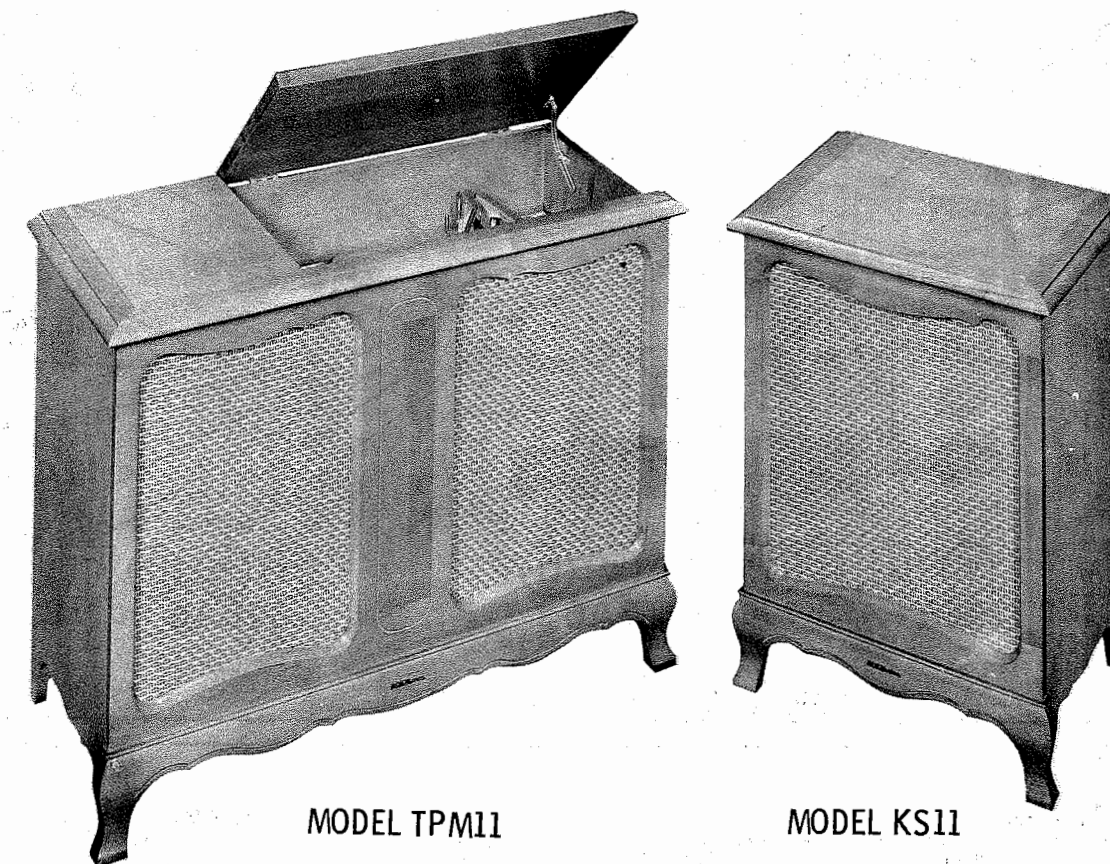


RCA VICTOR MODELS KS11, KS12,
PM17, PM18, TPM11, TPM12
(Ch. RC-1192, RS-177A, RS-179)



RCA VICTOR MODELS KS11, KS12,
PM17, PM18, TPM11, TPM12
(Ch. RC-1192, RS-177A, RS-179)

TRADE NAME	RCA Victor Models PM17, PM18 (Preamp. Ch. RS-179, Amp. Ch. RS-177A) TPM11, TPM12 (Tuner Ch. RC-1192, Preamp. Ch. RS-179, Amp. Ch. RS-177A) KS11, KS12 (External Speaker Units)		
MANUFACTURER	RCA Victor Radio & "Victrola" Div., Radio Corp. of America, Camden 8, N. J.		
TYPE SET	AC Operated 8 Tube FM-AM Tuner, 2 Tube Stereo Preamplifier, 7 Tube Stereo Amplifier and 4 Speed Automatic Record Changer		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	173 Watts, 1.6 Amp. @117 Volts AC (FM-AM)
TUNING RANGES—BROADCAST	535-1620KC	FREQ. MOD.	88-108MC

