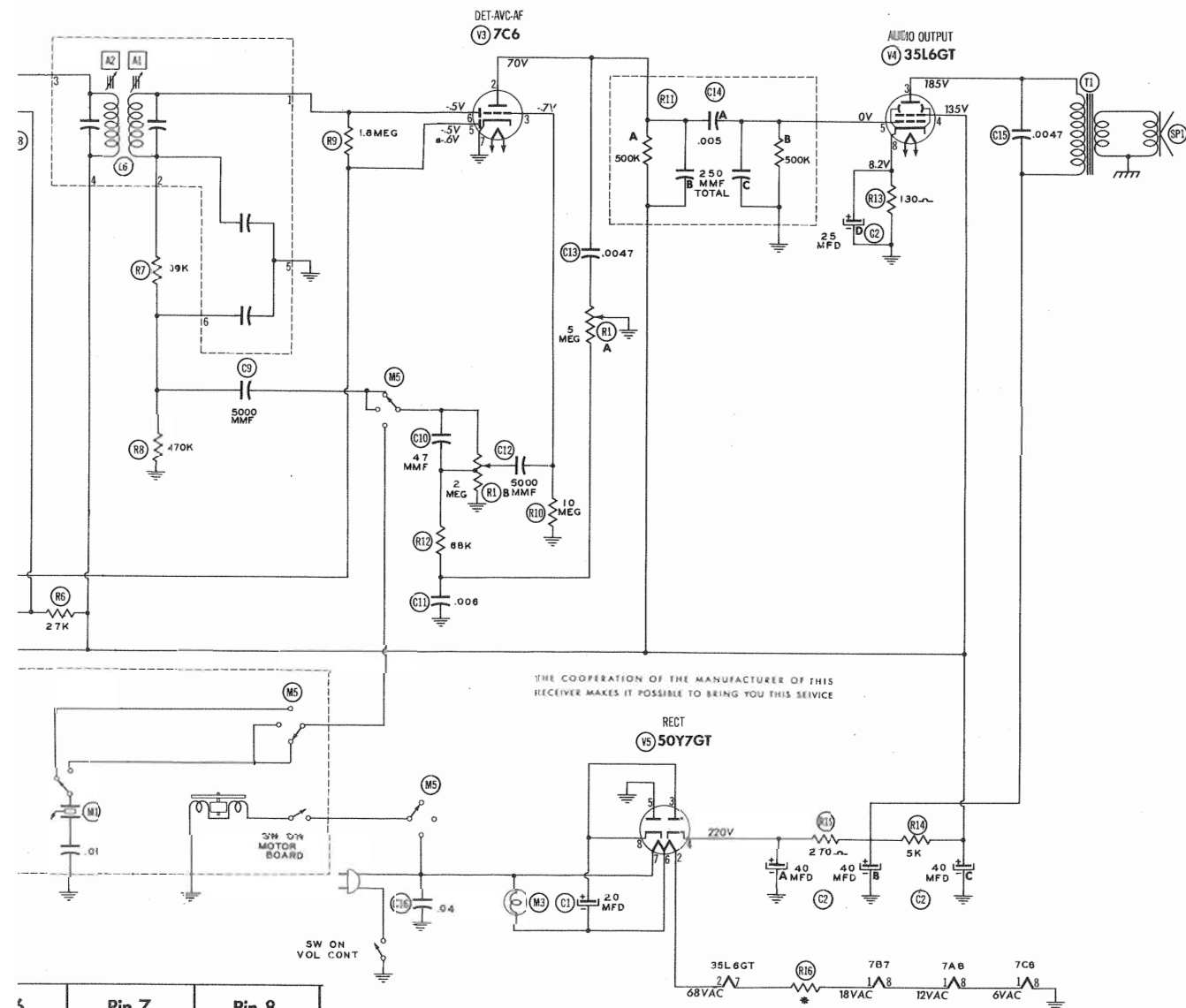


PHILCO
MODELS 53-1350, 53-1750

PHILCO
MODELS 53-1350, 53-1750



THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

	Pin 7	Pin 8
5 Meg	0Ω	7Ω
2	180Ω	14Ω
Ω	0Ω	0Ω
Ω	740Ω	180Ω
	815Ω	700KΩ

- DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of + 10% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

203-7

PHILCO MODEL 53-1750

TRADE NAME Philco Models 53-1350, 53-1750
 MANUFACTURER Philco Corp., Tioga & "C" Sts., Philadelphia, Pa.
 TYPE SET AC Operated Radio-Phono Combination 2 Band Superheterodyne Receiver
 TUBES (Five) Types 7A8 Conv., 7B7 IF Amp., 7C6 Det.-AVC-AF Amp., 35L6GT Audio Output, 50Y7GT Rectifier

