

## Philco Radio & Television Corp.

**Model:** 51-532

**Chassis:**

**Year:** Pre 1951

**Power:**

**Circuit:**

**IF:**

**Tubes:**

**Bands:**

### Resources

[Riders Volume 21 - PHILCO 21-44](#)

[Riders Volume 21 - PHILCO 21-45](#)

[Riders Volume 21 - PHILCO 21-46](#)

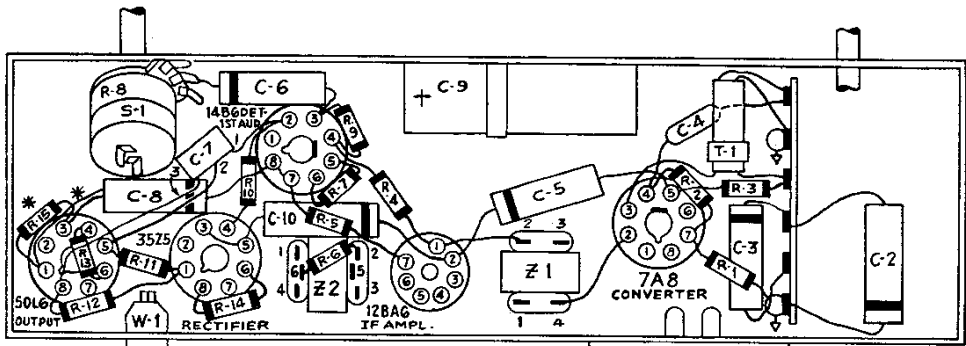
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MODELS 51-530, 51-530-I,  
51-532, 51-532-E, 51-532-I,  
51-534, 51-534-I

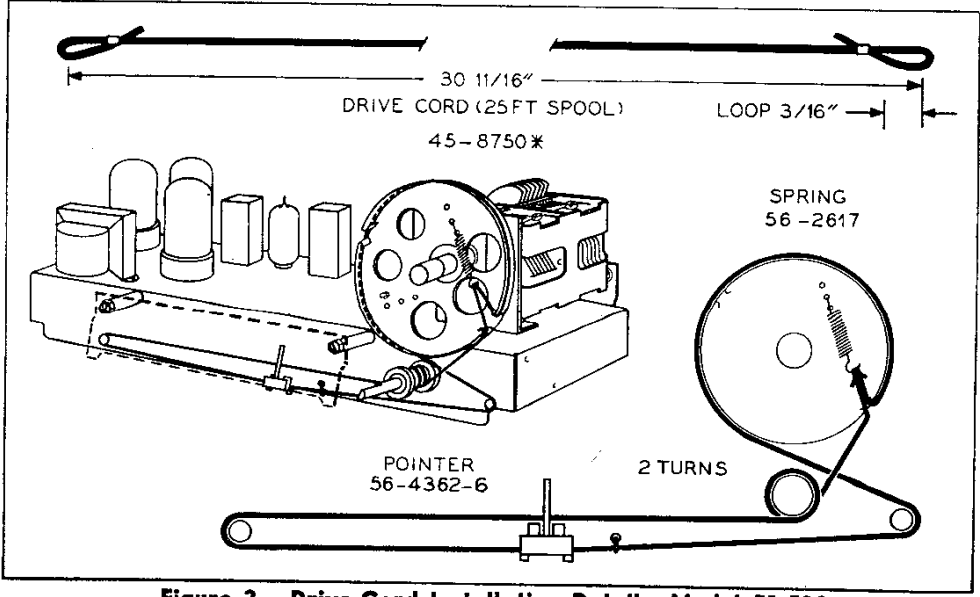
**SPECIFICATIONS**

<b>CABINET</b>			<b>CIRCUIT</b> .....	5-tube superheterodyne
Model 51-530 .....	molded plastic, mottled mahog- any		<b>FREQUENCY RANGE</b> .....	540—1630 kc.
Model 51-530-I .....	molded plastic, ivory		<b>AUDIO OUTPUT</b> .....	1.2 watts
Model 51-532 .....	molded plastic, mottled mahog- any		<b>OPERATING VOLTAGE</b> .....	105—125 volts, a.c. or d.c.
Model 51-532-E .....	molded plastic, ebony		<b>POWER CONSUMPTION</b> .....	30 watts
Model 51-532-I .....	molded plastic, ivory		<b>AERIAL</b> .....	high impedance loop; connector for external aerial
Model 51-534 .....	molded plastic, mottled mahog- any		<b>INTERMEDIATE FREQUENCY</b> .....	455 kc.
Model 51-534-I .....	molded plastic, ivory		<b>PHILCO TUBES</b> .....	7A8, 12BA6, 14B6, 50L6GT, 35Z5GT



\* THIS PART AND WIRING CHANGE REFER TO MODEL 51-530 ONLY.

