

**Section 1**

**TROUBLE SHOOTING**

Make tests for this section with d-c voltmeter; connect negative lead to test point B-, and positive lead to test points indicated in chart. The voltage readings given were taken with a 20,000-ohms-per-volt meter at a line voltage of 117 volts, a.c.

Set wafer switch to broadcast position; turn volume control to minimum, and tone control to nearly "off" position.

Follow steps in sequence; if the "NORMAL INDICATION" is obtained in step 1, proceed with tests for Section 2; if not, isolate and correct the trouble in this section.

It will be noted that certain parts in other sections of the radio are listed under "POSSIBLE CAUSE OF ABNORMAL INDICATION", since they may cause abnormal voltage readings in this section.

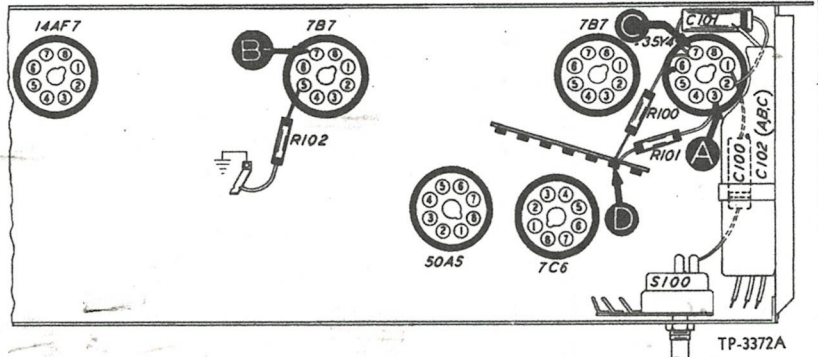


FIGURE 1. BOTTOM VIEW, SHOWING SECTION 1 TEST POINTS.

STEP	TEST POINT	NORMAL INDICATION	ABNORMAL INDICATION	POSSIBLE CAUSE OF ABNORMAL INDICATION
1	A	92v	92v	Trouble in this section. Isolate by the following tests.
2	C	128v	No Voltage Low Voltage High Voltage	Defective 35Y4, S100, or W100. Shorted C101, C102A, or C100. Defective 35Y4. Leaky C101, C102A, C102B, or C102C. Open I100 or C102A. Open R100.
3	D	110v	No Voltage Low Voltage High Voltage	Open R100. Shorted C102B. Defective R100. Leaky C102B or C102C. Shorted or leaky C203. Open R101, T200, or R204.
4	A	92v	No Voltage Low Voltage	Defective R101. Shorted C102C. Defective R101. Leaky C102C.

**Section 2**

**TROUBLE SHOOTING**

For the tests in this section, use an audio-frequency signal generator. Connect generator ground lead to test point B-; connect output lead through .1-mf condenser to test points indicated in chart.

Set radio volume control to maximum, and tone control to nearly "off" position. Adjust signal-generator output as required for each step.

If the "NORMAL INDICATION" is obtained in step 1, proceed with the tests for Section 3; if not, isolate and correct the trouble in this section.

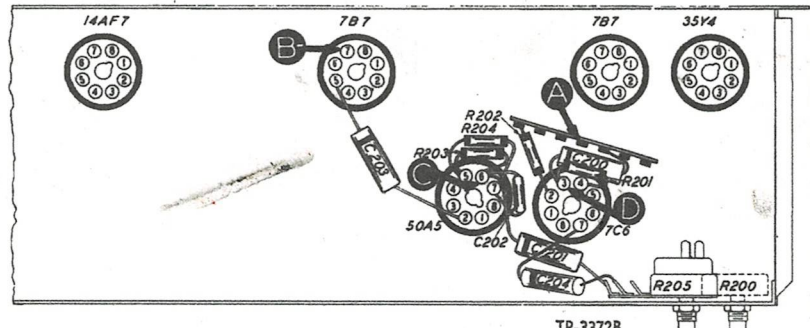


FIGURE 2. BOTTOM VIEW, SHOWING SECTION 2 TEST POINTS.

STEP	TEST POINT	NORMAL INDICATION	POSSIBLE CAUSE OF ABNORMAL INDICATION
1	A	Loud, clear signal with weak signal input.	Trouble in this section. Isolate by the following tests.
2	C	Moderate, clear signal with strong signal input.	Defective 50A5, T200, LS200, R203, or R204. Shorted or leaky C203 or C202.
3	D	Loud, clear signal with weak signal input.	Defective 7C6. Open R202. Shorted C201 or C204 (rotate tone control).
4	A	Loud, clear signal with weak signal input.	Defective R200, C200, or R201.

Listening Test: Distortion may be caused by leaky C200, C201, or C202; hum may be caused by open R201 or R203.

**Section 3**

**TROUBLE SHOOTING**

For the tests in this section, use an r-f signal generator with modulated output, set at 455 kc. Connect generator ground lead to test point B-; connect output lead through .1-mf condenser to test points indicated in chart.

Set wafer switch to broadcast position.

