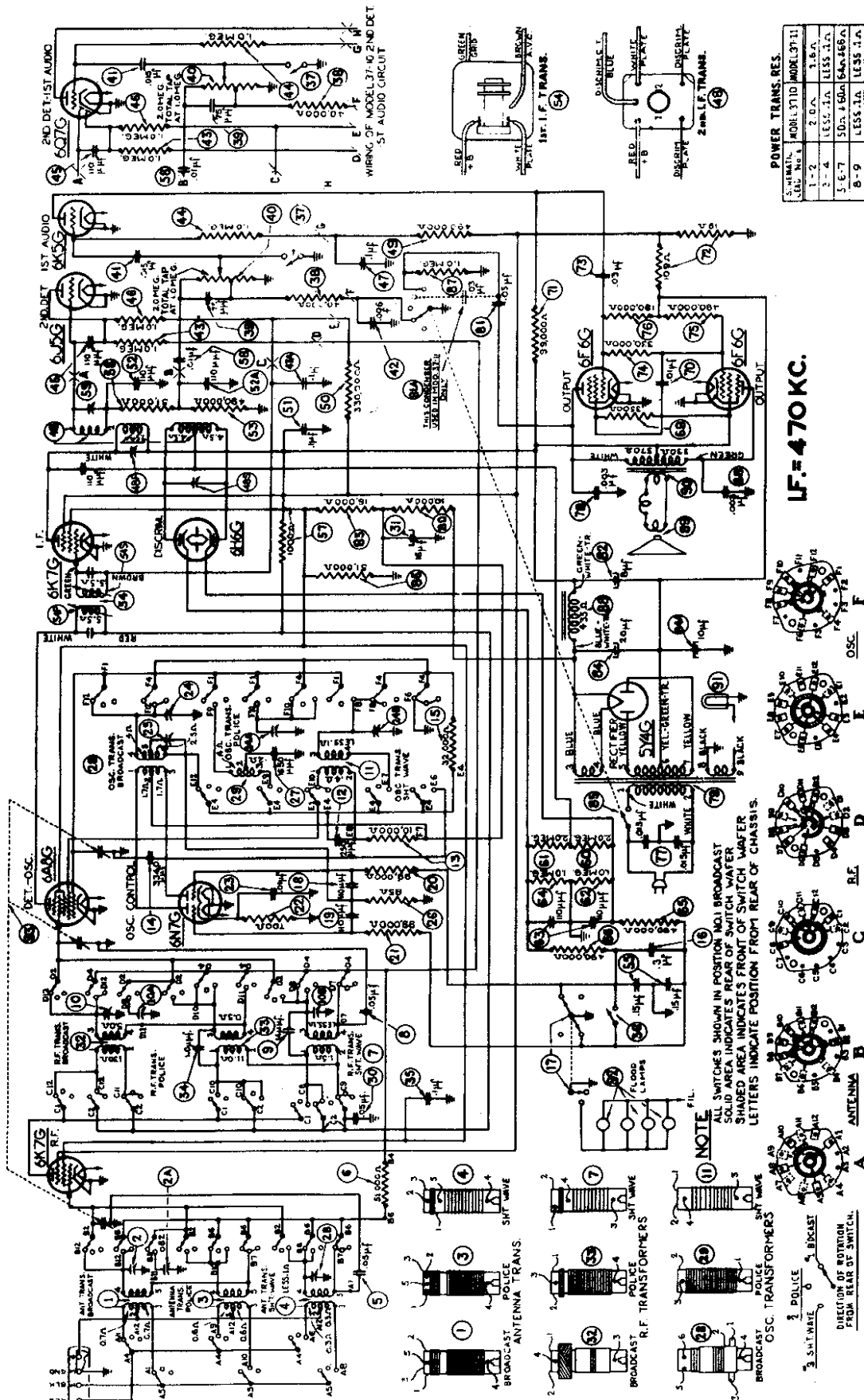


POWER TRANS. RES.		
S.W. MATL. ELEC. No.	MODEL 13710	MODEL 3711
1-2	2.0 $\Omega$	3.5 $\Omega$
3-4	LESS THAN	LESS THAN
5-7	50 $\Omega$ + 50 $\Omega$	64 + 66 $\Omega$
8-9	LESS THAN	LESS THAN



**Fig 4. Schematic Diagram Models 37-10, 37-11**

Printed in U.S.A.

