SPECIFICATIONS

CABINET	
Model 51-530	molded plastic, mottled mahogany
Model 51-530-I	molded plastic, ivory
Model 51-532	molded plastic, mottled mahogany
Model 51-532-E	molded plastic, ebony
Model 51-532-I	molded plastic, ivory
Model 51-534	molded plastic, mottled mahogany
Model 51-534-I	molded plastic, ivory
CIRCUIT	5-tube superheterodyne
FREQUENCY RANGE	540—1630 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	455 kc.
PHILCO TUBES	7A8, 12BA6, 14B6, 50L6GT, 35Z5GT

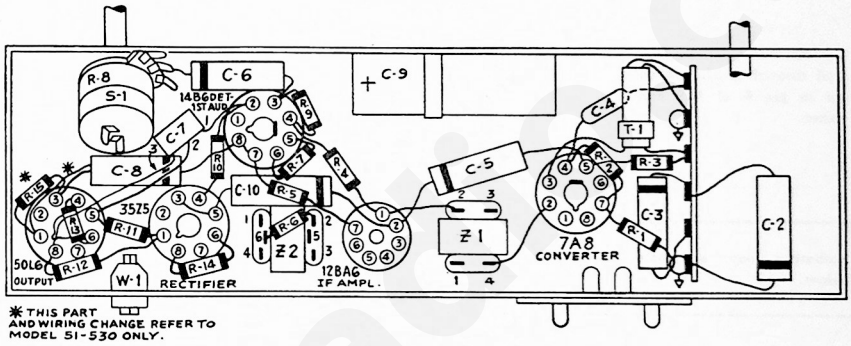


Figure 1. Symbolized Chassis, Showing Parts Placement

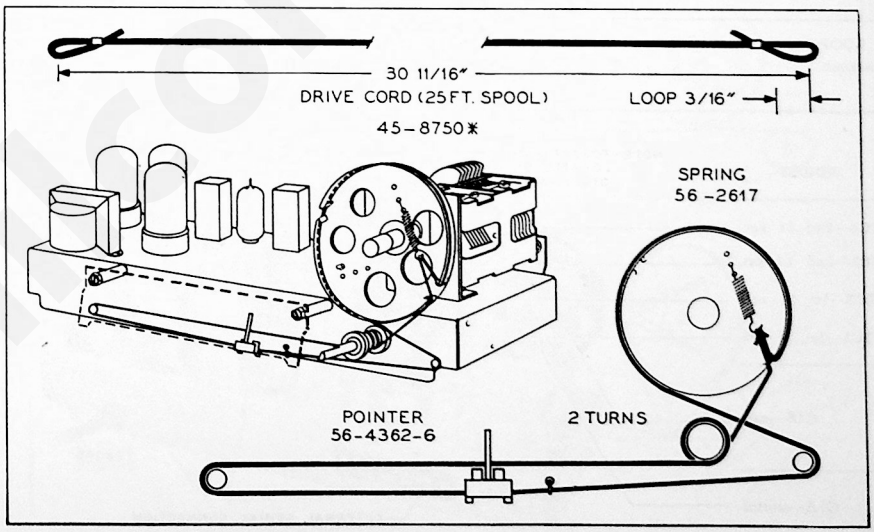


Figure 2. Drive-Cord Installation Details, Model 51-530

ALIGNMENT PROCEDURE

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

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

OUTPUT METER: Connect across voice-coil terminals.

SIGNAL GENERATOR: Connect as indicated in chart. Use modulated output.

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

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Ground lead to B—; output lead through .1-μf. condenser to pin 6 of 7A8 converter	455 kc.	540 kc. (gang fully meshed)	Adjust tuning cores, in order given for maximum output.	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 trimmer for maximum output.	C1B—osc.
3	Same as step 2.	1500 kc.	1500 kc.	Adjust trimmer for maximum output.	C1A—aerial

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 antenna.

