

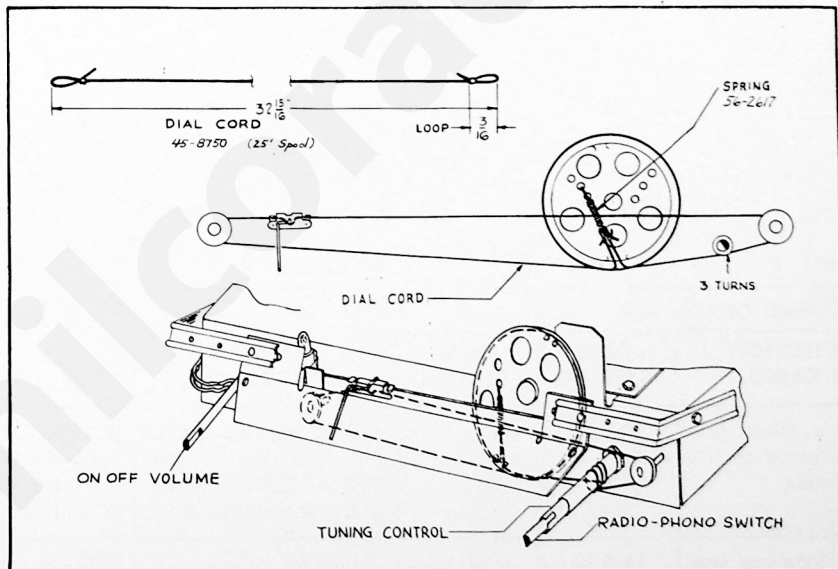
PHILCO RADIO-PHONOGRAPH MODEL 52-1340, CODES 121 AND 122

SPECIFICATIONS

CABINET	Molded plastic, mottled mahogany
CIRCUIT	Five-tube superheterodyne
FREQUENCY RANGE	540-1620 kc.
AUDIO OUTPUT	3 watts
OPERATING VOLTAGE	105—120 volts, 60 cycles, a.c.
POWER CONSUMPTION	
Radio Position	35 watts
Phonograph Position	60 watts
INTERMEDIATE FREQUENCY	455 kc.
AERIAL	Built-in high-impedance loop; provision for external aerial
PHILCO TUBES (5)	7A8 converter, 7B7 i-f amplifier, 7C6 2nd det.—a.v.c.—1st audio, 35L6GT output, 50Y7GT rectifier
PHONOGRAPH	Philco Model M-22 All-Speed Automatic Record Changer (for service information, refer to Service Manual PR-1923)



MODEL 52-1340



TP1-1835

Figure 1. Drive-Cord Installation Details

ALIGNMENT PROCEDURE

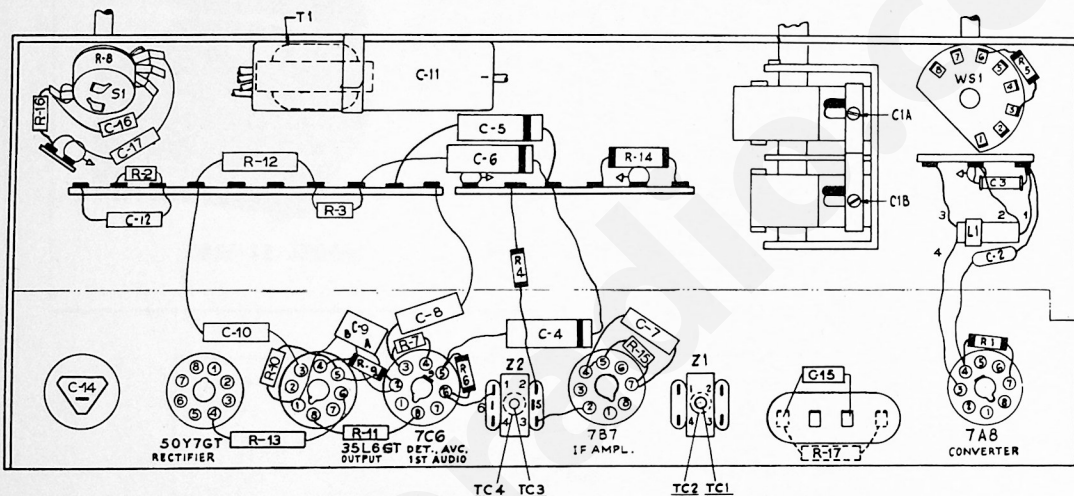
DIAL POINTER—Turn tuning condenser to full-mesh position. Set dial pointer to index mark, located to left of "55".

CONTROLS—Set volume control to maximum, radio-phono switch to RADIO position, and tuning control as indicated in chart.

OUTPUT METER—Connect across voice-coil terminals.

SIGNAL GENERATOR—Ground lead to B-, and output lead as indicated in chart.

