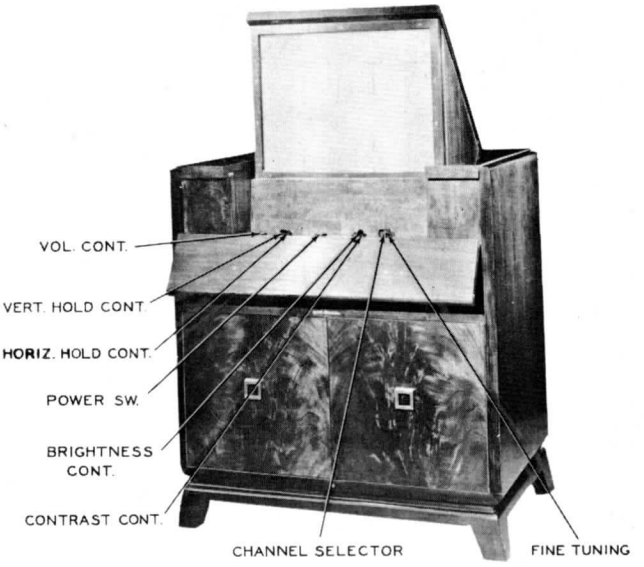
RCA VICTOR MODELS 8PCS41, -B, -C, 9PC41A, -B, -C, 648PTK, 648PV, 741PCS



TRADE NAME	RCA VICTOR					
MODEL	TV CHASSIS	OPTICAL UNIT	HORIZ. DEFL.	HIGH VOLT.	RADIO	AUDIO AMP.
8PCS41	KCS24B-1	KRK1A-1	KRS20A-1	KRS21A-1		RS123C
8PCS41-B	KCS24C-1	KRK4	KRS20B-1	KRS21A-1		RS123C
8PCS41-C	KCS24C-1	KRK1A-1	KRS20B-1	KRS21A-1		RS123C
9PC41A	KCS24C-1	KRK4	KRS20B-1	KRS21A-1		RS123C
9PC41B, C	KCS24D	KRK4	KRS20B-1	KRS21A-1		RS123C
648PTK	KCS24-1	KRK1-1	KRS20-1	KRS21-1	RK121A	RS123A
648PV	KCS24A-1	KRK1A	KRS20-1	KRS21A-1	RK121A	RS123B
741PCS	KCS24B-1	KRK1A-1	KRS20A-1	KRS21A-1		RS123C

MANUFACTURER	RCA Victor Div. Radio Corp. of America, Camden, New Jersey
TYPE SET	Projection Type Television Receiver
TUBES	Forty One (TV Only Models) Forty Nine (Combination Models)
POWER SUPPLY	110-120 Volts AC-60 Cycle
RATING	5.1 Amp. @ 117 Volts AC
TUNING RANGES	TV Channels 2 thru 13 AM 540-1600KC SW 9.2-16.0MC FM 88-108MC

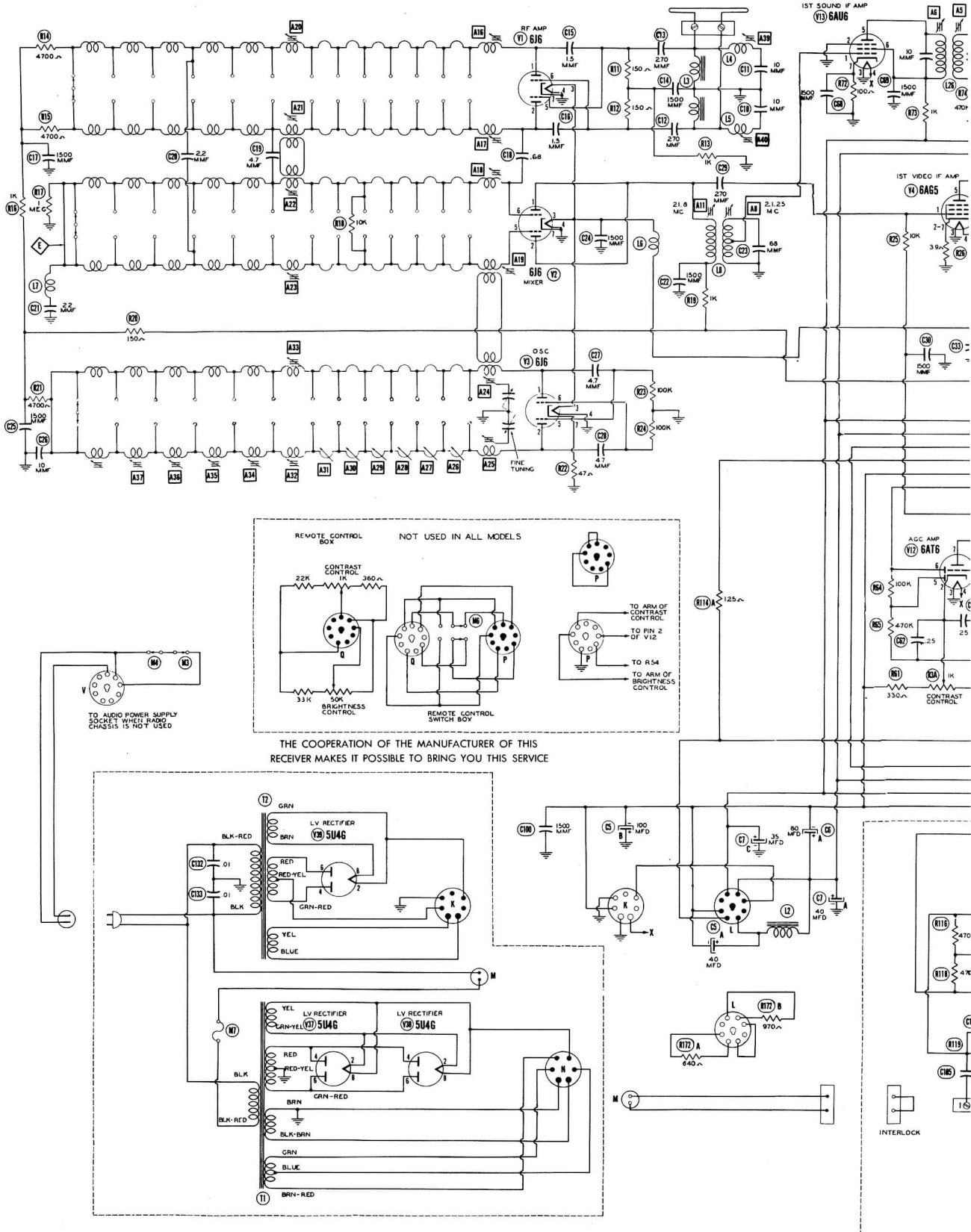
INDEX

FOR SERVICE INFORMATION ON RECORD CHANGER UNIT, SEE RCA VICTOR MODEL RP-176 PHOTOFACT SET #25 FOLDER #31 OR RECORD CHANGER MANUAL CM-1

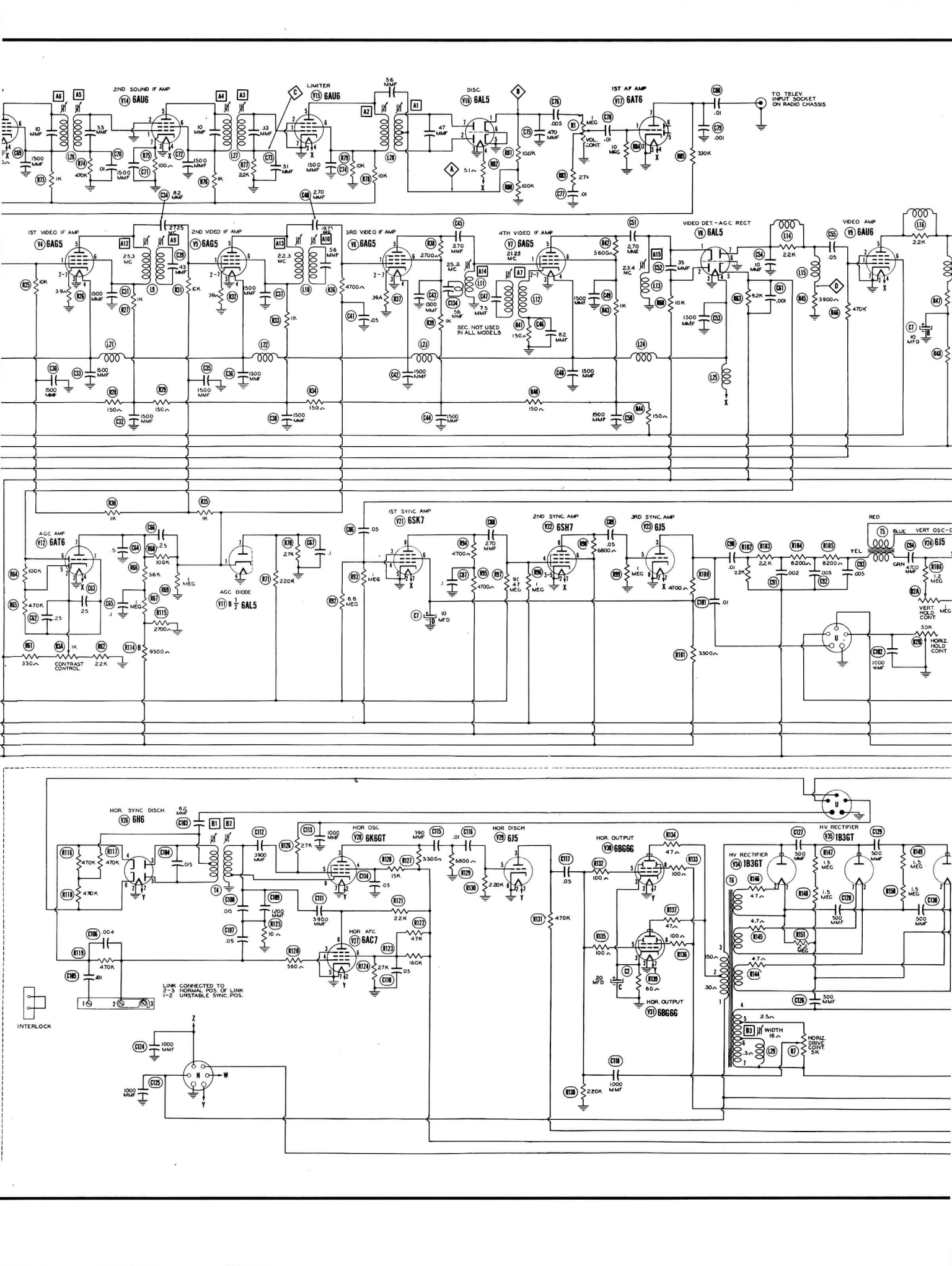
HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana

