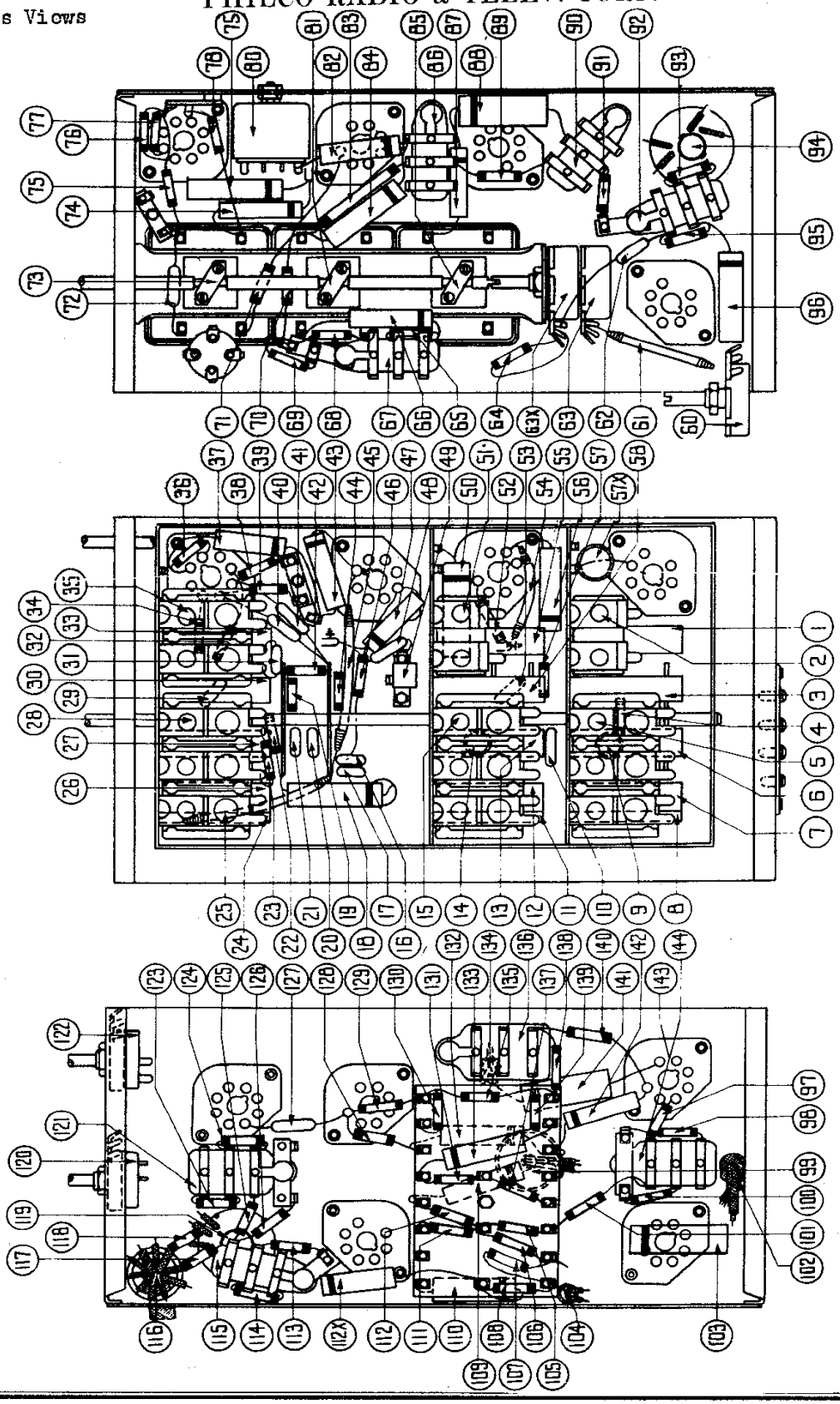
Philco Radio & Television Corp.

Model: 37-690	Chassis:	Year: Pre October 1937
Power:	Circuit:	IF:
Tubes:		
Bands:		

Resources
Riders Volume 8 - PHILCO 8-34
Riders Volume 8 - PHILCO 8-35,36
Riders Volume 8 - PHILCO 8-37
Riders Volume 8 - PHILCO 8-38
Riders Volume 8 - PHILCO 8-39
Riders Volume 8 - PHILCO 8-40
Riders Volume 8 - PHILCO 8-41