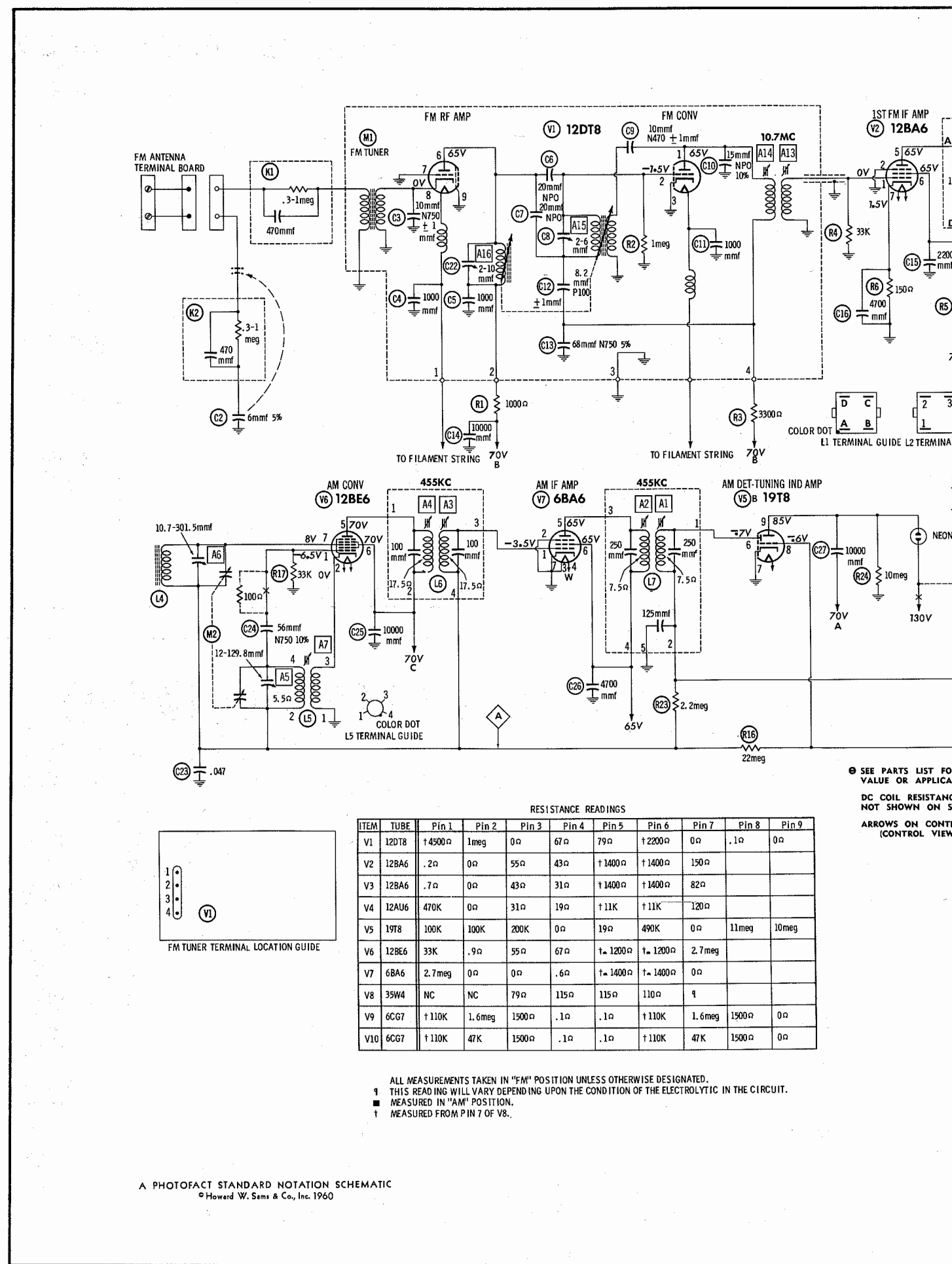
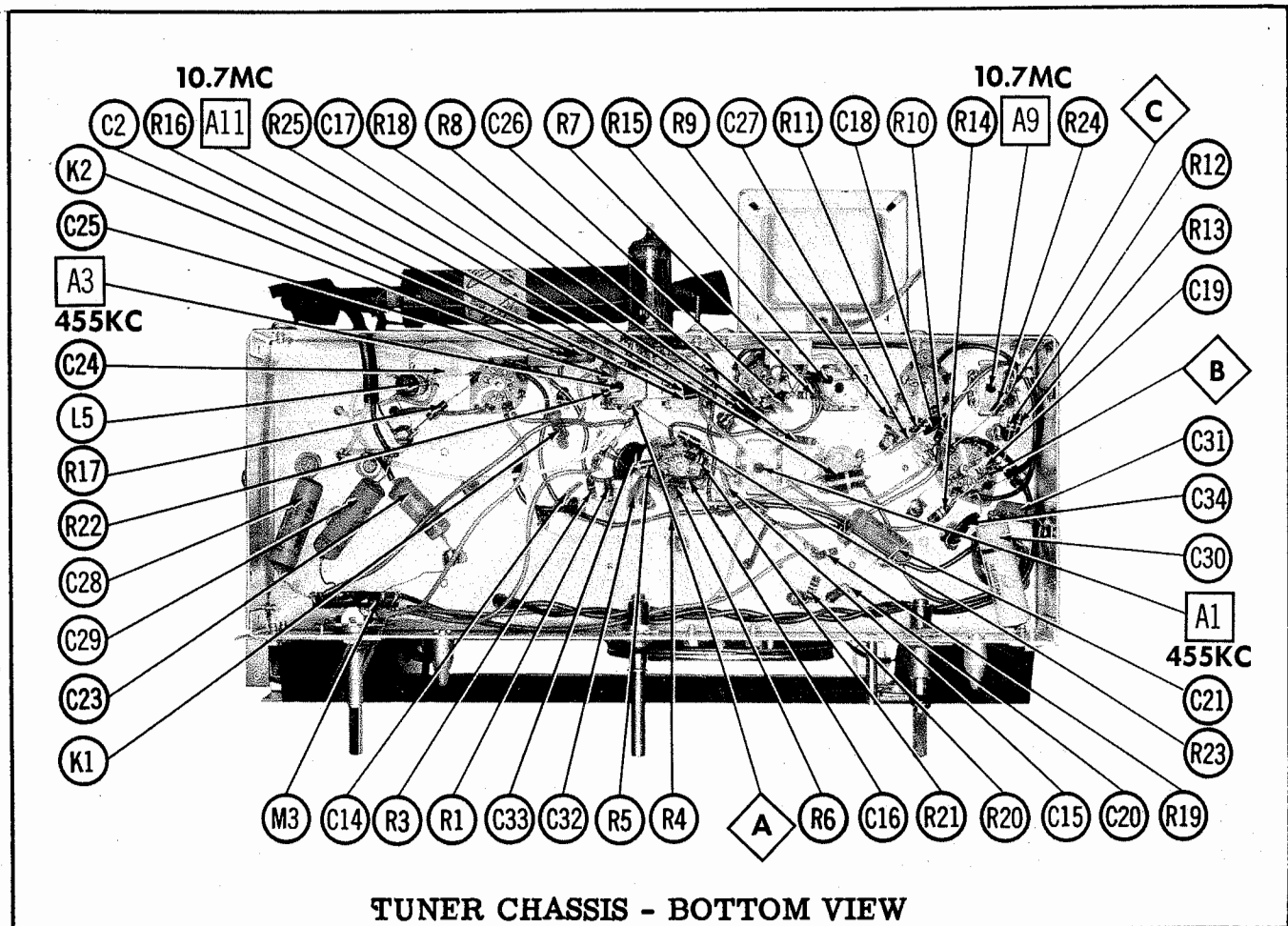