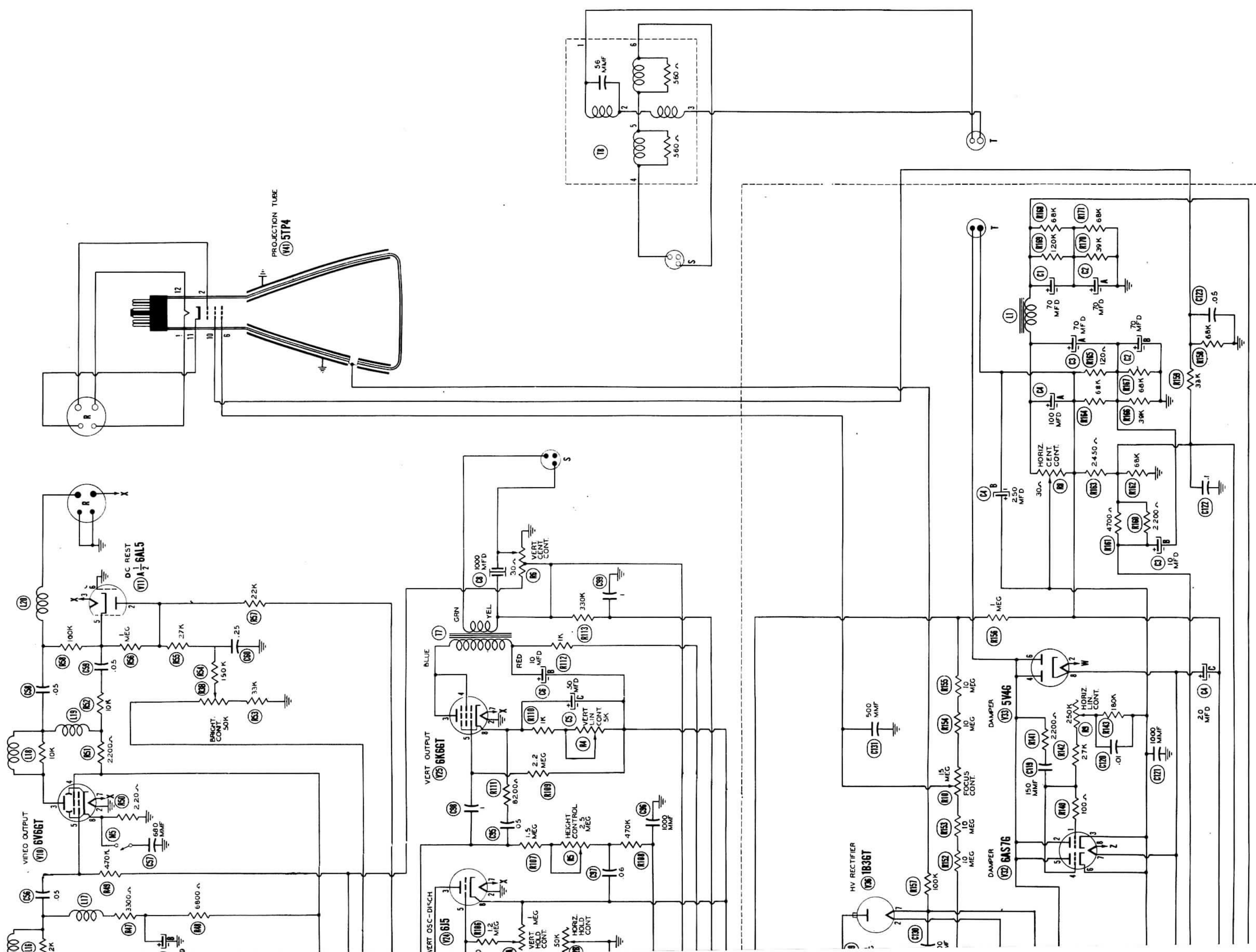
DATE 3-50 SET 90 FOLDER 9

RCA VICTOR MODELS 8PCS41, -B, -C, 9PC41A, -B, -C, 648PTK, 648PV, 741PCS

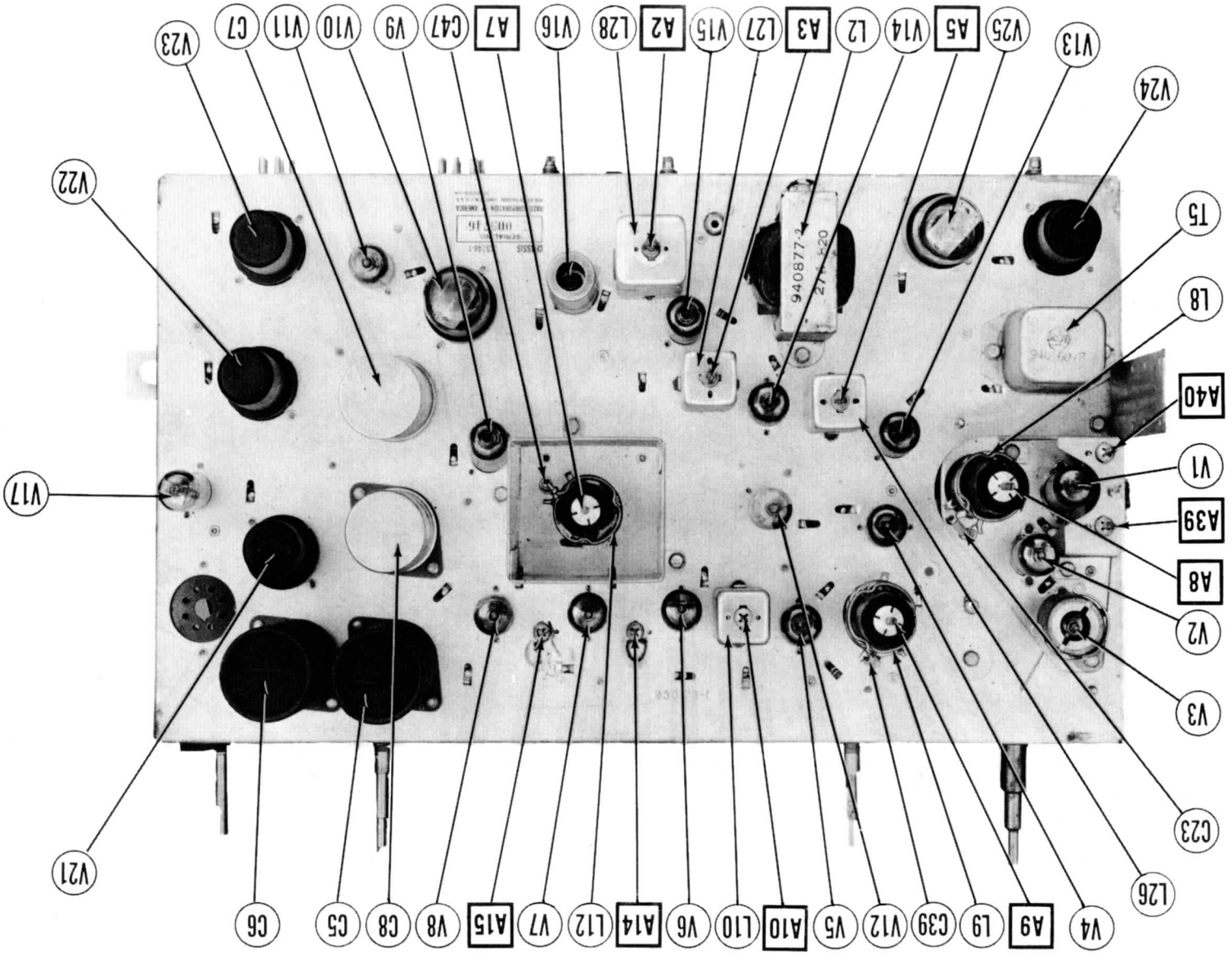


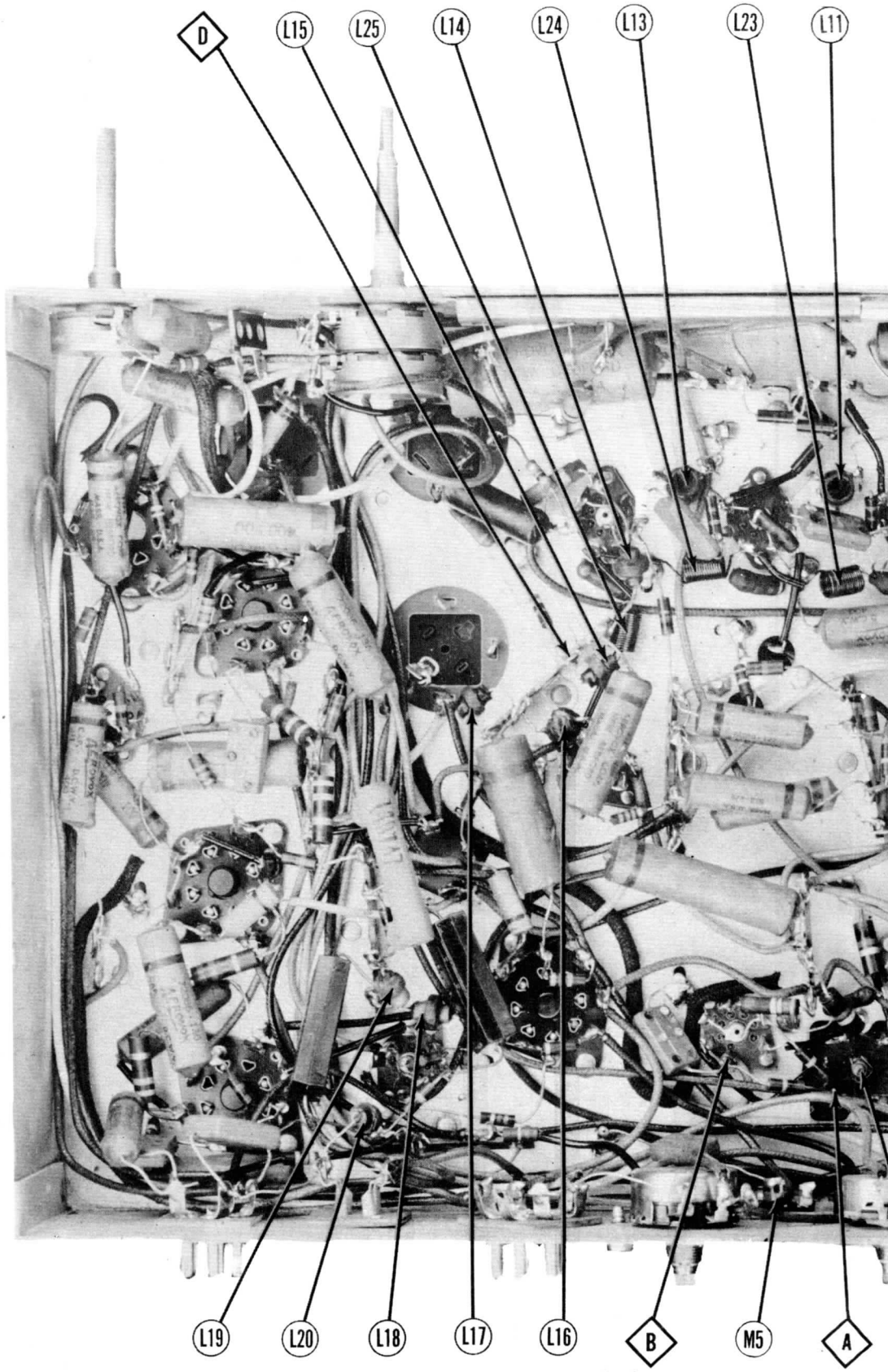
A PHOTOFACT STANDARD NOTATION SCHEMATIC


2ND SOUND IF AMP
V14 6AU6
LIMITER
V15 6AU6
DISC.
V16 6AL5
1ST AF AMP
V17 6AT6
TO TELEV. INPUT SOCKET ON RADIO CHASSIS
VOL. CONT.
1ST VIDEO IF AMP
V4 6AG5
2ND VIDEO IF AMP
V5 6AG5
3RD VIDEO IF AMP
V6 6AG5
4TH VIDEO IF AMP
V7 6AG5
SEC. NOT USED IN ALL MODELS
VIDEO DET.-AGC RECT
V9 6AL5
VIDEO AMP
V9 6AU6
AGC AMP
V12 6AT6
AGC DIODE
V11 B 1/2 6AL5
CONTRAST CONTROL
1ST SYNC AMP
V21 6SK7
2ND SYNC AMP
V22 6SH7
3RD SYNC. AMP
V23 6J5
RED
BLUE
GRN
YEL
VERT OSC-D
V24 6J5
VERT HOLD CONT
HORIZ. HOLD CONT
HOR. SYNC DISCH.
V26 6H6
HOR. OSC
V28 6K6GT
HOR. DISCH
V29 6J5
HOR. AFC
V27 6AC7
HOR. OUTPUT
V30 6B6G
HOR. OUTPUT
V31 6B6G
HV RECTIFIER
V34 1B3GT
HV RECTIFIER
V35 1B3GT
WIDTH
HORIZ. DRIVE CONT. 5K
LINK CONNECTED TO 2-3 NORMAL POS. OF LINK 1-2 UNSTABLE SYNC POS.
INTERLOCK