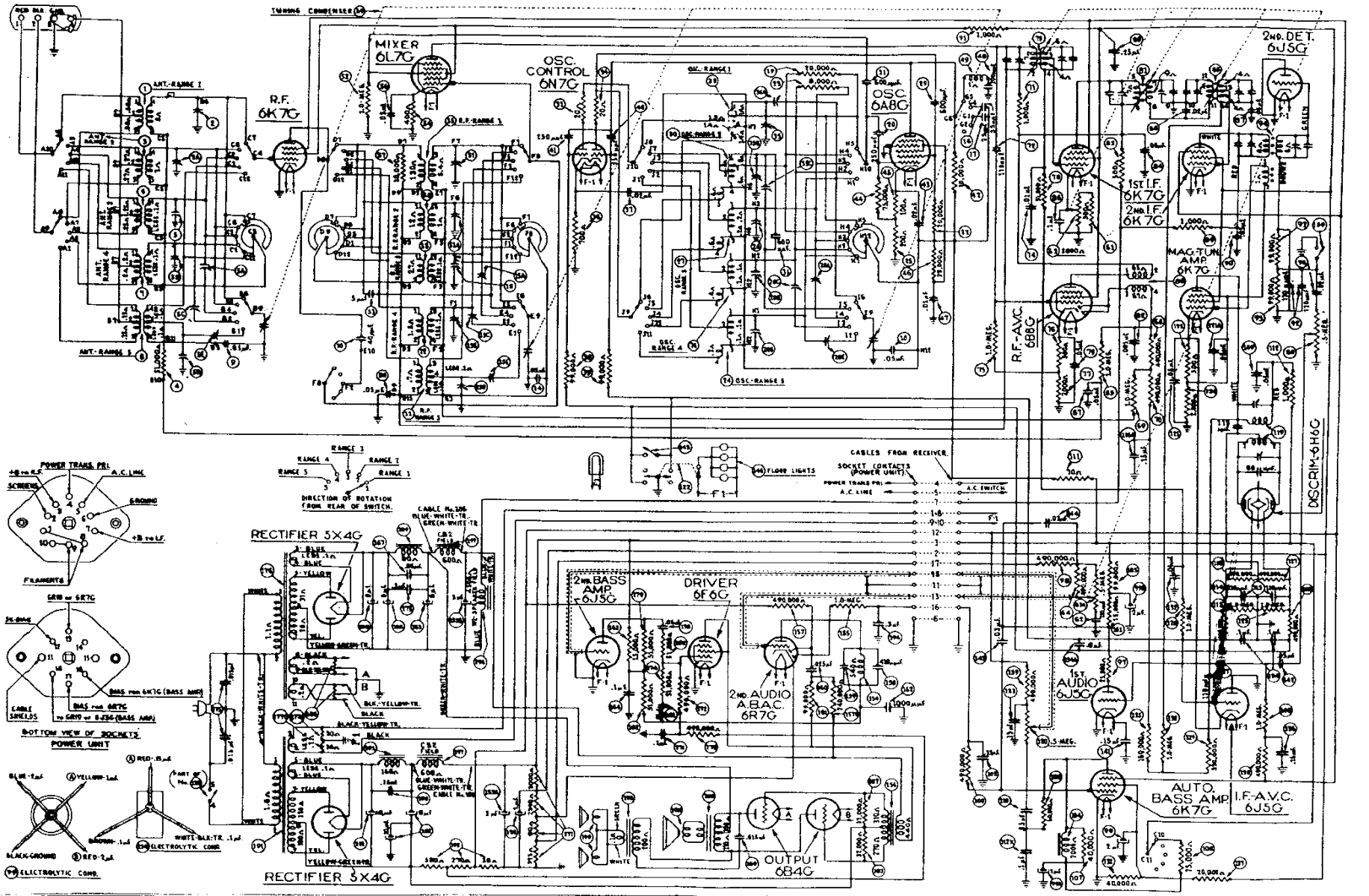
MODEL 37-690
Chassis Views

PHILCO RADIO & TELEV. CORP.



PHILCO RADIO & TELEV. CORP.

MODEL 37-690
Schematic



PHILCO RADIO & TELEV. CORP.