November 1936

## MODELS 37-10, 37-11

## Alignment, Trimmers

## PHILCO RADIO &amp; TELEV. CORP.

## POWER SUPPLY:

Voltage	Frequency Cycles	Consumption
		37-10      37-11
115	50 to 60	120 watts    125 watts
115	25 to 40	125 watts    130 watts

INTERMEDIATE FREQUENCY: 470 K. C.

UNDISTORTED OUTPUT: 37-10, 5 watts. 37-11, 7 watts.

## TUNING RANGES: Three.

Range 1—530 to 1720 K. C.

Range 2—2.3 to 7.4 M. C.

Range 3—7.35 to 22 M. C.

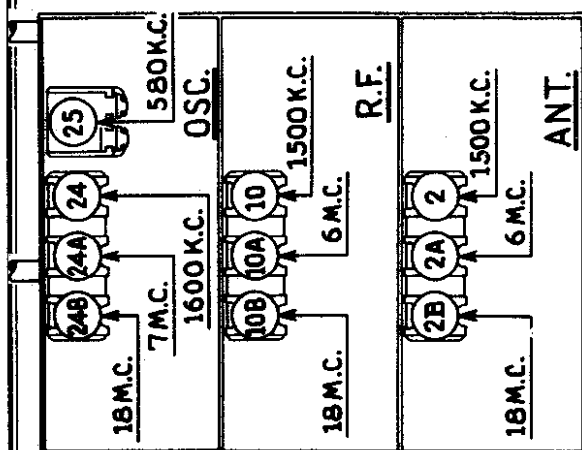


Fig. 8. R. F. Compensators, Underside of Chassis

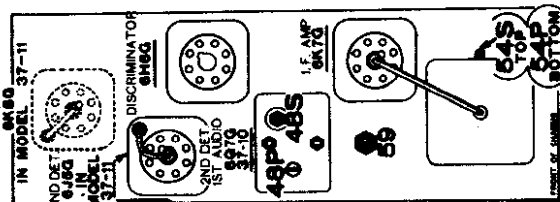
Models 37-10  
and 37-11

Fig. 7

## Alignment of Compensators

**EQUIPMENT REQUIRED:** (1) Signal Generator; Philco Model 088 (fundamental frequency 110 to 20,000 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. 21-1059); (4) Special variable condenser (Philco Part No. 45-2325).

**OUTPUT METER:** The 025 Output Meter is connected to the plate and cathode terminals of one of the (6F6G) tubes. Adjust the meter to use the (0-30) volt scale.

## INTERMEDIATE FREQUENCY CIRCUIT

1. Set controls as follows:

- Magnetic Tuning "off"
- Base compensation minimum
- Volume control maximum
- Receiver Dial 580 K. C.
- Signal Generator 470 K. C.

2. Adjust the 1. F. compensators for maximum with signal generator output lead connected through a .1 mfd. condenser to the grid of the tubes as follows:

## Compensators in Order

Range	Signal	Receiver
1	1600 K. C.	1600 K. C.
2	580 K. C.	580 K. C.
3	1500 K. C.	1500 K. C.

## RADIO FREQUENCY CIRCUIT

Tuning Range 7.35 to 22 M. C.

1. Connect the signal generator output lead through a .1 mfd. condenser to terminal 1 and the 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.

2. Other controls set as given under intermediate frequency circuit, with the exception of those as follow:

## Compensators in Order

Range	Signal	Receiver
1	18 M. C.	18 M. C.
2	18 M. C.	18 M. C.
3	18 M. C.	18 M. C.

## Tuning Range 2.3 to 7.4 M. C.

Adjust compensators for maximum as follows:

Range	Signal	Receiver
1	7 M. C.	7 M. C.
2	6 M. C.	6 M. C.

