

## 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   |

**INTERMEDIATE FREQUENCY:** 470 K. C.

**UNDISTORTED OUTPUT:** 15 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.

**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.

**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.

## 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.

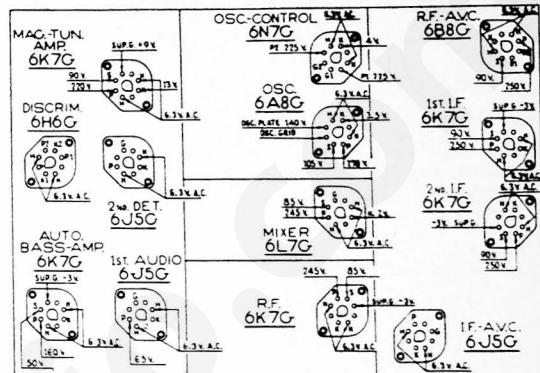


Fig. 1. Receiver Socket Voltage

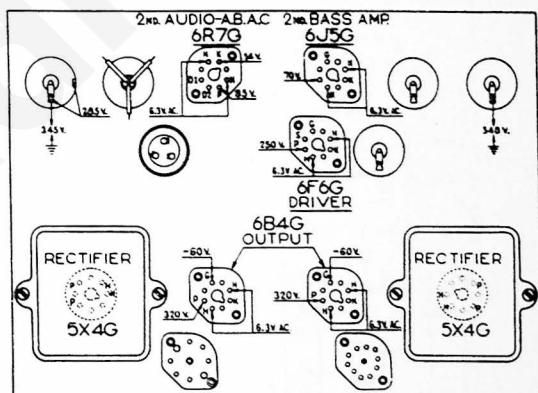


Fig. 2. Power Amplifier Socket Voltage  
 The voltages indicated by arrows were measured with a Philco 625 Circuit Tester which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum, range switch in broadcast position, line voltage 115 A. C.

## 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:

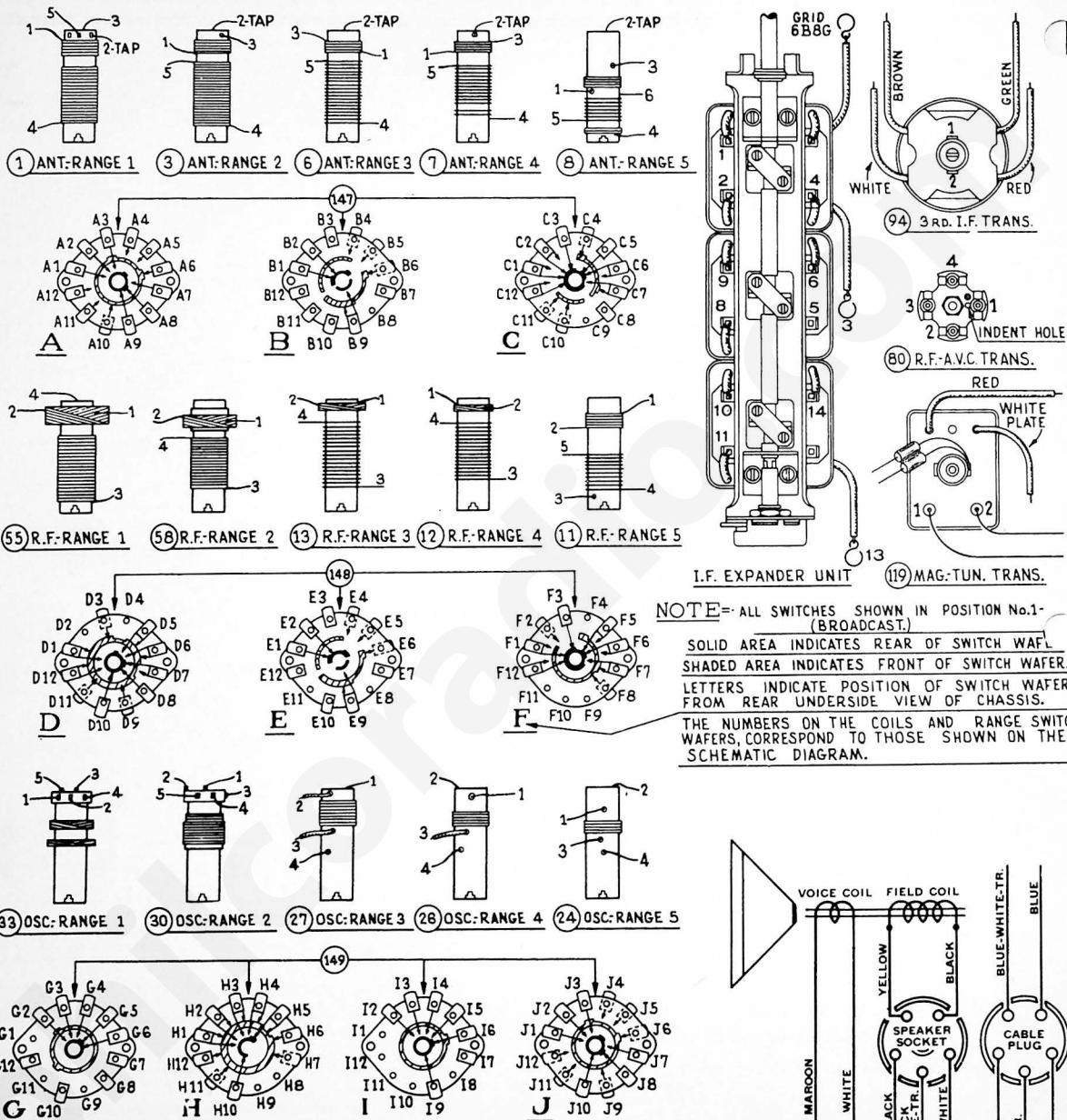
1. Loosen the set screws on the shaft coupling of the tuning condenser. Then turn the tuning condenser until the plates are in the maximum capacity position. Now set the glowing beam indicator on the index line at the low frequency end of the broadcast band. With dial and tuning condenser in this position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