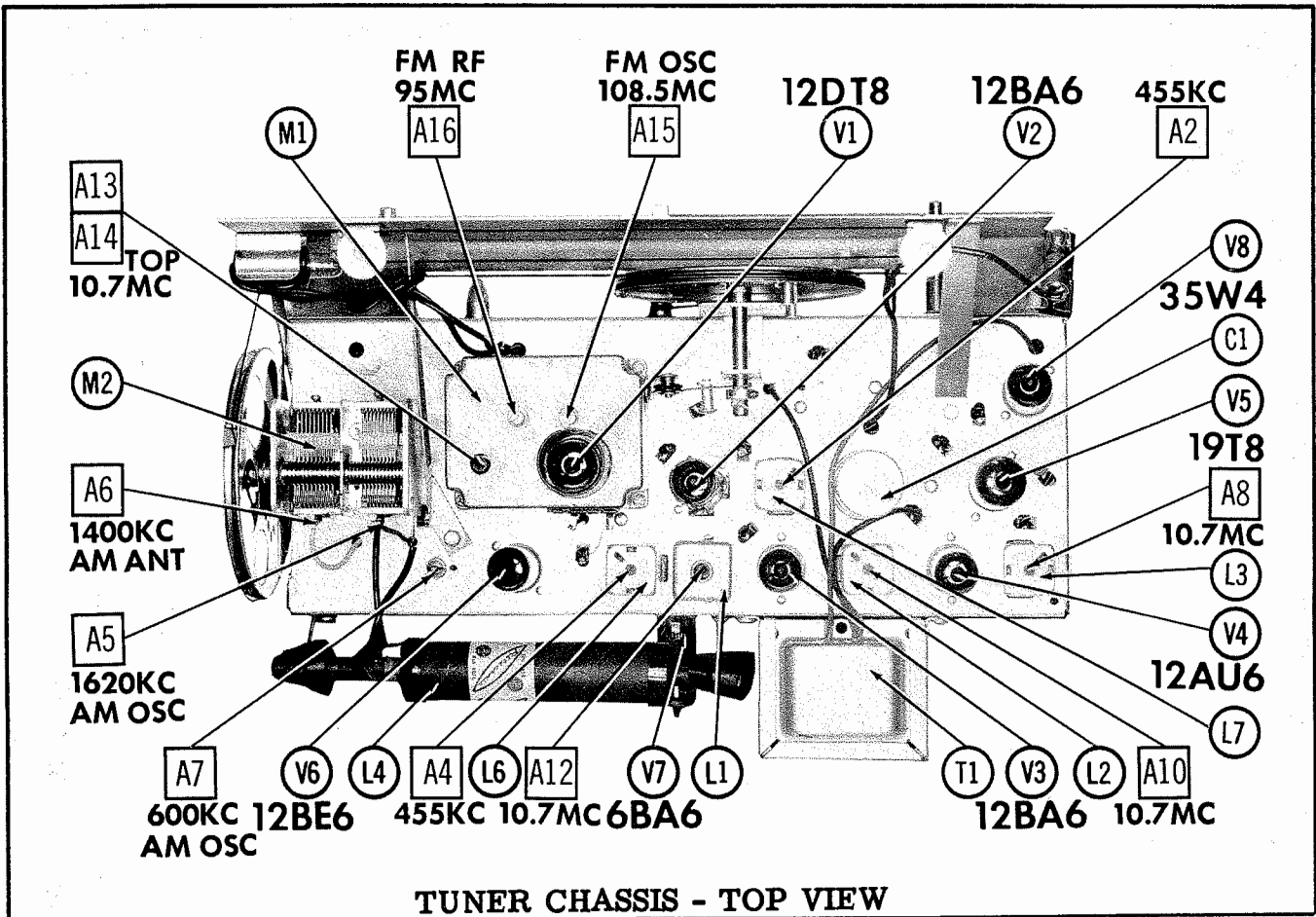
FOR SERVICE INFORMATION ON RECORD CHANGER — SEE RCA RP-211-1 — PHOTOFACT SET 475 FOLDER 7