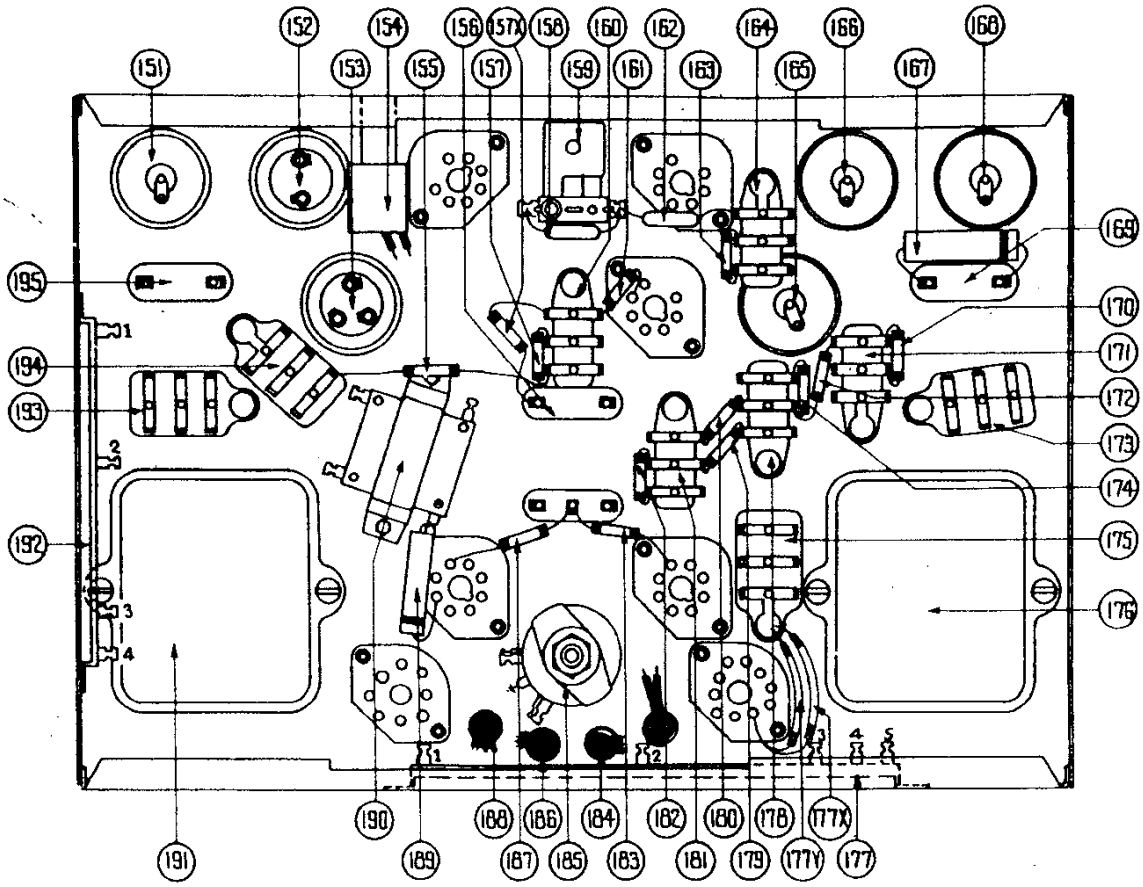


Fig. 6. Underside View of Power Unit

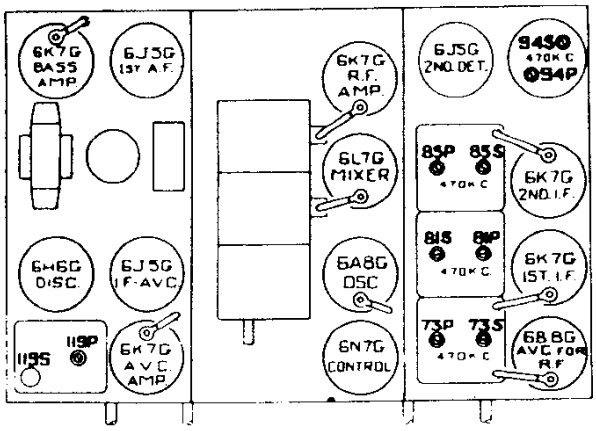


Fig. 7. I. F. Compensators

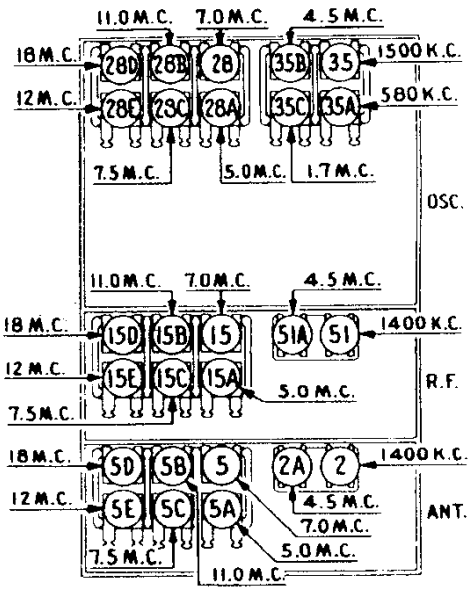


Fig. 8. R. F. Compensators
Underside of Chassis View

MODEL 37-690
Alignment

PHILCO RADIO & TELEV. CORP.

ALIGNMENT OF COMPENSATORS

EQUIPMENT REQUIRED: (1) Signal Generator: Philco Model 088 (fundamental frequency 110 to 20000 K. C.) is the correct instrument for this purpose; (2) Output Meter. Philco Model 025 Circuit Tester incorporates a sensitive output meter and is recommended; (3) Fibre handle screw driver (Philco Part No. 27-7059); (4) Special variable condenser (Philco Part No. 45-2325).

OUTPUT METER

The 025 Output Meter is connected to the plate and cathode terminals of the 6F6G driver tube. Adjust the meter to use the (0-30) Volt Scale.

See Dial Calibration Page 1.

INTERMEDIATE FREQUENCY CIRCUIT

1. Adjust the hum control (**185**) for minimum hum with volume control (counter-clockwise).
2. Set controls as follows:
   - **a.** Selectivity-fidelity control (clockwise)
   - **b.** Bass Amplifier at minimum (counter-clockwise)
   - **c.** Volume Control full (clockwise)
   - **d.** Magnetic Tuning "off"
   - **e.** Range Switch position one (broadcast)
   - **f.** Receiver dial at 580 K. C.
   - **g.** Signal Generator at 470 K. C.
3. Adjust the I. F. compensators for maximum with signal generator output lead connected through a .1 mfd. condenser to the grid of tubes as follows:

Input Point	Compensators in Order
6K7G—2nd I. F.	(94S) and (94P)
6K7G—1st I. F.	(85S), (85P), (81S) and (81P)
6L7G—1st Det.	(73S) and (73P)
6L7G—1st Det.	(94S) and (94P). See Note A. Check for two equal peaks. (Fidelity control in expanded position)

4. Turn the fidelity-selectivity control clockwise (selective position) and set the signal generator attenuator for maximum output. Now adjust compensator (**119P**) for minimum output. Retard the receiver volume control, if the output reading goes off scale.

RADIO FREQUENCY CIRCUIT

Tuning Range 11.5 to 18.2 M. C.

1. Set controls as follows:
   - **a.** Connect the signal generator output lead through a .1 mfd. condenser to terminal 1 and generator ground to terminal 3 on aerial input panel. Terminals 2 and 3 must be connected with the shorting link provided on the aerial panel.
   - **b.** Other controls set as given under Intermediate Frequency Circuit (a, b, c, d).

Adjust compensators for maximum as follows:

Range Switch	Signal Generator	Receiver Dial	Compensators in Order
Range 5	18.0 M. C.	18.0 M. C.	(28D) (see Note C below) check image at 17.06 M. C.
Range 5	12.0 M. C.	12.0 M. C.	(28E)
Range 5	18.0 M. C.	18.0 M. C.	(28D)
Range 5	18.0 M. C.	18.0 M. C.	(15D), (5D) (Note B) Use shunt condenser on (28D) first contact from left rear underside view of R. F. Unit
Range 5	12.0 M. C.	12.0 M. C.	(28E), (15E), (5E)
Range 5	18.0 M. C.	18.0 M. C.	(28D) (Note C) check image at 17.06 M. C.
Range 5	18.0 M. C.	18.0 M. C.	(15D), (5D) (Note B)

Tuning Range 7.35 to 11.6 M. C.

Adjust compensators for maximum as follows:

Range Switch	Signal Generator	Receiver Dial	Compensators in Order
Range 4	11.0 M. C.	11.0 M. C.	(28B)
Range 4	11.0 M. C.	11.0 M. C.	(15B) and (5B) Use shunt condenser on (28B) (see Note B) Third contact from left underside view of R. F. Unit
Range 4	7.5 M. C.	7.5 M. C.	(28C), (15C) and (5C)
Range 4	11.0 M. C.	11.0 M. C.	(15B), (5B) Use shunt condenser on (28B) (see Note B)

Tuning Range 4.7 to 7.4 M. C.

Adjust compensators for maximum as follows:

Range Switch	Signal Generator	Receiver Dial	Compensators in Order
Range 3	7.0 M. C.	7.0 M. C.	(28)
Range 3	5.0 M. C.	5.0 M. C.	(28A)
Range 3	7.0 M. C.	7.0 M. C.	(28), (15) and (5)
Range 3	5.0 M. C.	5.0 M. C.	(28A), (15A) and (5A)
Range 3	7.0 M. C.	7.0 M. C.	(28), (15) and (5)

Tuning Range 1.58 to 4.75 M. C.

Adjust compensators for maximum as follows:

Range Switch	Signal Generator	Receiver Dial	Compensators in Order
Range 2	4.5 M. C.	4.5 M. C.	(35B), (51A), (2A)
Range 2	1.7 M. C.	1.7 M. C.	(35C) roll tuning condenser when adjusting this condenser
Range 2	4.5 M. C.	4.5 M. C.	(35B), (51A) and (2A)

Tuning Range 530 to 1600 K. C.