POWER SUPPLY 105-120 Volts AC-60 Cycles RATING .32 Amp. @ 117 Volts AC
 TUNING RANGE-BROADCAST C 540-1620 KC SPECIAL SERVICES 1700-3400KC

ALIGNMENT INSTRUCTIONS-READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set pointer, turn tuning capacitor fully closed and set pointer parallel with base of dial. Loop should be maintained in same relative position to chassis as when receiver is in cabinet. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting. Use isolation transformer, if available. If not, connect a .1MF capacitor in series with low side of signal generator and B-. Set tone control fully counter clockwise (treble position).

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .01MF	High side to pin 6 (grid) of 7A8 (V1). Low side to B-.	455KC (400% Mod)	BC	Tuning gang fully open	Across Voice coil	A1, A2, A3, A4	Adjust for maximum output.
2.	Loop	1620KC	"	1620KC	"	A5	Place a .006 inch non-metallic shim between heel of rotor and the top of stator plates. Close rotor just enough to clamp shim loosely. Then remove shim without disturbing gang setting. Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1500KC	"	Tune to 1500KC signal	"	A6	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
4.	"	3200KC	Special Services	Tune to 3200KC signal	"	A7	"

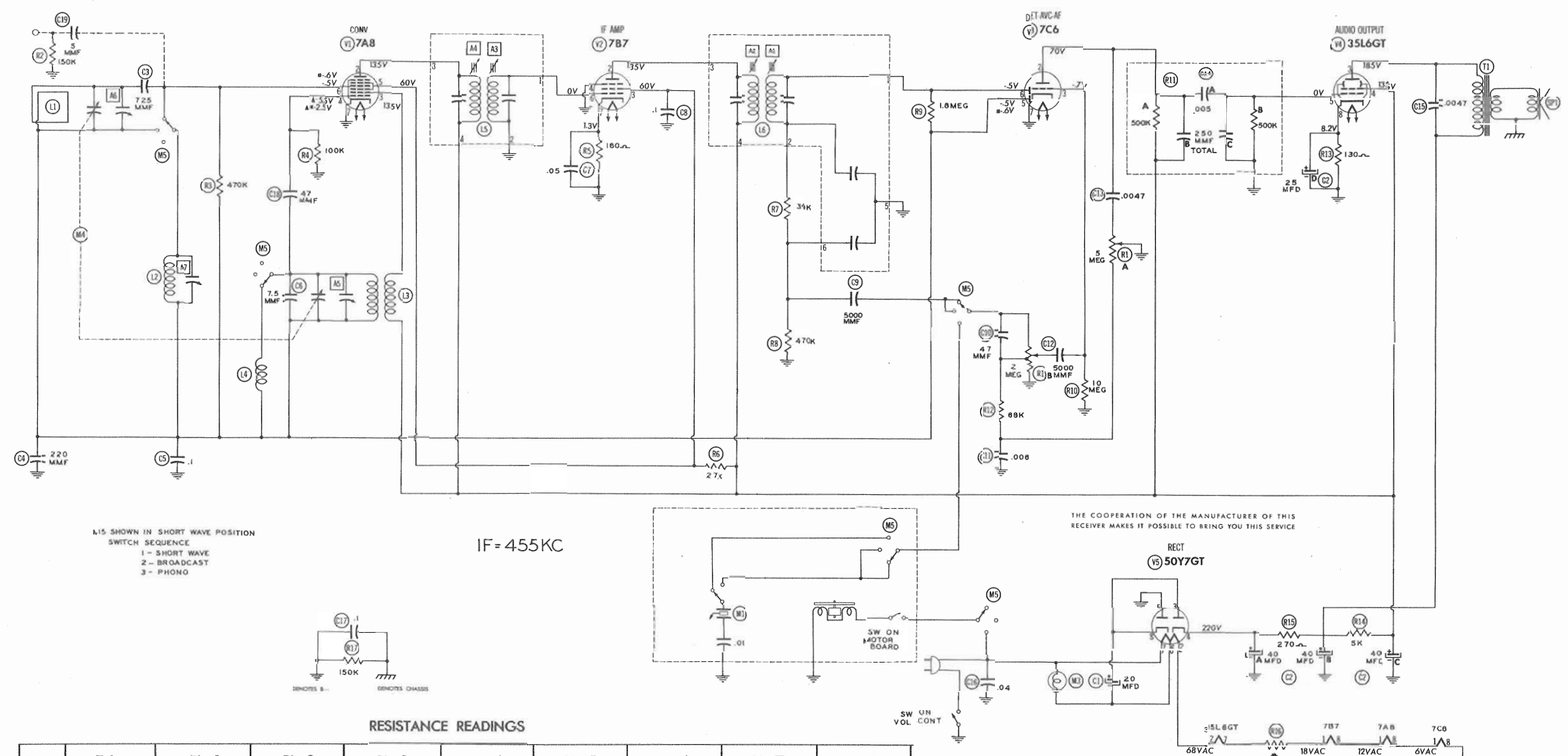