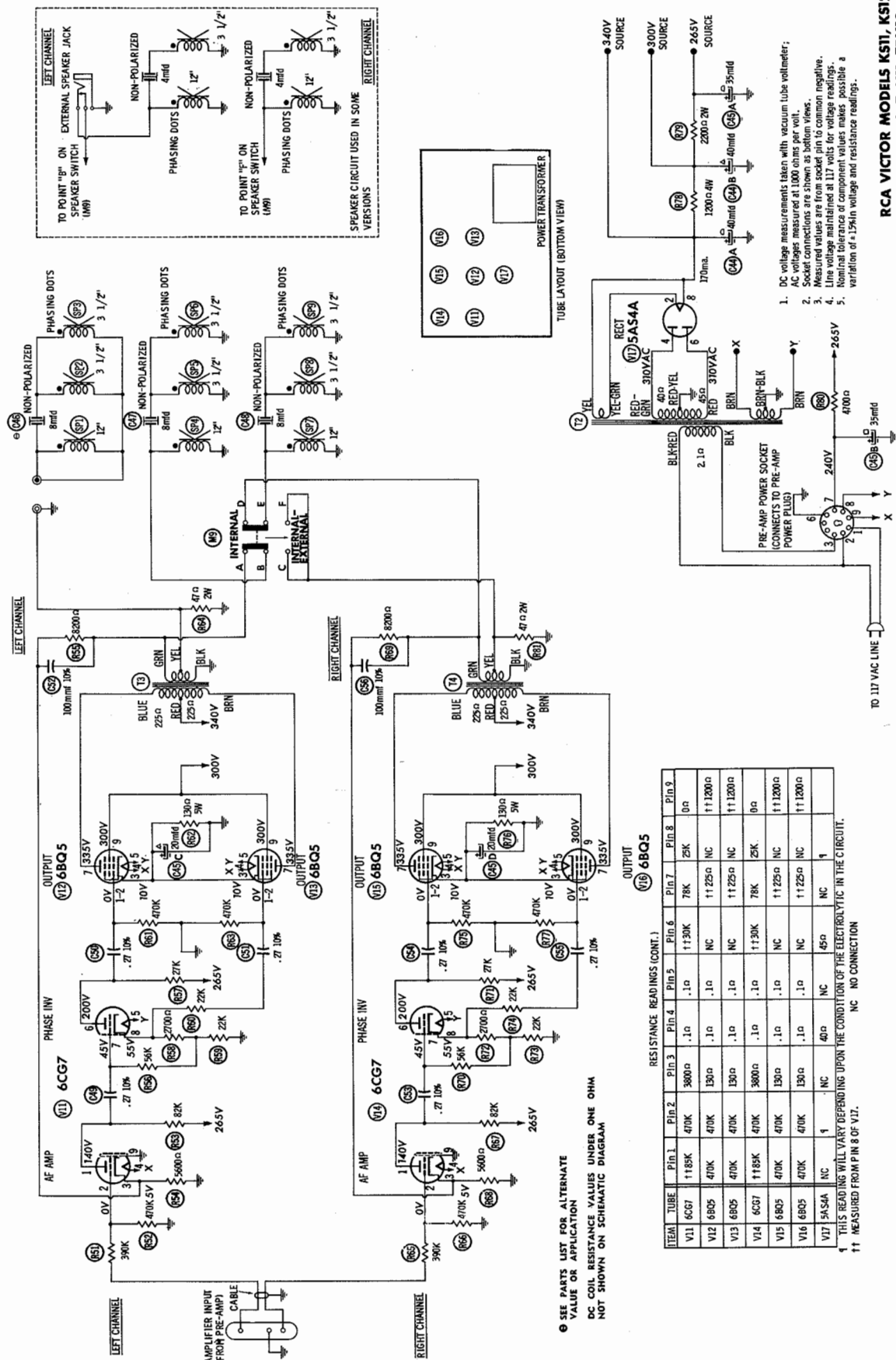


HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

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A PHOTOFACT STANDARD NOTATION SCHEMATIC
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ALIGNMENT INSTRUCTIONS


ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.



Suggested alignment tools:

A1 thru A4, A8 thru A10.	GENERAL CEMENT #5097, 8727
	WALSCO #2515
A5, A6.....	GENERAL CEMENT #5004, 5008, 5009
	WALSCO #2520
A7.....	GENERAL CEMENT #8721, 8722
	WALSCO #2519
A11, A12.....	GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
	WALSCO #2515, 2531, 2532
A15, A16.....	GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
	WALSCO #2512, 2525, 2528

AM ALIGNMENT - SELECTOR IN AM POSITION



	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	High side thru .01mfd to pin 7 (grid) of AM Converter. Low side to chassis.	455KC (400% Mod.)	(AM) Tuning gang fully open.	DC probe to point  . Common to chassis.	A1, A2, A3, A4	Adjust for maximum deflection.
2.	Loop	1620KC	"	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	Tune to 1400KC signal.	"	A6	Adjust for maximum deflection.
4.	"	600KC	Tune to 600KC Signal.	"	A7	Adjust for maximum deflection while rocking tuning gang.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM—SELECTOR IN FM POSITION

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
5.	High side thru .001mfd to pin 1 (grid) of FM Limiter. Low side to chassis.	10.7MC (Unmod.)	(FM) Point of non-interference.	DC probe to point  . Common to chassis.	A8	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
6.	"	"	"	DC probe thru lmeq to point  . Common to chassis.	A9	Adjust for maximum deflection.
7.	High side thru .001mfd to pin 1 (grid) of 2nd FM IF. Low side to chassis.	"	"	DC probe thru 270K to pin 1 (grid) of FM Limiter. Common to chassis.	A10	"
8.	High side thru .001mfd to pin 1 (grid) of 1st. FM IF. Low side to chassis.	"	"	"	A11, A12	"
9.	Across FM antenna terminals.	"	"	"	A13, A14	"

