

NOTE- VOLTAGES MEASURED WITH 6.3 VOLT BATTERY.
 *MEASURED WITH 300,000 OHM VOLT METER.
 ALL VOLTAGES TAKEN BETWEEN POINT INDICATED AND GROUND.

No.	Part No.	Description							
CONDENSERS			C14	100-40	.5x200 v.	R11	130-37	750M ohm—1/3 W.	
C1	100-22	.05x200 v.	C15	100-40	.5x200 v.	R12	106-32	3.5 ohm—1/4 W.	
C2	129-21	.0002 Mica	C16	100-19	.006x600 v.	R13	130-136	200 ohm Insulated—1/2 W.	
C3	100-9	.05x200 v.	RESISTORS				T1	111-58	Antenna Coil
C4	100-20	.1x200 v.	R1	130-132	10M ohm—1/3 W. Insulated	T2	110-51	Oscillator Coil	
C5	129-12	.00025 Mica	R2	130-12	50M ohm—1/3 W.	T3	108-89	Input I. F.	
C6	119-31	5.0x200 v. lytic	R3	130-17	10M ohm—1/3 W.	T4	108-90	Output I. F.	
C7	119-31	5.0x200 v. lytic	R4	130-133	15M ohm—1/4 W.	T5	104-79	Power Transformer	
C8	129-5	.0001 Mica	R5	130-110	1 megohm—1/10 W.	T6	114-55	Output transformer (see speaker)	
C9	100-20	.1x200 v.	R6	130-4	3 megohm—1/3 W.	L1	105-34	Filter Choke	
C10	100-26	.02x400 v.	R7	101-64	1 megohm—Volume Control	L2	105-35	R. F. "B" Choke	
C11	100-9	.05x200 v.	R8	130-134	1 megohm—1/3 W. Insulated	L3	105-19	Choke	
C12	100-34	.005x1200 v.	R9	130-100	150M ohm—1/3 W.	L4	114-55	4.6 ohm speaker field	
C13	100-20	.1x200 v.	R10	130-135	150M ohm—1/3 W. Insulated				

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.

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

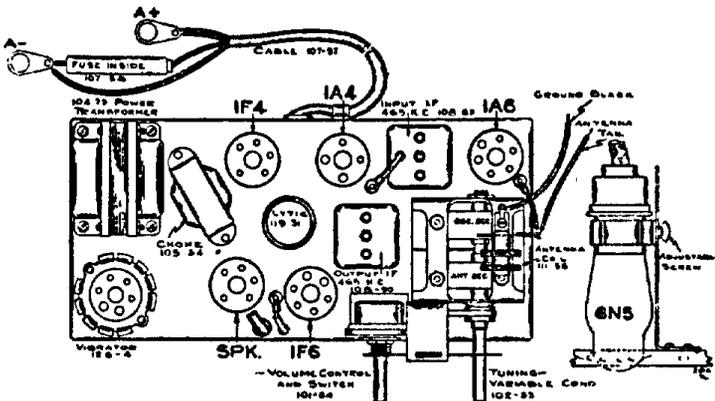
Part No. 108-90. Output I.F. Transformer
 Part No. 108-89. Input I.F. Transformer

These I.F. transformers have two adjustments, both of which are accessible from the top of chassis (see top view—Fig. 1, page 2).

- With volume control full on (the extreme right of its rotation), and with the variable condenser set to minimum capacity position, make the following adjustments:
 - Connect external oscillator set at 465 kilocycles, in series with "Dummy 1", to the control grid cap of the type 1A4 tube, and adjust the output I.F. transformer (No. 108-90) to resonance.
 - Move oscillator output clip from grid of 1A4 to grid cap of 1A6 and adjust input I.F. transformer (No. 108-89) to resonance.
 - With oscillator still connected to 1A6, readjust output I.F. transformer (108-90) 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 "Dummy 2", to tan antenna and black ground leads and make the following adjustments:
 - With external oscillator set at 1720 kilocycles, adjust oscillator trimmer (rear section of gang condenser).
 - Re-set external oscillator to 1400 kilocycles, rotate condenser, pick up oscillator signal and adjust antenna trimmer to resonance (front section of gang condenser).
 - Check sensitivity at 600 and 1000 kilocycles.



TOP VIEW

The tube complement of this chassis consists of the following tubes:

- The type and function of each tube is as follows:
 1—Type 1A6 Pentagrid Mixer, First Detector-oscillator
 1—Type 1A4 Super-control R.F. Pentode, I.F. Amplifier (465 K.C.)
 1—Type IF6 Duplex Diode Pentode Second Detector, A.V.C. and First Audio.
 1—Type IF4 Pentode Output Amplifier.
 1—Type 6N5 Cathode-Ray Tuning Eye.

DUMMY ANTENNAS:

The following dummy antennas are used in aligning and are referred to in the following alignment instructions as "Dummy 1" and "Dummy 2"

- Dummy 1: (I.F.)—Consists of a .1 mfd. condenser connected in series with the external oscillator.
 Dummy 2: (Broadcast)—Consists of a 200 mmfd. condenser and a 20 ohm resistor connected in series with each other and in series with the external oscillator.