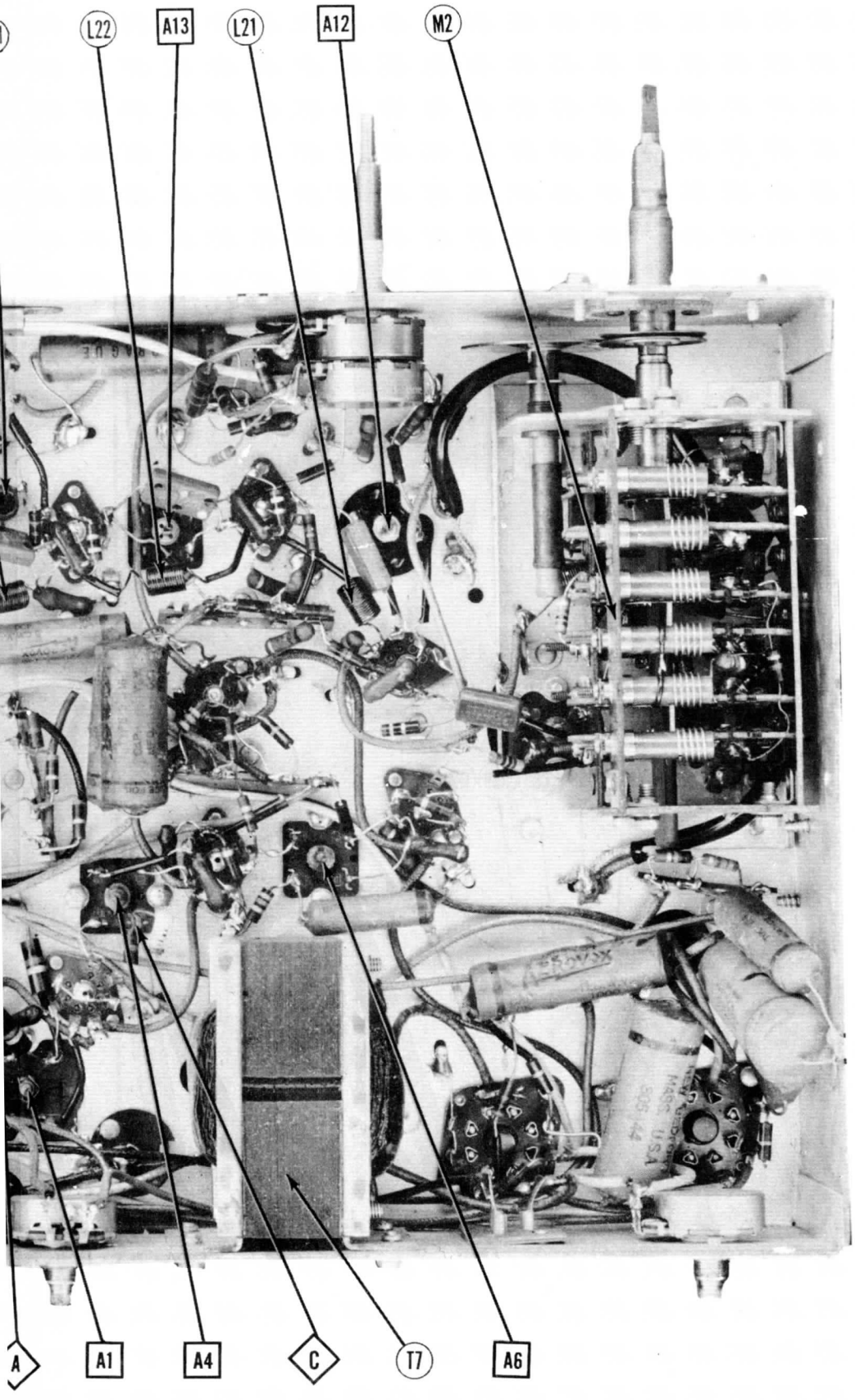

PROJECTION TUBE
(Y41) 5TP4
VIDEO OUTPUT
(Y10) 6V6GT
DC REST
(Y11) A ½ 6AL5
VERT OUTPUT
(Y25) 6K6GT
VERT OSC-DISCH
(Y24) 6J5
HV RECTIFIER
(Y36) 1B3GT
DAMPER
(Y32) 6AS7G
DAMPER
(Y33) 5V4G
BRIGHT. CONT 50K
HEIGHT CONTROL 2.5 MEG
VERT LIN CONT 5K
VERT CENT. CONT.
VERT HOLD CONT.
HORIZ HOLD CONT
FOCUS CONT.
HORIZ LIN CONT.
HORIZ. CENT. CONT.
BLUE
RED
YEL.
GRN