## Coil and Range Switch Connections



## 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

## 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. | (04S) and (04P)   |  |
| 6K7G—1st I. F. | (05S), (05P), (01S) and (01P)   |  |
| 6L7G—1st Det.  | (02S) and (02P)   |  |
| 6L7G—1st Det.  | (04S) and (04P). 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.    | (04D), (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), (1SE), (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.    | (1SD), (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 (28C), (15C) and (5C) (15B) |
| Range 4      | 7.5 M. C.        | 7.5 M. C.     | (28C), (15C) and (5C) (15B)   |
| Range 4      | 11.0 M. C.       | 11.0 M. C.    | 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.

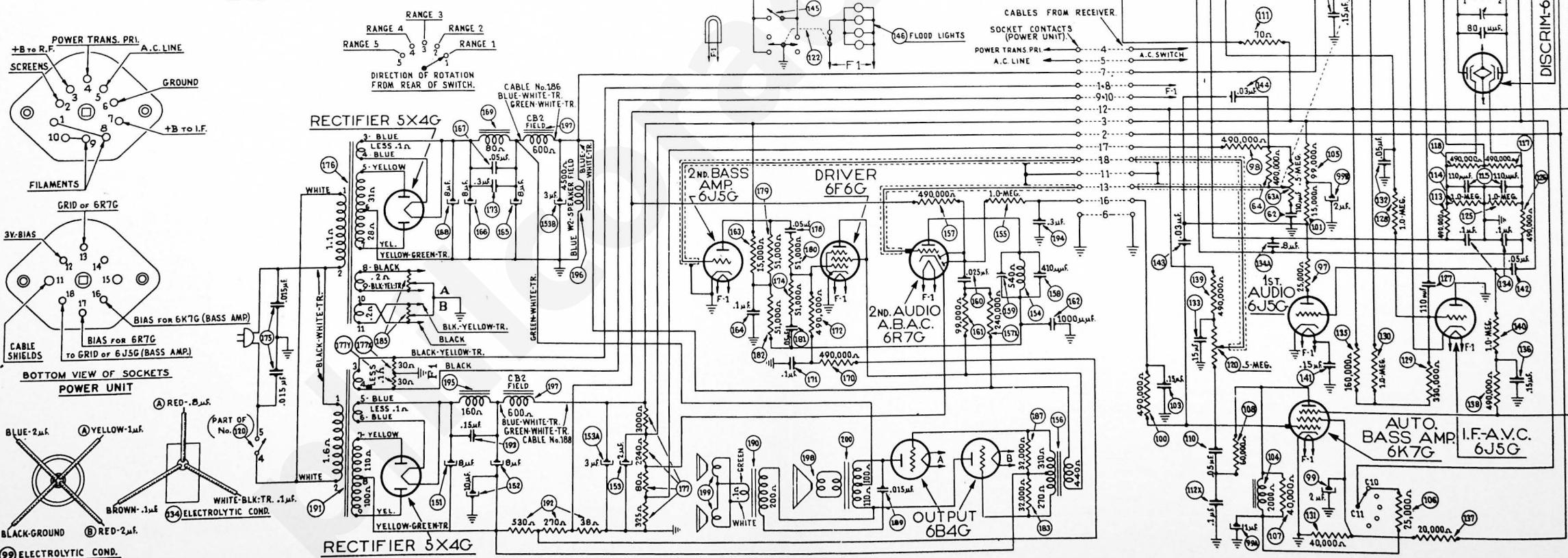
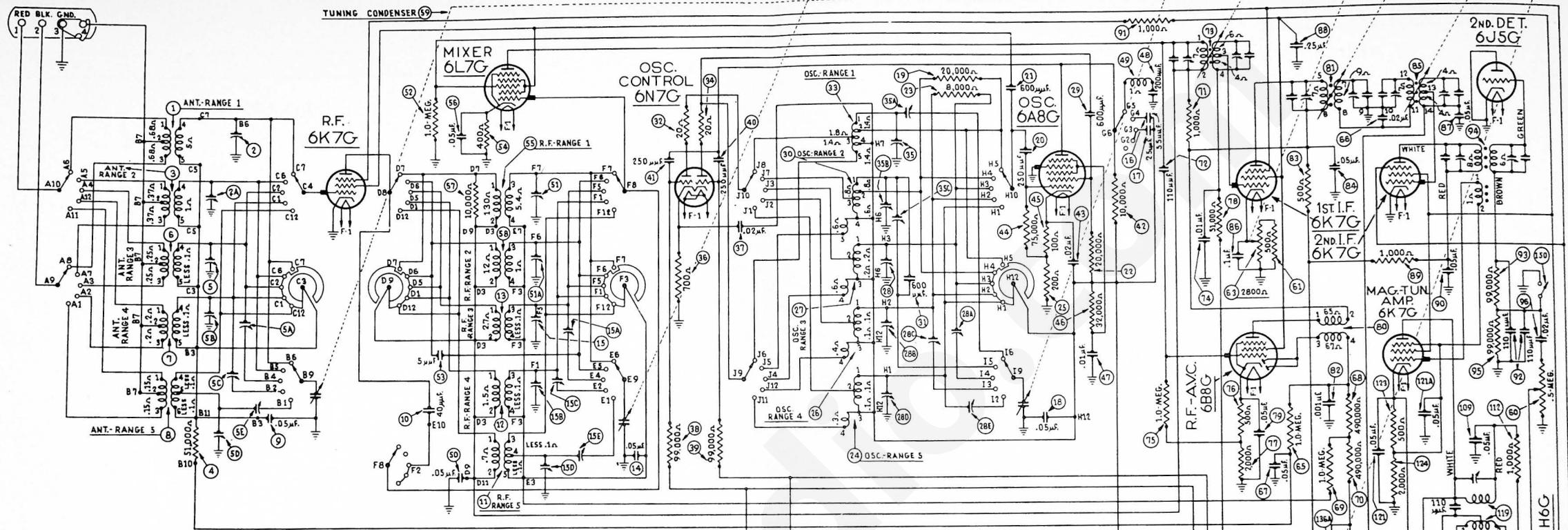
Set the magnetic tuning control in the "on" position (clockwise). Compensator (119S) of the magnetic tuning transformer is now adjusted for maximum output.

