

Untitled

Dear Crosley Auto Club,

After many hours of searching I have found a complete schematic drawing and specification/parts for the Philco auto radio model CM-5118. The difficulty finding the actual information has from the incorrect

model number being applied to the radio. It is actually Philco radio CR-501.

I am enclosing a copy for the club and members use. My brother owns several Hotshots

and needed his radio repaired. I hope it helps everyone who loves the car and wants to maintain the legacy of these amazing vehicles.

Yours truly, Paul Washburn

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CM-518

SPECIFICATIONS

CIRCUIT Six-tube superheterodyne
 FREQUENCY RANGE 540—1605 kc.
 AUDIO OUTPUT 1.2 watts
 POWER INPUT 5.5 amperes at 6.6 volts, d.c.
 INTERMEDIATE FREQUENCY 455 kc.
 PHILCO TUBES (6) 6BA6 (2), 6BE6, 6AV6, 6AS5, 6X4

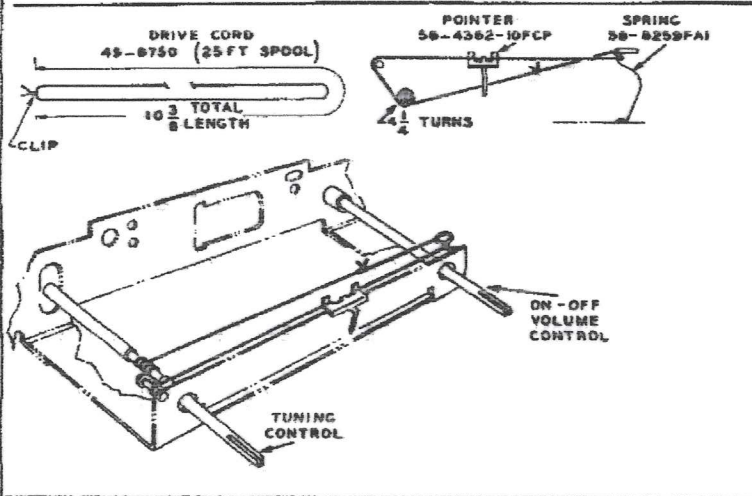


Figure 1. Drive-Cord Installation Details

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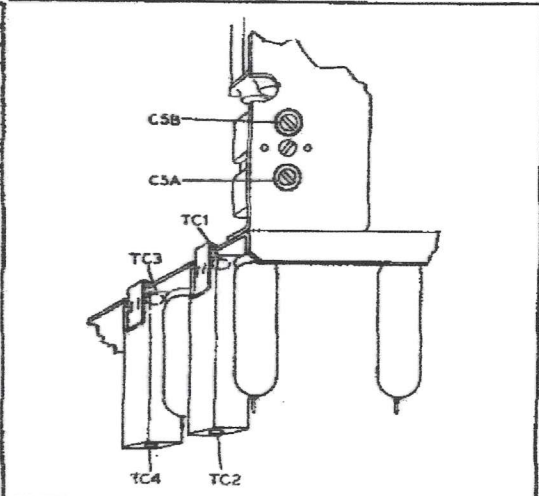


Figure 2. View Showing Trimmer Locations

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ALIGNMENT PROCEDURE

OUTPUT METER — Connect across voice coil.

SIGNAL GENERATOR — Connect ground lead to chassis; connect output lead as indicated in chart. Use modulated output.

RADIO CONTROLS — Set volume control to maximum, and tuning control as indicated in chart.

OUTPUT LEVEL — During alignment, attenuate signal generator to maintain an output-meter indication below 1.5 volts.

DUMMY AERIAL — Connect signal-generator output lead through a 30- μ f. condenser to aerial socket; connect a 30- μ f. condenser from aerial socket to ground.

STEP	SIGNAL GENERATOR		RADIO		ADJUST TRIMMER
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Through .05- μ f. condenser to converter grid (pin 7 of 6BE6).	455 kc.	Maximum counterclockwise	Adjust cores, in order given, for maximum output. TC1 and TC3 are reached through holes in bottom of i-f transformers.	TC4—2nd i-f sec. TC3—2nd i-f pri. TC2—1st i-f sec. TC1—1st i-f pri.
2	Through dummy aerial.	1605 kc.	1605 kc.	Adjust for maximum output.	CSB—osc. trimmer CSA—r-f trimmer C1—aerial trimmer
3			Tune to weak station near 1600 kc.	Readjust trimmer C1, with radio installed in car and aerial fully extended.	C1—aerial trimmer