TV CHASSIS TOP VIEW

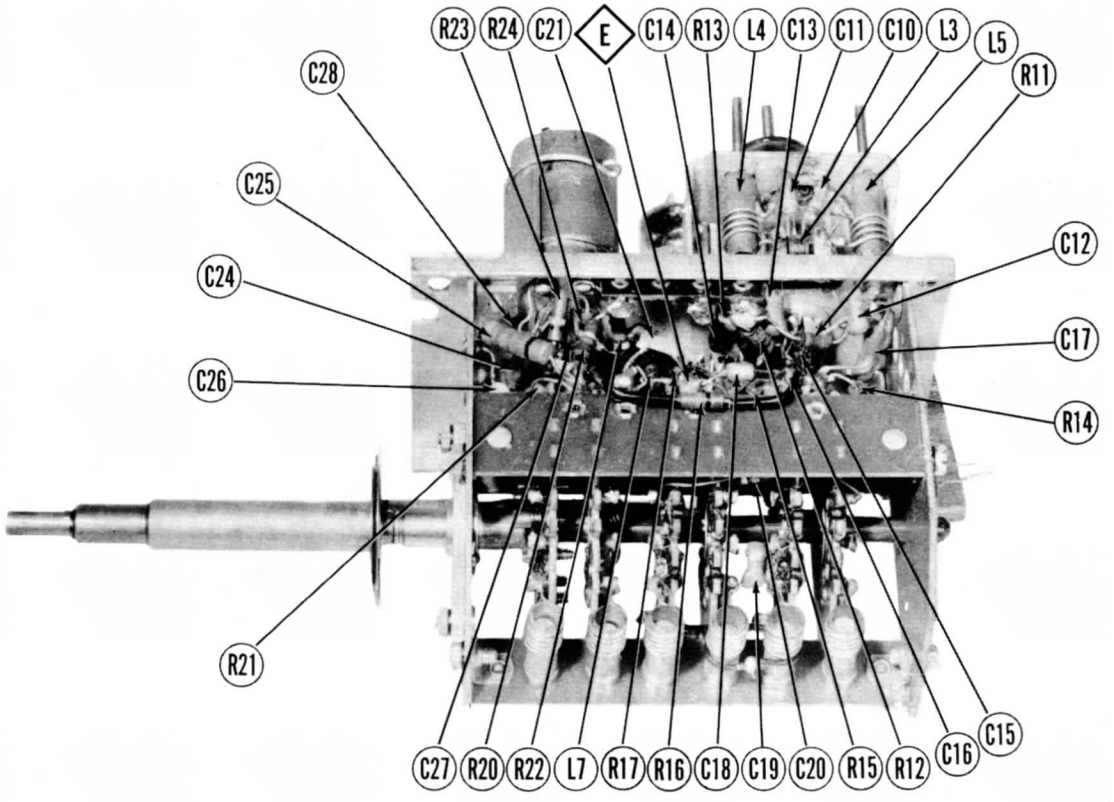




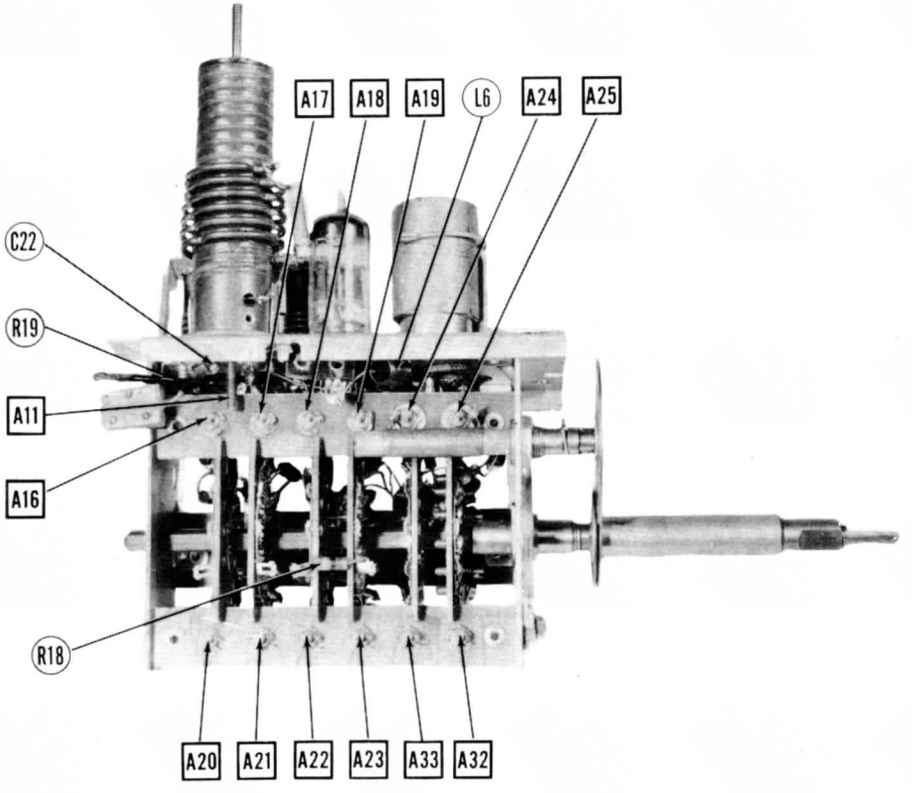
TV CHASSIS BOTTOM VIEW-TRANS., INDUCTO



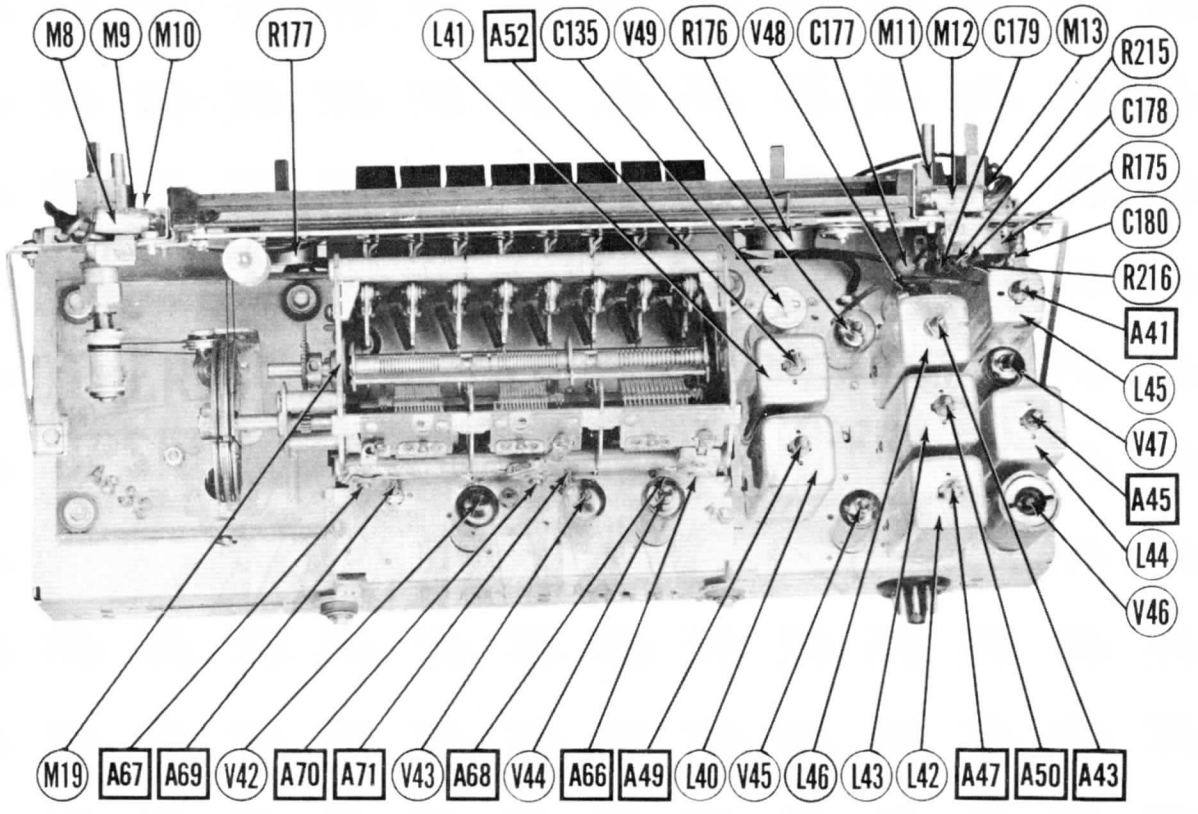
CTOR AND ALIGNMENT IDENTIFICATION



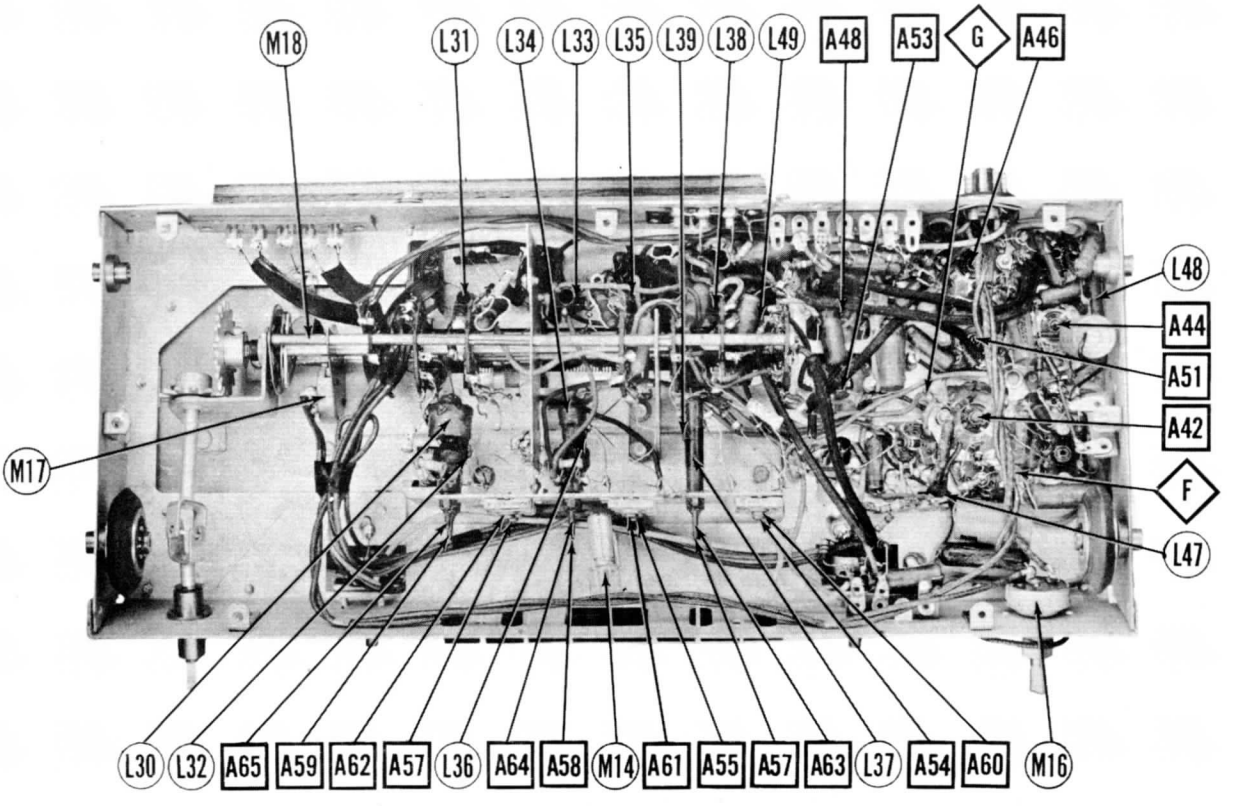
TV RF TUNER-RIGHT SIDE



TV RF TUNER-LEFT SIDE



RADIO CHASSIS - TOP VIEW



RADIO CHASSIS - BOTTOM VIEW
TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

TV ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

When complete receiver alignment is to be performed, the order given is recommended.
Remove local oscillator tube 6J6 (V3) to prevent erroneous indications.
Turner chassis may be aligned without high voltage supply connected; this removes the high voltage shock hazard.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	.05MFD	High side to pin 1 (Grid) of 6AU6 (V15). Low side to chassis.	21.25MC (Unmod.)	13	DC Probe to Point Ⓐ. Common to chassis.	A1, A2	Detune A 1. Adjust A2 for maximum deflection.
2.	.05MFD	"	"	"	DC Probe to Point Ⓑ. Common to chassis.	A1	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
3.	.05MFD	High side to pin 1 (Grid) of 6BA6 (V14). Low side to chassis.	21.25MC (Unmod.)	13	DC Probe to Point Ⓒ. Common to chassis.	A3, A4	Adjust for maximum deflection.
4.	Direct	High side to ungrounded tube shield floating over mixer tube. Low side to chassis.	21.25MC	"	"	A5, A6	Adjust for maximum deflection.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	Direct	High side to ungrounded tube shield floating over mixer tube. Low side to chassis.	21.25MC (450KC Sweep)	21.25MC	13	Vert. Amp. to Point Ⓒ. Low side to chassis.	A3, A4, A5, A6	Adjust for maximum amplitude and symmetry as per Fig 1.