**Figure 1. Symbolized Chassis, Showing Parts Placement**



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

MODELS 51-530, 51-530-I,  
51-532, 51-532-E, 51-532-I,  
51-534, 51-534-I

### 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."

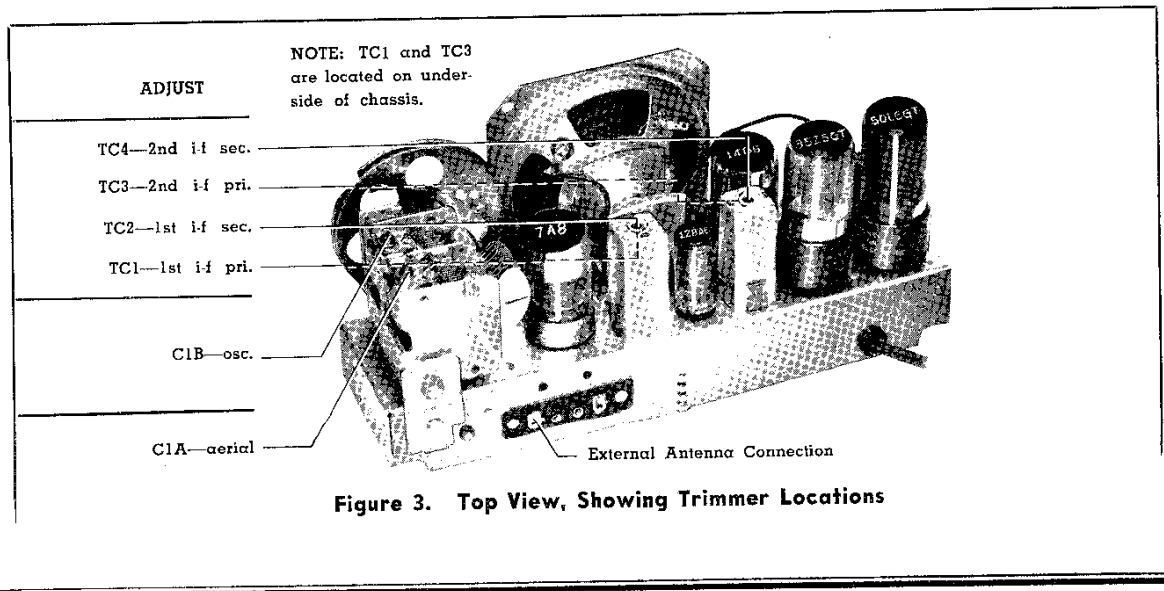
**OUTPUT METER:** Connect across voice-coil terminals.