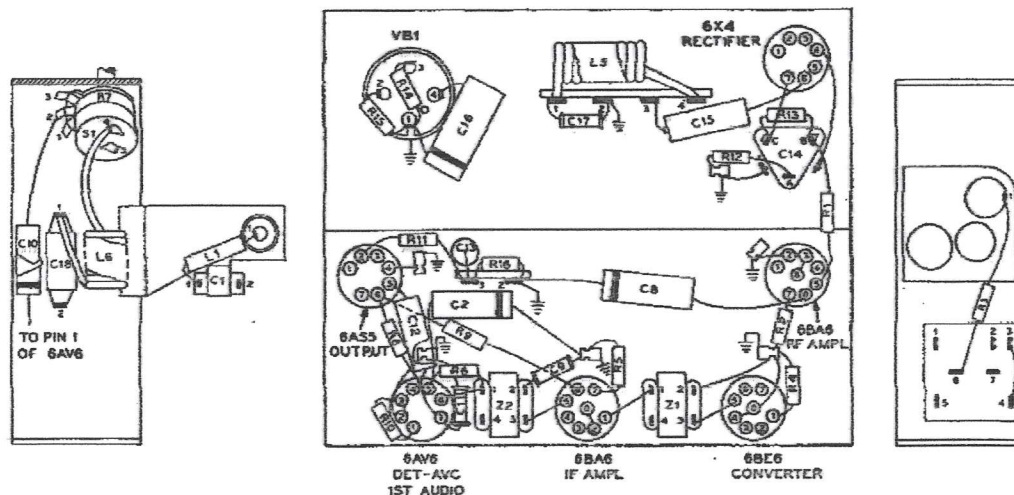


Figure 3. View Showing Locations of Components
REPLACEMENT PARTS LIST

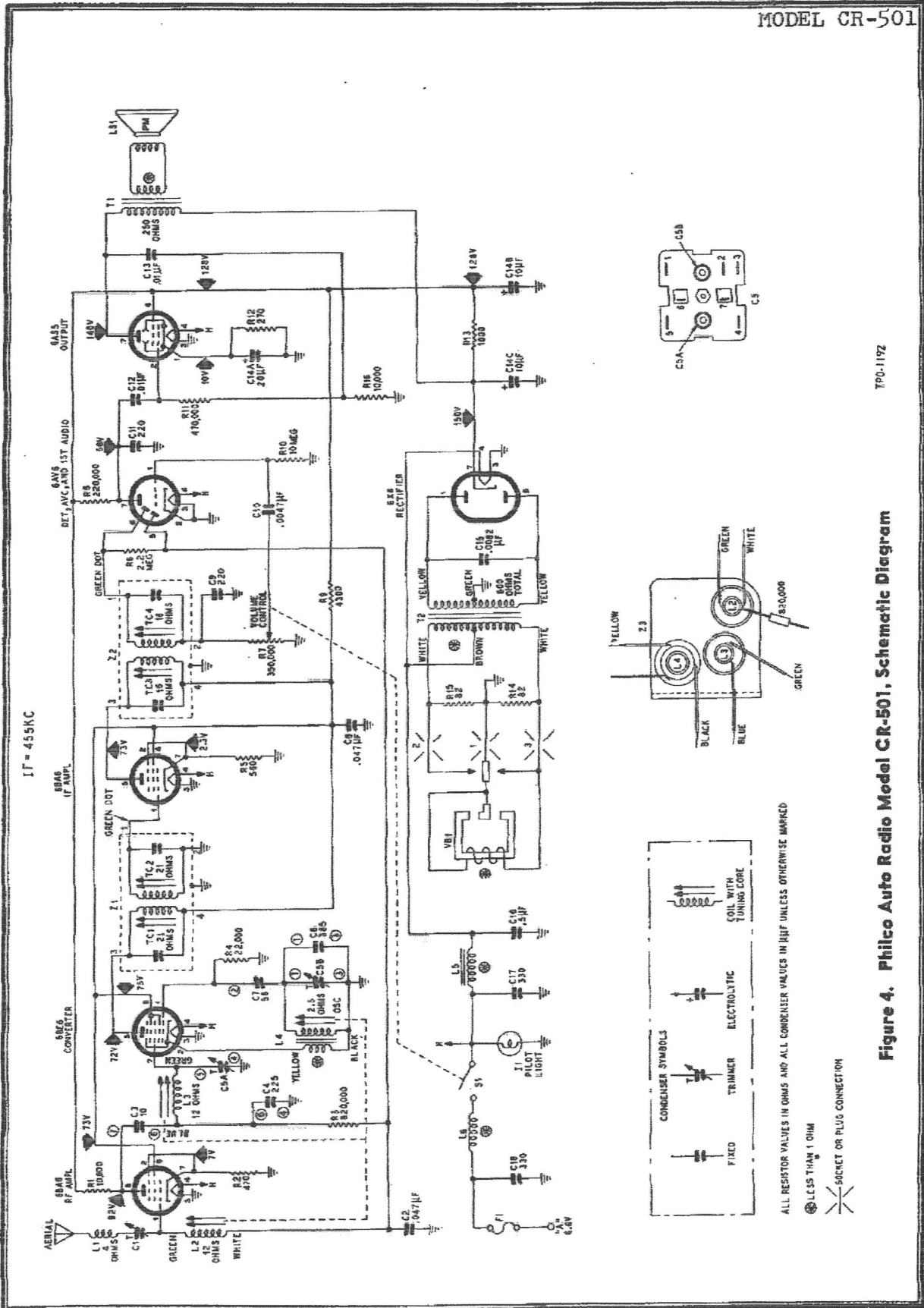
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NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts. Also, the electrical values of some replacement items may differ from the values indicated in the schematic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