2.	Direct	"	"	"	"	Vert. Amp. to Point Ⓑ. Low side to chassis.	A1, A2	Adjust for maximum amplitude and straightness of diagonal line with 21.25MC marker at center of pattern as per Fig 2. (continue with step 5).

VIDEO IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Remove AGC tube 6AT6 (V12), turn contrast control to maximum. Connect negative lead of 3 volt battery to pin 1 of 6AL5 (V12). Connect positive lead to chassis.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
5.	Direct	High side to ungrounded tube shield floating over mixer tube. Low side to chassis.	21.25MC (Unmod.)	13	DC Probe to Point Ⓓ. Common to chassis.	A7, A8	Adjust for MINIMUM deflection.
6.	Direct	"	27.25MC (Unmod.)	"	"	A9	"
7.	Direct	"	19.75MC (Unmod.)	"	"	A10	"
8.	Direct	"	21.8MC (Unmod.)	"	"	A11	Adjust for maximum deflection.
9.	Direct	"	25.3MC (Unmod.)	"	"	A12	"
10.	Direct	"	22.3MC (Unmod.)	"	"	A13	"
11.	Direct	"	25.2MC (Unmod.)	"	"	A14	"
12.	Direct	"	23.4MC (Unmod.)	"	"	A15	"

OVERALL VIDEO IF RESPONSE CHECK

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13.	Direct	High side to ungrounded tube shield floating over mixer tube. Low side to chassis.	24MC (10MC SWP)	22.3MC 25.75MC	13	Vert. Amp. to Point Ⓓ. Low side to chassis.		Check for response shape of response curve and placement of markers as per Fig 3. If necessary slightly retouch A11 thru A15 for optimum results.

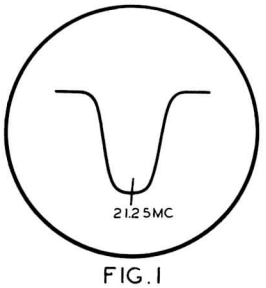


FIG. 1

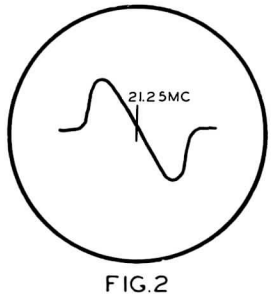


FIG. 2

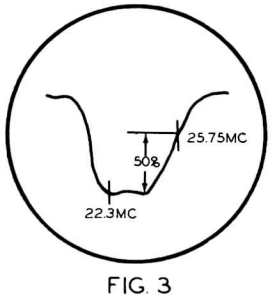


FIG. 3

TV ALIGNMENT INSTRUCTIONS (CONT.)