Adjust compensators as follows:

Range Switch	Signal Generator	Receiver Dial	Compensators in Order
Range 1	1500 K. C.	1500 K. C.	(35), (51), (2)
Range 1	580 K. C.	580 K. C.	(35A), Osc. Series—Roll Tuning Condenser
Range 1	1500 K. C.	1500 K. C.	(35)
Range 1	1400 K. C.	1400 K. C.	(51), (2)

10 K. C. AUDIO FILTER

If an audio oscillator is at hand adjust it for 10,000 cycles and connect the output lead to the volume control arm of the receiver. Compensator (**159**) is then adjusted for minimum output.

If, however, an audio oscillator is not available, the 088 Signal Generator may be used with the following procedure:

Tune the dial of the receiver very accurately to a local station on the broadcast band. Then connect the signal generator output lead to the 6L7G Mixer grid and set the indicator for 470 K. C. A heterodyne whistle will be produced when these two signals mix.

Now tune the signal generator dial about the 470 K. C. frequency until a zero beat note is obtained. Then turn the signal generator to 10 K. C. above the point at which zero beat is obtained and adjust compensator (**159**) for minimum output.

MAGNETIC TUNING ADJUSTMENT

Set the range switch in position one (530 to 1600 K. C.). Turn the fidelity-selectivity control clockwise (selective position), and the magnetic tuning switch in the "out" position. Now turn the signal generator and receiver dial to any frequency in the Broadcast band. The receiver dial must be adjusted very accurately for maximum output.

Set the magnetic tuning control in the "on" position (clockwise). Compensator (**119S**) of the magnetic tuning transformer is now adjusted for maximum output.

The above adjustment is now checked for accuracy, by turning the magnetic tuning control "off" and "on". When this is done, there should be no change in the tone of the received signal. If a change of tone or hiss develops, it indicates a shift in frequency and the adjustment must be made again.

NOTE "A"—Slowly shift signal generator indicator between 460 and 480 K. C. As the indicator is turned, two peaks will be noted on the Output Meter; one about 465 K. C. and the other about 475 K. C. These peaks should give the same deflection or reading on the output meter. If they are unequal, compensator (**94P**) primary only, must be slightly readjusted to the right or left until they are equalized. Each time the compensator is set in another position, rotate the signal generator through the 460 or 480 K. C. range and note the reading of each peak. Continue adjusting the compensator until the peaks are equal.

NOTE "B"—To eliminate the effect of the R. F. compensators detuning the Osc. circuit, a variable tuning condenser, 350 mmfd. Philco Part No. 45-2325 is connected from the oscillator compensators to ground when designated in the padding instruction above. Tune the added condenser until the second harmonic of the receiver oscillator beats against the signal from the generator, resulting in a maximum indication on the output meter. Then adjust compensators as noted for maximum output.

NOTE "C"—To accurately adjust the compensator to the fundamental and not the image signal, turn the oscillator compensator to the maximum capacity position clockwise. Then slowly turn the compensators counter-clockwise until a second maximum peak is obtained on the output meter. The first peak is the image signal and the receiver must not be adjusted to it. If the above procedure is correctly performed, the image signal will be found 940 K. C. below the frequency being used on any high frequency band.

PHILCO RADIO & TELEV. CORP.

Electrical Specifications

TYPE CIRCUIT: Superheterodyne, with Magnetic Tuning; Fidelity-selectivity control in the intermediate frequency unit; 10 K. C. audio filter circuit; individual A.V.C. circuits for the R.F. and I.F. amplifiers; Automatic Bass Compensation circuit and Class "A" audio output circuit.

TUNING DIAL: Philco Automatic Dial Tuning Mechanism.

POWER SUPPLY:	Voltage	Frequency	Consumption
	115	50 to 60 cycles	275 watts
	115	25 to 40 cycles	285 watts

PHILCO TUBES USED: Twenty.

Five 6K7G; two 6B4G; four 6J5G; two 5X4G; one 6N7G; one 6B8G; one 6L7G; one 6H6G; one 6A8G; one 6R7G; one 6F6G.

TONE CONTROLS:

A. Treble response adjustable by the Fidelity-selectivity control.
B. Continuously variable Bass Response.

SPEAKERS: One W2—Cathedral High-fidelity Speaker.
Two—CB2 High Frequency Speakers.

INTERMEDIATE FREQUENCY: 470 K. C.

UNDISTORTED OUTPUT: 15 watts.

TUNING RANGES: Five.

Range 1—530 to 1600 K. C.
Range 2—1.58 to 4.75 M. C.
Range 3—4.7 to 7.4 M. C.
Range 4—7.35 to 11.6 M. C.
Range 5—11.5 to 18.2 M. C.

Aerial Connections

To obtain the full advantage of the sensitivity of this receiver the Philco High Efficiency Aerial supplied with the receiver must be used. The connections for the aerial are as follows:

The red and black leads of the High-Efficiency Aerial "transmission line" are connected to terminals 1 and 2 respectively, of the terminal panel provided on the rear of the chassis. Connect the jumper on the terminal panel across terminals 3 and 4.

If a temporary aerial is used, the jumper should be across terminals 2 and 3. The aerial connects to terminal 1 and the ground lead to terminal 3. A good ground connection is desirable in all installations.

Removing Cabinet Top and Adjusting Door Hardware

Remove screws from under side of top frame (on some cabinets it will be necessary to loosen the high frequency speaker baffle to reach screws above them). The top is located by two dowels and will lift off after screws are removed.

To adjust doors after removing top, pull nails from washers, loosen nuts, move hardware in direction to align doors. Tighten nuts and drive nails through holes in washers after turning washers to provide new nail hole locations.

If doors are to be removed, lift loose pin out of hardware in top frame; tip door forward slightly and lift off of pin in bottom frame. For this operation it is also necessary to first remove the top.

CAUTION: The top frame (that section which bears the Philco trademark) should never be removed from the cabinet.

Do not glue top when replacing it on cabinet.

