

PHILCO Model 602

SERVICE BULLETIN
No. 237



For Members of
RADIO MANUFACTURERS SERVICE
A PHILCO SERVICE PLAN

Model 602

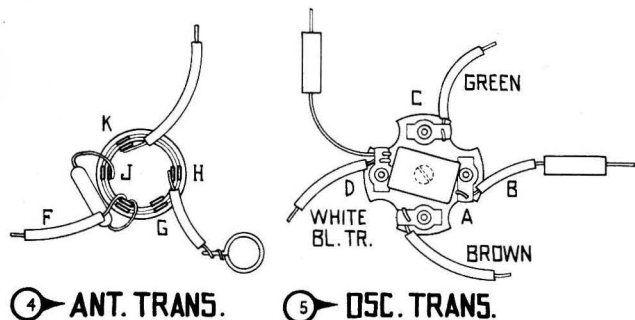


Fig. 1. Transformer Terminal Code

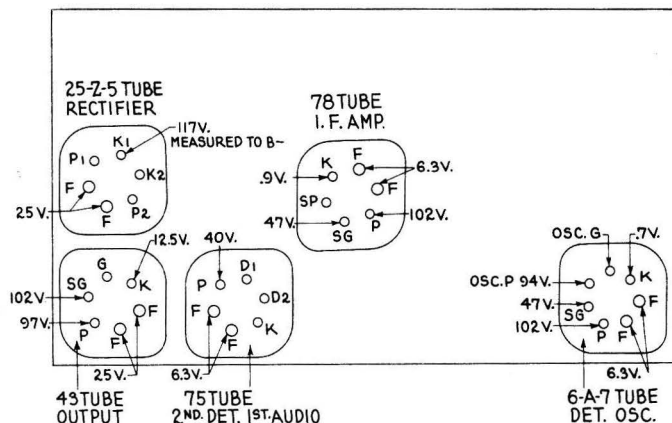


Fig. 2. Tube Sockets as Viewed from Bottom (Measured from Socket Terminal to B—)

Specifications

- TYPE CIRCUIT:** Superheterodyne with pentode output.
- POWER SUPPLY:** 115 V., 25 or 60 cycle A. C., D. C.
- TUBES USED:** 1 type 6A7, Osc. Det., 1 type 78 I.F. Amplifier, 1 type 75, 2nd Det. 1st audio, 1 type 43 output, 1 type 25Z5, rectifier.
- FREQUENCY RANGE:** 530-1800 K.C.
- INTERMEDIATE FREQUENCY:** 460 K.C.
- CURRENT CONSUMPTION:** 55 watts.
- SPEAKER:** B-4.
- POWER OUTPUT:** 3/4 watt.

Adjusting Compensating Condensers

Adjustment of compensating condensers in Model 602 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 compensating condensers are shown in Fig. 4. Connect the output meter to the plate and cathode contacts of the type 43 power tube (using the adapters provided with the "025") and set it at the 0-30 volt range.

INTERMEDIATE FREQUENCY: Turn the condenser gang all the way in (maximum capacity) and set the volume control of set at maximum (clockwise). Connect the 088 signal generator antenna lead to the grid of the 78 I.F. tube through a .00025 mf. condenser and the ground lead to the ground post of the set. Set the 088 signal generator attenuator for approximately 1/4 scale reading on output meter. Adjust condensers 27 and 28 for maximum output meter reading.

Remove the 088 signal generator antenna lead from the grid of the 78 and connect it to the grid of the 6A7, adjust condensers 21 and 23 for maximum output meter reading.

WAVE TRAP: Connect the 088 signal generator antenna lead to the aerial post of set. Adjust condenser 1a for minimum output meter reading.

STANDARD and POLICE: 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 1a and 1b for maximum output meter reading.

Set the condenser gang and 088 signal generator at 600 K.C. and adjust condenser 8 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 compensators.

