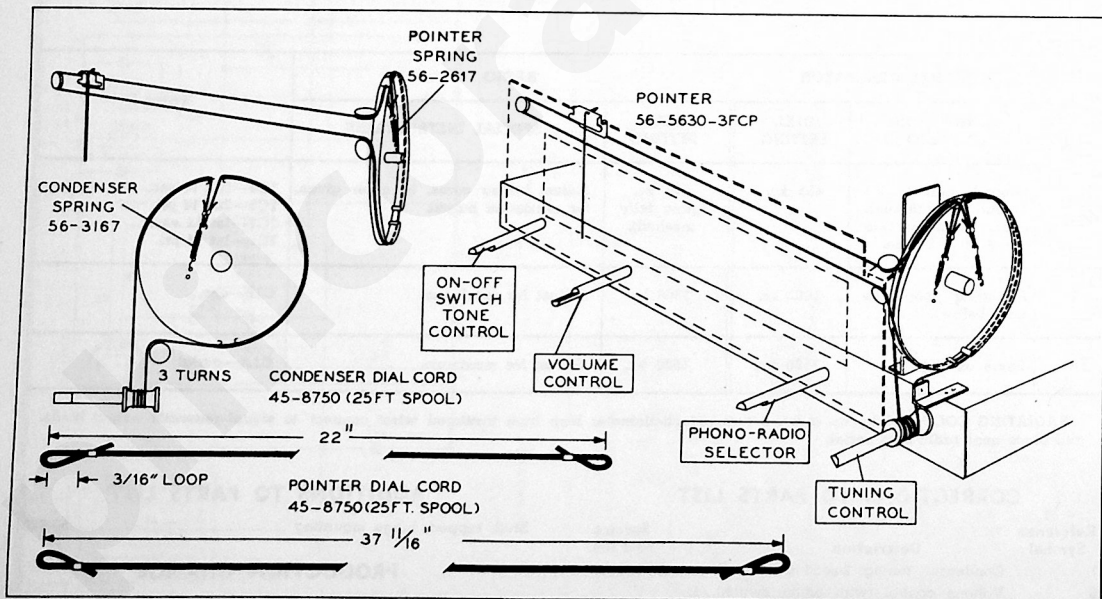


PHILCO RADIO-PHONOGRAPH MODEL 50-1718

SPECIFICATIONS

CABINET	Wood console, mahogany finish
CIRCUIT	6-tube superheterodyne (with t-r-i stage)
FREQUENCY RANGE	540—1620 kc.
AUDIO OUTPUT	3 watts
OPERATING VOLTAGE	105—120 volts, 60 cycles, a.c.
POWER CONSUMPTION	
Radio	50 watts
Phonograph	65 watts, total
INTERMEDIATE FREQUENCY	455 kc.
AERIAL	Built-in low-impedance loop; provision for external aerial
PHILCO TUBES (6)	7B7 r-f ampl., 7B7 i-f ampl., 7A8 converter, 14B6 det.-a.v.c.-1st audio ampl., 35L6GT output, 50Y6GT rectifier
PHONOGRAPH	Philco Model M-20 All-Speed Automatic Record Changer. (For service information, refer to the Record Changer section of this Yearbook.)



