

SERVICE BULLETIN
No. 236



For Members of
RADIO MANUFACTURERS SERVICE
A PHILCO SERVICE PLAN

Model 600

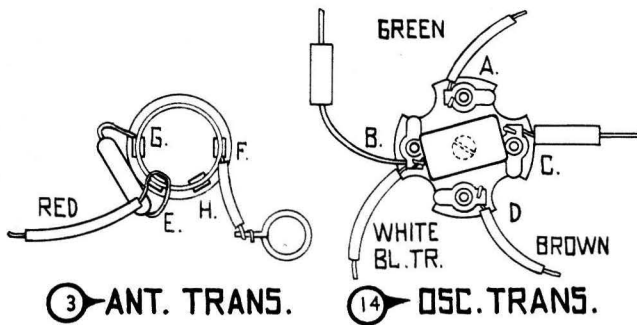


Fig. 1. Transformer Terminal Code

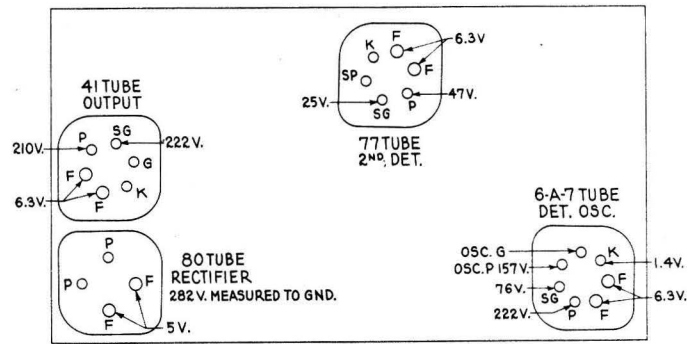


Fig. 2. Tube Sockets as Viewed from Bottom (Measured from Socket Terminal to B—)

Specifications

- TYPE CIRCUIT:** Superheterodyne with pentode output.
- POWER SUPPLY:** 115 V., 60 cycle A.C.
- TUBES USED:** 1 type 6A7, Det. Osc., 1 type 77, 2nd Det., 1 type 41, Output, 1 type 80 Rectifier.
- FREQUENCY RANGE:** 530-1800 K.C.
- INTERMEDIATE FREQUENCY:** 460 K.C.
- CURRENT CONSUMPTION:** 45 watts.
- SPEAKER:** B-6.
- POWER OUTPUT:** 1/2 watt.

Adjusting Compensating Condensers

Adjustment of compensating condensers in Model 600 requires an accurate signal generator covering I.F., and standard-wave frequencies. The **PHILCO Model 088 All-Wave Signal Generator**, having a continuous range of from 100 to 20,000 K.C., is ideal for this purpose.

An output meter is also needed. **PHILCO Model 025 Circuit Tester** includes a high grade output meter.

Philco No. 3164 fibre wrench and No. 27-7059 fibre-handled screwdriver complete the equipment needed for making these adjustments. The locations of the various compensaters are shown in Fig. 4. Connect the output meter to the plate and cathode contacts of the type 41 power tube (using the adapters provided with the "025") and set it at the 0-30 volt range.

INTERMEDIATE FREQUENCY: Connect the 088 signal generator antenna lead to the grid of the 6A7 (removing grid clip) and the ground lead to the ground post or some part of the chassis. Adjust sensitivity control (23) approximately 1/2 turns from tight (counter clockwise), then set the 088 signal generator at 460 K.C. and the attenuator for approximately 1/4 scale reading on output meter. Adjust condensers (15) and (20) for maximum reading on output meter. Turn sensitivity control (23) in (clockwise) until a low hiss or click (oscillation) is heard. Then turn it out (counter clockwise) approximately 1/4 turn.

STANDARD and POLICE: Remove the 088 signal generator antenna lead from the grid of the 6A7 (replacing grid clip) and connect it to the aerial post on the set. Turn the condenser gang all the way out (minimum capacity) and place a .006" (six thousandth inch) gauge between the stator and rotor plates. Turn the condenser gang in until the correct spacing (.006") is had between the rotor and stator plates. The pointer on the front of the cabinet should be set at 1800 K.C. to coincide with this condenser gang setting.

With the condenser gang set in this manner, set the 088 signal generator at 1800 K.C. and adjust condensers (5) and (6) for maximum reading on output meter.

Set the condenser gang and 088 signal generator at 600 K.C. and adjust condenser (16) for maximum output meter reading.

Care should be taken to adjust the 088 signal generator attenuator for approximately 1/4 scale output meter reading for each stage before attempting to adjust compensaters.