## Tuning Range 530 to 1720 K. C.

Adjust compensators for maximum as follows:

Range	Signal	Receiver
1	1600 K. C.	1600 K. C.
2	580 K. C.	580 K. C.
3	1500 K. C.	1500 K. C.

## MAGNETIC TUNING ADJUSTMENT

Set the range switch in position one (530 to 1720 K. C.) 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 (48S) 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"**—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.

**NOTE "B"**—To eliminate the effect of the R. F. compensator detuning the Osc. circuit, a variable tuning condenser, Philco Part No. 45-2325 is connected from the oscillator compensator 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.

# PHILCO RADIO & TELEV. CORP.

MODELS 37-10, 37-11  
Voltage, Spkr. Data  
Notes

**TONE CONTROL:** 37-10—3 Positions. 37-11—4 Positions.  
**SPEAKER:** H-30.

**PHILCO TUBES USED:** 37-10—Nine. Two 6K7G; one 6A8G; one 6N7G; one 6H6G; one 6Q7G; two 6F6G, and one 5Y4G.  
37-11—Ten. Two 6K7G; one 6A8G; one 6N7G; one 6H6G; one 6K5G; one 6J5G; two 6F6G, and one 5Y4G.

2. With condenser in this position loosen the set screws of the shaft coupling on the tuning condenser.
  3. Then turn the tuning dial until the glowing beam indicator is centered on the index line.
- NOTE:** Be careful when turning the dial that the position of the tuning condenser is not disturbed.
4. Now tighten the shaft coupling set screws.

## NOTE

Models 37-10 and 37-11 are similar in circuit design, with the exception that the 6Q7G tube, 2nd Det. 1st Audio in the 37-10 is replaced with a 6J5G as a diode detector and a 6K5G tube for 1st audio stage in the Model 37-11. The schematic diagram Fig. 3 shows the complete circuit of the 37-11 receiver, also the 6Q7G, 2nd Det. 1st Audio circuit of the 37-10. The parts of these two chassis are the same with the exception of condenser (81A) in the tone control circuit and the tone controls. In Model 37-10 the condenser is Part No. 3615-SU .05 mfd., and in the 37-11 it is Part No. 3615-YU .05 mfd., .03 mfd.

Resistor locations in both receiver power units are slightly different as will be noted in Figs. 5 and 7.

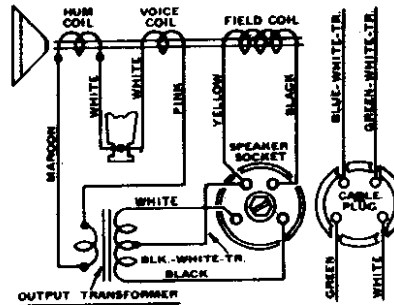


Fig. 3. Speaker

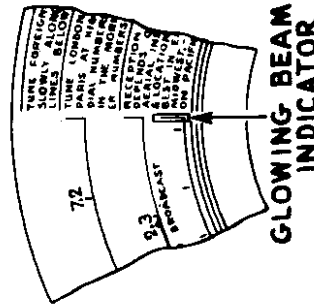


Fig. 2. Dial Calibration

**TYPE CIRCUIT:** Superheterodyne, with Automatic (Dial) Tuning, and Magnetic Tuning control on the broadcast range.

Both receivers use a push-pull pentode audio output circuit. The 37-11 receiver however, uses a 6J5G, second detector and 6K5G 1st audio tube.

**DIAL MECHANISM:** Philco Automatic Dial Tuning System.

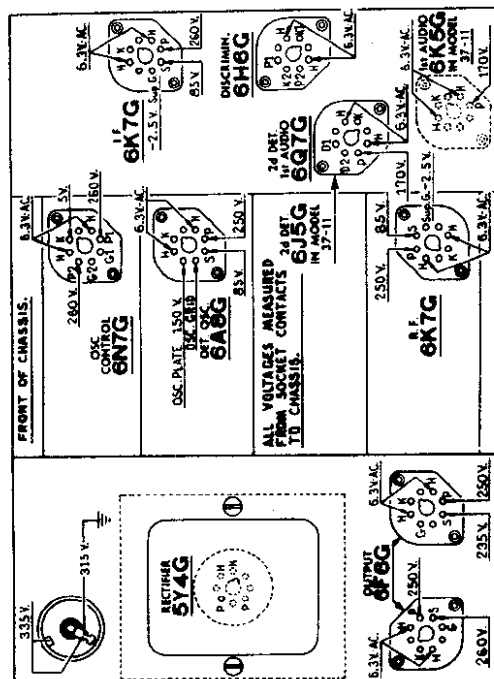


Fig. 1. Socket Voltages 37-10-11  
Underneath of Chassis View

The voltages indicated by arrows were measured with a Philco 625 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.