TPO-210

Figure 1. Drive-Cord Installation Details

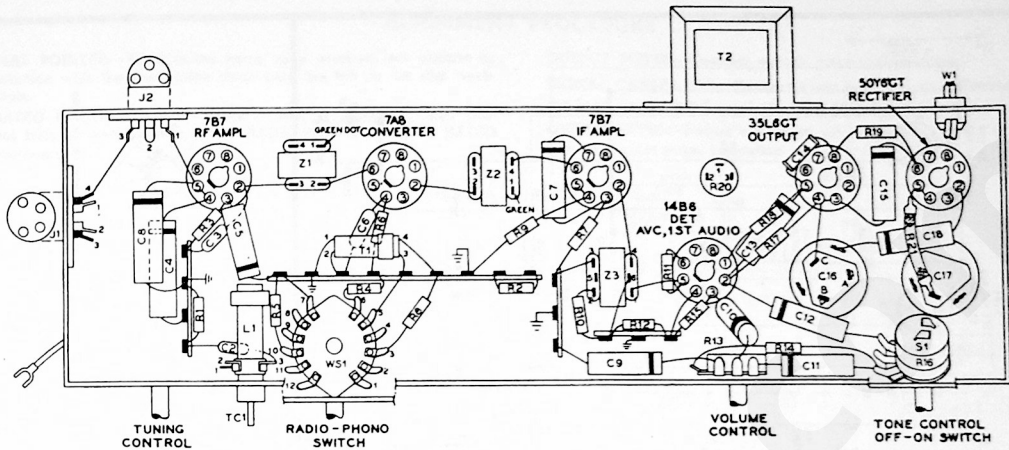


Figure 2. Symbolized Chassis, Showing Parts Placement

TPO-211

REPLACEMENT PARTS LIST

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, tuning gang, 3-section	31-2748-2	R9	Resistor, leakage, 150,000 ohms	66-4158340*
C1A	Condenser, aerial trimmer	Part of C1	R10	Resistor, i-f filter, 47,000 ohms	66-3478340*
C1B	Condenser, r-f trimmer	Part of C1	R11	Resistor, a-v-c diode load, 2.2 megohms	66-5228340*
C1C	Condenser, oscillator trimmer	Part of C1	R12	Resistor, diode load, 470,000 ohms	66-4478340*
C2	Condenser, aerial (external) coupling, 4.7 μ f.	30-1221-5*	R13	Volume control, 2 megohms, tapped at 1 megohm	33-5535-29
C3	Condenser, fixed trimmer, 15 μ f.	60-00155407*	R14	Resistor, tone compensation, 68,000 ohms	66-3688340*
C4	Condenser, a-v-c filter, .05 μ f.	61-0122*	R15	Resistor, grid return, 10 megohms	66-6108340*
C5	Condenser, screen by-pass, .01 μ f.	61-0120*	R16	Tone control (with off-on switch), 5 megohms	33-5566-19
C6	Condenser, d-c blocking, 47 μ f.	60-00475417*	R17	Resistor, plate load, 470,000 ohms	66-4478340*
C7	Condenser, screen by-pass, .05 μ f.	61-0122*	R18	Resistor, grid return, 470,000 ohms	66-4478340*
C8	Condenser, by-pass, B- to ground, .1 μ f.	61-0113*	R19	Resistor, cathode bias, 150 ohms	66-1154340*
C9	Condenser, d-c blocking, .006 μ f.	45-3500-7*	R20	Resistor, 2-section, wire-wound	33-3445-1
C10	Condenser, d-c blocking, .01 μ f.	61-0120*	R20A	Resistor, filter, 200 ohms 2 watts	Part of R20
C11	Condenser, tone compensation, .006 μ f.	45-3500-7*	R20B	Resistor, filter, 9200 ohms, 4 watts	Part of R20
C12	Condenser, tone compensation, high-cut, .004 μ f.	61-0179*	R21	Resistor, current limiting, 25 ohms	Part of R16
C13	Condenser, d-c blocking, .01 μ f.	61-0120*	S1	Switch, off-on	Part of R16
C14	Condenser, grid by-pass, 220 μ f.	62-122001001*	T1	Transformer, oscillator	32-4263
C15	Condenser, tone compensation, .01 μ f.	61-0120*	T2	Transformer, output	32-8242-3*
C16	Condenser, electrolytic, 3-section	30-2568-38	W1	Line cord	L-2193*
C16A	Condenser, filter, 75 μ f., 250v	Part of C16	WS1	Switch, water, radio-phon	42-1926
C16B	Condenser, filter, 40 μ f., 250v	Part of C16	Z1	Transformer, r-f	32-4399-2A
C16C	Condenser, filter, 10 μ f., 250v	Part of C16	Z2	Transformer, 1st i-f	32-4160A
C17	Condenser, electrolytic, voltage doubler, 20 μ f., 150v	30-2568-22	Z3	Transformer, 2nd i-f	32-4240A
C18	Condenser, line by-pass, .05 μ f.	61-0122*			
C19	Condenser, d-c blocking, phono coupling, .01 μ f.	61-0120*			
I1	Pilot lamp, 110 volts, 7 watts	34-2605			
J1	Socket, aerial input and speaker	27-6214-1			
J2	Socket, phono input	27-6126*			
L1	Coil, aerial	32-4413-1			
LA1	Loop aerial	32-4394-8			
LS1	Speaker, 8-inch, p-m	36-1626-1			
P1	Cable-and-plug assembly, speaker and loop	41-3948-1			
R1	Resistor, aerial isolating, 150,000 ohms	66-4158340*			
R2	Resistor, a-v-c filter, 2.2 megohms	66-5228340*			
R3	Resistor, screen dropping, 120,000 ohms	66-4128340*			
R4	Resistor, cathode bias (phono), 3900 ohms	66-2398340*			
R5	Resistor, grid return, 120,000 ohms	66-4128340*			
R6	Resistor, grid return (phono), 1 megohm	66-5108340*			
R7	Resistor, dropping, 22,000 ohms	66-3228340*			
R8	Resistor, plate load (phono), 120,000 ohms	66-4128340*			