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.

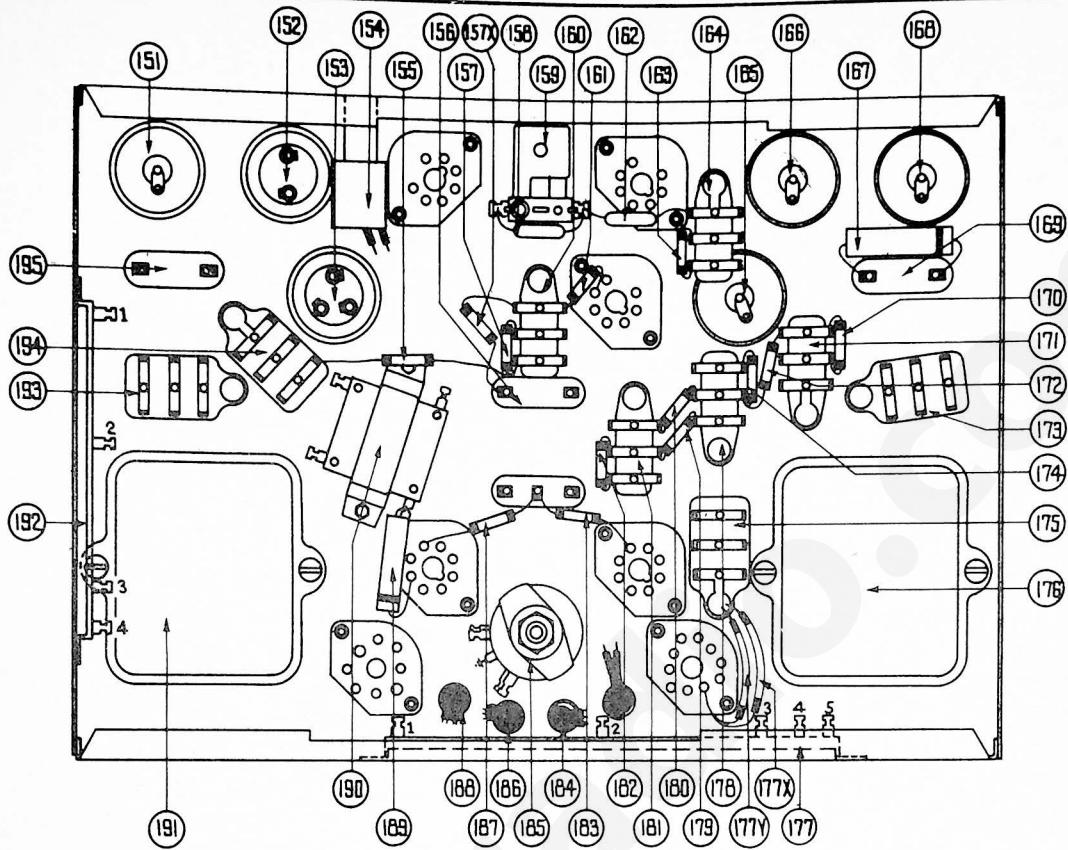
**NOTE "A"—**Slowly shift signal generator indicator between 460 and 480 K. C. As the indicator is turned, two peaks will be noted on the Output Meter; one about 465 K. C. and the other about 475 K. C. These peaks should give the same deflection or reading on the output meter. If they are unequal, compensator (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.