## 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.

## 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 shaft coupling set screws. Then turn the tuning condenser fully closed and the dial to the first index line. Now tighten the shaft coupling set screws, and rotate the dial until the 520 K.C. mark is midway between the index line and the glowing beam indicator.

MODELS 37-10, 37-11  
Chassis Views, Parts

PHILCO RADIO & TELEV. CORP.

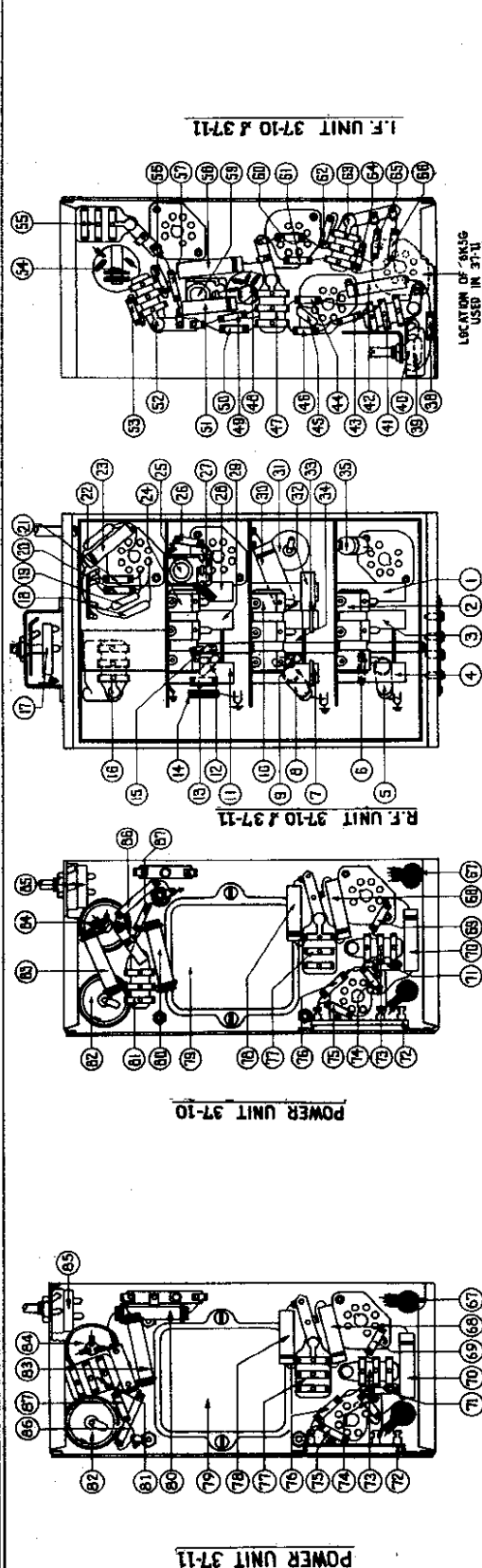


Fig. 5. 37-11 Power Unit Base View

Fig. 6. 37-10-11 R. F. L. F. Base View and 37-10 Power Unit Base View

Prices Subject to Change Without Notice

Schem. No.	Description	Part No.	List Price	Schem. No.	Description	Part No.	List Price
1	Antenna Transformer (Range 1)	32-2103	\$1.60	79	37-11 Power Transformer (115 V., 25 to 60 cycles)	32-7640	32-7640
2	Compensator (Three section)	31-6092	.60	80	37-10 Power Transformer (115-240 V., 50 to 60 cycles)	32-7642	32-7642
3	Antenna Transformer (Range 2)	32-2119	1.20	81	37-10 Resistor (10,000 ohms, 2 watt)	30-1035-SU	.35
4	Antenna Transformer (Range 3)	32-2104	1.20	82	Condenser (.03 mfd. bakelite)	30-15-SU	.35
5	Resistor (100,000 ohms, 1/2 watt)	30-4020	.20	83	Condenser (.03, .05 mfd. bakelite)	30-15-SU	.35
6	Resistor (51,000 ohms, 1/2 watt)	32-31339	.70	84	Electrolytic Capacitor (3 mfd.)	30-2024	1.10
7	R. F. Transformer (Range 3)	32-2128	.20	85	Resistor (15,000 ohms, 3 watt)	33-315639	.30
8	Condenser (.05 mfd. tubular)	30-4020	.20	86	Electrolytic Capacitor (10, 20 mfd.)	30-2183	2.00
9	Compensator (Three section)	30-1073	.60	87	Base Comp. Control & A.C. switch	42-1267	
10	Compensator (Three section)	31-6092	.60	88	Base Comp. Control & A.C. switch	42-1267	
11	Oscillator Transformer (Range 3)	32-2110	.70	89	Resistor (51,000 ohms, 1 watt)	32-3241439	.20
12	Condenser (230 mfd. mica)	20-1032	.20	90	Resistor (1 megohm, 1/2 watt)	33-510339	.20
13	Resistor (10,000 ohms, 1/2 watt)	33-310339	.20	91	Speaker Field Assembly (H30)	35-3087	4.00
14	Resistor (3500 mfd. semi-fixed)	31-5123	.40	92	Cone Voice Coil (H30)	32-3301	.20
15	Resistor (15,000 ohms, 1/2 watt)	32-31339	.20	93	Output Transformer (H30)	32-7754	1.50
16	Magnetic Tuning Switch	42-1260	.75	94	Pilot Lamp	34-2039	.07
17	Condenser (10 mfd. mica)	30-1031	.20	95	Floodlight Assembly	35-3210	2.40
18	Condenser (110 mfd. mica)	30-1031	.20	96	Tuning Condenser	33-1948	3.75
19	Resistor (99,000 ohms, 1/2 watt)	33-399339	.20	97	Automatic Dial Assembly	35-7714	25.00