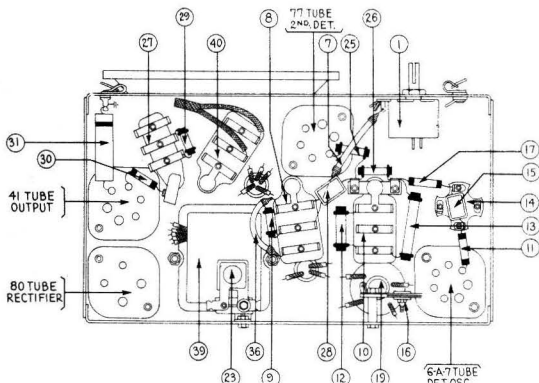


Fig. 3. Base View

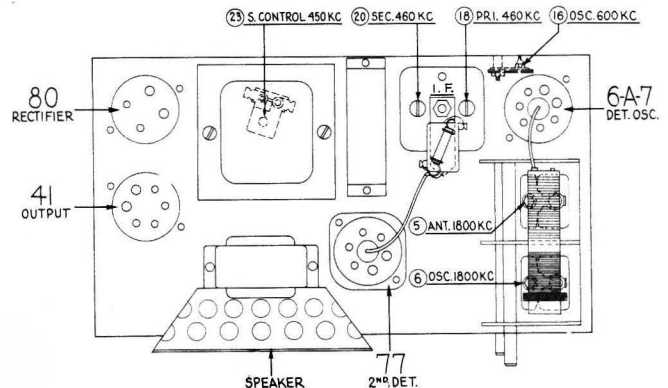


Fig. 4. Location of Compensators

Replacement Parts for Model 600

Schematic Number	Part and Description	Part No.	Price List
①	Volume Control	33-5152	...
②	Condenser (35 Mmf. Mica)	30-1044	\$.20
③	Ant. Transformer	32-2030	1.40
④	Tuning Condenser	31-1755	2.75
⑤	Compensater (Det. 1500 K.C.)	Part of ①	...
⑥	Compensater (Osc. 1500 K.C.)	Part of ①	...
⑦	Resistor (200 ohm)	7217	.20
⑧	Condenser (.05 mf. Twin Bakelite)	3615-DG	.40
⑨	Resistor (4900 ohm, 1/2 watt)	33-249334	.20
⑩	Condenser (.09 mf. Twin Bakelite)	4989-DG	.40
⑪	Resistor (51,000 ohm, 1/4 watt)	33-351143	.20
⑫	Resistor (25,000 ohm, 1/2 watt)	33-325343	.20
⑬	Resistor (25,000 ohm, 1 watt)	33-325443	.20
⑭	Osc. Transformer	32-2043	1.20
⑮	Condenser (110 mmf. Mica)	30-1031	.20
⑯	Compensater (Osc. Series) (600 K.C.)	04000 S	.35
⑰	Resistor (25,000 ohm, 1/2 watt)	33-325343	.20
⑱	Compensater (I.F. Sec.) (460 K.C.)	Part of ⑩	...
⑲	I.F. Transformer	32-2031	1.50

Schematic Number	Part and Description	Part No.	Price List
⑳	Compensater (I.F. Sec.) (460 K.C.)	Part of ⑩	...
㉑	Condenser (50 mmf. Mica)	30-1029	.20
㉒	Resistor (1.5 meg., 1/4 watt)	33-515133	.20
㉓	Sensitivity Control	31-6086	.45
㉔	Condenser (.09 mf.)	Part of ⑩	...
㉕	Resistor (10,000 ohm, 1/4 watt)	33-310133	.20
㉖	Resistor (240,000 ohm, 1/4 watt)	33-424143	.20
㉗	Condenser (.01 mf. Bakelite)	3903-SC	.25
㉘	Condenser (.00025 mf.) (Mica)	30-1032	.25
㉙	Resistor (750,000 ohm, 1/4 watt)	33-475133	.20
㉚	Resistor (1.0 meg., 1/4 watt)	33-510143	.20
㉛	Condenser (.01 mf.) (Tubular)	30-4124	.25
㉜	Output Transformer	32-7041	.95
㉝	Voice Coil Cone Assy.	36-3029	.60
㉞	Field Coil Assy.	36-3593	2.50
㉟	Elec. Condenser (4-.8. mf.)	30-2149	1.95
㊱	Resistor (300 ohm)	33-3121	.25
㊲	Condenser (.05 mf.)	Part of ⑩	...
㊳	Elec. Condenser (8.0 mf.)	Part of ⑩	...
㊴	Power Transformer (110 V., 60 Cycle)	32-7552	3.25
㊵	Condenser (.015 mf. Twin)	3793-DG	.40
㊶	Pilot Lamp (6.3 Volt)	34-2064	.09