RF AND MIXER ALIGNMENT

Replace local oscillator tube (V3).
Connect a 1000MMF capacitor from first video IF grid (pin 1) to chassis. Keep leads of capacitor as short as possible.
Reduce bias voltage supplied by battery to -1 volt.
The sweep generator should be terminated with its characteristic output impedance (usually 50 ohms).
The RF and mixer adjustments are noramlly very stable and should not be attemped unless they are definitely known to be out of adjustment.
Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
14.	Two 120Ω carbon res.	To antenna terminals with 120Ω resistor in each lead.	177MC (10MC SWP)	177.25MC 179.75MC	7	Vert. Amp. to Point (E) in series with 10KΩ. Low side to chassis.	A16, A17, A18, A19	Adjust for flat topped response as per Fig 4 with markers above 70%. Check for response curve as per Fig 4.
15.	"	"	183MC (10MC SWP)	181.25MC 185.75MC	8	"		Check for response as per Fig 4. If markers are below 70% on any channel make slight readjustment of A16, A17, A18 and A19 with channel selector on that channel. Recheck other high band channels for optimum response.
			189MC (10MC SWP)	187.25MC 191.75MC	9			
			195MC (10MC SWP)	193.25MC 197.75MC	10			
			201MC (10MC SWP)	199.25MC 203.75MC	11			
			207MC (10MC SWP)	205.25MC 209.75MC	12			
			213MC (10MC SWP)	211.25MC 215.75MC	13			
16.	"	"	85MC (10MC SWP)	83.25MC 87.75MC	6	"	A20, A21, A22, A23	Adjust for flat topped response as per Fig 4 with markers above 70%.
17.	"	"	79MC (10MC SWP)	77.25MC 81.75MC	5	"		Check for response as per Fig 4. If markers are below 70% on any channel make slight readjustments of A20, A21, A22 and A23 with channel selector on that channel. Recheck other low band channels for optimum response.
			69MC (10MC SWP)	67.25MC 71.75MC	4			
			63MC (10MC SWP)	61.25MC 65.75MC	3			
			57MC (10MC SWP)	55.25MC 59.75MC	2			

OSCILLATOR ALIGNMENT

Remove 1000MMF capacitor.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
18.	Two 120Ω carbon res.	To antenna terminals with 120Ω resistor in each lead.	215.75MC (Unmod.)	13	DC Probe to Point (B). Common to chassis.	A24, A25	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep A24 and A25 slugs at approximately the same relative position.
19.	"	"	209.75MC	12	"	A26	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
			203.75MC	11		A27	
			197.75MC	10		A28	
			191.75MC	9		A29	
			185.75MC	8		A30	
			179.75MC	7		A31	
20.	"	"	87.75MC	6	"	A32, A33	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep A32 and A33 slugs at approximately the same relative positions.
			81.75MC	5		A34	
			71.75MC	4		A35	
			65.75MC	3		A36	
			59.75MC	2		A37	

MIXER GRID TRAP ADJUSTMENT

A. Connect output of sweep generator to antenna terminals as in RF and mixer alignment.
B. Connect oscilloscope to Point E thru 10KΩ.
C. Connect a 1000MMF capacitor from grid of first Video IF to chassis.
D. Turn channel switch and sweep thru low frequency channels, and select a channel with essentially flat response with markers above 80%.
E. Remove shunt capacitor from first video IF amplifier and shunt grid of second video amplifier grid to chassis.
F. Adjust A38 (rear of tuner) for response similar to the one obtained when first video IF grid was shunted.
NOTE: In some later models A38 is a fixed capacitor (C21). In those receivers this step may be used as a check of correct mixer operation.

WAVE TRAP ADJUSTMENT

Wave traps A39 and A40 are used for specific types of interference and their alignment will depend upon the type encountered. With the receiver tuned to the channel having the interference set fine tuning control until interference is at maximum. Adjust A39 and A40 for minimum interference in the picture and sound, keeping the cores at approximately the same relative position. Turn one core 1/2 turn, adjust the other for minimum interference.

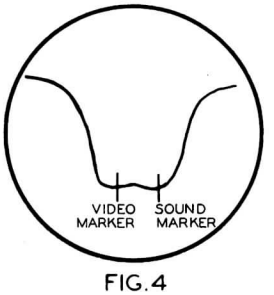


FIG. 4

RADIO ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

All critical lead dress should be performed before alignment.
Alignment should be performed in the order outlined, If an y portion of the set is aligned, perform all steps after that portion.
To set pointer turn tuning cap fully closed and set pointer to last reference mark at low frequency end of dial.

FM IF ALIGNMENT

Turn the function selector switch to "FM" (maximum clockwise).
Connect two matched 100KΩ (± 1%) resistors in series from point F to chassis. The junction of these two resistors is alignment point H as shown on the schematic.
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.
Connect an output meter across the speaker voice coil.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
21	.01MFD	High side to pin 1 (Grid) of 6AU6 (V47). Low side to chassis.	10.7MC (30% mod. 400 ∿ AM)	FM (max. CW)	Tuning gang fully closed	DC Probe to Point (F). Common to chassis.	A41	Connect a 680Ω resistor between terminals "D" and "E" of L46. Adjust for maximum deflection.
22	.01MFD	"	"	"	"	DC Probe to Point (G). Common to point (H).	A42	Remove the 680Ω resistor. Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. The voltage should change rapidly as zero is approached. A slow approach towards zero indicates severe detuning and A39 should be turned in the opposite direction.
23	.01MFD	"	"	"	"	"	A43	Adjust for MINIMUM output on the output meter connected across voice coil. If minimum output and zero voltage on the VTVM do not occur at the same settings of A39 and A40, it may be necessary to adjust A39 and A40 simultaneously until minimum audio output and zero voltage on VTVM occur at the same point. Repeat step 21 omitting the 680Ω resistor. Remove the output meter.
24	.01MFD	High side to pin 1 (Grid) of 6BA6 (V42). Low side to chassis.	"	"	"	DC Probe to Point (F). Common to chassis.	A44, A45, A46, A47, A48, A49	Alternately load the primary and secondary of each transformer while the opposite side of the same transformer is being adjusted. Adjust for maximum deflection.

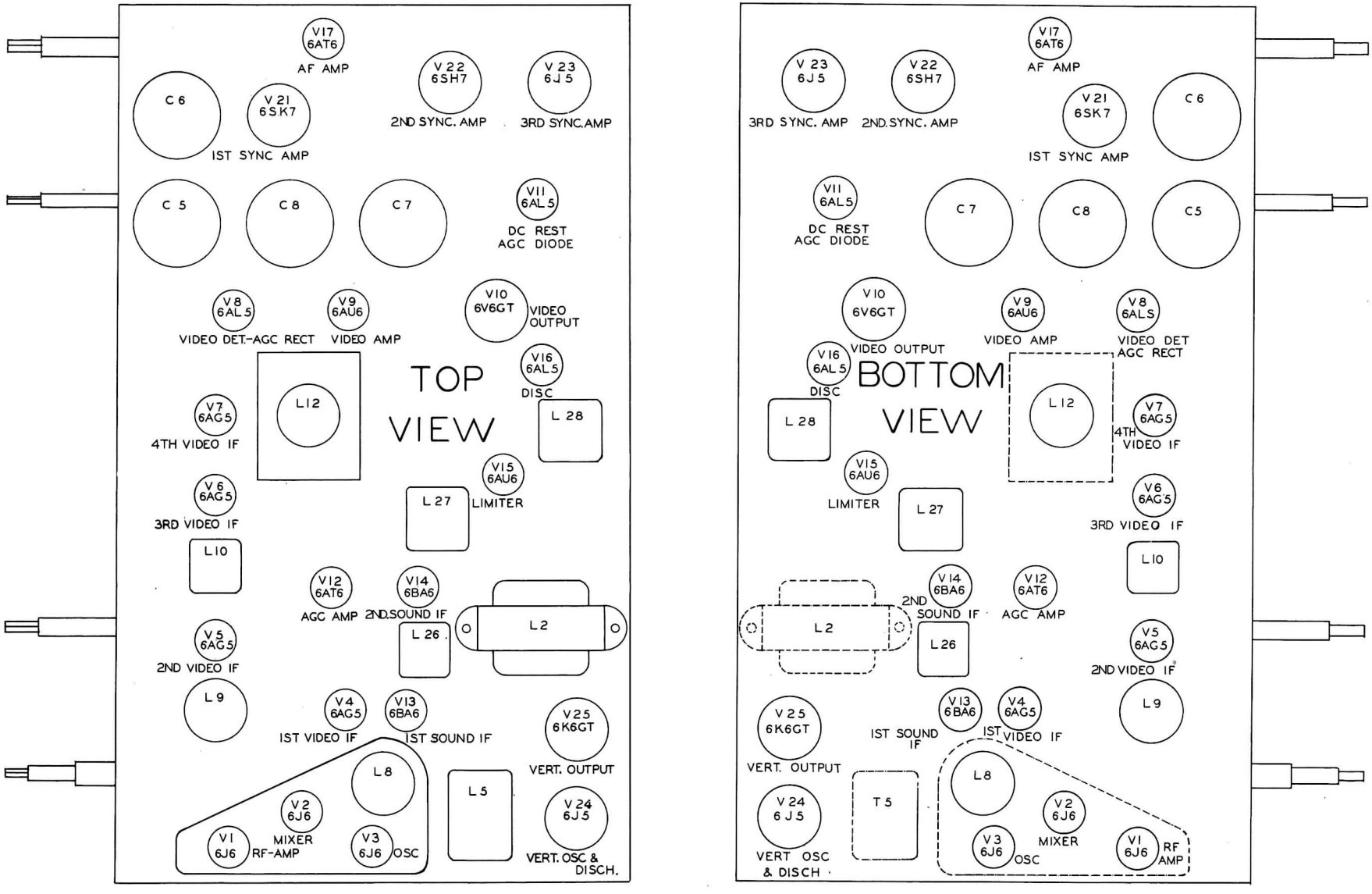
AM ALIGNMENT

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.

