

When adjusting each circuit, care should be taken to have the signal generator attenuator set to approximately  $\frac{1}{4}$  scale reading on output meter.

## Intermediate Frequency Circuit

- 1. Turn gang condenser to maximum capacity (counter-clockwise) and set the volume control of the receiver in the maximum position (clockwise).
- 2. Connect the 088 signal generator output lead through a .1 mfd. condenser, to the grid of the 6J7G Detector-oscillator tube and the generator ground to the chassis.
- 3. Turn the sensitivity control (17) to maximum capacity position (clockwise), and then release 1½ turns (counter-clockwise).

  4. Set signal generator at 470 K.C. and adjust compensators (11) and (15) for maximum reading on the output meter. Then turn sensitivity control (17) clockwise until a hiss (oscillation) is heard. Now turn sensitivity control (17) counter-clockwise until the hiss ceases, then continue for ¼ turn more.

## TUBE SOCKET VOLTAGES (Measured from Tube Contact to Chassis)

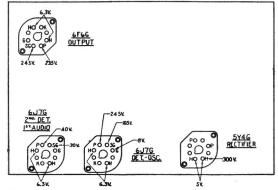


Fig. 2. Tubes as viewed from underside of Chassis

The voltages at the points indicated by the arrows above were obtained with a Philco type 025 Circuit Tester which contains a high resistance (1000 ohms per volt) voltmeter.



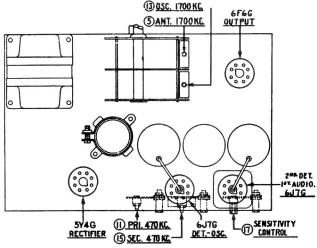


Fig. 1. Locations of Compensating Condensers

## Radio Frequency Circuit

- 1. Turn the gang condenser to the minimum capacity position (extreme clockwise) and place a .006" (six-thousandths inch) gauge between the stator and rotor plates. Now turn the gang counterclockwise until stator and rotor plates touch gauge.
- 2. Remove gauge from gang condenser. Now place signal generator output lead through a 106 mmfd. condenser to the aerial post of the receiver. Set signal generator at 850 K.C., (using second harmonic, 1700 K.C.) Adjust compensators (13) osc., and (5) ant., for maximum reading on output meter.

  3. Turn signal generator to 1400 K.C. and adjust gang condenser for maximum output. Then adjust compensator (5) for maximum reading on output meter.
- for maximum output. The reading on output meter.
- 4. After the above adjustments are completed, the dial pointer is checked for calibration by turning signal generator to 1000 K.C. Then tune receiver for maximum signal. The dial pointer should then indicate 1000 K.C.

DATA SHEET

PHILCO-40