RECORD CHANGER UNIT- PHILCO MODEL M-24

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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PHILCO
MODELS 53-1350, 53-1750



L15 SHOWN IN SHORT WAVE POSITION
SWITCH SEQUENCE
1 - SHORT WAVE
2 - BROADCAST
3 - PHONO

IF = 455KC

THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	7A8	14Ω	†5.3KΩ	†5.3KΩ	100KΩ	†32KΩ	2.3Meg ■1.8Meg	0Ω	7Ω
V 2	7B7	21Ω	†5.3KΩ	†32KΩ	0Ω	0Ω	11.5Ω	180Ω	14Ω
V 3	7C6	7Ω	†500KΩ	10Meg	0Ω	2.2Meg	500KΩ	0Ω	0Ω
V 4	35L6GT	0Ω	770Ω	†700Ω	†5.3KΩ	500KΩ	†270Ω	740Ω	180Ω
V 5	50Y7GT	INF	770Ω	700KΩ	500KΩ	0Ω	81Ω	815Ω	700KΩ

ALL MEASUREMENTS TAKEN IN "BROADCAST" POSITION UNLESS OTHERWISE SPECIFIED
 † MEASURED FROM PIN 4 OF V5
 ■ MEASURED IN "SPECIAL SERVICES" POSITION
 ▲ MEASURED WITH VACUUM TUBE VOLTMETER

1. DC Voltage measurements are at 20,000 ohms per volt; A/C Voltages measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ± 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

203-7

A PHOTOFAC STANDARD NOTATION SCHEMATIC

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TRADE NAME
MANUFACTURER
TYPE SET
TUBES (Five)

POWER SUPPLY
TUNING RANGE-

To set pointer, Loop should be Volume control output reading. Use isolation tr. Set tone control

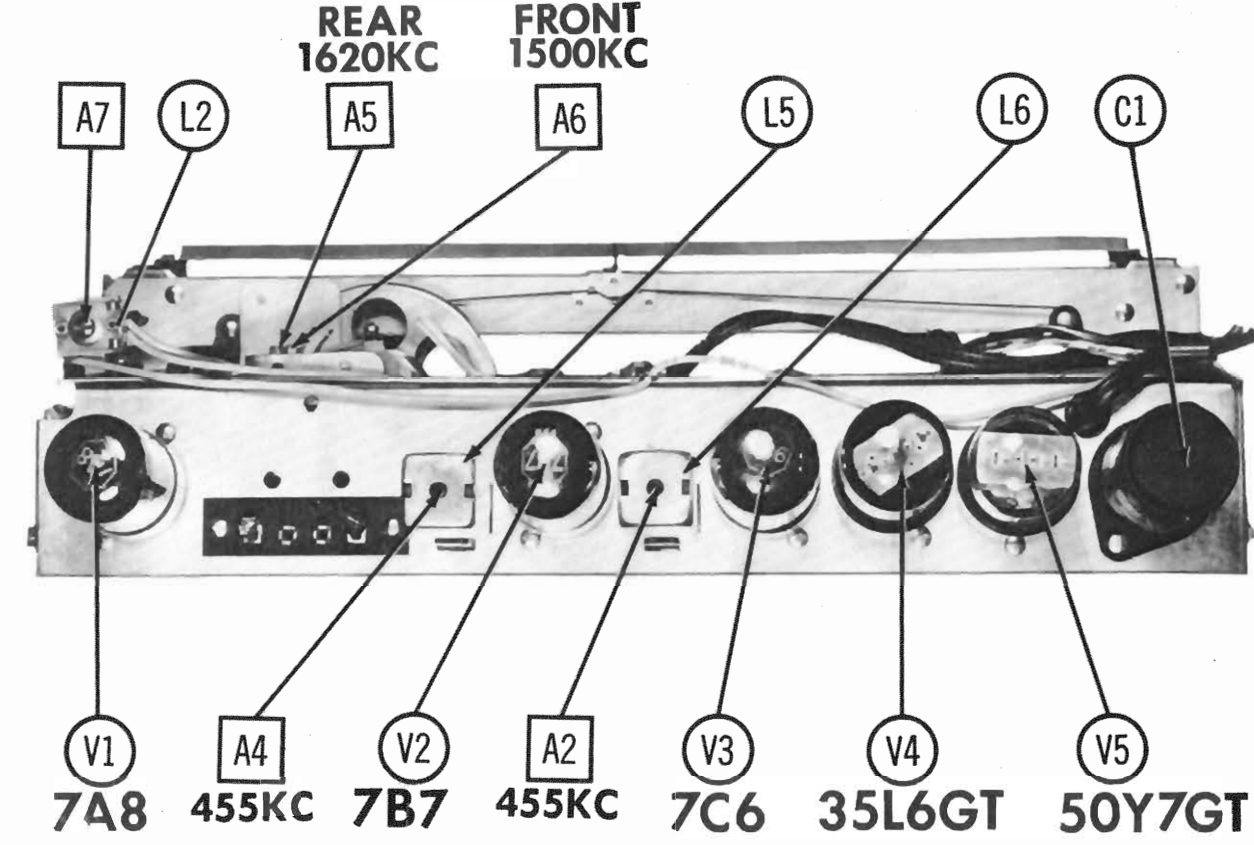
DUMMY ANTENNA	GROUND
1. .01MFD	High si (grid) (Low si)
2.	Loop
3.	"
4.	"