Model 37-690  
Fig. 4. Schematic Diagram



**Fig. 6.** Underside View of Power Unit

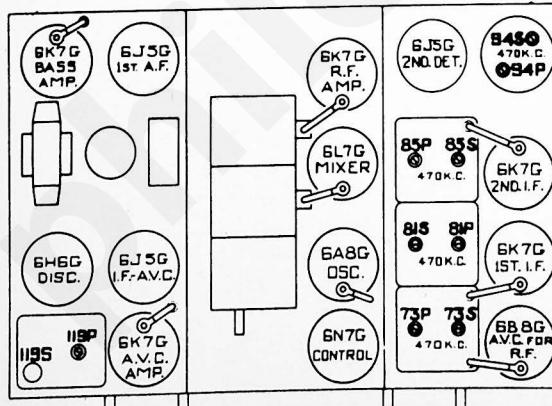
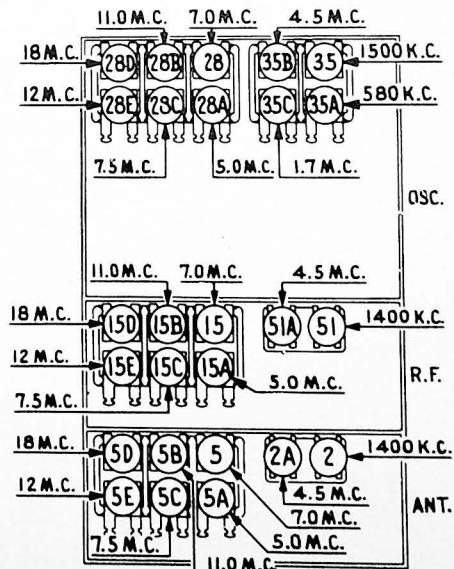


Fig. 7. L.F. Compensators.