Dial Calibration

In order to adjust this receiver correctly the dial must be aligned to track properly with the tuning condenser. To do this proceed as follows:

1. Loosen the set screws on the shaft coupling of the tuning condenser. Then turn the tuning condenser until the plates are in the maximum capacity position. Now set the glowing beam indicator on the index line at the low frequency end of the broadcast band. With dial and tuning condenser in this position tighten set screws.

2. Turn the tuning condenser control until the indicator is on the first division from the index line.

3. With the dial in this position, loosen the shaft coupling set screws. Then turn the dial until the indicator is again on the index line. Tighten the set screws in this position.

NOTE: Be careful when turning the dial that the position of the tuning condenser is not disturbed.

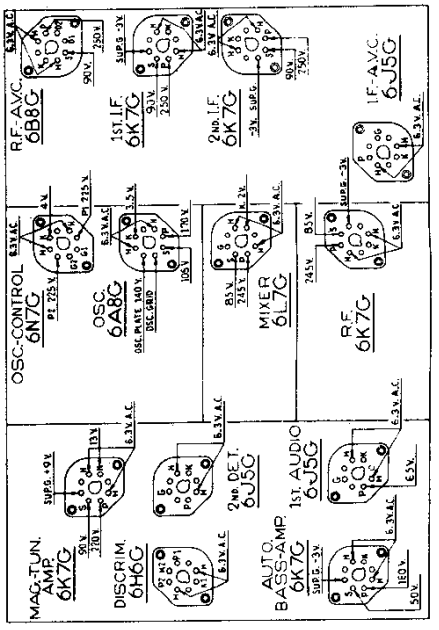


Fig. 1. Receiver Socket Voltage

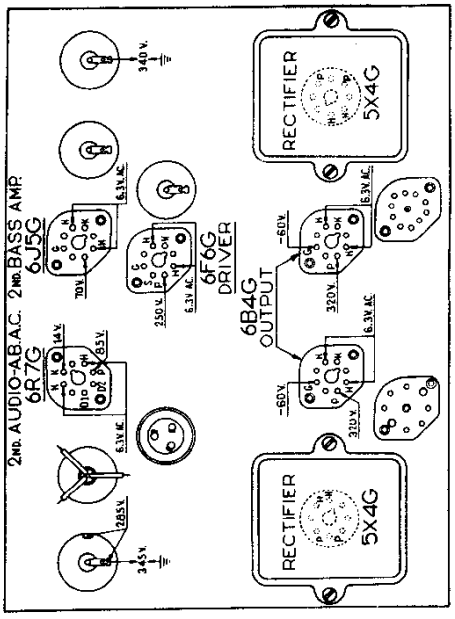


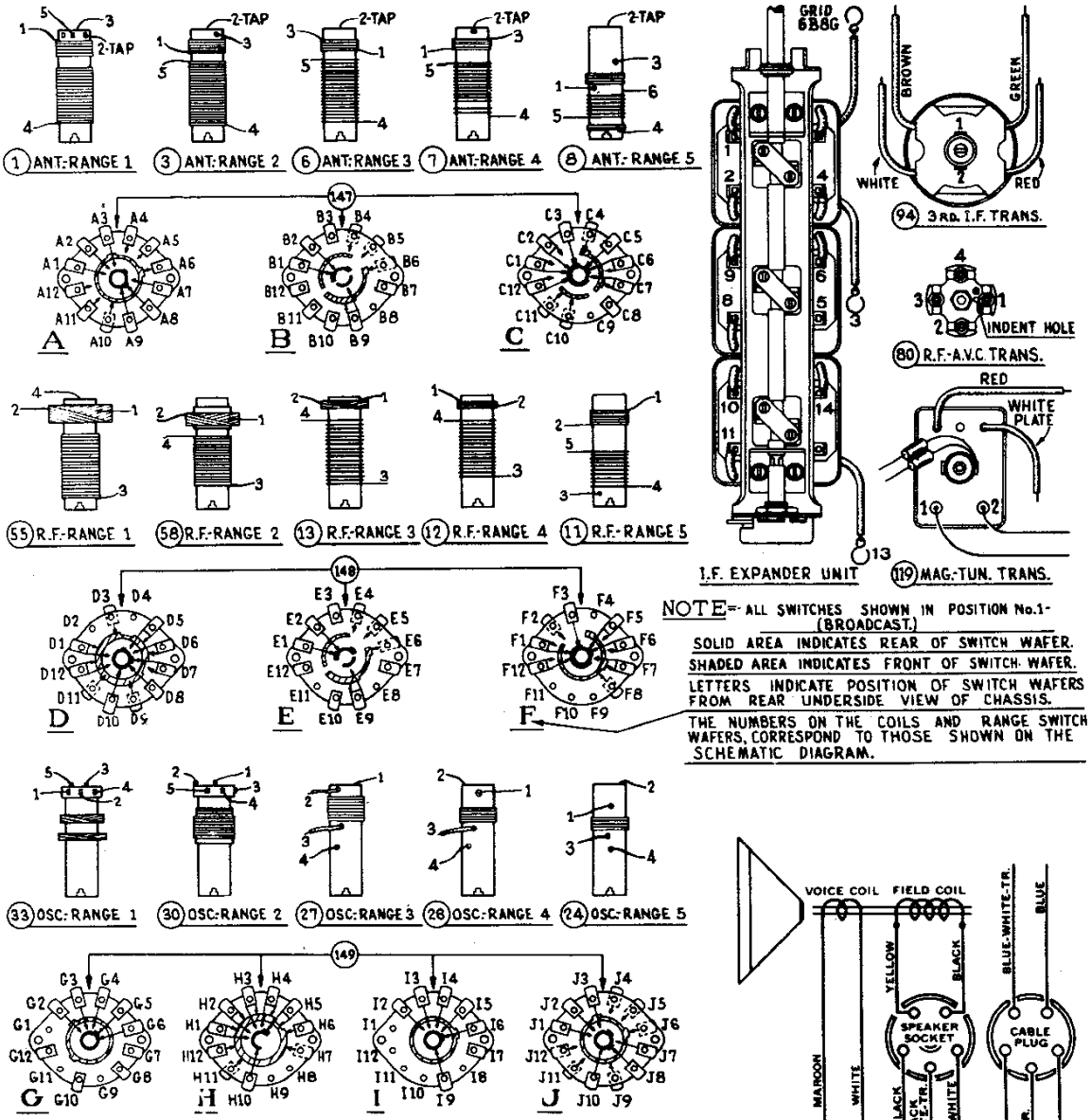
Fig. 2. Power Amplifier Socket Voltage

The voltages indicated by arrows were measured with a Philco 025 Circuit Tester which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum, range switch in broadcast position, line voltage 115 A. C.