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

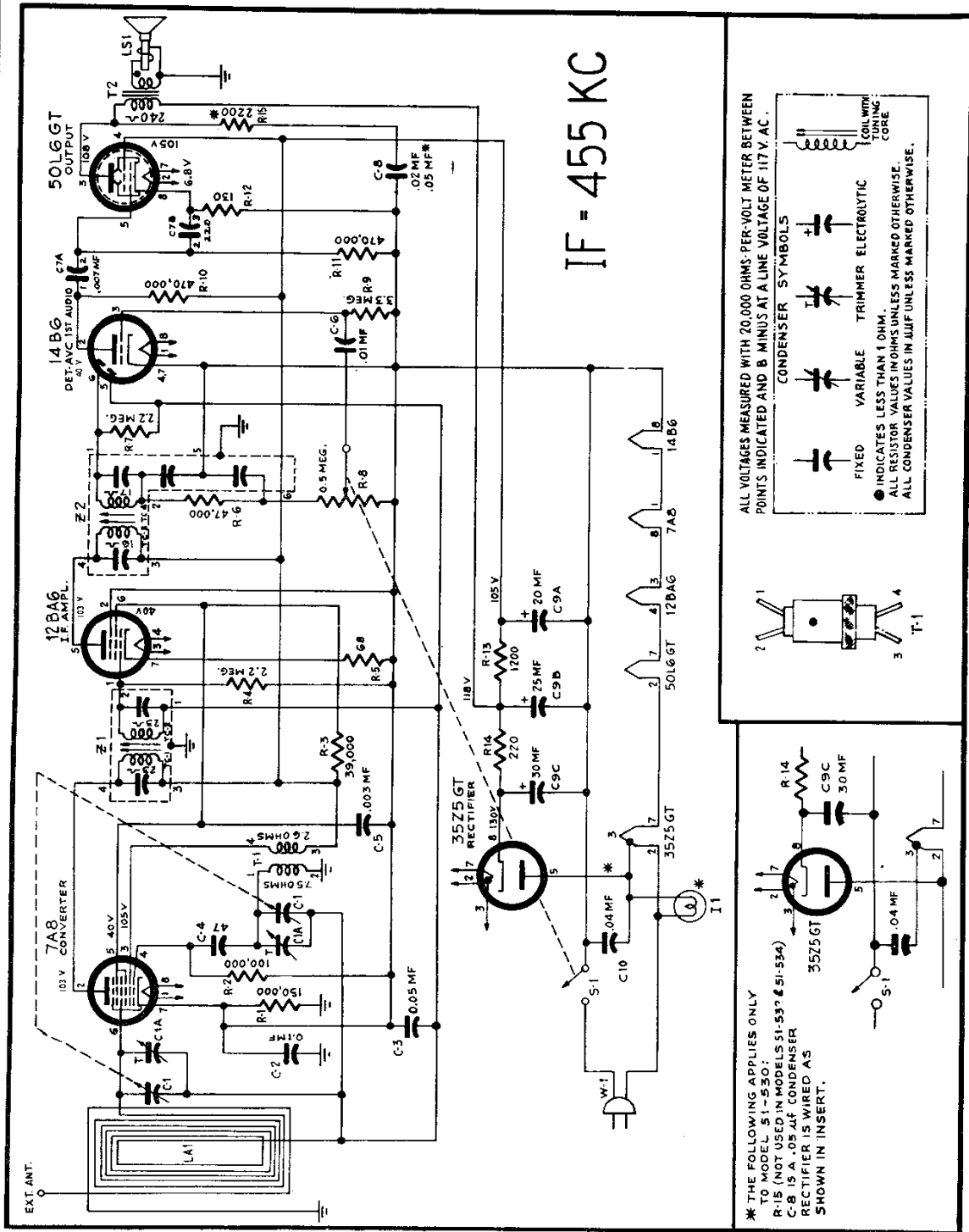
**OUTPUT LEVEL:** During alignment, attenuate signal-generator output to maintain output-meter indication below 1.25 volts.

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Ground lead to B—; output lead through .1- $\mu$ f. 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.



MODELS 51-530,  
51-532, 51-534

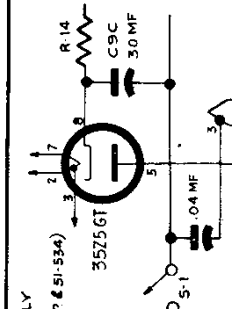
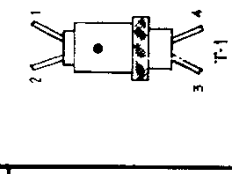


ALL VOLTAGES MEASURED WITH 20,000 OHMS-PER-VOLT METER BETWEEN POINTS INDICATED AND B MINUS AT A LINE VOLTAGE OF 117 V. AC.

**CONDENSER SYMBOLS**

- ⊕ ⊖ FIXED
- ⊕ ⊖ VARIABLE
- ⊕ ⊖ TRIMMER
- ⊕ ⊖ ELECTROLYTIC

● INDICATES LESS THAN 1 OHM.  
ALL RESISTOR VALUES IN OHMS UNLESS MARKED OTHERWISE.  
ALL CONDENSER VALUES IN μUF UNLESS MARKED OTHERWISE.



\* 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.