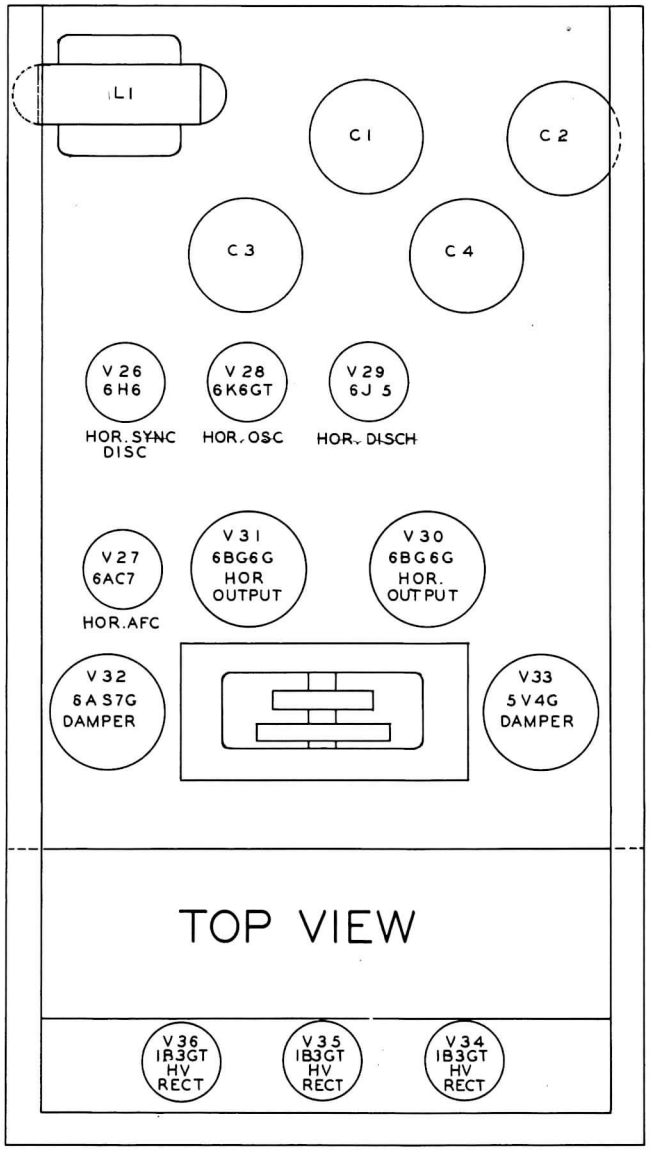
	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
25	.01MFD	High side to pin 1 (Grid) of 6BA6 (V42). Low side to chassis.	455KC (400 ∿ Mod.)	"C" band (second pos. CCW)	Tuning gang fully open	Across voice coil	A50, A51, A52, A53	Alternately load the primary and secondary of each transformer with a 10KΩ resistor while the opposite side of the same transformer is being adjusted. Adjust for maximum output.
26	25MMF capacitor in series with a 150Ω carbon res.	High side thru dummy to antenna terminal "4". Low side to chassis.	15.5MC	"	15.5MC	"	A54, A55, A56	Adjust for maximum output. Tune the signal generator to 16.41MC and increase the output. A signal should be heard. If it is not, reset the signal generator to 15.5MC and open A51 to the next peak and recheck for image.
27	"	"	9.5MC	"	9.5MC	"	A57, A58, A59	Adjust for maximum output. Tune the signal generator to 10.41MC and increase the output. A signal should be heard. If it is not the set is incorrectly aligned, therefore repeat steps 26 and 27.
28	200MMF	High side to antenna terminal "4". Low side to chassis.	1400KC	"A" band (third pos. CCW)	1400KC	Across voice coil	A60, A61, A62	Adjust for maximum output.
29	200MMF	"	600KC	"	600KC	"	A63, A64, A65	Adjust for maximum output. Repeat steps 28 and 29 until no further improvement can be made.

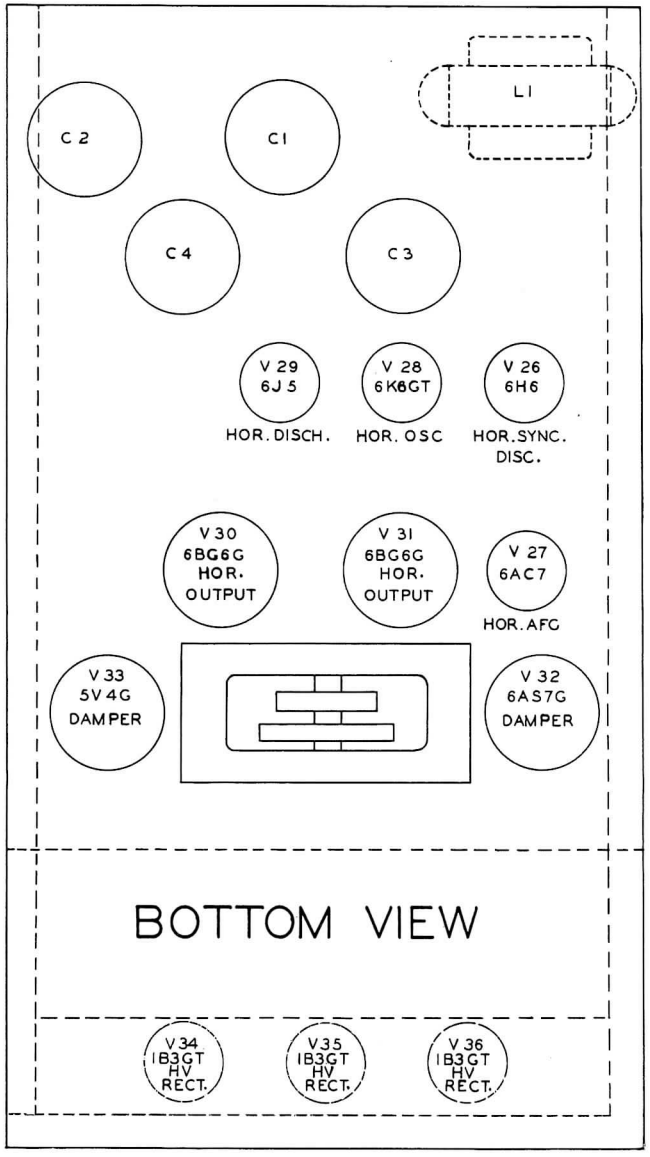
FM RF ALIGNMENT

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
30	Two 120Ω carbon res.	Across antenna terminals "4" and "5" with 120Ω in series with each lead.	106MC	FM	106MC	DC Probe to Point (F). Common to chassis.	A66, A67	Adjust for maximum deflection.
31	"	"	88MC	"	88MC	"	A68, A69	Adjust for maximum deflection. If two peaks are noted, use the one with the slug farthest out. Repeat steps 30 and 31 until no further improvement can be made.
32		Not used	106MC	"	106MC	"	A70	Adjust for maximum deflection (noise voltage) If two peaks are noted use the one with the largest capacity.
33		Not used	90MC	"	90MC	"	A71	Adjust for maximum deflection (noise voltage) If two peaks are noted, use the one with the slug farthest out. Repeat steps 32 and 33 until no further improvement can be made.