MODEL 37-690
Coil & Switch
Connections
Spkr.Wiring,Notes

PHILCO RADIO & TELEV. CORP.

Coil and Range Switch Connections



NOTE:- ALL SWITCHES SHOWN IN POSITION No.1- (BROADCAST.)
SOLID AREA INDICATES REAR OF SWITCH WAFER.
SHADED AREA INDICATES FRONT OF SWITCH WAFER.
LETTERS INDICATE POSITION OF SWITCH WAFERS FROM REAR UNDERSIDE VIEW OF CHASSIS.
THE NUMBERS ON THE COILS AND RANGE SWITCH WAFERS, CORRESPOND TO THOSE SHOWN ON THE SCHEMATIC DIAGRAM.

Hum Adjustment and Elimination

Adjust compensator (**185**) for minimum hum with volume control retarded.

If abnormal hum develops with bass compensation control at maximum, change the 6K7G bass amplifier tube. It also may be necessary to interchange the 6B4G output tubes for perfect balance.

Fig. 3. Speaker Wiring W2

MODEL 37-690
Parts

PHILCO RADIO & TELEV. CORP.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Replacement Parts—Model 37-690

Schem. No.	Description	Part No.	List Price
1	Antenna Transformer (Range 1)	32-2108	$1.60
2	Compensator (two section)	31-6093	.40
3	Antenna Transformer (Range 2)	32-2146	1.20
4	Resistor (51,000 ohms, ½ watt)	33-351339	.20
5	Compensator (six section)	31-6112	1.40
6	Antenna Transformer (Range 3)	32-2183	1.20
7	Antenna Transformer (Range 4)	32-2185	1.20
8	Antenna Transformer (Range 5)	32-2175	1.20
9	Condenser (.05 mfd. tubular)	30-4020	.20
10	Condenser (40 mmfd. mica)	30-1076	.20
11	R. F. Transformer (Range 5)	32-2176	1.20
12	R. F. Transformer (Range 4)	32-2178	.70
13	R. F. Transformer (Range 3)	32-2177	.70
14	Condenser (.05 mfd. tubular)	30-4020	.20
15	Compensator (six section)	31-6113	1.40
16	Condenser (55 mmfd. mica)	30-1045	.20
17	Condenser (25 mmfd. mica)	30-1067	.20
18	Condenser (.05 mfd. tubular)	30-4123	.20
19	Resistor (20,000 ohms, ½ watt)	33-320339	.20
20	Condenser (250 mmfd. mica)	30-1032	.25
21	Condenser (600 mmfd. mica)	30-1049	.25
22	Resistor (20,000 ohms, ½ watt)	33-320339	.20
23	Resistor (8,000 ohms, ½ watt)	33-280339	.20
24	Oscillator Transformer (Range 5)	32-2199	.70
25	Resistor (200 ohms, wirewound)	7217	.20
26	Oscillator Transformer (Range 4)	32-2198	.70
27	Oscillator Transformer (Range 3)	32-2197	.70
28	Compensator (Osc. six section)	31-6117	1.20
29	Condenser (600 mmfd. mica)	30-1049	.25
30	Oscillator Transformer (Range 2)	32-2194	1.00
31	Condenser (600 mmfd. mica)	30-1049	.25
32	Resistor (20 ohms, ½ watt)	33-020339	.20
33	Oscillator Transformer (Range 1)	32-2191	1.00
34	Resistor (20 ohms, ½ watt)	33-020339	.20
35	Compensator (Four section)	31-6124	1.00
36	Resistor (700 ohms wirewound)	33-170339	.20
37	Condenser (.02 mfd. tubular)	30-4481	.20
38	Resistor (99,000 ohms, ½ watt)	33-399339	.20
39	Resistor (99,000 ohms, ½ watt)	33-399339	.20
40	Condenser (250 mmfd. mica)	30-1032	.25
41	Condenser (250 mmfd. mica)	30-1032	.25
42	Resistor (10,000 ohms, ½ watt)	33-310339	.20
43	Condenser (.02 mfd. tubular)	30-4481	.20
44	Resistor (75,000 ohms, ½ watt)	33-375339	.20
45	Resistor (100 ohms, ½ watt)	33-3023	.25
46	Resistor (32,000 ½ watt)	33-332339	.20
47	Condenser (.01 mfd. tubular)	30-4169	.20
48	Condenser (200 mmfd. mica)	30-1047	.25
49	Plate Coil 6A8G	32-2242	.30
50	Condenser (.05 mfd. tubular)	30-4128	.20
51	Compensator (two section)	31-6093	.40
52	Resistor (1 megohm, ½ watt)	33-510339	.20
53	Condenser (5 mmfd. mica)	30-1077	.20
54	Resistor (400 ohms flexible)	33-3016	.20
55	R. F. Transformer (Range 1)	32-2105	1.00
56	Condenser (.05 mfd. tubular)	30-4444	.20
57	Resistor (10,000 ohms, ½ watt)	33-310339	.20
58	R. F. Transformer (Range 2)	32-2147	.70
59	Tuning Condenser	31-1892	3.60
60	Volume Control	33-5183	1.00
61	Resistor (500 ohms flexible)	33-150439	.20
62	Condenser (110 mmfd. mica)	30-1031	.25
63	Potentiometer (Expander Unit)	33-5178	1.50
64	Resistor (490,000 ohms)	33-449339	.20
65	Resistor (1. megohm, ½ watt)	33-510339	.20
66	Condenser (.02 mfd. tubular)	30-4113	.20
67	Condenser (.05 mfd. bakelite)	3615-SG	.35
68	Resistor (490,000 ohms, ½ watt)	33-449339	.20
69	Resistor (1. megohm, ½ watt)	33-510339	.20
70	Resistor (490,000 ohms, ½ watt)	33-449339	.20
71	Resistor (1000 ohms, ½ watt)	33-210339	.20
72	Condenser (110 mmfd. mica)	30-1031	.20
73	1st I. F. Transformer (Expander)	32-2285	1.80
74	Condenser (.01 mfd. tubular)	30-4169	.20
75	Resistor (1. megohm, ½ watt)	33-510339	.20
76	Resistor (500 ohms, ½ watt)	33-150339	.20
77	Resistor (2000 ohms, ½ watt)	33-220339	.20
78	Resistor (51,000 ohms, ½ watt)	33-351339	.20
79	Condenser (.05 mfd. tubular)	30-4444	.20
80	Transformer (R. F. A.V.C.)	32-2300	1.80
81	2nd I. F. Transformer (Expander)	32-2291	1.80
82	Condenser (.001 mfd. tubular)	30-4201	.20
83	Resistor (500 ohms, ½ watt)	33-150439	.20
84	Condenser (.05 mfd. tubular)	30-4123	.20
85	3rd I. F. Transformer (Expander)	32-2293	1.80
86	Condenser (.1 mfd. bakelite)	4989-SG	.35
87	Condenser (.05 mfd. tubular)	30-4444	.20
88	Condenser (.25 mfd. tubular)	30-4134	.25
89	Resistor (1000 ohms, ½ watt)	33-110339	.20
90	Condenser (.05 mfd. Bakelite)	3615-SG	.35
91	Resistor (1000 ohms, ½ watt)	33-110339	.20
92	Condenser (110 mmfd. dual bakelite)	8035-DG	.25
93	Resistor (99,000 ohms, ½ watt)	33-399339	.20
94	4th I. F. Transformer	32-2302	2.20