OUTPUT LEVEL—During alignment, attenuate signal-generator output to hold output-meter indication below 1.25 volts.



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Figure 2. Base View, Showing Parts Placement and Alignment Points

ALIGNMENT CHART

STEP	SIGNAL GENERATOR		RADIO		ADJUST TRIMMER
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Through a .01- μ f. condenser to pin 6 of 7A8 converter tube.	455 kc.	Gang fully open.	Adjust, in order given, for maximum output. TC2 and TC4 are located at top of transformers.	TC4—2nd i-f sec. TC3—2nd i-f pri. TC2—1st i-f sec. TC1—1st i-f pri.
2	Radiating loop (see note below).	1600 kc.	1600 kc.	Adjust for maximum.	C1B—osc. trimmer
3	Same as step 2.	1500 kc.	1500 kc.	Adjust for maximum.	C1A—ant. trimmer

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

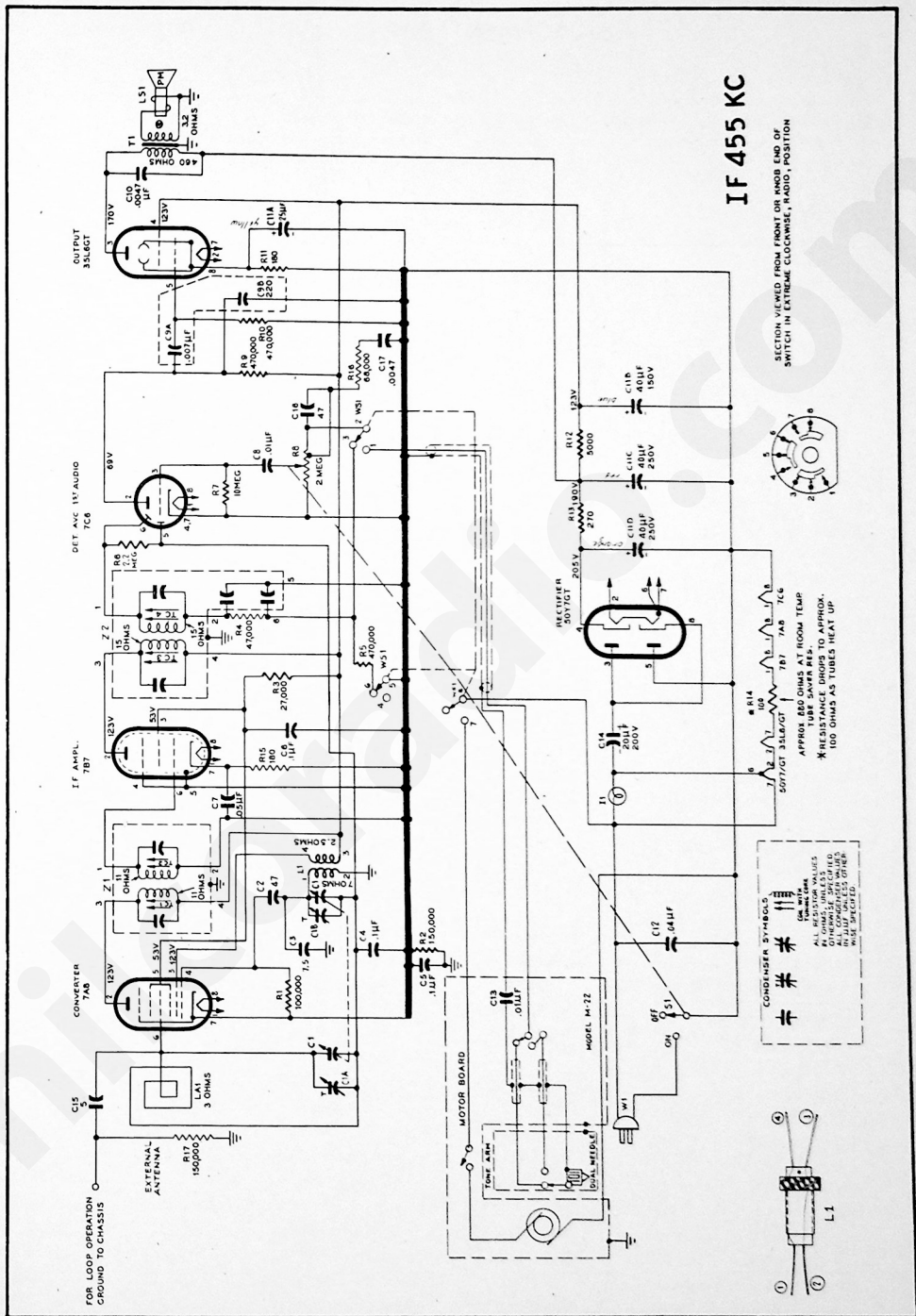


Figure 3. Philco Radio-Phonograph Model 52-1340, Schematic Diagram

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REPLACEMENT PARTS LIST

NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts; also, the electrical values of some replacement items may differ from the values indicated in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation of the radio will be unchanged. When ordering replacements, use only the "Service Part No."

