARE 1/2 WATT X-1000