95	Resistor (99,000 ohms, ½ watt)	33-399339	.20
96	Condenser (.02 mfd. tubular)	30-4113	$0.20
97	Resistor (25,000 ohms, ½ watt)	33-325339	.20
98	Resistor (490,000 ohms, ½ watt)	33-449339	.20
99	Electrolytic Condenser (2, 2, 1 mfd.)	30-2177	1.40
100	Resistor (490,000 ohms, ½ watt)	33-449339	.20
101	Resistor (15,000 ohms, ½ watt)	33-315339	.20
102	Audio Cable	41-3233	2.00
103	Condenser (.15 mfd. tubular)	30-4191	.25
104	Audio Choke (bass amplifier)	32-7528	1.35
105	Resistor (99,000 ohms, ½ watt)	33-399339	.20
106	Resistor (25,000 ohms, ½ watt)	33-325339	.20
107	Resistor (40,000 ohms, ½ watt)	33-340339	.20
108	Resistor (60,000 ohms, ½ watt)	33-360339	.20
109	Condenser (.05 mfd. tubular)	30-4123	.20
110	Condenser (.05 mfd. tubular)	30-4123	.20
111	Resistor (70 ohms, ½ watt)	33-070339	.20
112	Resistor (1000 ohms, ½ watt)	33-210339	.20
112X	Condenser (.008 mfd. tubular)	30-4455	.20
113	Resistor (490,000 megohms, ½ watt)	33-449339	.20
114	Resistor (1. megohm, ½ watt)	33-510339	.20
115	Condenser (110 mmfd. dual bakelite)	8035-DG	.25
116	Power Cable (Chassis)	41-3232	4.00
117	Resistor (490,000 megohms, ½ watt)	33-449339	.20
118	Resistor (490,000 megohms, ½ watt)	33-449339	.20
119	Magnetic Tuning Transformer	32-2361	4.00
120	Bass Amplifier Control & A.C. Switch	33-5182	.90
121	Condenser (.05 mfd. bakelite)	3615-DG	.40
122	Magnetic Tuning Switch (Manual)	42-1216	.75
123	Resistor (500 ohms, ½ watt)	33-150339	.20
124	Resistor (2000 ohms, ½ watt)	33-220339	.20
125	Resistor (1. megohm, ½ watt)	33-510339	.20
126	Resistor (490,000 ohms, ½ watt)	33-449339	.20
127	Condenser (110 mfd. mica)	30-1031	.20
128	Resistor (1. megohm, ½ watt)	33-510339	.20
129	Resistor (330,000 ohms, ½ watt)	33-433339	.20
130	Resistor (1. megohm, ½ watt)	33-510339	.20
131	Resistor (40,000 ohms, ½ watt)	33-340339	.20
132	Condenser (.05 mfd. tubular)	30-4123	.20
133	Condenser (.15 mfd. tubular)	30-4191	.25
134	Condenser (.1, .1, .8 mfd.)	30-4466	1.40
135	Resistor (160,000 ohms, ½ watt)	33-416339	.20
136	Condenser (.15 mfd. bakelite)	6287-DG	.40
137	Resistor (20,000 ohms, ½ watt)	33-320339	.20
138	Resistor (490,000 ohms, ½ watt)	33-449339	.20
139	Resistor (490,000 ohms, ½ watt)	33-449339	.20
140	Resistor (1. megohm, ½ watt)	33-510339	.20
141	Condenser (.15 mfd. tubular)	30-4191	.25
142	Condenser (.05 mfd. tubular)	30-4444	.20
143	Part of 144 (.03 mfd.)		
144	Condenser (.03 mfd. bakelite)	8318-DU	
145	Magnetic Tuning Switch (Automatic Dial)	45-2330	
146	Flood Lamp Assembly	38-8210	2.40
147	Antenna Range Switch	42-1211	1.60
148	R. F. Range Switch	42-1255	1.60
149	Oscillator Range Switch	42-1217	2.00
150	Switch (audio shorting, auto. dial)	45-2350	
151	Electrolytic Condenser (8 mfd.)	30-2025	1.35
152	Electrolytic Condenser (8, 10 mfd.)	30-2176	1.40
153	Electrolytic Condenser (2, 3, 3 mfd.)	30-2159	1.80
154	Coil (10 K. C. Filter)	32-7764	.80
155	Resistor (1. megohm, ½ watt)	33-510339	.20
156	Audio Transformer (Interstage)	32-7725	3.20
157	Resistor (490,000 ohms, ½ watt)	33-449339	.20
157X	Resistor (240,000 ohms, ½ watt)	33-424339	
158	Condenser (410 mfd. mica)	30-1000	.25
159	Compensator (10 K. C. Filter)	04000-T	.35
160	Condenser (.025 mfd. bakelite)	7653-SU	.35
161	Resistor (99,000 ohms, ½ watt)	33-399339	.20
162	Condenser (1000 mmfd. mica)	30-1007	.30
163	Resistor (15,000 ohms, ½ watt)	33-315339	.20
164	Condenser (.1 mfd. bakelite)	4989-SG	.35
165	Electrolytic Condenser (8 mfd.)	30-2024	1.10
166	Electrolytic Condenser (8 mfd.)	30-2025	1.35
167	Condenser (.05 mfd. tubular)	30-4020	.20
168	Electrolytic Condenser (8 mfd.)	30-2025	1.35
169	Filter Choke	32-7056	2.20
170	Resistor (490,000 ohms, ½ watt)	33-449339	.20
171	Condenser (.1 mfd. bakelite)	4989-SG	.35
172	Resistor (490,000 ohms, ½ watt)	33-449339	.20
173	Condenser (.3 mfd. bakelite)	6287-DU	.40
174	Resistor (51,000 ohms, ½ watt)	33-351339	.20
175	Condenser (.015 mfd. bakelite)	3793-DG	.40
176	Power Transformer	32-7731	7.50
	Power Transformer (25 to 40 cycles)	32-7732	
177	Resistor (wirewound three taps)	33-3302	1.00
177X	Resistor (30 ohm flexible)	33-3119	
177Y	Resistor (30 ohm flexible)	33-3119	
178	Condenser (.05 mfd. bakelite)	3615-SU	.35
179	Resistor (51,000 ohms, ½ watt)	33-351339	.20
180	Resistor (51,000 ohms, ½ watt)	33-351339	.20
181	Condenser (.05 mfd. bakelite)	3615-SU	.35
182	Resistor (51,000 ohms, ½ watt)	33-351339	.20
183	Resistor (32,000 ohms, ½ watt)	33-332339	.20
184	Cable Speaker	41-3242	.90
185	Hum Control	33-5176	$1.60
186	Cable CB2 Speaker	41-3245	
187	Resistor (32,000 ohms, ½ watt)	33-332339	.20
188	Cable CB2 Speaker	41-3245	
189	Condenser (.015 mfd. tubular)	30-4226	.20
190	CB2 Speaker Transformer	32-7663	1.00
191	Power Transformer	32-7728	6.50
	Power Transformer (25 to 40 cycles)	32-7729	
192	Resistor (wirewound two taps)	33-3301	.60
193	Condenser (.15 mfd. bakelite)	6287-SU	.40
194	Condenser (.3 mfd. bakelite)	6287-DG	.40
195	Filter Choke	32-7115	1.80
196	Field W-2 Speaker	36-3782	
197	Field Coil (High Audio Frequency) CB2	36-3739	3.50
198	Cone Voice Coil W-2 Speaker	36-3647	2.25
199	Cone Voice Coil (Speaker, CB2)	36-3654	.80
200	Output Transformer W-2, Speaker	32-7753	1.70