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

## Replacement Parts—Model 37-690

| Schem.<br>No. | Description                                 | Part<br>No. | List<br>Price | Schem.<br>No. | Description                                    | Part<br>No. | List<br>Price | Schem.<br>No.                   | Description                                 | Part<br>No. | List<br>Price |
|---------------|---|-------------|---------------|---------------|--|-------------|---------------|---------------------------------|---|-------------|---------------|
| 1             | Antenna Transformer (Range 1)               | 32-2108     | \$1.60        | 86            | Condenser (.02 mfd. tubular)                   | 30-4113     | \$0.20        | 185                             | Hum Control                                 | 33-5176     | \$1.60        |
| 2             | Compensator (two section)                   | 31-6093     | .40           | 87            | Resistor (25,000 ohms, $\frac{1}{2}$ watt)     | 33-325339   | .20           | 186                             | Cable CB2 Speaker                           | 41-3245     |               |
| 3             | Antenna Transformer (Range 2)               | 32-2146     | 1.20          | 88            | Resistor (400,000 ohms, $\frac{1}{2}$ watt)    | 33-349339   | .20           | 187                             | Rectifier (32,000 ohms, $\frac{1}{2}$ watt) | 33-3245     | .20           |
| 4             | Resistor (.05 mfd. mica)                    | 33-325339   | .20           | 89            | Resistor (.01 mfd. Condenser (2, 2, 1 mfd.)    | 33-349339   | 1.40          | 188                             | Speaker (3 ohm, 10 watt)                    | 33-3245     |               |
| 5             | Condenser (.05 section)                     | 31-6113     | .10           | 100           | Resistor (400,000 ohms, $\frac{1}{2}$ watt)    | 33-349339   | .20           | 189                             | CB2 Speaker Transformer                     | 32-7663     | 1.00          |
| 6             | Antenna Transformer (Range 3)               | 32-2183     | .10           | 101           | Resistor (15,000 ohms, $\frac{1}{2}$ watt)     | 33-315339   | .20           | 190                             | Filter Choke                                | 32-7115     | 1.80          |
| 7             | Antenna Transformer (Range 4)               | 32-2185     | .10           | 102           | Audio Cable                                    | 41-3233     | 2.00          | 191                             | Power Transformer                           | 32-7728     | 6.50          |
| 8             | Antenna Transformer (Range 5)               | 32-2175     | .10           | 103           | Condenser (.15 mfd. tubular)                   | 30-4191     | .25           | 192                             | Power Transformer (25 to 40 cycles)         | 32-7729     |               |
| 9             | Condenser (.05 mfd. tubular)                | 30-4020     |               | 104           | Audio Choke (base amplifier)                   | 32-7528     | 1.35          | 193                             | Resistor (wirewound two tape)               | 33-3301     | .60           |
| 10            | Condenser (.40 mfd. mica)                   | 30-1076     | .20           | 105           | Resistor (99,000 ohms, $\frac{1}{2}$ watt)     | 33-399339   | .20           | 194                             | Condenser (.15 mfd. bakelite)               | 6287-SU     | .40           |
| 11            | R. F. Transformer (Range 5)                 | 32-2176     | 1.20          | 106           | Resistor (25,000 ohms, $\frac{1}{2}$ watt)     | 33-325339   |               | 195                             | Condenser (.3 mfd. bakelite)                | 6287-DG     | .40           |
| 12            | R. F. Transformer (Range 4)                 | 32-2178     | .70           | 107           | Resistor (40,000 ohms, $\frac{1}{2}$ watt)     | 33-340339   | .20           | 196                             | Filter Choke                                | 32-7115     | 1.80          |
| 13            | R. F. Transformer (Range 3)                 | 32-2177     | .70           | 108           | Resistor (60,000 ohms, $\frac{1}{2}$ watt)     | 33-300339   | .20           | 197                             | Field W-2 Speaker                           | 36-3782     |               |
| 14            | Condenser (.05 mfd. tubular)                | 30-4020     |               | 109           | Condenser (.05 mfd. tubular)                   | 30-4123     | .20           | 198                             | CB2   | 36-3730     | 3.50          |
| 15            | Compensator (.05 section)                   | 31-6113     | .10           | 110           | Condenser (.05 mfd. tubular)                   | 30-4123     | .20           | 199                             | Cone Voice Coil W-2 Speaker                 | 36-3647     | 2.25          |
| 16            | Condenser (.55 mfd. mica)                   | 30-1045     | .20           | 111           | Resistor (70,000 ohms, $\frac{1}{2}$ watt)     | 33-070339   | .20           | 200                             | Cone Voice Coil (Speaker, CB2)              | 36-3654     | .80           |
| 17            | Condenser (.25 mfd. mica)                   | 30-1067     | .20           | 112           | Resistor (100,000 ohms, $\frac{1}{2}$ watt)    | 33-070339   | .20           | Output Transformer W-2, Speaker | 32-7753                                     | 1.70        |               |
| 18            | Compensator (.05 section)                   | 30-1067     |               | 113           | Resistor (490,000 megohms, $\frac{1}{2}$ watt) | 33-449339   | .20           |                                 |   |             |               |
| 19            | Resistor (20,000 ohms, $\frac{1}{2}$ watt)  | 30-1067     |               | 114           | Resistor (1, megohm, $\frac{1}{2}$ watt)       | 33-510339   |               |                                 |   |             |               |
| 20            | Condenser (.25 mfd. mica)                   | 30-1032     | .25           | 115           | Condenser (.110 mfd. dual bakelite)            | 8035-DG     | .25           |                                 |   |             |               |
| 21            | Condenser (.00 mfd. mica)                   | 30-1049     | .25           | 116           | Power Cable (Chassis)                          | 41-3232     | 4.00          |                                 |   |             |               |
| 22            | Resistor (20,000 ohms, $\frac{1}{2}$ watt)  | 33-320339   |               | 117           | Resistor (400,000 megohms, $\frac{1}{2}$ watt) | 33-449339   | .20           |                                 |   |             |               |
| 23            | Resistor (8,000 ohms, $\frac{1}{2}$ watt)   | 33-280339   |               | 118           | Resistor (490,000 megohms, $\frac{1}{2}$ watt) | 33-449339   | .20           |                                 |   |             |               |
| 24            | Oscillator Transformer (Range 5)            | 32-2199     | .70           | 119           | Magnetic Tuning Transformer                    | 32-2361     | 4.00          |                                 |   |             |               |
| 25            | Resistor (200 ohms, wirewound)              | 7217        |               | 120           | Bass Amplifier Control & A.C. Switch           | 33-5182     | .90           |                                 |   |             |               |
| 26            | Oscillator Transformer (Range 4)            | 32-2198     | .70           | 121           | Condenser (.05 mfd. bakelite)                  | 3615-DG     | .40           |                                 |   |             |               |
| 27            | Oscillator Transformer (Range 3)            | 32-2197     | .70           | 122           | Magnetic Tuning Switch (Manual)                | 42-1216     | .75           |                                 |   |             |               |
