

PHILCO RADIO MODELS 49-909 AND 49-1101

SPECIFICATIONS

CABINET
 Model 49-909.....Table model, wood, mahogany
 Model 49-1101.....Console, wood, mahogany

CIRCUIT.....9-tube superheterodyne

FREQUENCY RANGES
 Broadcast540—1620 kc.
 FM88—108 mc.

AUDIO OUTPUT.....3 watts

OPERATING VOLTAGE.....105—120 volts, 50/60 cycles, a.c.

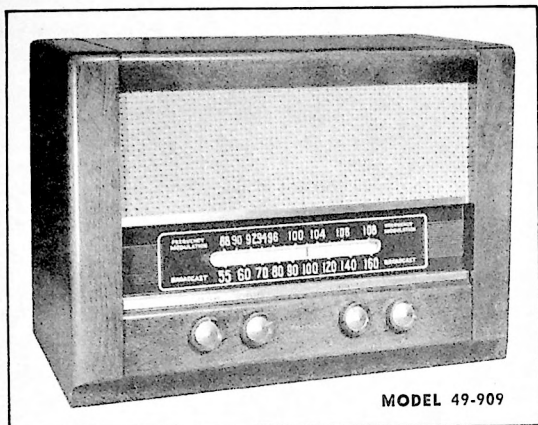
POWER CONSUMPTION......45 watts

AERIALS.....Built-in loop (semi-high-impedance for Model 49-909; low-impedance for Model 49-1101); FM line-cord aerial; provision for external aerial

INTERMEDIATE FREQUENCY
 AM455 kc.
 FM9.1 mc.

PHILCO TUBES (9).....12AU6, 12AU7, 14F8, 6BJ6(2), 19T8, 50L6GT, 117Z3(2)

PANEL LAMP.....110-volt, screw-base, Part No. 34-2477



MODEL 49-909

SYMBOLIZATION

The components in the radio circuit are symbolized according to the types of parts and the sections of the radio in which the parts are located. The prefix letter of the symbol designates the type of part, as follows:

- | | |
|-----------------|-----------------------|
| C—condenser | S—switch |
| I—pilot lamp | T—transformer |
| L—choke or coil | W—line cord |
| LA—loop aerial | WS—wafer switch |
| LS—loud-speaker | Z—electrical assembly |
| R—resistor | |