RECORD CHANGE

"The listing of any avail case a recommendation, as to the quality and suit parts have been compile Inc., by the manufacture "Reproduction or use, v

PARTS LIST AND DESCRIPTIONS

CHASSIS—TOP VIEW



ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	INSTALLATION NOTES
		PHILCO PART No.	STANDARD REPLACEMENT		
V1	Converter	7A8	7A8	8U	
V2	IF Amplifier	7B7	7B7	8V	
V3	Dc-AVC-AF Amp.	7C6	7C6	8W	
V4	Audiot Output	35L6GT	35L6GT	7S	
V5	Rectifier	50Y7GT	50Y7GT	8AN	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	VOLT	REPLACEMENT DATA			NOTES
			PHILCO PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	
C1	20	150	E3A38	E3A38	A046	Orange
C2	40	250	E58C36	E58C36	EDL4425C	Red
C3	40	150			BR405A	Blue
C4	25	25				Yellow
C5	725	500	30-1220-69	1468-30025	D6-221	
C6	220	500	62-122001001		DF-104	
C7	7.5	400	30-1224-65	P488-1	PT54P1	
C8	1.1	400	30-4650-45	P468-05	PT54S5	
C9	5000	200	30-4650-47	P288-1	PT2P1	
C10	47	5000	60-00479420	BPD-005	PT6S5	
C11	.006	400	30-4650-57	BPD-006	PT6S6	
C12	5000	400	30-1238-1	BPD-005	PT6S5	
C13	.0047	400	30-4650-56	P688-0047	PT6S47	
C14	.005	400	*30-0901		PT6S47	
C15	.0047	400	30-4650-56	P688-0047	PT6S47	
C16	.04	400	30-1226-17	P488-1	PT54P1	
C17	.1	400	30-4650-47	S147	TM9Q5	
C18	.47	400	60-00479420	S147	TM9Q5	
C19	5	400	30-1221-5	S15	TCZ-4.7	

Note 1. Model 53-1350 uses .0047MFD in this application (Part #30-4650-56).

Note 2. Used in Model 53-1350 only.

* Items C14A, C14B, C14C, R11A, R11B are combined in one unit.

** When replacing items separately C14B and C14C should total 250MMF.

CONTROLS

ITEM No.	RATING RESIST. ANCE	WATTS	REPLACEMENT DATA			INSTALLATION NOTES
			PHILCO PART No.	IRC PART No.	CENTRALAB PART No.	
R1A	5 Meg	1/2	33-5563-60	Q1-43R*		
R1B	2 Meg	1/2				Tone-Panel Note Volume & Synth Tap Ⓞ 700KΩ-rear

Note . Model No. 53-1350 uses alternate control part No. 33-5563-55.