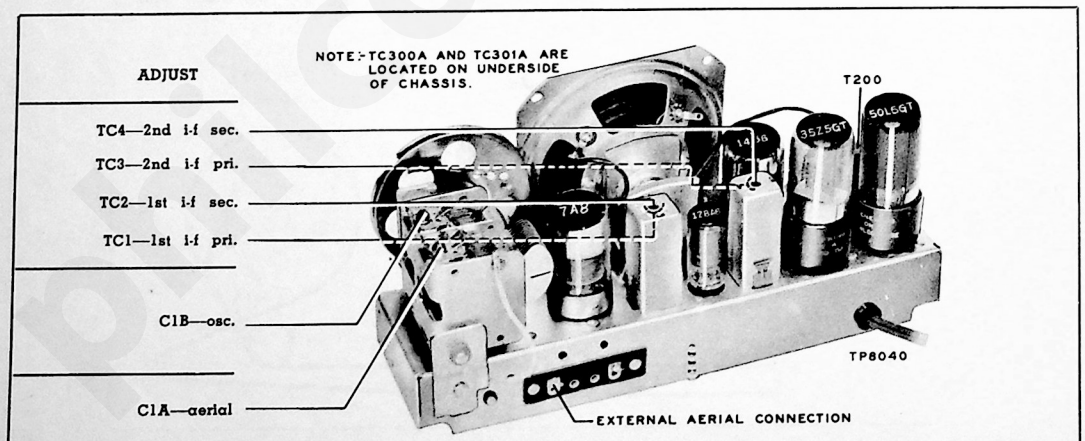
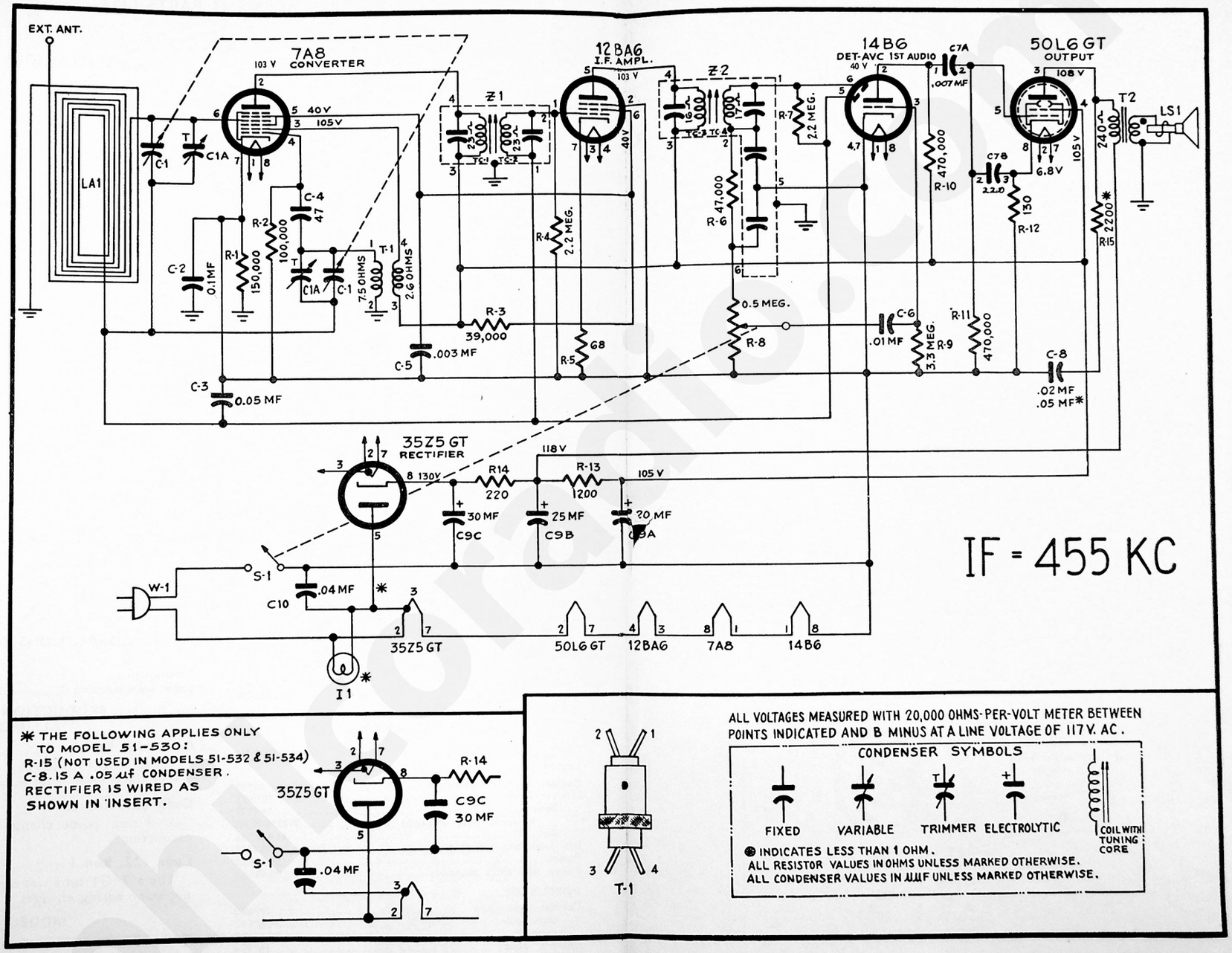