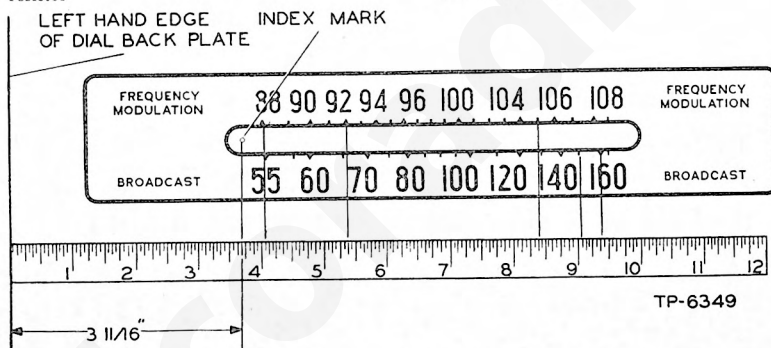


Figure 1. Dial-Backplate Calibration Measurements

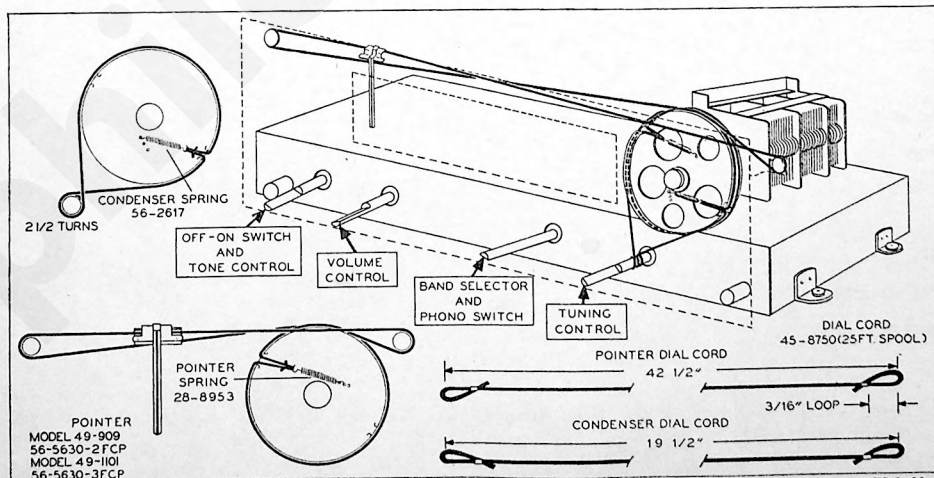


Figure 2. Drive-Cord Installation Details

AM ALIGNMENT CHART

STEP	SIGNAL GENERATOR CONNECTION TO RADIO	DIAL SETTING	RADIO	
			DIAL SETTING	SPECIAL INSTRUCTIONS
1	Ground lead to B-; test point B; output lead through .1-mf. condenser to terminal 1 of TB400.	455 kc.	540 kc.	Adjust each trimmer, in order given, for maximum output. Do not repeat adjustments.
2	Radiating loop (see note below).	1600 kc.	1600 kc.	Adjust for maximum output.
3	Same as step 2.	1500 kc.	1500 kc.	Adjust for maximum output.

ADJUST	NOTE
TC305B—3rd if sec.	NOTE: TC301A, TC303A AND TC305A ARE LOCATED ON UNDERSIDE OF CHASSIS.
TC305A—3rd if pri.	—SEE NOTE
TC303B—2nd if sec.	—SEE NOTE
TC303A—2nd if pri.	—SEE NOTE
TC303B—1st if sec.	—SEE NOTE
TC303A—1st if pri.	—SEE NOTE
C401B—BC osc.	
C401A—BC aerial	

RADIATING LOOP. Make up a six-to-eight-turn, 6-inch-diameter loop, using insulated wire; connect to the signal generator leads and place near the radio loop.

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Figure 3. Top View, Showing AM Trimmer Locations

FM ALIGNMENT CHART

STEP	SIGNAL GENERATOR CONNECTION TO RADIO	DIAL SETTING	RADIO	
			DIAL SETTING	SPECIAL INSTRUCTIONS
1	Through .1-mf. condenser to pin 8 of IAF2 amplifier.	9.1 mc.	88 mc.	Adjust for maximum reading on alignment indicator. Alternate signal generator to maintain reading of approximately 10 volts. Repeat adjustments until no further improvement is noted. Adjust any of these trimmers except as directed in step 3.
2	Through .1-mf. condenser to pin 8 of IAF2.	9.1 mc.	88 mc.	Adjust for maximum reading on alignment indicator. Improvement is noted. Do not disturb these trimmers after this step.
3	Same as step 2.	9.1 mc.	88 mc.	Adjust for minimum reading on output meter. This adjustment is critical; repeat to make sure that it is correct.
4	To terminal 2 of J400.	105 mc.	105 mc.	Adjust for maximum reading on alignment indicator.
5	Same as step 4.	105 mc.	105 mc.	Same as step 4. Rock tuning control.
6	Same as step 4.	105 mc.	105 mc.	Same as step 4.
7	Same as step 4.	92 mc.	92 mc.	Same as step 4. See note on page 10.
8	Same as step 4.	92 mc.	92 mc.	Same as step 4.
9	Same as step 4.	92 mc.	92 mc.	Same as step 4.
10	Repeat steps 4 through 9 until no further improvement is obtained.			

ADJUST	NOTE
TC304H—3rd if sec.	NOTE: L401, L402, L403, TC300A, TC302A AND TC304A ARE LOCATED ON UNDERSIDE OF CHASSIS.
TC304A—3rd if pri.	—SEE NOTE
TC302H—2nd if sec.	—SEE NOTE
TC302A—2nd if pri.	—SEE NOTE
TC300B—1st if sec.	—SEE NOTE
TC300A—1st if pri.	—SEE NOTE
TC304H—3rd if sec.	—SEE NOTE
C400C—FM osc.	
C400B—FM r-f	
C400A—FM aerial	
L403—FM osc. (tracking)	
L402—FM r-f (tracking)	
L401—FM aerial (tracking)	