* CONCENTRIK EQUIVALENT - KIT K-2, BASE ELEMENTS & SHAFTS B12-141 & P1-308 (Panel)

B18-193X & R1-323 (Rear) & SWITCH 76-1

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA			NOTES
			PHILCO PART No.	IRC PART No.	PHILCO PART No.	
R2	150KΩ		66-4158340	BTS-160X		
R3	470KΩ		66-4478340	BTS-470K	Note 1	
R4	100KΩ		66-4108340	BTS-100K		
R5	180Ω		66-1180340	BTS-180		
R6	27KΩ		66-3276340	BTS-27K	Note 2	
R7	39KΩ		66-3939340	BTS-39K	Note 3	
R8	470KΩ		66-4478340	BTS-470K		
R9	2.5Meg		BTS-1.6Meg			
R10	10Meg		66-6108340	BTS-10Meg		

Note 1. Used only in model No. 53-1350.

Note 2. Some models use a 47KΩ resistor in this application.

Note 3. Some models use a 2.2Meg resistor in this application.

* Items R11A, R11B, C14A, C14B, C14C are combined in one unit.

** Special resistor -8800 Cold, 1000 Hot.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING IMPEDANCE	DC RES.	REPLACEMENT DATA			NOTES
			PHILCO PART No.	STANCOR PART No.	MERIT PART No.	
T1	4.1KΩ	3.14Ω	455Ω	32-8242-9	A-3823	RO-9 Ⓞ S-4X Ⓞ Ⓞ Drill one new mounting hole .

SPEAKER

ITEM No.	RATINGS SIZE	FIELD	V. C.	IMP.	REPLACEMENT DATA			NOTES
					PHILCO PART No.	JENSEN PART No.	QUAM PART No.	
SP1	8"	PM	3.14Ω		36-1826-5	ST-806	BA21	Ⓞ 5" PM Speaker used in model 53-1350

COILS (RF-IF)

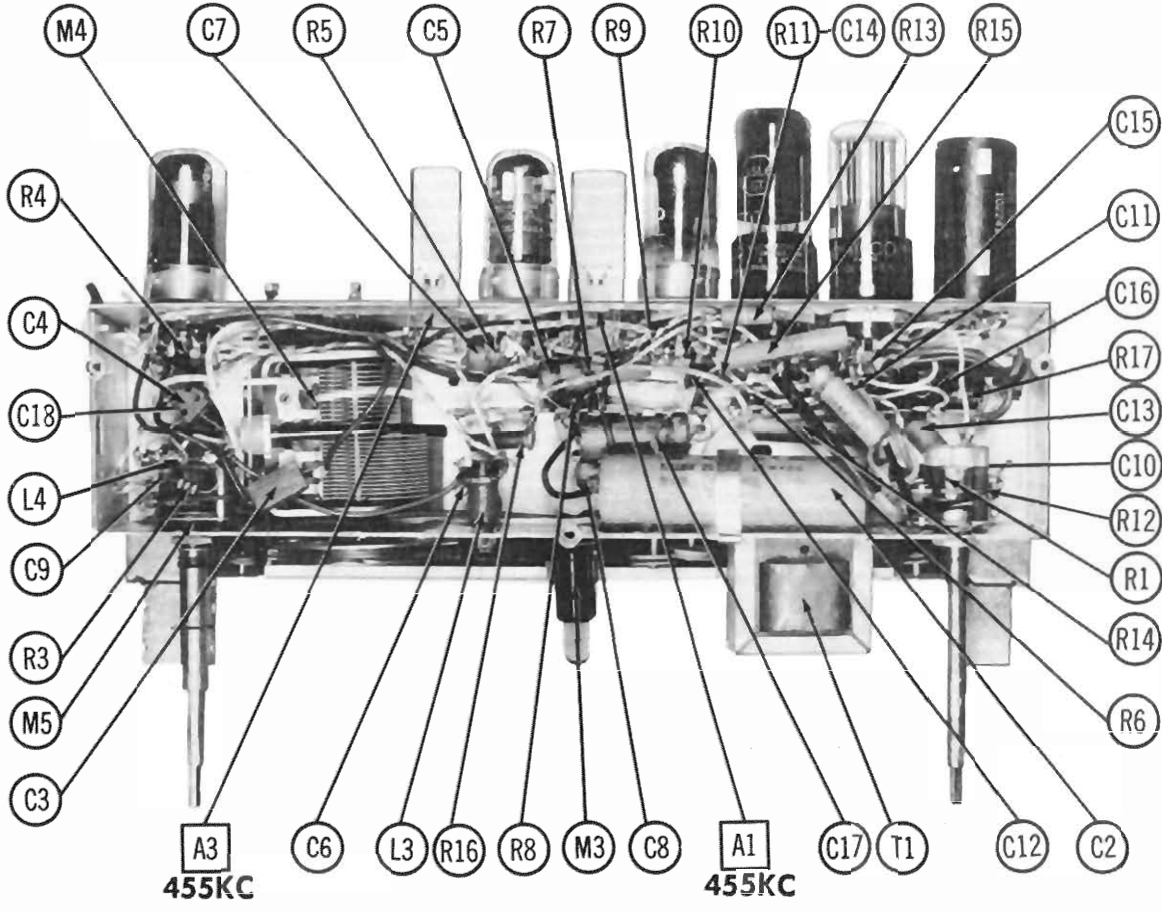
ITEM No.	USE	DC RES.	REPLACEMENT DATA			NOTES
			PHILCO PART No.	MILLER PART No.	MEISSNER PART No.	
L1	Loop A.T.C.		3.4Ω	76-2127-13		
L2	500 Ohm Coil		1.1Ω	30-2161 *		
L3	500 Ohm Coil		6.8Ω	32-4153-2	14-1073	
L4	500 Ohm Coil		3.1Ω	32-4163-1	16-6718	
L5	500 Ohm Coil		11.5Ω	32-4160A	2-C1	
L6	Output IF		14Ω	32-4240A	2-C6	