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE—SELECTOR IN FM POSITION

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120V sawtooth voltage in scope for horizontal deflection.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
5.	High side thru .001mfd to pin 1 (grid) of FM Limiter. Low side to chassis.	10.7MC (450KC Swp)	(FM) Point of non-interference.	Vert. amp. to point  . Low side to chassis.	A8	Adjust to place marker at the center of crossover lines similar to Fig. 1.
6.	"	"	"	Vert. amp. thru 27K to point  . Low side to chassis.	A9	Adjust for maximum gain and symmetry of response similar to Fig. 2.
7.	High side thru .001mfd to pin 1 (grid) of 2nd FM IF. Low side to chassis.	"	"	Vert. amp. thru 270K to pin 1 (grid) of FM Limiter. Low side to chassis.	A10	"
8.	High side thru .001mfd to pin 1 (grid) of 1st FM IF. Low side to chassis.	"	"	"	A11, A12	"
9.	Across FM Antenna terminals.	"	"	"	A13, A14	"

FM RF ALIGNMENT—SELECTOR IN FM POSITION

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
10.	Across FM antenna terminals thru 270Ω	87.5MC (Unmod.)	(FM) Low Freq. End Stop.	DC probe thru 270K to pin 1 (grid) of FM Limiter. Common to chassis.	FM Tuner String Drive Collar	Adjust for maximum deflection.
11.	"	108.5MC	High End Stop.	"	A15	"
12.	"	95MC	Tune to 95MC signal.	"	A16	"

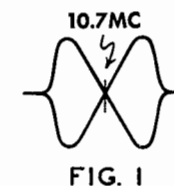


FIG. 1

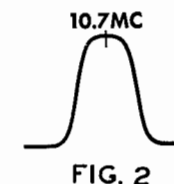


FIG. 2

TUNER PARTS LIST AND DESCRIPTIONS

All wattages 1/2 watt, or less, unless otherwise listed.

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS
R1	1000Ω	
R2	1meg	
R3	3300Ω	
R4	33K	
R5	220Ω	
R6	150Ω	
R7	100K	
R8	82Ω	
R9	470K	

ITEM No.	RATING	REMARKS
R10	10K	
R11	120Ω	
R12	100K	
R13	100K	
R14	100K	
R15	22meg	
R16	22meg	
R17	33K	
R18	220Ω	

ITEM No.	RATING	REMARKS
R19	100K	
R20	390K	
R21	100K	
R22	390K	
R23	2, 2meg	
R24	10meg	
R25	1200Ω 2W	

COILS (RF-IF)

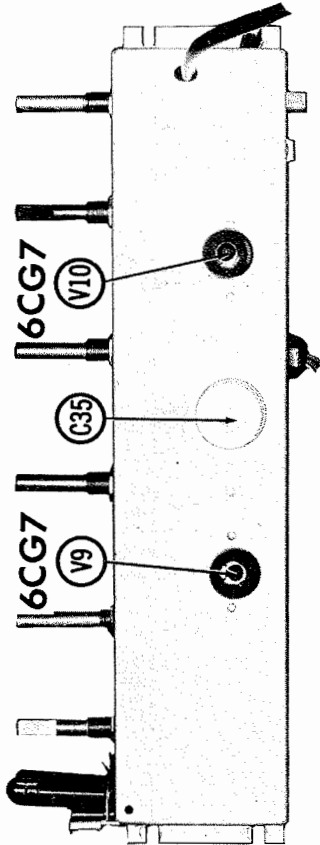
REPLACEMENT DATA					
ITEM No.	USE	RCA Victor PART No.	Grammer PART No.	Meissner PART No.	Miller PART No.
L1	2nd FM IF Trans.	77513	16-3472	16-3472	1481
L2	3rd FM IF Trans.	77512	17-3494	17-3494	1484
L3	Discriminator	77511	14-7002	14-7002	705-A
L4	AM Osc. coil	70937	16-6758	16-6758	71-OSC
L5	1st AM IF Trans.	77416	16-6770	16-6770	12-C1
L7	2nd AM IF Trans.	76328	16-6770	16-6770	12-C2