| 28            | Compensator (Six section)                   | 31-6117     | 1.20          | 123           | Resistor (500 ohms, $\frac{1}{2}$ watt)        | 33-505339   | .20           |                                 |   |             |               |
| 29            | Condenser (.60 mfd. mica)                   | 30-1042     | .25           | 124           | Resistor (200,000 ohms, $\frac{1}{2}$ watt)    | 33-505339   | .20           |                                 |   |             |               |
| 30            | Oscillator Transformer (Range 2)            | 32-2194     | 1.00          | 125           | Resistor (1 megohm, $\frac{1}{2}$ watt)        | 33-505339   | .20           |                                 |   |             |               |
| 31            | Condenser (.60 mfd. mica)                   | 30-1043     | .25           | 126           | Resistor (400,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 32            | Resistor (20 ohms, $\frac{1}{2}$ watt)      | 30-1032     |               | 127           | Condenser (.110 mfd. mica)                     | 30-1031     | .20           |                                 |   |             |               |
| 33            | Oscillator Transformer (Range 1)            | 32-2191     | 1.00          | 128           | Resistor (1, megohm, $\frac{1}{2}$ watt)       | 33-510339   | .20           |                                 |   |             |               |
| 34            | Resistor (20 ohms, $\frac{1}{2}$ watt)      | 33-020339   | .20           | 129           | Resistor (330,000 ohms, $\frac{1}{2}$ watt)    | 33-433339   | .20           |                                 |   |             |               |
| 35            | Compensator (Four section)                  | 31-6124     | 1.00          | 130           | Resistor (1, megohm, $\frac{1}{2}$ watt)       | 33-510339   | .20           |                                 |   |             |               |
| 36            | Resistor (700 ohms wirewound)               | 33-170339   | .20           | 131           | Resistor (40,000 ohms, $\frac{1}{2}$ watt)     | 33-340339   | .20           |                                 |   |             |               |
| 37            | Condenser (.02 mfd. tubular)                | 30-4481     |               | 132           | Condenser (.05 mfd. tubular)                   | 30-4123     | .20           |                                 |   |             |               |
| 38            | Resistor (99,000 ohms, $\frac{1}{2}$ watt)  | 33-399339   | .20           | 133           | Condenser (.15 mfd. tubular)                   | 30-4191     | .25           |                                 |   |             |               |
| 39            | Resistor (99,000 ohms, $\frac{1}{2}$ watt)  | 33-399339   | .20           | 134           | Resistor (.1-.1-.8 mfd.)                       | 30-4463     | 1.40          |                                 |   |             |               |
| 40            | Condenser (.250 mfd. mica)                  | 30-1032     | .25           | 135           | Resistor (160,000 ohms, $\frac{1}{2}$ watt)    | 33-4163     | .20           |                                 |   |             |               |
| 41            | Condenser (.250 mfd. mica)                  | 30-1032     |               | 136           | Resistor (.15 mfd. bakelite)                   | 6285-DG     | .40           |                                 |   |             |               |
| 42            | Resistor (10,000 ohms, $\frac{1}{2}$ watt)  | 33-310339   |               | 137           | Resistor (20,000 ohms, $\frac{1}{2}$ watt)     | 33-420339   | .20           |                                 |   |             |               |
| 43            | Condenser (.02 mfd. tubular)                | 30-4481     |               | 138           | Resistor (400,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 44            | Resistor (75,000 ohms, $\frac{1}{2}$ watt)  | 33-375339   |               | 139           | Resistor (400,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 45            | Resistor (100 ohms, $\frac{1}{2}$ watt)     | 33-320339   |               | 140           | Resistor (1, megohm, $\frac{1}{2}$ watt)       | 33-510339   | .20           |                                 |   |             |               |
| 46            | Resistor (320 ohms, $\frac{1}{2}$ watt)     | 33-320339   |               | 141           | Condenser (.15 mfd. tubular)                   | 30-4191     | .25           |                                 |   |             |               |
| 47            | Condenser (.02 mfd. tubular)                | 30-4191     |               | 142           | Condenser (.05 mfd. tubular)                   | 30-4144     | .20           |                                 |   |             |               |
| 48            | Condenser (200 mfd. mica)                   | 30-1047     |               | 143           | Part of 144 (0.03 mfd.)                        |             |               |                                 |   |             |               |
| 49            | Plate Coil 6A8G                             | 32-2242     | .30           | 144           | Condenser (.03 mfd. bakelite)                  | 8318-DU     |               |                                 |   |             |               |
| 50            | Condenser (.05 mfd. tubular)                | 30-4123     |               | 145           | Magnetic Tuning Switch (Automatic Dial)        | 45-2330     |               |                                 |   |             |               |
| 51            | Compensator (Two section)                   | 31-6093     | .40           | 146           | Flood Lamp Assembly                            | 38-8210     | 2.40          |                                 |   |             |               |
| 52            | Resistor (1 megohm, $\frac{1}{2}$ watt)     | 33-610339   |               | 147           | Antenna Range Switch                           | 42-1211     | 1.60          |                                 |   |             |               |
| 53            | Condenser (.5 mfd. flexible)                | 30-1077     | .20           | 148           | R. F. Range Switch                             | 42-1211     | 1.60          |                                 |   |             |               |
| 54            | Resistor (400 ohms, flexible)               | 33-3016     |               | 149           | Oscillator Range Switch                        | 42-1211     | 2.00          |                                 |   |             |               |
| 55            | R. F. Transformer (Range 1)                 | 32-2105     | 1.00          | 150           | Switch (shorting auto. dial)                   | 45-2350     |               |                                 |   |             |               |
| 56            | Condenser (.05 mfd. tubular)                | 30-4444     |               | 151           | Electrolytic Condenser (4 mfd.)                | 30-2025     | 1.35          |                                 |   |             |               |
| 57            | Resistor (10,000 ohms, $\frac{1}{2}$ watt)  | 31-310339   |               | 152           | Electrolytic Condenser (8, 10, 10 mfd.)        | 30-2176     | 1.40          |                                 |   |             |               |
| 58            | R. F. Transformer (Range 2)                 | 32-2147     | .70           | 153           | Electrolytic Condenser (2, 3, 3 mfd.)          | 30-2159     | 1.80          |                                 |   |             |               |
| 59            | Tuning Condenser                            | 32-2148     | .70           | 154           | Coil (10 K. C. Filter)                         | 32-7704     | .80           |                                 |   |             |               |
| 60            | Volume Control                              | 32-2149     | .70           | 155           | Resistor (1, megohm, $\frac{1}{2}$ watt)       | 33-510339   | .20           |                                 |   |             |               |