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, aerial trimmer	31-6502	R14	Resistor, damping, 82 ohms, 1 watt	66-0824340*
C2	Condenser, a-v-c filter, .047 μ f.	45-3505-45*	R15	Resistor, damping, 82 ohms, 1 watt	66-0824340*
C3	Condenser, d-c blocking, 10 μ f.	Part of C5	R16	Resistor, feed back voltage divider, 10,000 ohms	66-3108340*
C4	Condenser, r-f fixed trimmer, 225 μ f.	Part of C5	S1	Switch, off-on	Part of R7
C5	Condenser, 2-section trimmer	31-6522	T1	Transformer, output	32-8450
C5A	Condenser, r-f trimmer	Part of C5	T2	Transformer, power	32-8451
C5B	Condenser, oscillator trimmer	Part of C5	VB1	Vibrator	45-6307
C6	Condenser, fixed osc. trimmer, 385 μ f.	Part of C5	Z1	Transformer, 1st i-f	32-4160A
C7	Condenser, d-c blocking, 56 μ f.	Part of C5	Z2	Transformer, 2nd i-f	32-4161A
C8	Condenser, by-pass, .047 μ f.	45-3505-45*	Z3	Tuner, complete with coils and tuning cores	76-6011
C9	Condenser, i-f filter, 220 μ f.	62-122001001			
C10	Condenser, d-c blocking, .0047 μ f.	45-3505-56*			
C11	Condenser, plate by-pass, 220 μ f.	62-122001001			
C12	Condenser, d-c blocking, .01 μ f.	45-3505-41*			
C13	Condenser, tone compensation, .01 μ f.	45-3505-58*			
C14	Condenser, 3-section electrolytic	61-0068A			
C14A	Condenser, cathode by-pass, 20 μ f.	Part of C14			
C14B	Condenser, filter, 10 μ f.	Part of C14			
C14C	Condenser, filter, 10 μ f.	Part of C14			
C15	Condenser, buffer, .0082 μ f., 1000v	30-4651-2*			
C16	Condenser, line filter, 5 μ f.	61-0137*			
C17	Condenser, hash filter, 330 μ f.	62-133001001			
C18	Condenser, hash filter, 330 μ f.	62-133001001			
F1	Fuse, 14 amp.	45-2559			
PI	Pilot lamp, brown bead, bayonet, .15 amp. at 6.3v	34-2068			
L1	Choke, aerial	32-4422-24			
L2	Coil, aerial	Part of Z3			
L3	Coil, r-f	Part of Z3			
L4	Transformer, oscillator	Part of Z3			
L5	Choke, line filter	32-4170			
L6	Choke, "A" lead hash filter	32-1374			
LS1	Speaker	36-1636-1			
R1	Resistor, plate load, 10,000 ohms	66-3108340*			
R2	Resistor, cathode bias, 470 ohms	66-1478340*			
R3	Resistor, grid return, 820,000 ohms	66-4828340*			
R4	Resistor, grid return, 22,000 ohms	66-3228340*			
R5	Resistor, cathode bias, 560 ohms	66-1568340*			
R6	Resistor, diode load, 2.2 megohms	66-5228340*			
R7	Volume control, 350,000 ohms (with off-on switch)	33-5556-7			
R8	Resistor, plate load, 220,000 ohms	66-4228340*			
R9	Resistor, dropping, 4300 ohms	66-2403340*			
R10	Resistor, grid return, 10 megohms	66-6108340*			
R11	Resistor, grid return, 470,000 ohms	66-4478340*			
R12	Resistor, cathode bias, 270 ohms, 1 watt	66-1274340*			