Figure 3. Top View, Showing Trimmer Locations



* THE FOLLOWING APPLIES ONLY TO MODEL 51-530:
R-15 (NOT USED IN MODELS 51-532 & 51-534)
C-8 IS A .05 μf CONDENSER.
RECTIFIER IS WIRED AS SHOWN IN INSERT.

ALL VOLTAGES MEASURED WITH 20,000 OHMS-PER-VOLT METER BETWEEN POINTS INDICATED AND B MINUS AT A LINE VOLTAGE OF 117 V. AC.

CONDENSER SYMBOLS

FIXED VARIABLE TRIMMER ELECTROLYTIC COIL WITH TUNING CORE

⊕ INDICATES LESS THAN 1 OHM.
ALL RESISTOR VALUES IN OHMS UNLESS MARKED OTHERWISE.
ALL CONDENSER VALUES IN μμF UNLESS MARKED OTHERWISE.

Figure 4. Philco Models 51-530, 51-532, 51-534 Schematic Diagram

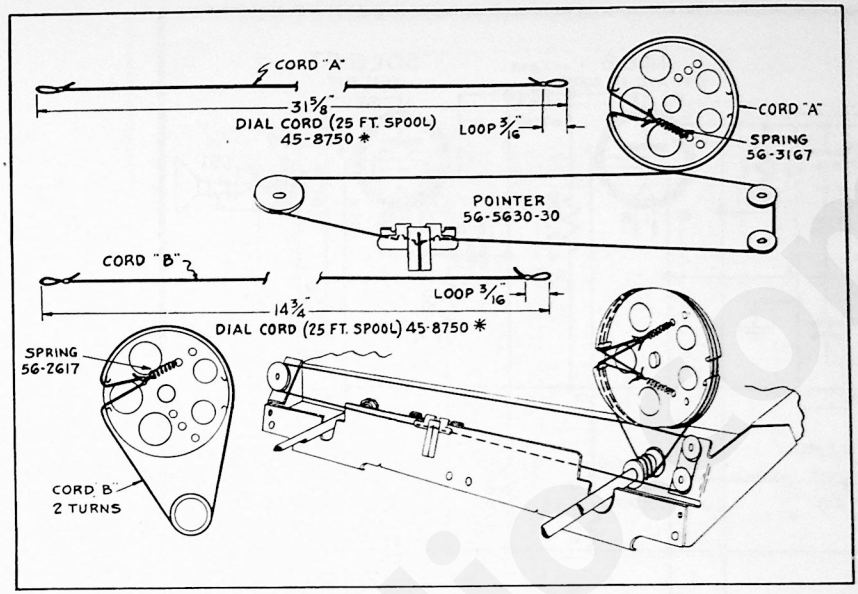


Figure 5. Drive-Cord Installation Details, Model 51-532

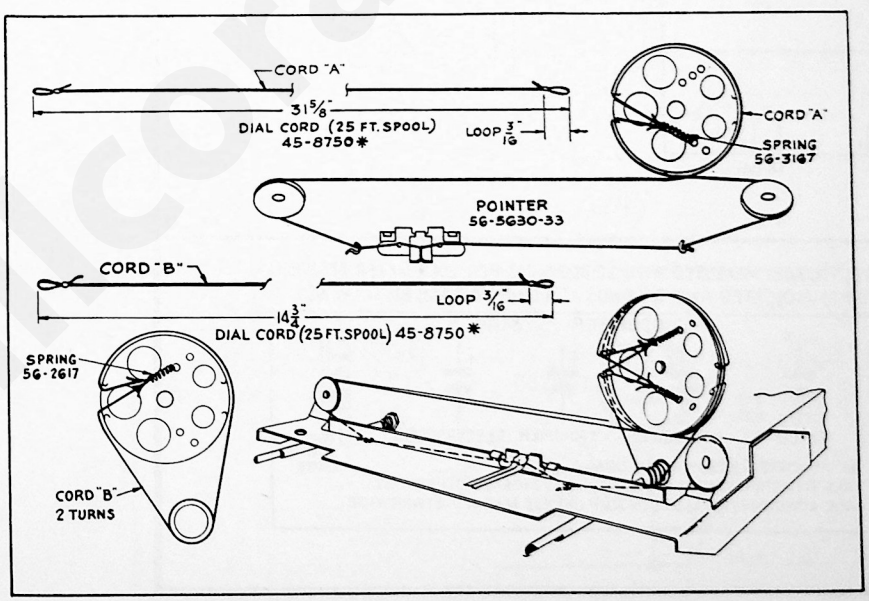


Figure 6. Drive-Cord Installation Details, Model 51-534

REPLACEMENT PARTS LIST

Reference Symbol	Description	Service Part No.
C1	Condenser tuning gang	
	Model 51-530	31-2751-6
	Models 51-532 and 51-534	31-2751
C2	Condenser, i-f by-pass, .1 μf.	61-0113*
C3	Condenser, a-v-c by-pass, .05 μf.	61-0122*
C4	Condenser, d-c blocking, 47 μμf.	60-00475417*
C5	Condenser, screen by-pass, .003 μf.	61-0109*
C6	Condenser, d-c blocking, .01 μf.	61-0120*
C7	Condenser, dual ceramic	30-1239-4
C7A	Condenser, d-c blocking, .007 μf.	Part of C7
C7B	Condenser, grid by-pass, 220 μμf.	Part of C7
C8	Condenser, tone compensation	
	Model 51-530, .05 μf.	61-0122*
	Models 51-532 and 51-534, .02 μf.	61-0108*
