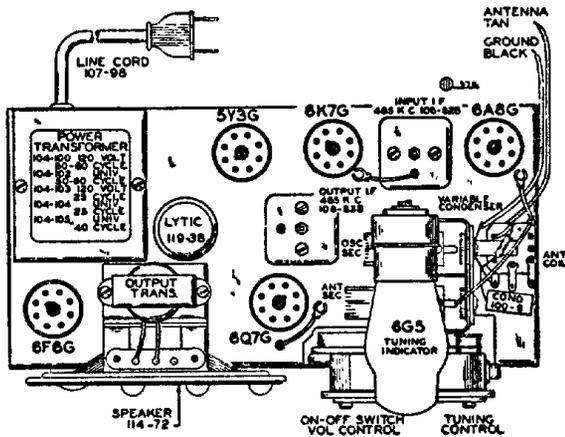


No.	Part No.	Description	RESISTORS	RESISTORS	RESISTORS	RESISTORS	
CONDENSERS			C8 and C9 in one unit				
C	102-49	2 Gang Variable	R1	130-17	10M ohm — 1/3 w. 20%	R12	20M ohm Resistor (in Cathode-Ray Eye Socket)
C1	100-9	.05 x 200 v. 25%	R2	130-12	50M ohm — 1/3 w. 20%	R7, R8 and R9 in one unit.	
C2	129-12	.00025 Mica 20%	R3	130-149	15M ohm — 1/3 w. 20%	PARTS	
C3	100-1	.1 x 400 v. —50 —10%	R4	130-170	3 megohm — 1/3 w. 25%	T1	111-58B Antenna Coil Complete
C4	129-5	.0001 Mica 20%	R5	101-77	1 megohm volume control	T2	110-46 Oscillator Coil Complete
C5	100-11	.01 x 400 v. 25%	R6	130-170	3 megohm — 1/3 w. 25%	T3	108-82B Input I.F. Complete
C6	129-2	.0005 Mica 20%	R7	106-35	65 ohm	T4	108-83B Output I. F. Complete
C7	100-11	.01 x 400 v. 25%	R8	106-35	45 ohm	T5	114-72 5" Dynamic Speaker
C8	119-38	5.0 x 200 vv. lytic	R9	106-35	220 ohm	T6	104-100 Power Transformer
C9	119-38	5.0 x 250 vv. lytic	R10	130-9	200M ohm — 1/3 w. 20%	L1	Speaker Field (2000 ohm)
C10	100-19	.006 x 600 v. 25%	R11	130-118	600M ohm — 1/3 w. 20%	S1	Switch on Volume Control



ALIGNING INSTRUCTIONS;

CAUTION;—No aligning adjustments should be attempted without first thoroughly checking over all other possible causes of trouble, such as poor installations, open or grounded antenna systems, low line voltages, defective tubes, condensers and resistors. In order to properly align this chassis, an oscillator (generator) is absolutely necessary. No aligning adjustments should be attempted with the chassis in the cabinet. Remove the knobs and the four bolts which are used to fasten the chassis.

All adjustments should be made with a non-metallic screwdriver.

RESONANCE INDICATOR:

Use as a resonance indicator an output meter connected across the primary of the speaker input transformer, or by means of an adapter between the plate and screen terminals of the type 6F6G output tube. Maximum deflection of the meter indicates resonance. Use only enough signal to get a readily readable output. A low range output meter or the low scale of a multi-range meter should be used.

SERVICE NOTES:

Voltages taken from different points of circuit to chassis are measured with volume control full on, all tubes in their sockets and speaker connected, with a volt meter having a resistance of 1000 ohms per volt.

All voltages as indicated on diagram are measured with 115 volts on the primary of the power transformer.

Resistances of coil windings are indicated in ohms on the schematic circuit diagram.

To check for open by-pass condensers, shunt each condenser with another condenser of the same capacity and voltage rating, which is known to be good, until the defective unit is located.

Excessive hum, stuttering, low volume and a reduction in all D.C. voltages is usually caused by a shorted electrolytic condenser; open by-pass condensers frequently cause oscillation and distorted tone.

ALIGNING I.F. TRANSFORMERS: (465 K.C.):

- Part No. 108-83B Output I.F. Transformer
- Part No. 108-82B Input I.F. Transformer

These I.F. transformers have two adjustments, both of which are accessible from the top of chassis (see Fig. 1).

- With volume control full on (the extreme right of its rotation), and with the variable condenser set to approximately 1400 kilocycles, make the following adjustments:
 - Connect external oscillator set at 465 kilocycles, in series with .1 mfd. condenser, to the control grid cap of the type 6K7G tube, and adjust the output I.F. transformer (No. 108-83B) to resonance.
 - Move oscillator output clip from grid of 6K7G to grid of 6A8G and adjust input I.F. transformer (No. 108-82B) to resonance.
 - With oscillator still connected to 6A8G, readjust output I.F. transformer (108-83B) if necessary.

R.F. ALIGNMENT: (535-1720. K.C.)

- With gang condenser in its minimum capacity position, plates entirely out of mesh, connect an external oscillator in series with a 200 mmf. condenser to the antenna lead and chassis ground and make the following adjustments:
 - With external oscillator set at 1720 kilocycles, adjust oscillator trimmer to resonance. This adjustment is on the top of rear section of variable gang condenser. (See Fig. 1).
 - Re-set external oscillator to 1400 kilocycles, rotate condenser, pick up oscillator signal and adjust antenna trimmer to resonance. (Top of front section of gang condenser).
 - Check sensitivity at 600 and 1000 kilocycles.