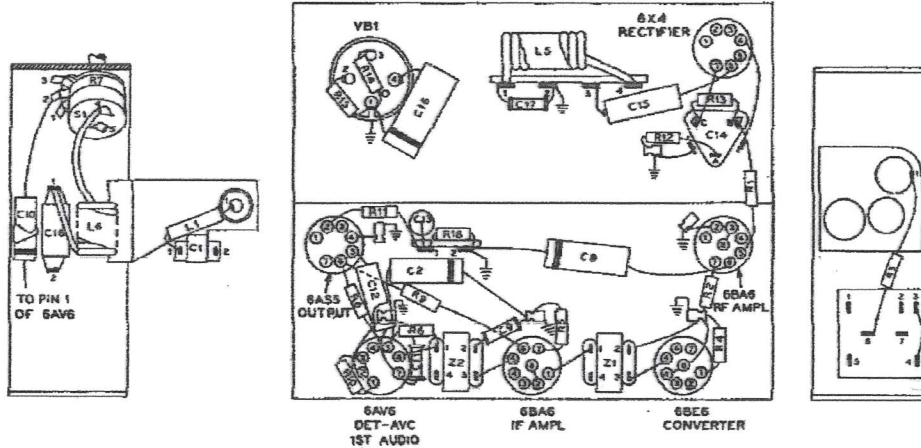
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Description	Service Part No.
"A" lead	41-3910-11
Bozel	58-8247FA3
Clip, grounding spring, brass (2 required)	57-1335
Clip, pilot-lamp mounting	56-3543-5FA3
Cover, top (tube side)	58-8274FJ52
Dial backplate	58-8273FA3
Dial scale	54-5096
Drive cord, 25-foot spool	45-8750*
Fuse lead	41-3910-12
Housing	76-6135FJ52
Knob assembly (2 required)	27-4687-15
Master Kit	
Bolt, carriage, No. 10-24, 3/4" long (2 required)	1W18005FA3
Condenser, interference filter	30-4007
Lock washer, No. 10 (2 required)	1W24258FA1
Nut, No. 10-24 (2 required)	1W19990FA3
Resistor, distributor	33-1196
Screw, drive, No. 10, 5/8" long (2 required)	1W18765FA3
Screw, drive, slotted hex-head, No. 8 x 3/8" (2 required)	1W19751FA3
Screw, drive, slotted hex-head, No. 10 x 1-1/2"	1W19770FA3
Washer, No. 10, 1-1/4" diameter	1W52359FA3
Washer, flat (2 required)	1W52692FA3
Pilot-lamp assembly	27-6233-4
Pointer	56-4362-10FCP
Socket, aerial	57-1243FA3
Socket, miniature, with center shield	27-6203
Socket, miniature, without center shield	27-6203-12
Socket, vibrator	27-6243
Spring, dial-cord	56-8259FA1



7P0-1192

Figure 4. Philco Auto Radio Model CR-501. Schematic Diagram



TPO-1191

Figure 3. View Showing Locations of Components
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 will be either unchanged or improved. When ordering replacements, use only the "Service Part No."