C9	Condenser, electrolytic, 3-section	30-2573
C9A	Condenser, filter, 20 μf., 150v	Part of C9
C9B	Condenser, filter, 25 μf., 150v	Part of C9
C9C	Condenser, filter, 30 μf., 150v	Part of C9
C10	Condenser, line by-pass, .04 μf.	45-3500-2*
I1	Pilot lamp—Models 51-532 and 51-534 only	34-2068
LA1	Loop antenna	
	Model 51-530	32-4052-33
	Model 51-532	32-4052-38
	Model 51-534	32-4052-51
LS1	Speaker, 4" p.m.	
	Models 51-530 and 51-532	36-1627-5
	Model 51-534	36-1625-3
R1	Resistor, leakage, 150,000 ohms	66-4158340*
R2	Resistor, grid return, 100,000 ohms	66-4108340*
R3	Resistor, screen dropping, 39,000 ohms	66-3398340*
R4	Resistor, grid return, 2.2 megohms	66-5228340*
R5	Resistor, cathode bias, 68 ohms	66-0688340*
R6	Resistor, i-f filter, 47,000 ohms	66-3478340*
R7	Resistor, diode load, 2.2 megohms	66-5228340*
R8	Volume control, 500,000 ohms	
	Model 51-530	33-5538-7
	Model 51-532	33-5566-4
	Model 51-534	33-5566-30
R9	Resistor, grid return, 3.3 megohms	66-5338340*
R10	Resistor, plate load, 470,000 ohms	66-4478340*
R11	Resistor, grid return, 470,000 ohms	66-4478340*
R12	Resistor, cathode bias, 130 ohms	66-1128340*
R13	Resistor, filter, 1200 ohms	66-2128340*
R14	Resistor, filter, 220 ohms, 1 watt	66-1224340*
S1	Switch, off-on	Part of R8
T1	Transformer, oscillator	32-4263
T2	Transformer, output	32-8384
W1	Line cord	L-2183*
Z1	Transformer, 1st i-f	32-4160-6A
Z2	Transformer, 2nd i-f	32-4240-2A