* Model 53-850 use s part No. 32-4561-5 in this application.

PHONO CARTRIDGE

ITEM No.	PHILCO PART No.	REPLACEMENT DATA		REMARKS
		ASTATIC PART No.	ELECTRO-VOICE PART No.	
MI	45-9612			

CHASSIS—BOTTOM VIEW



ITEM No.	RATING		REPLACEMENT DATA		INSTALLATION NOTES
	RESISTANCE	WATTS	PHILCO PART No.	CLAROSTAT PART No.	
RIA	5 Meg	2	33-5593-80	Q1-430R*	Tone-Panel-Note Volume & Switch Tap ① 700KΩ-Rear
B	2 Meg	2			

Note 2. Model No. 53-1350 uses alternate control part No. 33-5593-55.
 * CONCENTRIK EQUIVALENT - KIT K-2, BASE ELEMENTS & SHAFTS B12-141 & P1-308 (Panel)
 B18-139X & R1-323 (Rear) & SWITCH 76-1

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA		NOTES
		PHILCO PART No.	IRC PART No.			PHILCO PART No.	IRC PART No.	
R2	150KΩ	66-41583-40	BTS-150K	R11A	500KΩ	30-6001	BTS-68K	
R3	470KΩ	66-44783-40	BTS-470K	R12	500KΩ	66-36883-40	BTA-180	
R4	100KΩ	66-41083-40	BTS-100K	R13	68KΩ	66-11843-40	1 1/2 AA-5000	
R5	180Ω	66-11883-40	BTS-180	R14	180Ω	33-1335-95	1 1/2 AA-300	
R6	27KΩ	66-32783-40	BTS-27K	R15	500Ω	33-1333-91		
R7	39KΩ	66-32783-40	BTS-39K	R16	270Ω	*		
R8	470KΩ	66-44783-40	BTS-470K	R17	150KΩ	66-41583-40	BTS-150K	
R9	1.8Meg	66-61083-40	BTS-1.8Meg					
R10	10Meg	66-61083-40	BTS-10Meg					

Note 1. Used only in model No. 53-1350.

Note 2. Some models use a 47KΩ resistor in this application.

Note 3. Some models use a 2.2Meg resistor in this application.

* Items R11A, R11B, C14A, C14B, C14C are combined in one unit.

* Spectral resistor -880Ω Cold, 100Ω Hot.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA		NOTES
		PHILCO PART No.	STANCOR PART No.			PHILCO PART No.	CHICAGO PART No.	
T1	4-1KΩ 3.140 4350 .910	32-8242-9	A-3823	A-3019	RO-9	S-4X	① Drill one new mounting hole.	

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA		ITEM No.	RATINGS	REPLACEMENT DATA		NOTES
		PHILCO PART No.	JENSEN PART No.			QUAM PART No.		
SP1	8" 3.140 3.140 4350 .910	36-1628-5	ST-806 Mod. PT-U	8A21	① 5" PM Speaker used in model 53-1350			

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		ITEM No.	REPLACEMENT DATA	NOTES
		PRI.	SEC.	PHILCO PART No.	MILLER PART No.			
L1	Loop A.C. Coil	3.4Ω	76-2127-13	70-2127-13				
L2	SS Ant. Coil	2.1Ω	32-4561-0 *	32-4561-0 *				
L3	BC Osc. Coil	1.7Ω	32-4453-2	70-Osc.	14-1073			
L4	SS Osc. Coil	3.1Ω	32-4562-1	12-C1	16-8758			
L5	Input IF	11.5Ω	32-4160A	12-C6	16-8770			
L6	Output IF	14Ω	32-4240A					

* Model 53-1350 use s part No. 32-4561-5 in this application.

