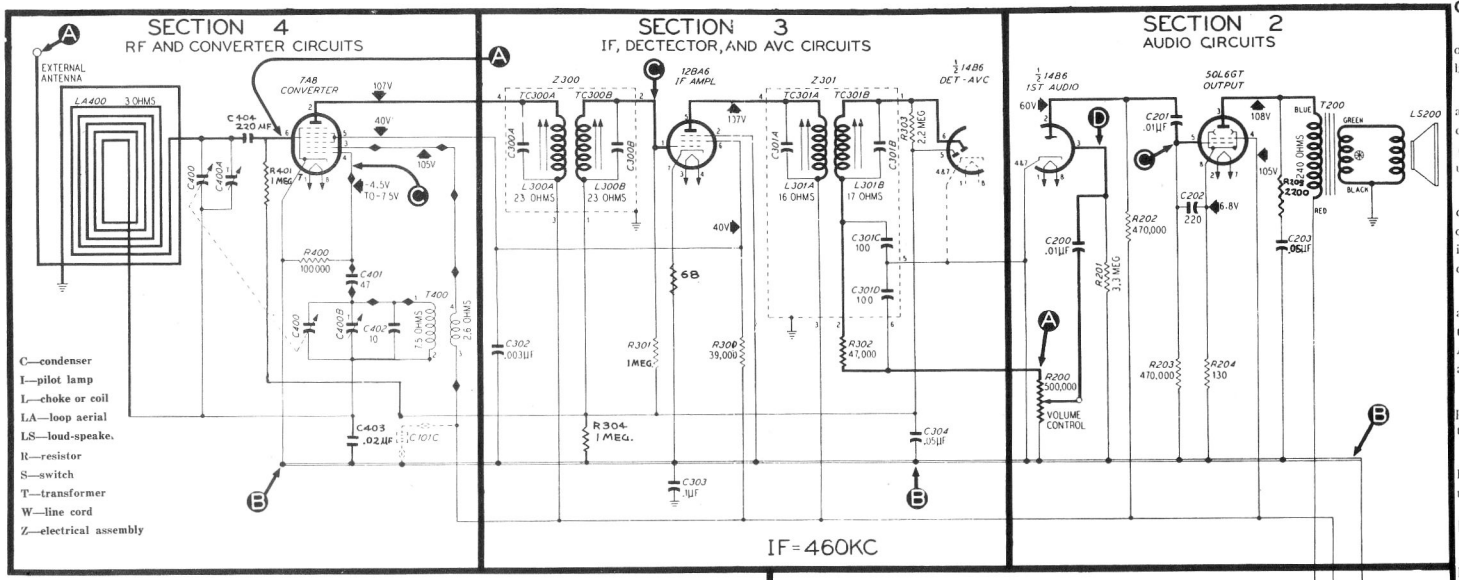
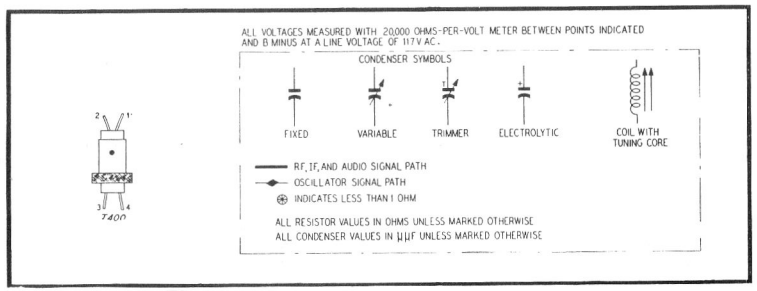
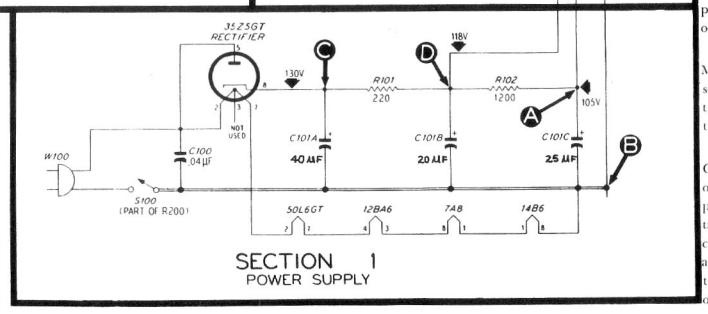






Sectionalized Schematic Diagram, Showing Test Points

ALIGNMENT PROCEDURE

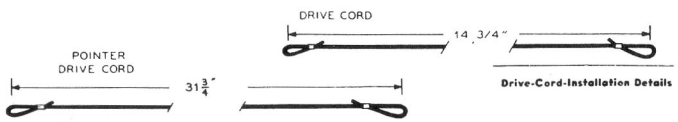
CONTROLS: Turn on the radio, and set the volume control to maximum.