MISCELLANEOUS

Description	Service Part No.
MODEL 51-530	
Cabinet, mottled mahogany	10750
Cabinet, ivory	10750-1
Back	54-7777
Fastener, back mounting (4)	W2235-2FA9
Knob (2)	54-4527-11
Dial backplate assembly	76-4658
Pointer	56-4362-6
Pulley and shaft assembly	76-3671-3
MODEL 51-532	
Cabinet, mahogany	10769-3
Dial scale	54-5069-1
Knob (2)	54-4718-2
Cabinet, ebony	10769-4
Dial scale	54-5069-2
Knob (2)	54-4718-2

MISCELLANEOUS (Continued)

Description	Service Part No.
Cabinet, ivory	10769-5
Dial scale	54-5069-3
Knob (2)	54-4718-22
Back	54-7911
Fastener, back mounting (4)	W2235FA9
Baffle, speaker	54-7761
Backplate, bracket and pulley assembly	76-6235
Fastener, pilot lamp shield mounting (2)	W2235-1FA9
Grille, plastic	54-4728-2
Speed clip, grille mounting (4)	1W56920FE7
Pointer	56-5630-30
Spring, pointer drive	56-3167
Pulley and shaft assembly	76-3671-2
Scale strap, dial mounting	
LH	56-7373
RH	56-7373-1
Socket assembly, pilot lamp	27-6233-18
MODEL 51-534	
Cabinet, mahogany	10836
Cabinet, ivory	10836-1
Back	54-8249
Fastener, back mounting (4)	W2235FA9
Clips, baffle mounting	1W56920FE7
Dial scale	54-5104
Screw, scale mounting (2)	
Knob (2)	54-4718-3
Backplate, bracket, and pulley assembly	76-6317
Fastener, pilot lamp shield mounting (2)	W2235-1FA9
Pointer	56-5630-33
Spring, pointer drive	56-3167
Pulley and shaft assembly	76-3671-8
Socket assembly, pilot lamp	27-6233-18
PARTS COMMON TO ALL MODELS	
Bushing, pulley and shaft	27-9437
Clamp, electrolytic mounting	56-1466
Drive cord, 25 foot spool	45-8750*
Fastener, hairpin, pulley and shaft	57-1468FA3
Screw and washer combination, set mounting (3)	1W37654FA3
Socket, loctal (2)	27-6269
Socket, miniature	27-6265
Socket, octal (2)	27-6174
Spring, gang drive	56-2617

CORRECTIONS TO PARTS LIST

Description	Service Part No.
Screw, scale mounting (2)	1W14504FA3

PRODUCTION CHANGES ALL MODELS

Code 121, Run 2

To improve sensitivity, resistor R4, grid return, was changed from 1 megohm to 2.2 megohms.

Code 121, Run 3

A wiring point change was made, to facilitate production.

Code 122, Run 1

The 35Z5GT tube was replaced by a 35Y4, with the necessary wiring changes.

MODEL 51-532

Code 123, Run 1

Changes were made in drive-shaft length and speaker bracket assembly.