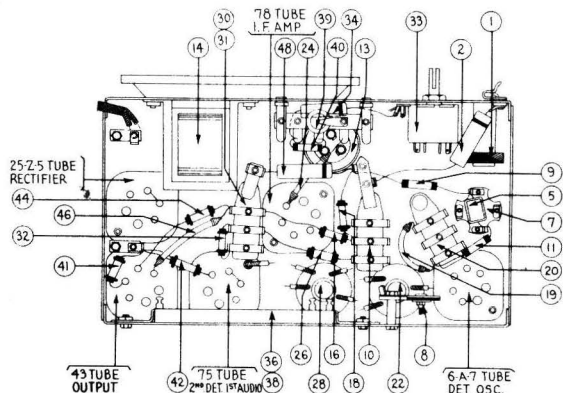


Fig. 3. Base View

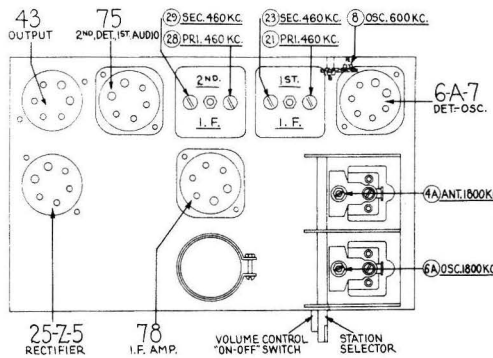


Fig. 4. Location of Compensators

Replacement Parts for Model 602

Table with 4 columns: Schematic Number, Part and Description, Part No., Price List. It lists various electronic components like Wave Trap Coils, Condensers, Resistors, Transformers, and Tubes with their corresponding part numbers and prices.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

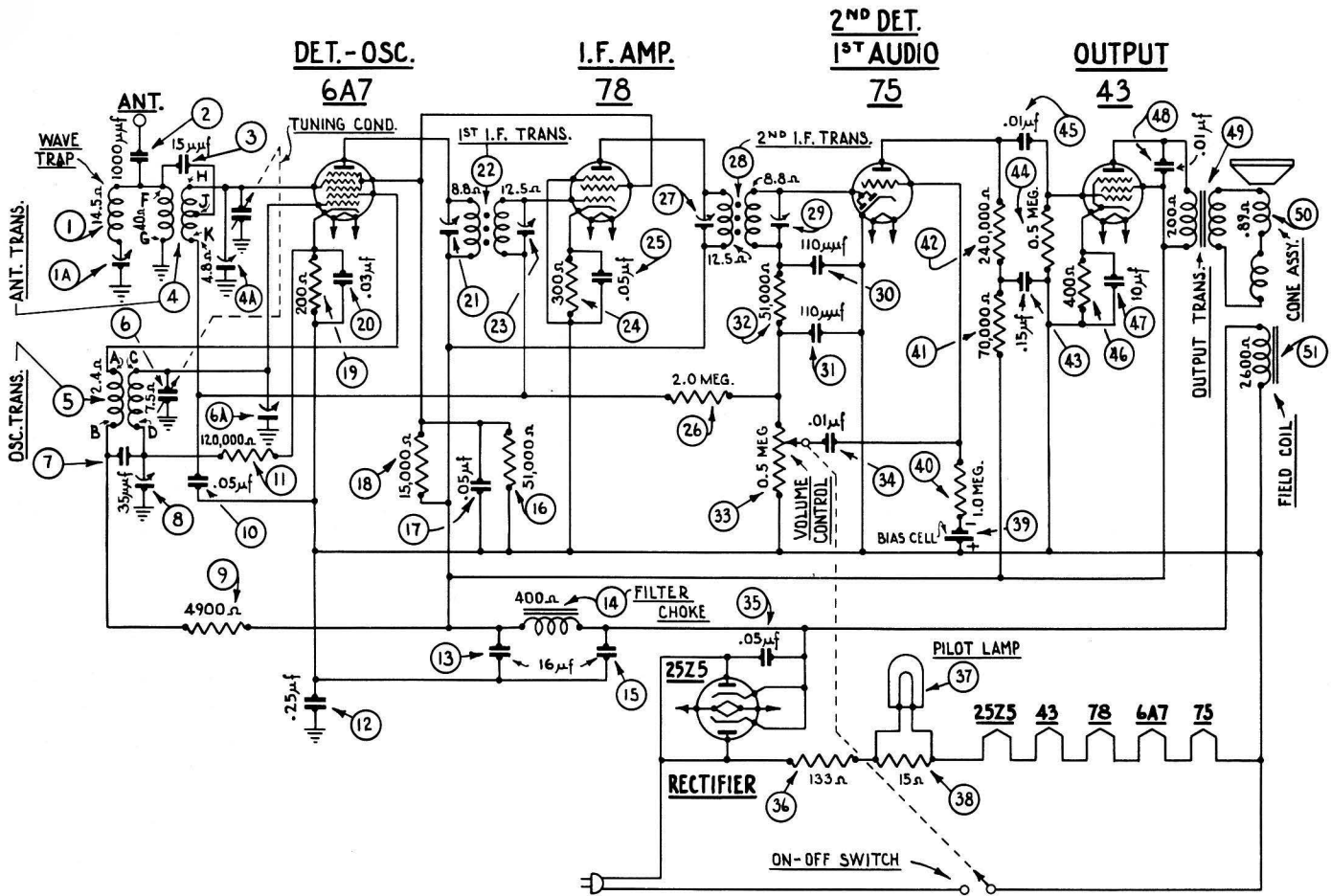


Fig. 5. Schematic Wiring Diagram