Schematic Number	Part and Description	Part No.	Price List
㊷	Power Transformer (230 V., 50-60 Cycle)	32-7554	...
㊸	Power Transformer (110 V., 25 Cycle)	32-7553	...
㊹	Tube Shield Body	28-2726	.10
㊺	Tube Shield Base	28-2725	.03
㊻	Tube Socket (6-prong)	27-6036	.11
㊼	Tube Socket (7-prong)	27-6037	.11
㊽	Tube Socket (4-prong)	27-6044	.10
㊾	Volume Control Mtg. Nut	W-648-A	.20C
㊿	Chassis Mtg. Screw	W-1587-A	.75C
1	Chassis Mtg. Nut	W-124-A	.35C
2	Chassis Mtg. Washer	W-410-A	.15C
3	Chassis Mtg. Washer	W-291-A	.40C
4	Baffle	27-8232	.04
5	Dial	27-5179	.20
6	Knob (Station Selector)	27-4302	...
7	Knob (Volume, On-Off)	27-4273	.10
8	Bottom Shield Assy.	29-3795	.40
9	Bottom Shield Ins.	27-8122	.05
10	Pointer	27-7933	.01
11	Pilot Lamp Bracket Assy.	38-7581	.20
12	Coupling (For Tuning Knob)	28-6426	.15

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

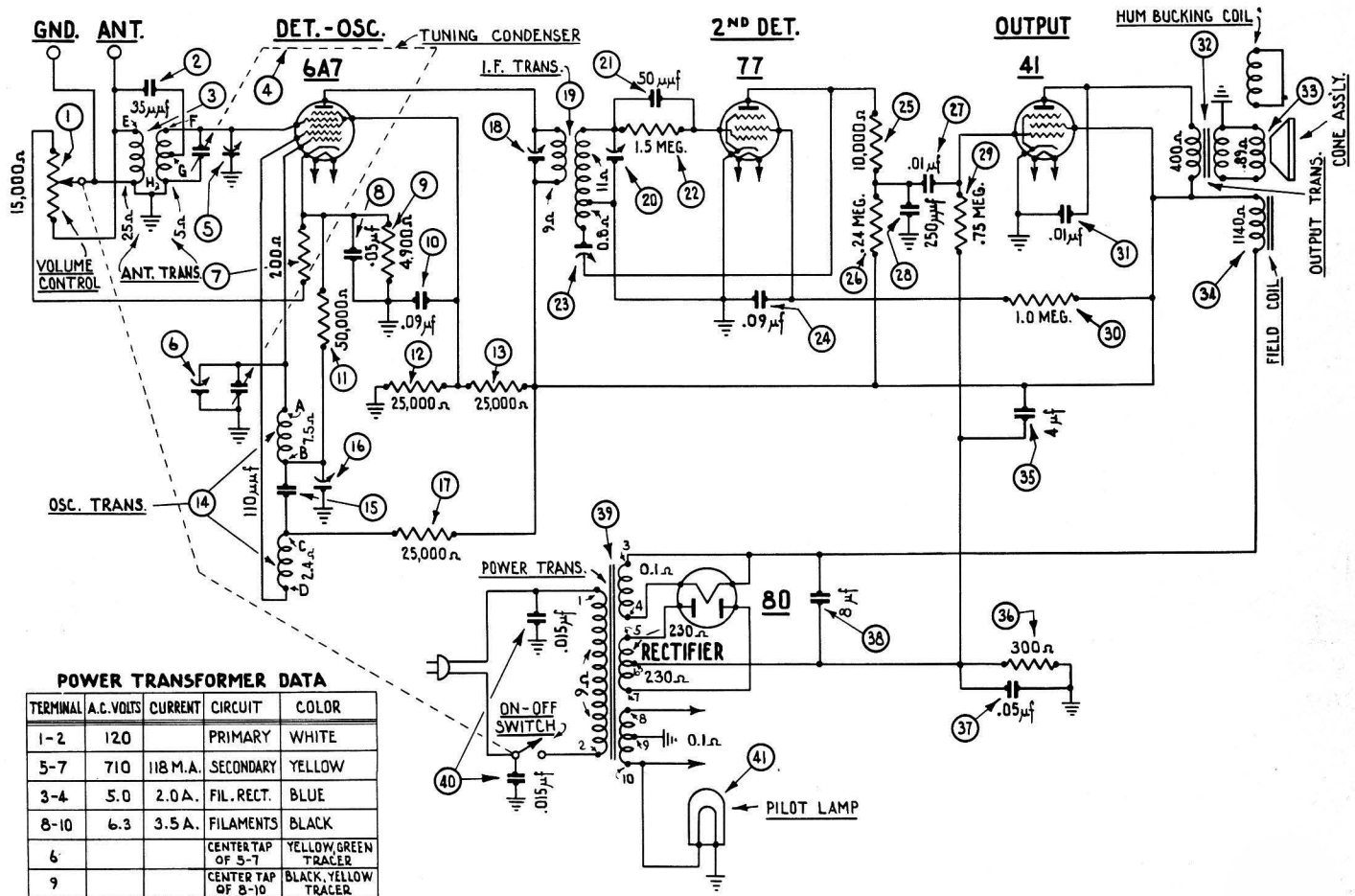


Fig. 5. Schematic Wiring Diagram