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

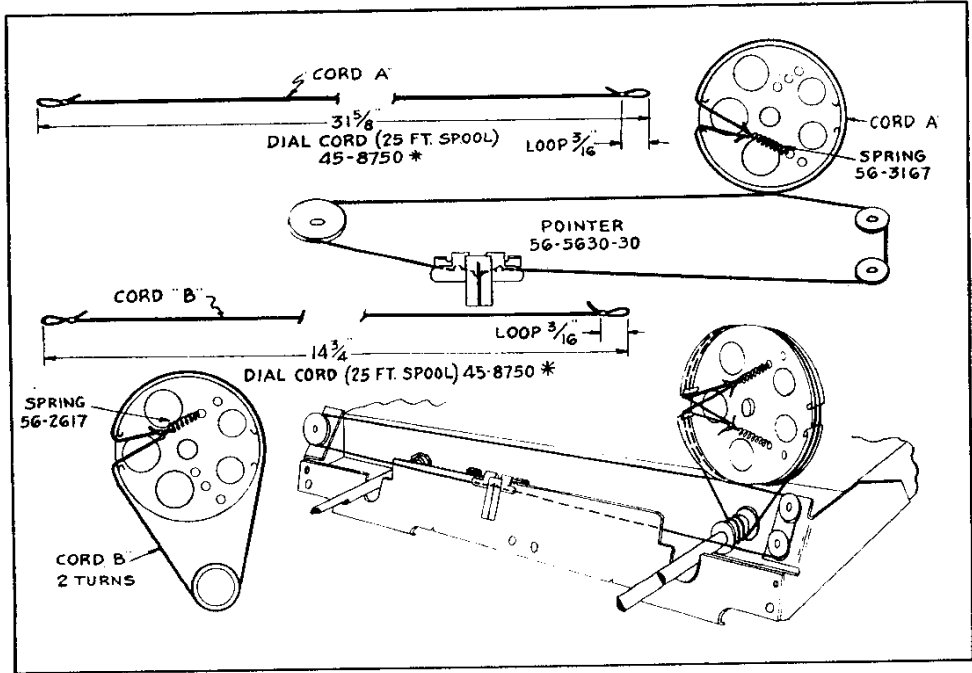


Figure 5. Drive-Cord Installation Details, Model 51-532

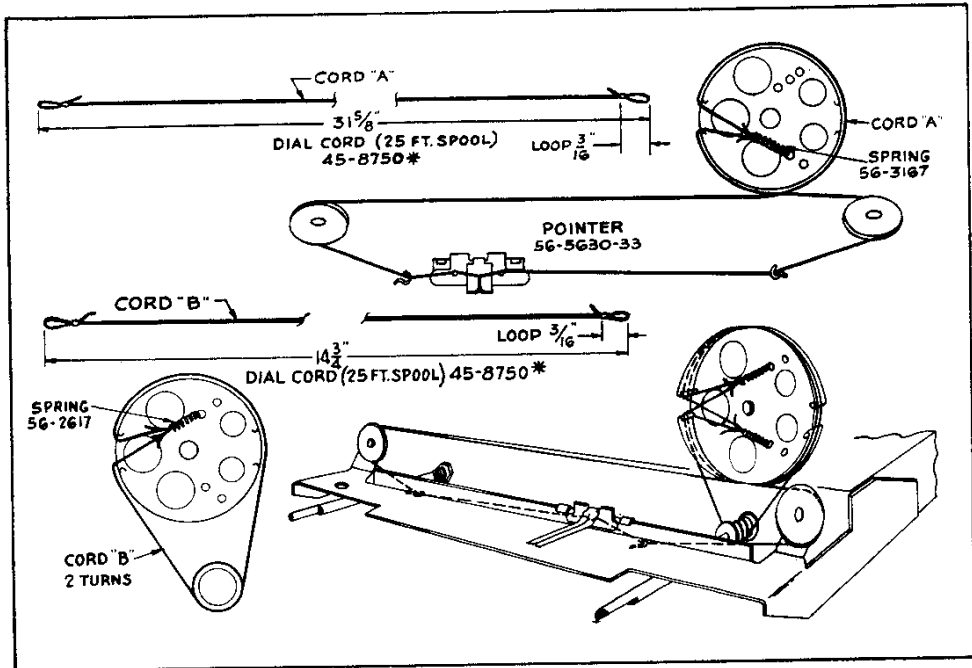


Figure 6. Drive-Cord Installation Details, Model 51-534

MODELS 51-530, 51-530-I,  
51-532, 51-532-E, 51-532-I,  
51-534, 51-534-I

## 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.	MISCELLANEOUS	
			Description	Service Part No.
C1	Condenser, tuning gang		MODEL 51-530	
	Model 51-530	31-2751-6	Cabinet, mottled mahogany	10750
	Models 51-532 and 51-534	31-2751	Cabinet, ivory	10750-1
C2	Condenser, i-f by-pass, .1 $\mu$ f.	61-0113*	Back	54-7777
C3	Condenser, a-v-c by-pass, .05 $\mu$ f.	61-0122*	Fastener, back mounting (4)	W2235-2FA9
C4	Condenser, d-c blocking, 47 $\mu$ f.	60-00475417*	Knob (2)	54-4527-11
C5	Condenser, screen by-pass, .003 $\mu$ f.	61-0109*	Dial backplate assembly	76-4658
C6	Condenser, d-c blocking, .01 $\mu$ f.	61-0120*	Pointer	56-4362-6
C7	Condenser, dual ceramic	30-1239-4	Pulley and shaft assembly	76-3671-3
C7A	Condenser, d-c blocking, .007 $\mu$ f.	Part of C7	MODEL 51-532	
C7B	Condenser, grid by-pass, 220 $\mu$ f.	Part of C7	Cabinet, mahogany	10769-3
C8	Condenser, tone compensation,		Dial scale	54-5069-1
	Model 51-530, .05 $\mu$ f.	61-0122*	Knob (2)	54-4718-2
	Models 51-532 and 51-534, .02 $\mu$ f.	61-0108*	Cabinet, ebony	10769-4
C9	Condenser, electrolytic, 3-section	30-2573	Dial scale	54-5069-2
C9A	Condenser, filter, 20 $\mu$ f., 150v	Part of C9	Knob (2)	54-4718-2
C9B	Condenser, filter, 25 $\mu$ f., 150v	Part of C9	Cabinet, ivory	10769-5
C9C	Condenser, filter, 30 $\mu$ f., 150v	Part of C9	Dial scale	54-5069-3
C10	Condenser, line by-pass, .04 $\mu$ f.	45-3500-2*	Knob (2)	54-4718-22
I1	Pilot lamp—Models 51-532 and 51-534 only	34-2068	Back	54-7911
LA1	Loop antenna		Fastener, back mounting (4)	W2235FA9
	Model 51-530	32-4052-33	Baffle, speaker	54-7761
	Model 51-532	32-4052-38	Backplate, bracket and pulley assembly	76-6235