| 61            | Resistor (400 ohms, flexible)               | 33-150439   | .20           | 156           | Audio Transformer (Interstage)                 | 32-7725     | 3.20          |                                 |   |             |               |
| 62            | Condenser (.10 mfd. mica)                   | 30-1031     | .25           | 157           | Resistor (490,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 63            | Potentiometer (Expander Unit)               | 33-5178     | 1.50          | 158           | Condenser (140 mfd. mica)                      | 30-1000     | .25           |                                 |   |             |               |
| 64            | Resistor (400 ohms, flexible)               | 33-449339   | .20           | 159           | Compensator (10 K. C. Filter)                  | 0406-DT     | .35           |                                 |   |             |               |
| 65            | Resistor (1, megohm, $\frac{1}{2}$ watt)    | 33-610339   |               | 160           | Condenser (0.025 mfd. bakelite)                | 33-305339   | .20           |                                 |   |             |               |
| 66            | Condenser (.02 mfd. tubular)                | 30-4113     |               | 161           | Resistor (99,000 ohms, $\frac{1}{2}$ watt)     | 33-399339   | .20           |                                 |   |             |               |
| 67            | Condenser (.05 mfd. bakelite)               | 3615-SG     | .35           | 162           | Resistor (15,000 ohms, $\frac{1}{2}$ watt)     | 33-315339   | .20           |                                 |   |             |               |
| 68            | Resistor (490,000 ohms, $\frac{1}{2}$ watt) | 33-449339   | .20           | 163           | Resistor (15,000 ohms, $\frac{1}{2}$ watt)     | 4989-SG     | .35           |                                 |   |             |               |
| 69            | Condenser (.1, megohm, $\frac{1}{2}$ watt)  | 33-510339   |               | 164           | Condenser (.1 mfd. bakelite)                   | 30-2024     | 1.10          |                                 |   |             |               |
| 70            | Resistor (500 ohms, $\frac{1}{2}$ watt)     | 33-150339   |               | 165           | Electrolytic Condenser (8 mfd.)                | 30-2025     | 1.35          |                                 |   |             |               |
| 71            | Resistor (2000 ohms, $\frac{1}{2}$ watt)    | 33-220339   |               | 166           | Electrolytic Condenser (8 mfd.)                | 30-4020     | .20           |                                 |   |             |               |
| 72            | Resistor (51,000 ohms, $\frac{1}{2}$ watt)  | 33-510339   |               | 167           | Condenser (.05 mfd. tubular)                   | 30-2025     | 1.35          |                                 |   |             |               |
| 73            | Resistor (50,000 ohms, $\frac{1}{2}$ watt)  | 33-150339   |               | 168           | Electrolytic Condenser (8 mfd.)                | 30-4020     | .20           |                                 |   |             |               |
| 74            | Resistor (51,000 ohms, $\frac{1}{2}$ watt)  | 33-150439   |               | 169           | Filter Choke                                   | 32-7052     | 2.20          |                                 |   |             |               |
| 75            | Resistor (51,000 ohms, $\frac{1}{2}$ watt)  | 30-4123     |               | 170           | Resistor (490,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 76            | Condenser (.05 mfd. tubular)                | 30-4444     |               | 171           | Condenser (.1 mfd. bakelite)                   | 4989-SG     | .35           |                                 |   |             |               |
| 77            | Transformer (R. F. A. V. C.)                | 32-2300     | 1.80          | 172           | Resistor (490,000 ohms, $\frac{1}{2}$ watt)    | 33-449339   | .20           |                                 |   |             |               |
| 78            | 2nd I. F. Transformer (Expander)            | 32-2291     | 1.80          | 173           | Condenser (.3 mfd. bakelite)                   | 6285-DU     | .40           |                                 |   |             |               |
| 79            | Condenser (.001 mfd. tubular)               | 30-4201     |               | 174           | Resistor (51,000 ohms, $\frac{1}{2}$ watt)     | 33-351339   | .20           |                                 |   |             |               |
| 80            | Resistor (500 ohms, $\frac{1}{2}$ watt)     | 30-4201     |               | 175           | Condenser (.015 mfd. bakelite)                 | 30-2024     | 1.10          |                                 |   |             |               |
| 81            | Condenser (.05 mfd. tubular)                | 30-4123     |               | 176           | Power Transformer                              | 32-7723     | 7.50          |                                 |   |             |               |
| 82            | 3rd I. F. Transformer (Expander)            | 32-2293     | 1.80          | 177           | Transformer (25 to 40 cycles)                  | 32-7723     | 1.00          |                                 |   |             |               |
| 83            | Condenser (.1 mfd. bakelite)                | 4989-SG     | .35           | 178           | Resistor (wirewound three tape)                | 33-3302     |               |                                 |   |             |               |
| 84            | Condenser (.05 mfd. tubular)                | 30-4444     |               | 179           | Resistor (30 ohm flexible)                     | 33-3119     |               |                                 |   |             |               |
| 85            | Condenser (.25 mfd. flexible)               | 30-4124     | .25           | 180           | Condenser (.05 mfd. bakelite)                  | 3618-SG     | .35           |                                 |   |             |               |
| 86            | Resistor (1000 ohms, $\frac{1}{2}$ watt)    | 33-110339   |               | 181           | Resistor (51,000 ohms, $\frac{1}{2}$ watt)     | 33-351339   | .20           |                                 |   |             |               |
| 87            | Condenser (.05 mfd. Bakelite)               | 3615-SG     | .35           | 182           | Resistor (51,000 ohms, $\frac{1}{2}$ watt)     | 3618-SG     | .35           |                                 |   |             |               |
| 88            | Resistor (1000 ohms, $\frac{1}{2}$ watt)    | 33-110339   |               | 183           | Resistor (51,000 ohms, $\frac{1}{2}$ watt)     | 33-351339   | .20           |                                 |   |             |               |
| 89            | Condenser (.110 mfd. dual bakelite)         | 8035-DG     | .25           | 184           | Resistor (32,000 ohms, $\frac{1}{2}$ watt)     | 33-323339   | .20           |                                 |   |             |               |
| 90            | Resistor (99,000 ohms, $\frac{1}{2}$ watt)  | 33-399339   | .20           | 185           | Cable Speaker                                  | 41-3242     | .90           |                                 |   |             |               |
| 91            | 4th I. F. Transformer                       | 32-2302     | 2.20          |               |  |             |               |                                 |   |             |               |
| 92            | Resistor (99,000 ohms, $\frac{1}{2}$ watt)  | 33-399339   | .20           |               |  |             |               |                                 |   |             |               |
| 93            | Resistor (99,000 ohms, $\frac{1}{2}$ watt)  | 33-399339   | .20           |               |  |             |               |                                 |   |             |               |