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, tuning gang	31-2751-9	R10	Resistor, grid return, 470,000 ohms	66-4478340*
C1A	Condenser, trimmer, aerial	Part of C1	R11	Resistor, cathode bias, 180 ohms	66-1184340
C1B	Condenser, trimmer, osc.	Part of C1	R12	Resistor, filter, 5000 ohms	33-1335-95
C2	Condenser, osc. grid, d-c blocking, 47 μ f.	60-00515307*	R13	Resistor, filter, 270 ohms, 2 watts	33-1335-91
C3	Condenser, temperature compensating, 7.5 μ f.	30-1224-65	R14	Resistor, surge limiting, 880 ohms cold, 100 ohms hot	33-1343-3
C4	Condenser, a-v-c by-pass, .1 μ f.	61-0113*	R15	Resistor, cathode bias, 180 ohms	66-1188340
C5	Condenser, by-pass, .1 μ f.	61-0113*	R16	Resistor, bass compensation, 68,000 ohms	66-3688340
C6	Condenser, screen by-pass, .1 μ f.	61-0113*	R17	Resistor, aerial loading, 150,000 ohms	66-4158340
C7	Condenser, cathode by-pass, .05 μ f.	61-0112	S1	Switch, off-on	Part of R8
C8	Condenser, coupling, .01 μ f.	61-0120*	T1	Transformer, output	32-8384*
C9	Condenser, dual ceramic	30-1239-4	W1	Line cord	L2183
C9A	Condenser, d-c blocking, .007 μ f.	Part of C9	WS1	Wafer switch, radio-phonograph	42-1949
C9B	Condenser, r-f by-pass, 220 μ f.	Part of C9	Z1	Transformer, 1st i-f	32-4160A
C10	Condenser, tone compensation, .0047 μ f.	45-3505-56	Z2	Transformer, 2nd i-f	32-4240A
C11	Condenser, electrolytic, 4-section	30-2575-32*	MISCELLANEOUS		
C11A	Condenser, cathode by-pass, 25 μ f.	Part of C11	Description	Service Part No.	
C11B	Condenser, filter, 40 μ f.	Part of C11	Backplate assembly	76-6232	
C11C	Condenser, filter, 40 μ f.	Part of C11	Cabinet, complete, Code 121	10840-5	
C11D	Condenser, filter, 40 μ f.	Part of C11	Cabinet, complete, Code 122	10840-5	
C12	Condenser, line by-pass, .04 μ f.	30-1226-17	Hinge (2)	56-6603	
C13	Condenser, phono isolation, .01 μ f.	61-0120*	Lid	54-4838	
C14	Condenser, voltage doubling, 20 μ f. 200v.	30-2568-22	Lid support	56-6604	
C15	Condenser, aerial blocking, 5 μ f.	30-1230	Changer Mounting Hardware		
C16	Condenser, high-frequency compensation, 47 μ f.	60-00515307	Sleeve, rubber (3)	54-7798	
C17	Condenser, bass compensation, .0047 μ f.	45-3505-56	Speed nut (3)	W-2554	
I1	Pilot lamp, type 47	34-2064	Spring, heavy, top (3)	56-7059FA9	
L1	Coil, oscillator	32-4263	Spring, light, bottom (3)	56-7059-1FJ47	
LA1	Loop antenna (Code 121)	76-2127-13	Dial scale	54-5107	
LA1	Loop antenna (Code 122)	76-2127-13	Knob, off-on-volume	54-4843	
LS1	Speaker, 5 $\frac{1}{4}$ " round	36-1639-1	Knob, radio-phonograph	54-4842	
R1	Resistor, grid return, 100,000 ohms	66-4108340*	Knob, tuning	54-4841	
R2	Resistor, leakage, 150,000 ohms	66-4158340*	Pilot-lamp socket assembly	76-1179-7	
R3	Resistor, dropping, 27,000 ohms	66-3278340*	Fastener, pilot-lamp shield (2)	W2235-1FA9	
R4	Resistor, i-f filter, 47,000 ohms	66-3478340*	Pointer	56-5630-31	
R5	Resistor, diode return, 470,000 ohms	66-4478340*	Spring, pointer drive	56-2617	
R6	Resistor, diode load, 2.2 megohms	66-5228340*	Socket, Loktal (3)	27-6207	
R7	Resistor, grid return, 10 megohms	66-6108340*	Socket, octal (2)	27-6174	
R8	Volume control, 2 megohms (with switch)	33-5564-11	Tuning shaft	56-8370	
R9	Resistor, plate load, 470,000 ohms	66-4478340*			