PHONO CARTRIDGE

ITEM No.	PHILCO PART No.	REPLACEMENT DATA		REMARKS
		ASTATIC CARTRIDGE	ELECTRO-VOICE CARTRIDGE	
M1	45-9612	SHURE CARTRIDGE	NEEDLE	

PARTS LIST AND DESCRIPTIONS (Continued)

PHONO NEEDLE

(FOR REPLACEMENT IN ORIGINAL EQUIPMENT CARTRIDGE)

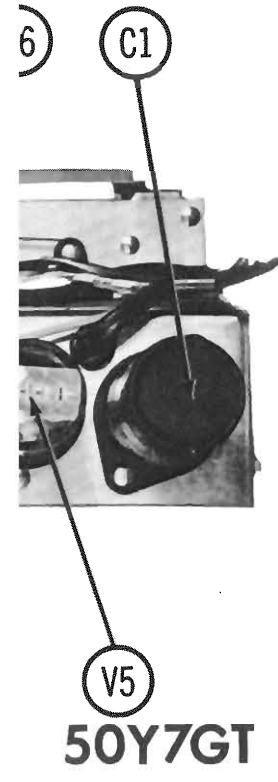
ITEM No.	PHILCO PART No.	REPLACEMENT DATA		REMARKS
		WALCO PART No.	JENSEN PART No.	
M2	45-9588	W-46TPS	PH-12 or PH-13	

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	REPLACEMENT DATA		NOTES
				BEAD COLOR	PHILCO PART No.	
M3	Bayonet	6-8 V.	.250	Blue	34-2064	Type #44