20	Resistor (99,000 ohms, 1/2 watt)	33-399339	.20	98	Antenna Terminal Panel	32-1948	25.00
21	Resistor (700 ohms)	33-1220	.20	99	Brace (Dial Mfg. Assembly)	32-1948	25.00
22	Condenser (.01 mfd. tubular)	30-1169	.75	100	Cable & Plug (Pilot lamp)	31-1941	1.80
23	Compensator (Three section)	31-6151	.75	101	Cable & Plug (Pilot lamp)	31-1941	1.80
24	Compensator (Three section)	31-6151	.75	102	Cable & Plug (Pilot lamp)	31-1941	1.80
25	Compensator (Three section)	31-6151	.75	103	Cable & Plug (Pilot lamp)	31-1941	1.80
26	Compensator (Three section)	31-6151	.75	104	Cable & Plug (Pilot lamp)	31-1941	1.80
27	Compensator (Three section)	31-6151	.75	105	Cable & Plug (Pilot lamp)	31-1941	1.80
28	Compensator (Three section)	31-6151	.75	106	Cable & Plug (Pilot lamp)	31-1941	1.80
29	Compensator (Three section)	31-6151	.75	107	Cable & Plug (Pilot lamp)	31-1941	1.80
30	Compensator (Three section)	31-6151	.75	108	Cable & Plug (Pilot lamp)	31-1941	1.80
31	Compensator (Three section)	31-6151	.75	109	Cable & Plug (Pilot lamp)	31-1941	1.80
32	Compensator (Three section)	31-6151	.75	110	Cable & Plug (Pilot lamp)	31-1941	1.80
33	Compensator (Three section)	31-6151	.75	111	Cable & Plug (Pilot lamp)	31-1941	1.80
34	Compensator (Three section)	31-6151	.75	112	Cable & Plug (Pilot lamp)	31-1941	1.80
35	Compensator (Three section)	31-6151	.75	113	Cable & Plug (Pilot lamp)	31-1941	1.80
36	Compensator (Three section)	31-6151	.75	114	Cable & Plug (Pilot lamp)	31-1941	1.80
37	Audio Shorting Switch (Automatic Dial)	45-2330	1.20	115	Cable & Plug (Pilot lamp)	31-1941	1.80
38	Wahet Transistor for above switch.	47-4351	.01	116	Cable & Plug (Pilot lamp)	31-1941	1.80
39	Resistor (40,000 ohms, 1/2 watt)	33-340339	.20	117	Cable & Plug (Pilot lamp)	31-1941	1.80
40	Condenser (75 mfd. mica)	30-1053	.20	118	Cable & Plug (Pilot lamp)	31-1941	1.80
41	Volume Control	33-5158	1.00	119	Cable & Plug (Pilot lamp)	31-1941	1.80
42	Condenser (.015 mfd. bakelite)	37-53-SU	.35	120	Cable & Plug (Pilot lamp)	31-1941	1.80
43	Antenna Transformer (Range 1)	32-2103	\$1.60	121	Cable & Plug (Pilot lamp)	31-1941	1.80
44	Compensator (Three section)	31-6092	.60	122	Cable & Plug (Pilot lamp)	31-1941	1.80
45	Antenna Transformer (Range 2)	32-2119	1.20	123	Cable & Plug (Pilot lamp)	31-1941	1.80
46	Antenna Transformer (Range 3)	32-2104	1.20	124	Cable & Plug (Pilot lamp)	31-1941	1.80
47	Resistor (100,000 ohms, 1/2 watt)	30-4020	.20	125	Cable & Plug (Pilot lamp)	31-1941	1.80