	Model 51-534	32-4052-51	Fastener, pilot lamp shield mounting (2)	W2235-1FA9
LS1	Speaker, 4" p.m.		Grille, plastic	54-4728-2
	Models 51-530 and 51-532	36-1627-5	Speed clip, grille mounting (4)	1W56920FE7
	Model 51-534	36-1625-3	Pointer	56-5630-30
R1	Resistor, leakage, 150,000 ohms	66-4158340*	Spring, pointer drive	56-3167
R2	Resistor, grid return, 100,000 ohms	66-4108340*	Pulley and shaft assembly	76-3671-2
R3	Resistor, screen dropping, 39,000 ohms	66-3398340*	Scale strap, dial mounting	
R4	Resistor, grid return, 2.2 megohms	66-5228340*	LH	56-7373
R5	Resistor, cathode bias, 68 ohms	66-0688340*	RH	56-7373-1
R6	Resistor, i-f filter, 47,000 ohms	66-3478340*	Socket assembly, pilot lamp	27-6233-18
R7	Resistor, diode load, 2.2 megohms	66-5228340*	MODEL 51-534	
R8	Volume control, 500,000 ohms		Cabinet, mahogany	10836
	Model 51-530	33-5538-7	Cabinet, ivory	10836-1
	Model 51-532	33-5566-4	Back	54-8249
	Model 51-534	33-5566-30	Fastener, back mounting (4)	W2235FA9
R9	Resistor, grid return, 3.3 megohms	66-5338340*	Clips, baffle mounting	1W56920FE7
R10	Resistor, plate load, 470,000 ohms	66-4478340*	Dial scale	54-5104
R11	Resistor, grid return, 470,000 ohms	66-4478340*	Screw, scale mounting (2)	1W14504FA1
R12	Resistor, cathode bias, 130 ohms	66-1128340*	Knob (2)	54-4718-3
R13	Resistor, filter, 1200 ohms	66-2128340*	Backplate, bracket, and pulley assembly	76-6317
R14	Resistor, filter, 220 ohms, 1 watt	66-1224340*	Fastener, pilot lamp shield mounting (2)	W2235-1FA9
S1	Switch, off-on	Part of R8	Pointer	56-5630-33
T1	Transformer, oscillator	32-4263	Spring, pointer drive	56-3167
T2	Transformer, output	32-8384	Pulley and shaft assembly	76-3671-8
W1	Line cord	L-2183*	Socket assembly, pilot lamp	27-6233-18
Z1	Transformer, 1st i-f	32-4160-6A	PARTS COMMON TO ALL MODELS	
Z2	Transformer, 2nd i-f	32-4240-2A	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, octal (2)	27-6269
			Socket, miniature	27-6265
			Socket, octal (2)	27-6174
			Spring, gang drive	56-2617