For Members of RADIO MANUFACTURERS SERVICE
A PHILCO SERVICE PLAN

Model 37-600

Specifications

TYPE CIRCUIT: Superheterodyne with pentode output.

POWER SUPPLY: 115 V., 60 cycle A.C.


FREQUENCY RANGE: 530-1800 K.C.

INTERMEDIATE FREQUENCY: 470 K.C.

CURRENT CONSUMPTION: 45 watts.

SPEAKER: B-6.

POWER OUTPUT: ½ watt.

Adjusting Compensating Condensers

To accurately adjust the compensating condensers in the Model 37-600 receiver, it is necessary to use a signal generator of high stability on all frequencies, such as the PHILCO Model 088 Signal Generator. This instrument has a continuous frequency range from 110 to 20,000 K.C., and is designed to meet every requirement of the serviceman.

An output meter is also needed—PHILCO MODEL 025 Circuit Tester includes a very sensitive output meter.

Convenient tools to use in adjusting the compensators are the Philco No. 3164 Fibre Wrench and No. 27-7059 Fibre Handled Screw-driver.

The locations of the various compensating condensers are shown in Fig. 1. Connect the output meter to the plate and cathode contacts of the 6K6G power tube, and adjust it to use the 0-30 volt range.

When adjusting each circuit, care should be taken to have the signal generator attenuator set for approximately ½ scale reading on output meter.

Intermediate Frequency Circuit

1. Connect the 088 signal generator output lead through a 1 mfd. condenser to the grid of the 6A8G tube and the ground lead to the chassis.

2. Turn the sensitivity compensator @ to maximum capacity position (clockwise), and then release it: 1½ turns (counter-clockwise).

3. Turn gang condenser to approximately 600 K.C. and set signal generator at 470 K.C.

4. Adjust the compensator @ and @ for maximum reading on the output meter. Then turn the sensitivity compensator @ clockwise until a hiss, (oscillation) is heard. Now turn the compensator @ counter-clockwise until hiss ceases, then continue for ½ turn more.

Radio Frequency Circuit

1. Remove the signal generator output lead from the 6A8G tube, and connect it to the aerial lead of the receiver through a 100 mfd. condenser.

2. Turn the gang condenser to minimum capacity position, (counter-clockwise) and place a .006" (six-thousandths inch) gauge between the stator and rotor plates. Now turn the gang clockwise until stator and rotor plates touch gauge.

3. Remove gauge from gang condenser. Now set signal generator at 900 K.C., (using second harmonic 1800 K.C.), adjust compensators @ and @ for maximum reading on output meter.

4. Turn the signal generator and receiver gang condenser to 600 K.C., and adjust compensator @ In doing so, the gang condenser must be rolled slightly above and below the 600 K.C. signal until the maximum reading is indicated on the output.

5. Turn the gang condenser to 1800 K.C. and signal generator to 900 K.C., (using second harmonic of signal generator 1800 K.C.), readjust compensator @ for maximum reading on output meter. Set gang as per paragraph 2, for this adjustment.

6. Turn the gang condenser and signal generator to 1400 K.C., readjust compensator @ for maximum reading on output meter. After the above adjustments are completed and receiver is placed in the cabinet, the dial pointer is properly placed by turning the signal generator to 1000 K.C. Then tune receiver for maximum signal. The dial pointer is then placed on gang shaft, so that it indicates 1000 K.C. on dial.
Replacement Parts for Model 37-600