TRANSFORMER (POWER)

REPLACEMENT DATA					
ITEM No.	RATING	RCA Victor PART No.	Halliderson PART No.	Merit PART No.	Thorndson PART No.
T1	117V@ .34A 6.3V@ .43A	104609			

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M1	FM Tuner Switch	107004	
M2	Tuning Cap.	108408	
M3			Complete, Less Tube AM, 2 Gang (Ant. 10, 7-301.5mmf, Osc. 12-129.8mmf) Selector



PREAMP CHASSIS—TOP VIEW

PREAMP PARTS LIST AND DESCRIPTIONS

PHONO CARTRIDGE

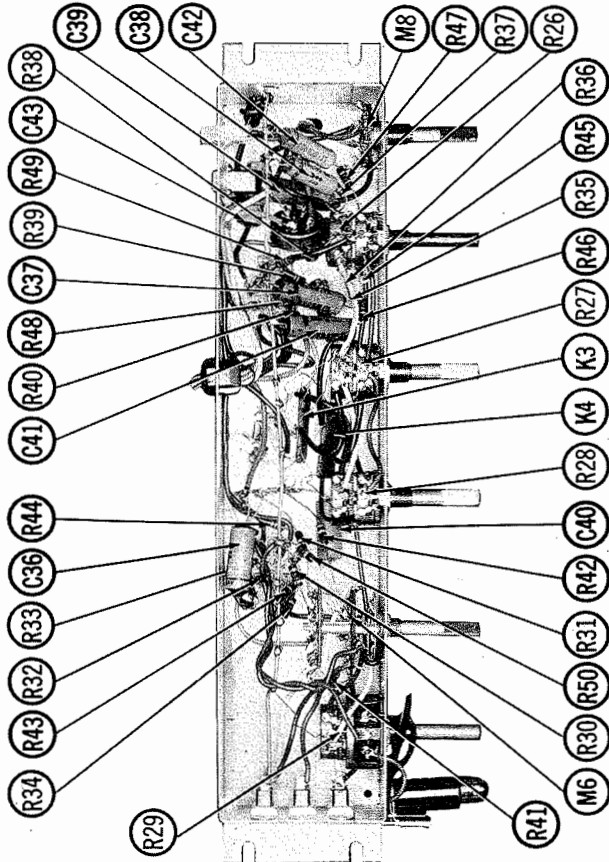
REPLACEMENT DATA					
ITEM No.	ASTATIC PART No.	ELECTRO-VOICE PART No.	JENSEN PART No.	SONOTONE PART No.	
M4	137EX	26S	S3-3	8TA4-SD	N-8TA-SD

PHONO NEEDLE

REPLACEMENT DATA					
ITEM No.	RCA Victor PART No.	CLEVITE WALCO PART No.	JENSEN PART No.	REMARKS	
M5	108215	W-103STDS † or W-103STSS †	M-77X † or M-77XSD † or M-77XDD †	† Jewel	♦ Diamond

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M6	Switch	108473	
M7	Switch	108457	Function Selector Off-On (Part of Changer)
M8	Switch	108494	Speaker Reversing



PREAMP CHASSIS—BOTTOM VIEW

(RCA VICTOR MODELS KS11, KS12, PM17, PM18, TPM11, TPM12)

(CH. RC-1192, RS-177A, RS-179)

TUBES

GENERAL ELECTRIC			
ITEM No.	USE	ITEM No.	TYPE
V1	FM RF Amp. -FM Conv.	V5	Discriminator-AM Det. - Tuning Ind. Amp.
V2	1st FM IF Amp.	V6	AM Converter
V3	2nd FM IF Amp.	V7	Rectifier
V4	FM Limiter	V8	

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA					
ITEM No.	RATING	RCA Victor PART No.	CORNEILL DUBILIER PART No.	ELMOCO PART No.	SPRAGUE PART No.
C1A	480 150	AFR2-19	XB01B1	FP216	TMD-17
B	450 150				TVL-2442.1