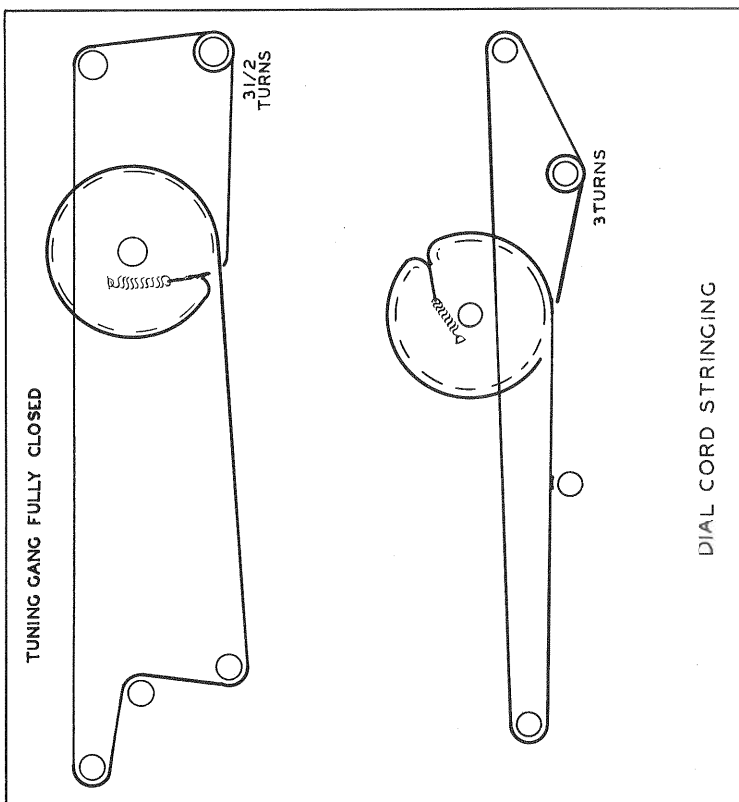
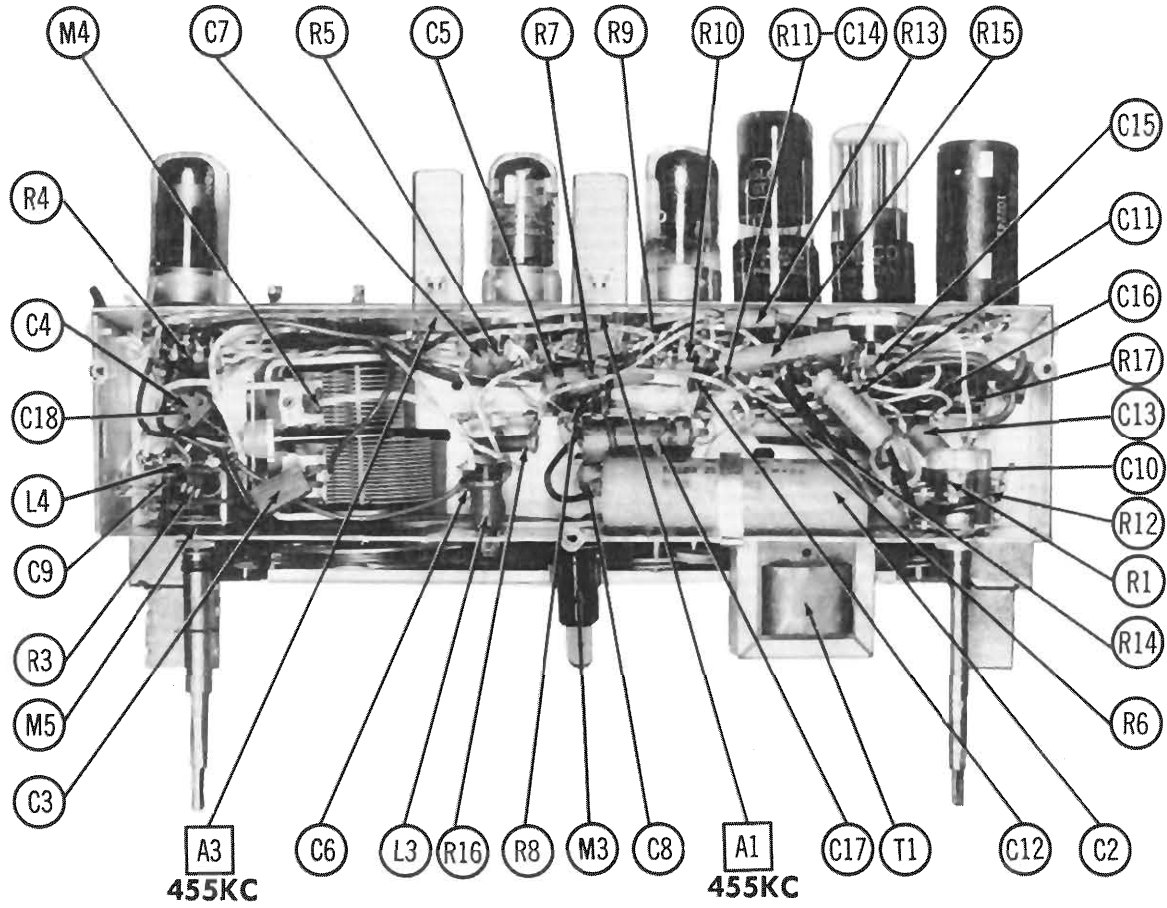
MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M4A	Tuning Capacitor	31-2751-9	19-462MMF, 19-103MMF, Model 53-1350
B	Tuning Capacitor	31-2751-10	19-462MMF, 19-103MMF, Model 53-1750
M5A	Switch	42-1989	Function Selector, Model 53-1350
B	Switch	42-1989-1	Function Selector, Model 53-1750
A7	Trimmer Capacitor	31-6473-31	Antenna (Special Services)
	Cabinet	10949	Model 53-1350
	Cabinet	10962	Model 53-1750 (Mahogany)
	Scale	54-5156	Model 53-1750 (Blond)
	Scale & Bezel Assy.	78-8118	Model 53-1350
	Pointer	56-5630-50	Model 53-1750
	Knob	54-4642-8	Model 53-1350
	Knob	54-4642-11	Model 53-1750
	Knob	54-4642-9	On Volume, Models 53-1350, 53-1750 (Mahogany)
	Knob	54-4642-10	Function Selector, Models 53-1350, 53-1750 (Mahogany)
	Knob	54-4641	Function Selector, Model 53-1750 (Blond)
	Knob	78-6353	Tuning, Model 53-1350
	Knob	78-6353-4	Tuning, Model 53-1750 (Mahogany)
	Knob	54-4641-10	Tuning, Model 53-1350 (Blond)
	Knob	78-6353-1	Tuning, Model 53-1750 (Blond)
	Knob	78-6353-5	Tone, Model 53-1750 (Blond)



50Y7GT

CHASSIS - BOTTOM VIEW



DIAL CORD STRINGING