Schematic Number | Part and Description | Part No. | Price
---|---|---|---
1 | Volume Control | 33-5152 | $1.45
2 | Condenser (35 Mfd. Mica) | 30-1044 | .20
3 | Aut. Transformer | 32-2144 | 1.40
4 | Tuning Condenser | 31-1794 | 3.00
5 | Compensator (Det. K.C.) | Part of 6 |
6 | Compensator (Osc. K.C.) | Part of 7 |
7 | Resistor (300 ohm) | 33-3010 | .20
8 | Condenser (05 mfd. Twin Bailer) | 3615DG | .40
9 | Resistor (4900 ohm, 1/2 watt) | 33-249339 | .20
10 | Condenser (09 mfd. Twin Bailer) | 4988-DG | .40
11 | Resistor (31,000 ohm, 1/2 watt) | 33-351339 | .20
12 | Resistor (25,000 ohm, 1/2 watt) | 33-352339 | .20
13 | Resistor (25,000 ohm, 1 watt) | 33-352439 | .20
14 | Osc. Transformer | 32-2043 | 1.20
15 | Condenser (110 mfd. Mica) | 30-1031 | .20
16 | Compensator (Osc. Series) | 04600S | .35
17 | Resistor (300,000 ohm, 1/2 watt) | 33-352339 | .20
18 | Compensator (I.F. Pri) | 460K.C. | Part of 9 |
19 | I.F. Transformer | 32-2031 | 1.50

Schematic Number | Part and Description | Part No. | Price
---|---|---|---
5 | Compensator (I.F. Sec.) | 460K.C. | Part of 9 |
6 | Condenser (50 mfd. Mica) | 30-1029 | .20
7 | Resistor (1.5 mfg., 1/4 watt) | 33-515139 | .20
8 | Sensitivity Compensator | 31-6066 | .45
9 | Condenser (.09 mfd.) | 30-4169 | .20
10 | Resistor (10,000 ohm, 1/4 watt) | 33-351339 | .20
11 | Resistor (240,000 ohm, 1/2 watt) | 33-424339 | .20
12 | Condenser (.01 mfd.) | 30-4169 | .20
13 | Compensator (.0025 mfd. Mica) | 30-1032 | .25
14 | Resistor (250,000 ohm, 1/4 watt) | 33-475339 | .20
15 | Resistor (10,000 ohm, 1/4 watt) | 33-515139 | .20
16 | Condenser (.01 mfd.) (Tubular) | 30-4113 | .20
17 | Output Transformer | 32-7567 | 1.00
18 | Voice Coil Cone Assy. | 16-309 | .60
19 | Field Coil Assy. | 36-3609 | 2.50
20 | Elec. Condenser (4 mfd.) | 30-2149 | 1.95
21 | Resistor (.055 ohm) | 33-3512 | .25
22 | Condenser (.03 mfd.) | Part of 9 |
23 | Elec. Condenser (8.0 mfd.) | Part of 9 |
24 | Power Transformer | (110 V., 60 Cycle) | 32-7552 | 3.25
25 | Condenser (.015 mfd. Twin) | 3793-DG | .40
26 | Pilot Lamp (6.3 Volt) | 34-2064 | .09
27 | Power Transformer | (230 V., 50-60 Cycle) | 32-7554 |
28 | Power Transformer | (110 V., 25 Cycle) | 32-7553 | 5.25
29 | Tube Shield Body | 28-2726 | .10
30 | Tube Shield Base | 28-3898 | .03
31 | Tube Socket (7-prong) | 27-6032 | .11
32 | Tube Socket (8-prong) | 27-6031 | .11
33 | Volume Control Mtg. Nut | W-648-A | .20C
34 | Chassis Mtg. Screw | W-1656-A | .75C
35 | Chassis Mtg. Nut | W-124-A | .15C
36 | Chassis Mtg. Washer | W-131-A | .15C
37 | Chassis Mtg. Washer | W-291-A | .40C
38 | Baffle | 40-5591 | |
39 | Dial | 27-5193 | .15
40 | Knob (Station Selector) | 27-4108 | .10
41 | Knob (Volume, On-Off) | 27-4109 | .10
42 | Bottom Shield Assy | 29-3795 | .40
43 | Bottom Shield Ins. | 27-8122 | .05
44 | Pointer | 28-7379 | .03
45 | Pilot Lamp Bracket Assy | 38-7529 | .10
46 | A.C. Cord Assy | L-2183 | .40
47 | Speaker, B6 | 36-1205 | 6.00
48 | Aerial Lead | 38-3144 | .10

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Fig. 4. Schematic Wiring Diagram

PHILCO
Parts and Service Division

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