**PHILCO RADIO AND TELEVISION CORPORATION**

Parts and Service Division

Philadelphia, Pa.

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### DIAL PARTS

|                                      |         |      |
|--------------------------------------|---------|------|
| Brace (Drive Mtg.)                   | 28-4110 | .05  |
| Bracket Assembly                     | 45-2349 |      |
| Coupling Assembly (tuning condenser) | 31-1961 |      |
| Coupling (range switch)              | 28-7198 | .15  |
| Cover (Handle)                       | 24-4077 | .25  |
| Dial                                 | 27-5207 | .80  |
| Dial Screen Holder Assembly          | 31-1968 |      |
| Dial Guide                           | 27-8580 | .03  |
| Dial Ejector Assembly                | 45-2324 |      |
| Gasket (Dial Scale)                  | 27-8598 | .01  |
| Gear No. 1 (front)                   | 45-2347 |      |
| Gear No. 2 (rear)                    | 45-2348 |      |
| Flood Lamp Assembly (4 unit)         | 38-7937 | 2.40 |
| Flood Lamp Assembly (single)         | 38-7937 | .40  |
| Hub Assembly (dial)                  | 45-2329 |      |
| Hub Assembly (Handle)                | 45-2344 |      |
| Mask & Link Assembly                 | 45-2328 |      |
| Mask Guide                           | 28-4118 | .25  |
| Gear (1.1-.1-.8 mfd.)                | 34-2039 | .07  |
| Pilot Lamp                           | 34-2039 | .07  |
| Pilot Lamp Assembly                  | 38-8051 | .35  |
| Pilot Lamp Cable                     | 41-3253 |      |
| Ring (Mask Assembly)                 | 28-7195 | .20  |
| Spring (Mask Assembly)               | 28-8629 | .04  |
|                                      |         |      |