MISCELLANEOUS

Description	Service Part No.
Aerial lead assembly	76-1472-1
Cabinet	10713-2
Back	54-7603
Baffle and cloth	40-7512-1
Baffle, wood	219-119
Bezel and scale	54-5088
Bin mechanism, l.h.	76-3223-5
Bin mechanism, r.h.	76-3223-6
Dome (4)	45-6190
Door pull	56-7246
Frame, changer mounting	76-4104
Hinge (2)	56-5765
Dial Backplate Assembly	76-5723
Bracket-and-pulley assembly	76-4003
Bumper, rubber (2)	54-4181
Diffusing panel	54-7606-1

ALIGNMENT PROCEDURE

DIAL POINTER—With tuning gang fully meshed, set pointer to coincide with the first scribe mark from the left on the dial back-plate.

RADIO CONTROLS—Set volume control to maximum, tone control fully counterclockwise, and RADIO-PHONO switch to RADIO position.

OUTPUT METER—Connect across voice-coil terminals.

SIGNAL GENERATOR—Connect ground lead to B-. Connect output lead as indicated in chart. Use modulated output.

OUTPUT LEVEL—During alignment, attenuate input signal to maintain an output-meter indication of 1.25 volts.

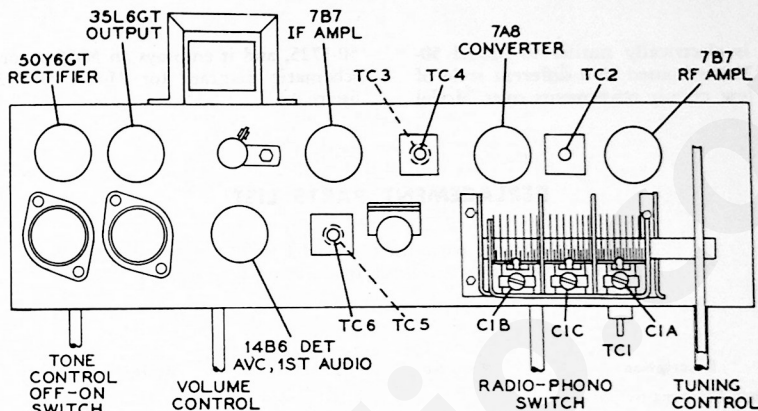


Figure 4. Top View, Showing Trimmer Locations

TPO-213

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Through a .1-uf. condenser to r-f ampl. section of C1.	455 kc.	Gang fully meshed.	Adjust in order given, for maximum output.	TC6—2nd i-f sec. TC5—2nd i-f pri. TC4—1st i-f sec. TC3—1st i-f pri.
2	Radiating loop (see note below).	1620 kc.	1620 kc.	Adjust for maximum.	C1C—osc. trimmer
3	Same as Step 2.	1500 kc.	1500 kc.	Adjust for maximum.	C1B—r-f trimmer C1A—ant. trimmer
4	Same as Step 2.	580 kc.	580 kc.	Adjust for maximum while rocking tuning control.	TC2—r-f core TC1—ant. core*

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

*The aerial tuning core, TC1, should not be adjusted unless the coil has been replaced.

REPLACEMENT PARTS LIST (Continued)

MISCELLANEOUS (Continued)

Description	Service Part No.
Fastener, snap	28-4342FA3
Spring (2)	56-3841
Drive cord, 25-foot spool	45-8750
Pointer	56-5630-3FCP
Spring, pointer drive	56-2617
Fish paper	27-9111
Knob (1)	54-4718-12
Knob (3)	54-4718-6
Mount, rubber, gang mounting (4)	27-4771-1
Pilot-lamp bracket-and-clip assembly	
Pilot-lamp-socket assembly	27-6233-53
Shaft-and-pulley assembly, drive	76-3959-3
Bushing	27-9437
Spring, hairpin (2)	
Spring, hairpin	57-0985
Sleeve, changer mounting (3)	54-7798

MISCELLANEOUS (Continued)

Description	Service Part No.
Socket, Loktal (4)	27-6207
Socket, octal (2)	27-6174
Speed nut, changer mounting (3)	W-2554
Spring, changer mounting, heavy (3)	56-7059FA9
Spring, changer mounting, light (3)	56-7059-1FJ47
Spring, gang drive	56-3167
Wafer, electrolytic mtg. (2)	27-9508

CORRECTIONS TO PARTS LIST

Reference Symbol	Description	Service Part No.
R21	Resistor, current-limiting, 25 ohms	33-1334-5
	Pilot lamp bracket and clip assembly	76-4004
	Spring, hairpin	57-1468FA3