Set radio volume control to maximum, and tone control to nearly "off" position.

If the "NORMAL INDICATION" is obtained in the first step, proceed with the tests for Section 4; if not, isolate and correct the trouble in this section.

It will be noted that for this section the circuit location of the test point for step 1 (the master check), and also for step 4, is the same as for test point C in Section 4; therefore, certain components in Section 4 may cause an abnormal indication. These components are listed under "POSSIBLE CAUSE OF ABNORMAL INDICATION".

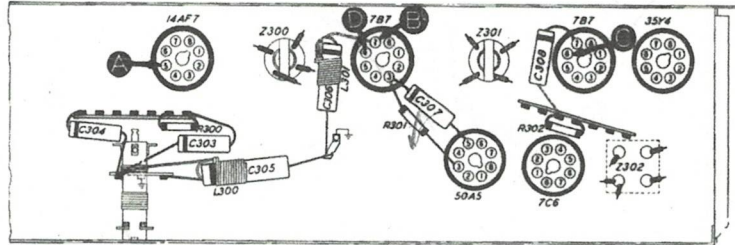


FIGURE 3. BOTTOM VIEW, SHOWING SECTION 3 TEST POINTS. TP-3372C

STEP	TEST POINT	NORMAL INDICATION	POSSIBLE CAUSE OF ABNORMAL INDICATION
1	A	Loud, clear signal with weak signal input.	Trouble in this section. Isolate by the following tests.
2	C	Loud, clear signal with strong signal input.	Defective 7C6 or 7B7 (2nd i.f.). Open R301 or R302. Shorted C307. Defective or misaligned Z302.
3	D	Loud, clear signal with moderate signal input.	Defective 7B7 (1st i.f.). Defective or misaligned Z301.
4	A	Loud, clear signal with weak signal input.	Defective 14AF7. Open R401, R403, or R300. Shorted C303. Defective or misaligned Z300.

**Section 4**

**TROUBLE SHOOTING**

For the tests in this section, with the exception of the oscillator tests (steps 3 and 6), use an r-f signal generator with modulated output. Connect generator ground lead to test point B-; connect output lead through .1-mf condenser to test points indicated in chart.

Set radio volume control to maximum, and tone control to nearly "off" position.

Set wafer switch, tuning control, and signal-generator frequency as indicated in chart.

If the "NORMAL INDICATION" is not obtained in step 1, isolate the trouble by proceeding with the remaining steps.

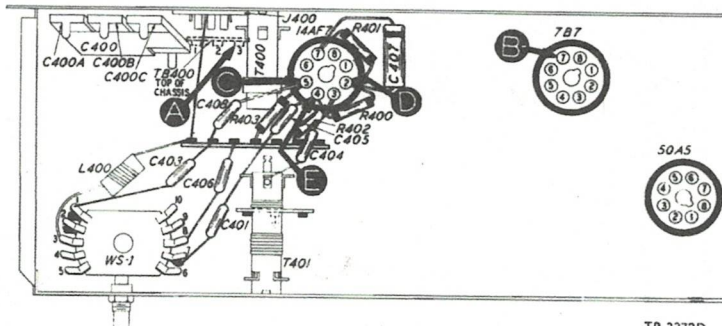


FIGURE 4. BOTTOM VIEW, SHOWING SECTION 4 TEST POINTS. TP-3372D

STEP	TEST POINT	SIG. GEN. DIAL SETTING	WAFER SWITCH	RADIO DIAL SETTING	NORMAL INDICATION	POSSIBLE CAUSE OF ABNORMAL INDICATION
1	A	1000 kc	BC	1000 kc	Loud, clear signal with weak signal input.	Trouble in this section. Isolate by the following tests.
2	C	1000 kc	BC	1000 kc	Loud, clear signal with weak signal input.	Open C407. Trouble in oscillator circuit.
3	E to D (Osc. test; see Note below.)		BC	Turn tuning control through range.	Negative 1 to 2 volts.	Defective 14AF7, T401, or WS1 (R). Open or shorted C404 or C405. Open R400, R402, or C400. Shorted plates of tuning condenser (osc. section).
4	A	1000 kc	BC	1000 kc	Loud, clear signal with weak signal input.	Open C408. Defective WS1 or T400.
5	A	15 mc	SW	15 mc	Loud, clear signal with weak signal input.	Defective 14AF7 or WS1. Open C403, L400, or C401. Shorted C400A.
6	E to D Osc. test (see Note below.)		SW	Turn tuning control through range.	Negative 1 to 2 volts.	Defective 14AF7, T401, or WS1 (R). Open C408.

NOTE: For oscillator tests (BC in step 3 and SW in step 6), connect positive lead of high-resistance, d-c voltmeter to test point D (14AF7 osc. cathode); connect prod end of negative lead through 100,000-ohm isolating resistor to test point E (14AF7 osc. grid). Use suitable meter range, such as 0-10 volts. Proper operation of oscillator is indicated by negative voltage through out range of tuning condenser.