Reference Symbol	Description	Service Part No.	Reference Symbol	Description	Service Part No.
C1	Condenser, aerial trimmer	31-6562	R14	Resistor, damping, 82 ohms, 1 watt	66-0824340*
C2	Condenser, a-v-c filter, .047 μ f.	45-3505-45*	R15	Resistor, damping, 82 ohms, 1 watt	66-0824340*
C3	Condenser, d-c blocking, 10 μ f.	Part of C5	R16	Resistor, feed back voltage divider, 10,000 ohms	66-3108340*
C4	Condenser, r-f fixed trimmer, 225 μ f.	Part of C5	S1	Switch, off-on	Part of R7
C5	Condenser, 2-section trimmer	31-6522	T1	Transformer, output	32-8450
C5A	Condenser, r-f trimmer	Part of C5	T2	Transformer, power	32-8451
C5B	Condenser, oscillator trimmer	Part of C5	VB1	Vibrator	45-6307
C6	Condenser, fixed osc. trimmer, 385 μ f.	Part of C5	Z1	Transformer, 1st i-f	32-4160A
C7	Condenser, d-c blocking, 56 μ f.	Part of C5	Z2	Transformer, 2nd i-f	32-4161A
C8	Condenser, by-pass, .047 μ f.	45-3505-45*	Z3	Tuner, complete with coils and tuning cores	76-6011
C9	Condenser, i-f filter, 220 μ f.	62-122001001	MISCELLANEOUS		
C10	Condenser, d-c blocking, .0047 μ f.	45-3505-56*	Description	Service Part No.	
C11	Condenser, plate by-pass, 220 μ f.	62-122001001	"A" lead	41-3910-11	
C12	Condenser, d-c blocking, .01 μ f.	45-3505-41*	Bezel	58-8247FA8	
C13	Condenser, tone compensation, .01 μ f.	45-3505-56*	Clip, grounding spring, brass (2 required)	57-1335	
C14	Condenser, 3-section electrolytic	61-0069A	Clip, pilot-lamp mounting	56-3545-SFA3	
C14A	Condenser, cathode by-pass, 20 μ f.	Part of C14	Cover, top (tube side)	56-8274F752	
C14B	Condenser, filter, 10 μ f.	Part of C14	Dial backplate	56-8273FA3	
C14C	Condenser, filter, 10 μ f.	Part of C14	Dial scale	54-5096	
C15	Condenser, buffer, .0082 μ f., 1000v	30-4651-2*	Drive cord, 25-foot spool	45-8750*	
C16	Condenser, line filter, .5 μ f.	61-0137*	Fuse lead	41-3910-12	
C17	Condenser, hash filter, 330 μ f.	62-133001001	Housing	76-6135F752	
C18	Condenser, hash filter, 330 μ f.	62-133001001	Knob assembly (2 required)	27-4687-15	
F1	Fuse, 14-amp.	45-2559	Master Kit		
I1	Pilot lamp, brown bead, bayonet, .15 amp. at 6.3v	34-2068	Bolt, carriage, No. 10-24, 3/4" long (2 required)	1W1800SFA3	
L1	Choke, aerial	32-4422-24	Condenser, interference filter	30-4007	
L2	Coil, aerial	Part of Z3	Lock washer, No. 10 (2 required)	1W24258FA1	
L3	Coil, r-f	Part of Z3	Nut, No. 10-24 (2 required)	1W19990FA3	
L4	Transformer, oscillator	Part of Z3	Resistor, distributor	33-1196	
L5	Choke, line filter	32-4170	Screw, drive, No. 10, 5/8" long (2 required)	1W19765FA3	
L6	Choke, "A" lead hash filter	32-1374	Screw, drive, slotted hex-head, No. 6 x 3/8" (2 required)	1W19751FA3	
L61	Speaker	36-1636-1	Screw, drive, slotted hex-head, No. 10 x 1-1/2"	1W19770FA3	
R1	Resistor, plate load, 10,000 ohms	66-3108340*	Washer, No. 10, 1-1/4" diameter	1W52359FA3	
R2	Resistor, cathode bias, 470 ohms	66-1478340*	Washer, flat (2 required)	1W52692FA3	
R3	Resistor, grid return, 820,000 ohms	66-4828340*	Pilot-lamp assembly	27-6233-4*	
R4	Resistor, grid return, 22,000 ohms	66-3228340*	Pointer	58-4382-10FCP	
R5	Resistor, cathode bias, 560 ohms	66-1588340*	Socket, aerial	57-1248FA3	
R6	Resistor, diode load, 2.2 megohms	66-3228340*	Socket, miniature, with center shield	27-6203	
R7	Volume control, 350,000 ohms (with off-on switch)	33-5556-7	Socket, miniature, without center shield	27-6203-12	
R8	Resistor, plate load, 220,000 ohms	36-4228340*	Socket, vibrator	27-6243	
R9	Resistor, dropping, 4300 ohms	66-3403340*	Spring, dial-cord	58-8259FA1	
R10	Resistor, grid return, 10 megohms	66-6108340*	Strap, universal	56-4767FA3	
R11	Resistor, grid return, 470,000 ohms	66-4478340*			
R12	Resistor, cathode bias, 270 ohms, 1 watt	66-1274340*			
R13	Resistor, filter, 1000 ohms, 1 watt	66-2104340*			