48	Resistor (51,000 ohms, 1/2 watt)	32-31339	.70	126	Cable & Plug (Pilot lamp)	31-1941	1.80
49	R. F. Transformer (Range 3)	32-2128	.20	127	Cable & Plug (Pilot lamp)	31-1941	1.80
50	Condenser (.05 mfd. tubular)	30-4020	.20	128	Cable & Plug (Pilot lamp)	31-1941	1.80
51	Condenser (.05 mfd. tubular)	30-4020	.20	129	Cable & Plug (Pilot lamp)	31-1941	1.80
52	Compensator (Three section)	31-6092	.60	130	Cable & Plug (Pilot lamp)	31-1941	1.80
53	Compensator (Three section)	32-2110	.70	131	Cable & Plug (Pilot lamp)	31-1941	1.80
54	Oscillator Transformer (Range 3)	30-1032	.20	132	Cable & Plug (Pilot lamp)	31-1941	1.80
55	Condenser (230 mfd. mica)	20-1032	.20	133	Cable & Plug (Pilot lamp)	31-1941	1.80
56	Resistor (10,000 ohms, 1/2 watt)	33-310339	.20	134	Cable & Plug (Pilot lamp)	31-1941	1.80
57	Resistor (3500 mfd. semi-fixed)	31-5123	.40	135	Cable & Plug (Pilot lamp)	31-1941	1.80
58	Resistor (15,000 ohms, 1/2 watt)	32-31339	.20	136	Cable & Plug (Pilot lamp)	31-1941	1.80
59	Magnetic Tuning Switch	42-1260	.75	137	Cable & Plug (Pilot lamp)	31-1941	1.80
60	Condenser (10 mfd. mica)	30-1031	.20	138	Cable & Plug (Pilot lamp)	31-1941	1.80
61	Condenser (110 mfd. mica)	30-1031	.20	139	Cable & Plug (Pilot lamp)	31-1941	1.80
62	Resistor (99,000 ohms, 1/2 watt)	33-399339	.20	140	Cable & Plug (Pilot lamp)	31-1941	1.80
63	Resistor (99,000 ohms, 1/2 watt)	33-399339	.20	141	Cable & Plug (Pilot lamp)	31-1941	1.80
64	Resistor (700 ohms)	33-1220	.20	142	Cable & Plug (Pilot lamp)	31-1941	1.80
65	Condenser (.01 mfd. tubular)	30-1169	.75	143	Cable & Plug (Pilot lamp)	31-1941	1.80
66	Compensator (Three section)	31-6151	.75	144	Cable & Plug (Pilot lamp)	31-1941	1.80
67	Compensator (Three section)	31-6151	.75	145	Cable & Plug (Pilot lamp)	31-1941	1.80
68	Compensator (Three section)	31-6151	.75	146	Cable & Plug (Pilot lamp)	31-1941	1.80
69	Compensator (Three section)	31-6151	.75	147	Cable & Plug (Pilot lamp)	31-1941	1.80
70	Compensator (Three section)	31-6151	.75	148	Cable & Plug (Pilot lamp)	31-1941	1.80
71	Compensator (Three section)	31-6151	.75	149	Cable & Plug (Pilot lamp)	31-1941	1.80
72	Compensator (Three section)	31-6151	.75	150	Cable & Plug (Pilot lamp)	31-1941	1.80
73	Compensator (Three section)	31-6151	.75	151	Cable & Plug (Pilot lamp)	31-1941	1.80
74	Compensator (Three section)	31-6151	.75	152	Cable & Plug (Pilot lamp)	31-1941	1.80
75	Compensator (Three section)	31-6151	.75	153	Cable & Plug (Pilot lamp)	31-1941	1.80