FIXED CAPACITORS

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

REPLACEMENT DATA					
ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNEILL DUBILIER PART No.
C2	6 5%	Note 1	N750-SI 10	TCN-10	CIQV8C
C3	10 N750 ± 1mmf		SI 1000	DD-102	BYA10D1
C4	1000		SI 1000	DD-102	BYA10D1
C5	1000		NPO-SI 20	TCZ-20	CIQ28C
C6	20 NPO		NPO-SI 20	TCZ-20	CIQ28C
C7	20 NPO		NPO-SI 20	TCZ-20	CIQ28C
C8	2-6		N750-SI 68	TCN-68	CIQ68U
C9	10 N470 ± 1mmf		N750-SI 15	DD-102	BYA10D1
C10	15 NPO 10%		BPD-01	DD-102	BYA10D1
C11	1000		N750-SI 68	TCN-68	CIQ68U
C12	8.2 N750 5%		BPD-01	DD-102	BYA10D1
C13	10000		BPD-0022	DD-222	BYA10D22
C14	10000		BPD-0047	DD-472	BYA10D47M
C15	2200		BPD-0047	DD-472	BYA10D47M
C16	4700		BPD-0047	DD-472	BYA10D47M
C17	4700		BPD-0047	DD-472	BYA10D47M
C18	4700		BPD-0047	DD-472	BYA10D47M
C19	470		BPD-0047	DD-472	BYA10D47M
C20	680 10%		P288N-022	DD-681	IR8T68
C21	.022 200V		P288N-022	DD-681	IR8T68
C22	2-10		P488N-047	DD-503	CUB4847
C23	.047 400V		N750-SI 56	TCN-56	CIQ56U
C24	56 N750 10%		BPD-01	DD-103	BYA10S1
C25	10000		BPD-0047	DD-472	BYA10D47M
C26	4700		BPD-01	DD-103	BYA10S1
C27	10000		P684CM-057	DD-103	BYA10S1
C28	.086 200V		P684CM-057	DD-103	BYA10S1
C29	.086 200V		P688N-047	DD-503	CUB8847
C30	.047 600V		P688N-047	DD-503	CUB8847
C31	.0047 600V		BPD-01	DD-103	BYA10S1
C32	10000		BPD-01	DD-103	BYA10S1
C33	10000		BPD-01	DD-103	BYA10S1
C34	10000		BPD-01	DD-103	BYA10S1

Note 1. Not used in some versions.
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	RCA Victor PART No.	REPLACEMENT DATA
K1	FM Antenna Filter	470mmf., 3-Imeg	104328	Centralab RC-471 Sprague AC1-1
K2	FM Antenna Filter	470mmf., 3-Imeg	104328	Centralab RC-471 Sprague AC1-1

TUBES

GENERAL ELECTRIC			
ITEM No.	USE	ITEM No.	TYPE
V9	Left Channel Preamp. - Right Channel Preamp.	V10	Left Channel A.F. Amp. - Right Channel A.F. Amp.

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA					
ITEM No.	RATING	RCA Victor PART No.	CORNEILL DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C35A	50 10	AFR2-06	B0080	WP202.1	TMD-5
B	450 10				TVL-2320

FIXED CAPACITORS

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

REPLACEMENT DATA					
ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNEILL DUBILIER PART No.
C36	.047 400V		P488N-047	DD-503	CUB4847
C37	.022 200V		P288N-022	DD-203	CUB2847
C38	.047 200V		P288N-047	DD-503	CUB2847
C39	.047 400V		P488N-047	DD-503	CUB4847
C40	.047 400V		P488N-047	DD-503	CUB4847
C41	.022 200V		P288N-022	DD-203	CUB2847
C42	.047 200V		P288N-047	DD-503	CUB4847
C43	.047 400V		P488N-047	DD-503	CUB4847

CONTROLS

REPLACEMENT DATA					
ITEM No.	RATING	RCA Victor PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.
R26A	500K * B Switch	108485	B-60		
R27A	500K B Switch	108476	SR-60		
R28A	500K C Bushing	108475	AK-31		
R29A	500K B Bushing	108493	SR-59		
B	Imeg 2(WW)		AK-31		

* Taps @ 64K & 168K.

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R30	8200Ω		R44	100K	
R31	100K		R45	330K	
R32	100K		R46	22K	
R33	100K		R47	8200Ω	
R34	1500Ω		R48	100K	
R35	22K		R49	47K	
R36	330K		R50	100K	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	RCA Victor PART No.	REPLACEMENT DATA
K3	Tone Comp.	470mmf., 1000mmf., 22K, 220K	108457	Sprague TC-13
K4	Tone Comp.	470mmf., 1000mmf., 22K, 220K	108457	Sprague TC-13