DIAL PARTS

Brace (Drive Mtg.)	28-4119	.05
Bracket Assembly	45-2349	
Coupling Assembly (tuning condenser)	31-1961	
Coupling (range switch)	28-7198	.15
Cover (Handle)	28-4077	.25
Dial	28-4078	.80
Dial Screen Holder Assembly	31-1968	
Dial Guide	27-8580	.03
Dial Escutcheon Assembly	45-2324	.40
Gasket (Dial Scale)	27-8598	.01
Gear No. 1 (front)	45-2347	
Gear No. 2 (rear)	45-2348	
Flood Lamp Assembly (4 unit)	38-8210	2.40
Flood Lamp Assembly (single)	38-7937	.40
Handle (Indexing)	45-2329	
Hub Assembly (Handle)	45-2344	
Mask & Link Assembly	45-2328	
Mask Guide	28-4118	.25

MISCELLANEOUS PARTS

Pilot Lamp	34-2039	.07
Pilot Lamp Assembly	38-8061	.35
Pilot Lamp Cable	41-3253	
Ring (Mask Assembly)	28-7195	.20
Spring (Mask Assembly)	28-8629	.04
Set Screw (Handle)	28-6403	.02
Screw (cover)	W-1669	.05 C
Snap Fastener	28-4279	.75 C
Vernier Drive Assembly	45-2342	
Washer Felt (Mask)	27-8599	.30 C
Washer (Mask)	W-495	.30 C
Clarifier (Type K)	36-1155	1.25
Cord (Drive)	27-8495	
Cord (Drive)	27-8496	
Cable (I. F. Unit)	L-2331	.90
Cable (Power Unit)	L-2330	2.00
Cable (A.C. Power)	L-2288	
Clamp (I. F. Cord)	28-4147	.01
Fuse A.C. Cable	45-2046	.05
Fuse (Speaker)	45-2113	.16
Knob (Tuning)	27-4330	.10
Knob (Vernier)	27-4331	.10
Knob (Tone & Volume)	27-4332	.10
Knob (Range Switch)	27-4326	.10
Panel (Ant.)	38-7714	.15
Plug A.C.	27-4117	.40
Shield (6N7G)	9005	.10
Shield Tubes	28-2726	.10
Shield (Expander)	28-4169	1.00
Shaft (Expander)	28-6506	.40
Shaft (Volume Control)	38-8061	.12
Shaft & Index Plate (Range Switch)	42-1208	.50
Socket (8 Prong)	27-6058	.11
Socket (7 Prong)	27-6057	.11
Socket (Power Supply)	27-6067	.15
Socket (Audio)	27-6066	.15
Socket (Rectifier)	27-6065	
Speaker (W-2)	36-1292	22.50
Speaker (High Frequency CB-2)	36-1270	4.50

CABINET PARTS

Bezel Assembly	40-5980	1.00
Baffle Wood (Left & Right Side)	24045	.30
Baffle Wood	16284	3.00
Baffle Card Board	27-8572-A	.35
Gasket (Bezel)	27-8517	.05
Silk (Right & Left Side)	44-1174	.20
Silk (Cardboard Baffle)	44-1175	1.00
Screw (Bezel)	W-480	.55 C
Speaker Felt	27-8498	.15

November 19.36