OUTPUT METER CONNECTIONS
C-425
L-405
LOOP CONNECTIONS

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Figure 4. Top View, Showing FM Trimmer Locations

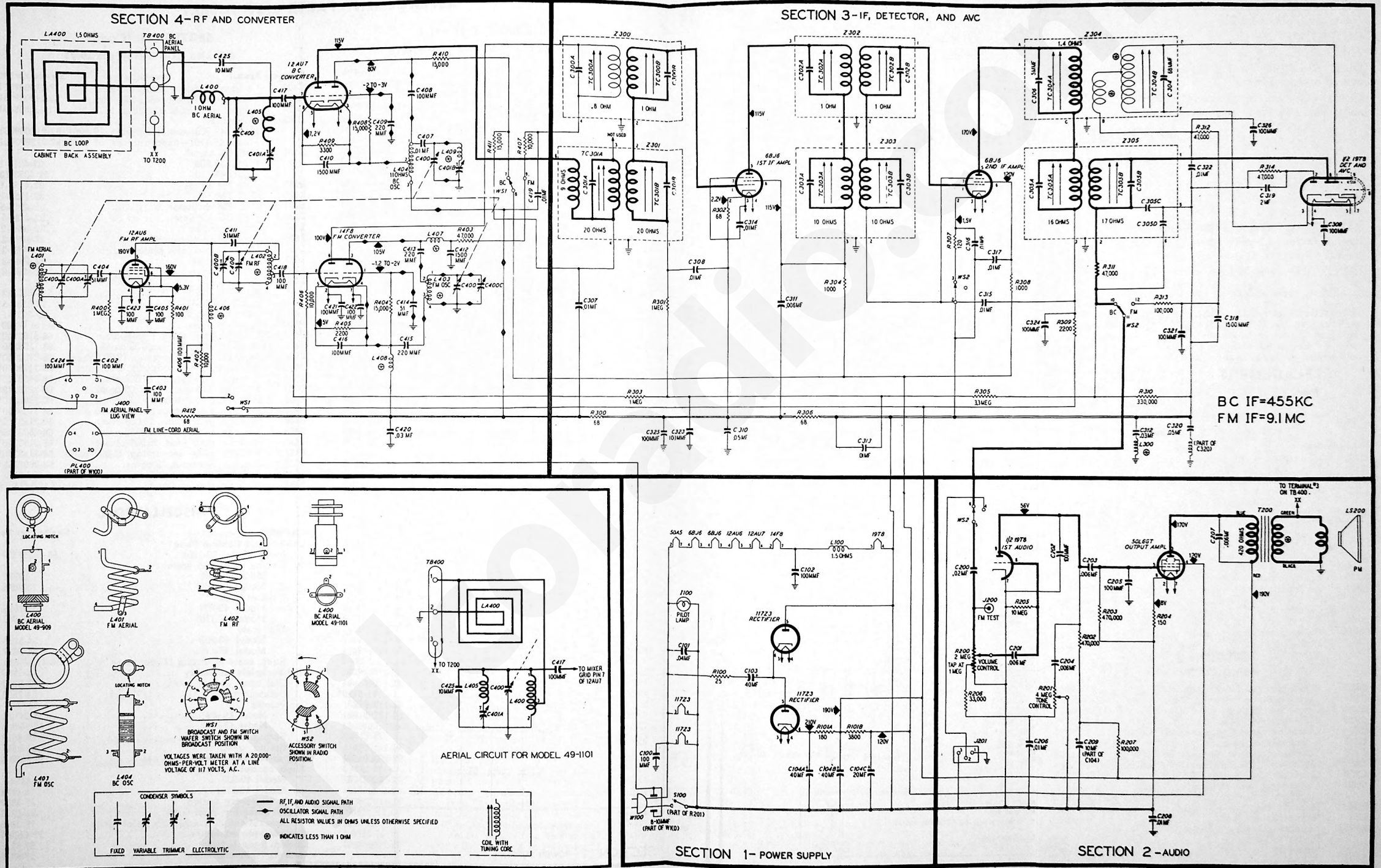


Figure 5. Philco Radio Models 49-909 and 49-1101, Sectionalized Schematic Diagram.