DIAL POINTER: Turn the tuning condenser to the full-mesh position. Set the dial pointer to the index mark, located to the left of "55."

SIGNAL GENERATOR: Connect as indicated in the chart.

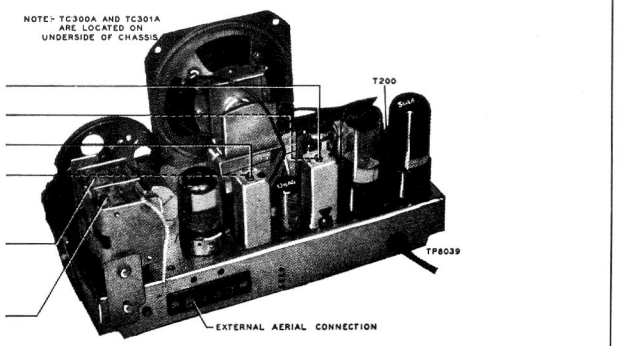
OUTPUT METER: Connect across the voice-coil terminals.

OUTPUT LEVEL: During the alignment, adjust the signal-generator output to hold the output-meter indication below 1.25 volts.



Drive-Cord-Installation Details

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Ground lead to B—; output lead through .1-mf. condenser to pin 6 of 7A8 tube.	460 kc.	540 kc. (gang fully meshed).	Adjust tuning cores, in order given, for maximum output.	TC301B—2nd i-f sec. TC301A—2nd i-f pri. TC300B—1st i-f sec. TC300A—1st i-f pri.
2	Radiating loop; see note below.	1600 kc.	1600 kc.	Adjust for maximum.	C400B—osc.
3	Same as step 2.	1500 kc.	1500 kc.	Adjust for maximum.	C400A—aerial



Top View, Showing Trimmer Locations

RADIATING LOOP: make up a 6—8 turn, 6-inch-diameter loop from insulated wire; connect to signal-generator leads and place near radio loop aerial.

Circuit Description

Philco Model 88 is a 5-tube, table-model superheterodyne radio, providing reception in the standard broadcast band.

The high-impedance loop aerial normally provides adequate signal pickup. An external aerial may be connected, if desired, by attaching the lead to lug No. 4 (shown in figure 6) on the rear of the chassis. Do not use a ground.

The converter employs a 7A8 tube. Variable-condenser tuning is used; the rotor plates of the oscillator section are specially shaped to obtain tracking, thus eliminating the necessity for a series padding condenser.

The 7A8 is transformer-coupled to the 12BA6 i-f amplifier, which is, in turn, transformer-coupled to the diodes of the 14B6 detector-first audio amplifier. A-v-c voltage is applied to the control grids of the i-f and converter tubes.

The triode section of the 14B6 is the first audio amplifier, and is resistance-coupled to the 50L6GT output tube, which works into a permanent-magnet speaker.

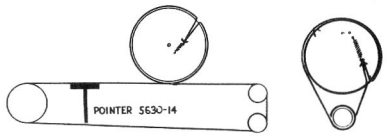
D-c operating voltages are obtained from a 35Z5GT half-wave rectifier, the output of which is filtered by a two-section resistance-capacitance filter.

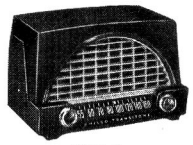
Preliminary Checks

To avoid possible damage to the radio, the following preliminary checks should be made before it is turned on:

1. Inspect both the top and bottom of the chassis. Make sure that all tubes are secure in the proper sockets, and look for any broken or shorted connections, burned resistors, or other obvious indications of trouble.

2. Measure the resistance between B+ (test point C) and B− (test point B.) See figure 1. When the ohmmeter test leads are connected in the proper polarity, the highest resistance reading will be obtained. If the reading is lower than 1500 ohms, check condensers C101A, C101B, C101C, and C203 for leakage or shorts. The resistance value given is much lower than normal, and is not intended as a quality check of these condensers; the value given is the lowest at which the rectifier will operate safely while the voltage checks of Section 1 (power supply) are performed.





MODEL 88

SPECIFICATIONS

CABINET	
Model 88	Molded plastic
CIRCUIT	5-tube superheterodyne
FREQUENCY RANGE	540—1620 kc.
AUDIO OUTPUT	1.2 watts
OPERATING VOLTAGE	105—125 volts, a.c. or d.c.
POWER CONSUMPTION	30 watts
AERIAL	High-impedance loop; connector for external aerial
INTERMEDIATE FREQUENCY	460 kc.
PHILCO TUBES (5)	7A8, 12BA6, 14B6, 50L6GT, 35Z5GT