76	Compensator (Three section)	31-6151	.75	154	Cable & Plug (Pilot lamp)	31-1941	1.80
77	Compensator (Three section)	31-6151	.75	155	Cable & Plug (Pilot lamp)	31-1941	1.80
78	Compensator (Three section)	31-6151	.75	156	Cable & Plug (Pilot lamp)	31-1941	1.80
79	Compensator (Three section)	31-6151	.75	157	Cable & Plug (Pilot lamp)	31-1941	1.80
80	Compensator (Three section)	31-6151	.75	158	Cable & Plug (Pilot lamp)	31-1941	1.80
81	Compensator (Three section)	31-6151	.75	159	Cable & Plug (Pilot lamp)	31-1941	1.80
82	Compensator (Three section)	31-6151	.75	160	Cable & Plug (Pilot lamp)	31-1941	1.80
83	Compensator (Three section)	31-6151	.75	161	Cable & Plug (Pilot lamp)	31-1941	1.80
84	Compensator (Three section)	31-6151	.75	162	Cable & Plug (Pilot lamp)	31-1941	1.80
85	Compensator (Three section)	31-6151	.75	163	Cable & Plug (Pilot lamp)	31-1941	1.80
86	Compensator (Three section)	31-6151	.75	164	Cable & Plug (Pilot lamp)	31-1941	1.80
87	Compensator (Three section)	31-6151	.75	165	Cable & Plug (Pilot lamp)	31-1941	1.80
88	Compensator (Three section)	31-6151	.75	166	Cable & Plug (Pilot lamp)	31-1941	1.80
89	Compensator (Three section)	31-6151	.75	167	Cable & Plug (Pilot lamp)	31-1941	1.80
90	Compensator (Three section)	31-6151	.75	168	Cable & Plug (Pilot lamp)	31-1941	1.80
91	Compensator (Three section)	31-6151	.75	169	Cable & Plug (Pilot lamp)	31-1941	1.80
92	Compensator (Three section)	31-6151	.75	170	Cable & Plug (Pilot lamp)	31-1941	1.80
93	Compensator (Three section)	31-6151	.75	171	Cable & Plug (Pilot lamp)	31-1941	1.80
94	Compensator (Three section)	31-6151	.75	172	Cable & Plug (Pilot lamp)	31-1941	1.80
95	Compensator (Three section)	31-6151	.75	173	Cable & Plug (Pilot lamp)	31-1941	1.80
96	Compensator (Three section)	31-6151	.75	174	Cable & Plug (Pilot lamp)	31-1941	1.80
97	Compensator (Three section)	31-6151	.75	175	Cable & Plug (Pilot lamp)	31-1941	1.80
98	Compensator (Three section)	31-6151	.75	176	Cable & Plug (Pilot lamp)	31-1941	1.80
99	Compensator (Three section)	31-6151	.75	177	Cable & Plug (Pilot lamp)	31-1941	1.80
100	Compensator (Three section)	31-6151	.75	178	Cable & Plug (Pilot lamp)	31-1941	1.80
101	Compensator (Three section)	31-6151	.75	179	Cable & Plug (Pilot lamp)	31-1941	1.80
102	Compensator (Three section)	31-6151	.75	180	Cable & Plug (Pilot lamp)	31-1941	1.80
103	Compensator (Three section)	31-6151	.75	181	Cable & Plug (Pilot lamp)	31-1941	1.80
104	Compensator (Three section)	31-6151	.75	182	Cable & Plug (Pilot lamp)	31-1941	1.80
105	Compensator (Three section)	31-6151	.75	183	Cable & Plug (Pilot lamp)	31-1941	1.80
106	Compensator (Three section)	31-6151	.75	184	Cable & Plug (Pilot lamp)	31-1941	1.80
107	Compensator (Three section)	31-6151	.75	185	Cable & Plug (Pilot lamp)	31-1941	1.80
108	Compensator (Three section)	31-6151	.75	186	Cable & Plug (Pilot lamp)	31-1941	1.80
109	Compensator (Three section)	31-6151	.75	187	Cable & Plug (Pilot lamp)	31-1941	1.80
110	Compensator (Three section)	31-6151	.75	188	Cable & Plug (Pilot lamp)	31-1941	1.80
111	Compensator (Three section)	31-6151	.75	189	Cable & Plug (Pilot lamp)	31-1941	1.80
112	Compensator (Three section)	31-6151	.75	190	Cable & Plug (Pilot lamp)	31-1941	1.80
113	Compensator (Three section)	31-6151	.75	191	Cable & Plug (Pilot lamp)	31-1941	1.80
114	Compensator (Three section)	31-6151	.75	192	Cable & Plug (Pilot lamp)	31-1941	1.80
115	Compensator (Three section)	31-6151	.75	193	Cable & Plug (Pilot lamp)	31-1941	1.80
116	Compensator (Three section)	31-6151	.75	194	Cable & Plug (Pilot lamp)	31-1941	1.80
117	Compensator (Three section)	31-6151	.75	195	Cable & Plug (Pilot lamp)	31-1941	1.80
118	Compensator (Three section)	31-6151	.75	196	Cable & Plug (Pilot lamp)	31-1941	1.80
119	Compensator (Three section)	31-6151	.75	197	Cable & Plug (Pilot lamp)	31-1941	1.80
120	Compensator (Three section)	31-6151	.75	198	Cable & Plug (Pilot lamp)	31-1941	1.80
121	Compensator (Three section)	31-6151	.75	199	Cable & Plug (Pilot lamp)	31-1941	1.80
122	Compensator (Three section)	31-6151	.75	200	Cable & Plug (Pilot lamp)	31-1941	1.80
123	Compensator (Three section)	31-6151	.75	201	Cable & Plug (Pilot lamp)	31-1941	1.80
124	Compensator (Three section)	31-6151	.75	202	Cable & Plug (Pilot lamp)	31-1941	1.80
125	Compensator (Three section)	31-6151	.75	203	Cable & Plug (Pilot lamp)	31-1941	1.80
126	Compensator (Three section)	31-6151	.75	204	Cable & Plug (Pilot lamp)	31-1941	1.80
127	Compensator (Three section)	31-6151	.75	205	Cable & Plug (Pilot lamp)	31-1941	1.80
128	Compensator (Three section)	31-6151	.75	206	Cable & Plug (Pilot lamp)	31-1941	1.80
129	Compensator (Three section)	31-6151	.75	207	Cable & Plug (Pilot lamp)	31-1941	1.80
130	Compensator (Three section)	31-6151	.75	208	Cable & Plug (Pilot lamp)	31-1941	1.80
131	Compensator (Three section)	31-6151	.75	209	Cable & Plug (Pilot lamp)	31-1941	1.80
132	Compensator (Three section)	31-6151	.75	210	Cable & Plug (Pilot lamp)	31-1941	1.80
1							