TV CHASSIS TUBE PLACEMENT CHART





HORIZONTAL SWEEP CHASSIS TUBE PLACEMENT CHART

RCA VICTOR MODELS 8PC541, -B, -C,
9PC41A, -B, -C, 648PTK, 648PV, 741PCS

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	65VDC	65VDC	6.3VAC	0V.	-.2VDC	-.2VDC	0V.		
V 2	6J6	120VDC	120VDC	6.3VAC	0V.	-2.6VDC	3.3VDC	0V.		
V 3	6J6	70VDC	70VDC	6.3VAC	0V.	$-3.8VDC	$-4VDC	.2VDC		
V 4	6AG5	-3.5VDC	.2VDC	0V.	6.3VAC	90VDC	90VDC	.2VDC		
V 5	6AG5	-2.4VDC	.2VDC	0V.	6.3VAC	100VDC	100VDC	.2VDC		
V 6	6AG5	.1VDC	.5VDC	0V.	6.3VAC	95VDC	100VDC	.5VDC		
V 7	6AG5	0V.	1.9VDC	0V.	6.3VAC	80VDC	120VDC	1.9VDC		
V 8	6AL5	0V.	#-.2VDC	0V.	6.3VAC	#4VDC	0V.	-2.3VDC		
V 9	6AU6	-2.9VDC	0V.	0V.	6.3VAC	225VDC	133VDC	0V.		
V 10	6V6GT	0V.	0V.	170VDC	250VDC	-1.4VDC	-4.7VDC	6.3VAC	9.6VDC	
V 11	6AL5	0V.	#0V.	6.3VAC	0V.	#29VDC	0V.	-2.5VDC		
V 12	6AT6	#1.8VDC	#6.3VDC	0V.	6.3VAC	#4VDC	#4VDC	#125VDC		
V 13	6BA6	0V.	0V.	0V.	6.3VAC	115VDC	115VDC	1.5VDC		
V 14	6BA6	0V.	0V.	0V.	6.3VAC	115VDC	115VDC	1.5VDC		
V 15	6AU6	-.2VDC	0V.	0V.	6.3VAC	45VDC	45VDC	0V.		
V 16	6AL5	-.1VDC	- 1VDC	0V.	5.2VAC	0V.	0V.	-4.6VDC		
V 17	6AT6	-.4VDC	0V.	0V.	6.3VAC	0V.	0V.	67VDC		
V 18	6J5	0V.	0V.	200VDC	55VDC	45VDC	50VDC	6.3VAC	55VDC	
V 19	6F6G	0V.	0V.	380VDC	260VDC	-21VDC	-25VDC	6.3VAC	0V.	
V 20	6F6G	0V.	0V.	380VDC	260VDC	-21VDC	90VDC	6.3VAC	0V.	
V 21	6SK7	0V.	0V.	0V.	-1.3VDC	0V.	110VDC	6.3VAC	185VDC	
V 22	6SH7	0V.	0V.	0V.	-11VDC	0V.	135VDC	6.3VAC	125VDC	
V 23	6J5	0V.	0V.	80VDC	110VDC	-8.8VDC	-130VDC	6.3VAC	0V.	
V 24	6J5	#130VDC	#130VDC	#90VDC #150VDC	#.1VDC	#-15VDC	#0V.	6.3VAC	#0V.	
V 25	6K6GT	#130VDC	#130VDC	#360VDC	#360VDC	#0V.	#0V. #41VDC	6.3VAC	#8VDC #43VDC	
V 26	6H6	0V.	0V.	-3.4VDC	-.1VDC	-3.6VDC	.4VDC	6.3VAC	-1.2VDC	
V 27	6AC7	0V.	6.3VAC	0V.	-.5VDC	0V.	112VDC	0V.	90VDC	
V 28	6K6GT	0V.	6.3VAC	250VDC	250VDC	-26VDC	-3.5VDC	0V.	.1VDC	
V 29	6J5	0V.	0V.	95VDC	0V.	-6.5VDC	510VDC	6.3VAC	0V.	
V 30	6BG6G	0V.	0V.	17.5VDC	0V.	-2.5VDC	0V.	6.3VAC	310VDC	TOP CAP *
V31	6BG6G	0V.	0V.	17.5VDC	310VDC	-2.5VDC	330VDC	6.3VAC	310VDC	TOP CAP *
V32	6AS7G	350VDC 440VDC	500VDC 510VDC	500VDC 510VDC	350VDC 440VDC	500VDC 510VDC	500VDC 510VDC	570VDC	570VDC	
V33	5V4G	0V.	570VDC	0V.	500VDC 510VDC	0V.	500VDC 510VDC	0V.	570VDC	
V34	1B3GT	* DO NOT MEASURE								
V35	1B3GT	* DO NOT MEASURE								
V36	1B3GT	* DO NOT MEASURE								
V37	5U4G	0V.	540VDC	0V.	460VAC	0V.	460VAC	0V.	540VDC	
V38	5U4G	0V.	540VDC	0V.	460VAC	0V.	460VAC	0V.	540VDC	
V39	5U4G	0V.	260VDC	0V.	370VAC	0V.	370VAC	0V.	260VDC	
V40	5U4G	0V.	390VDC	0V.	375VAC	180VDC	375VAC	0V.	390VDC	
V41	5TP4	0V.	3.5VDC	PIN 6 *	PIN 10 230VDC	PIN 11 0V.	PIN 12 6.3VAC			

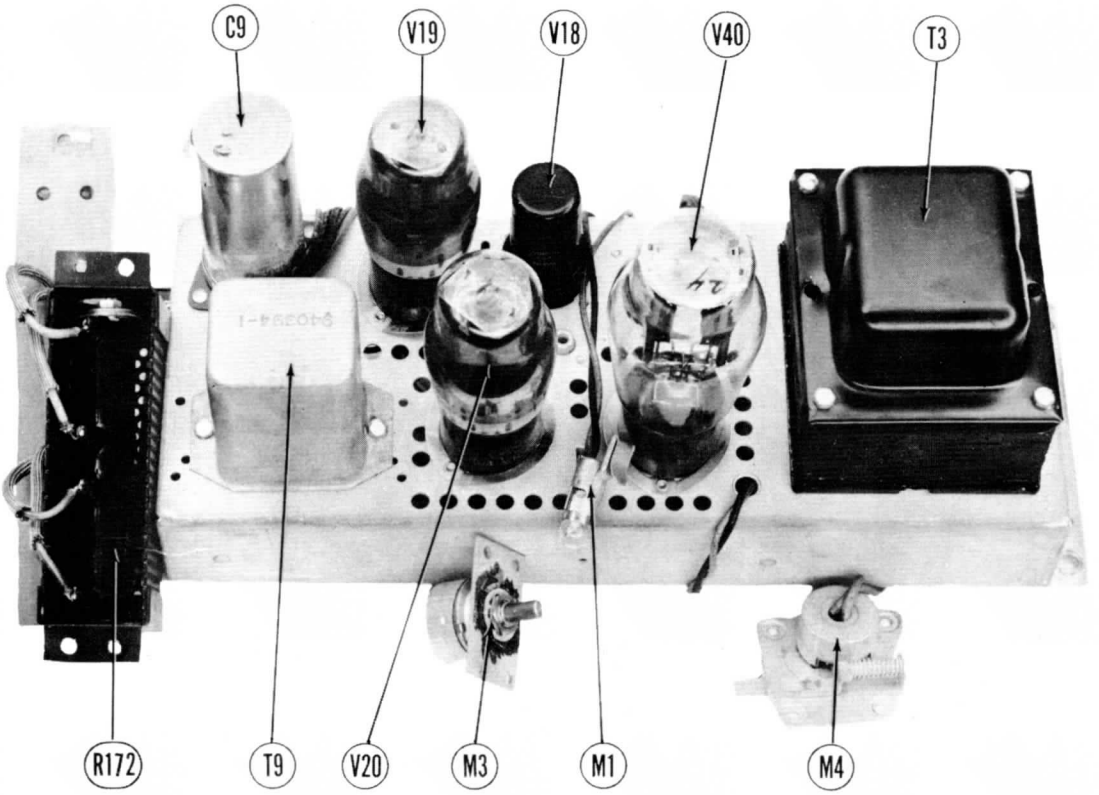
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	†5.5KΩ	†5.5KΩ	.1Ω	0Ω	1000Ω	1000Ω	0Ω		
V 2	6J6	†2.5KΩ	†2.5KΩ	.1Ω	0Ω	1 Meg.	1 Meg.	0Ω		
V 3	6J6	†6.5KΩ	†6.5KΩ	.1Ω	0Ω	100KΩ	100KΩ	47Ω		
V 4	6AG5	1 Meg.	39Ω	0Ω	.1Ω	†2.5KΩ	†2.5KΩ	39Ω		
V 5	6AG5	1 Meg.	39Ω	0Ω	.1Ω	†2.5KΩ	†2.5KΩ	39Ω		
V 6	6AG5	1 Meg.	39Ω	0Ω	.1Ω	†5KΩ	†2.3KΩ	39Ω		
V 7	6AG5	0Ω	150Ω	0Ω	.1Ω	†8KΩ	†2KΩ	150Ω		
V 8	6AL5	0Ω	#10KΩ	0Ω	.1Ω	#82KΩ	0Ω	4KΩ		
V 9	6AU6	#470KΩ	0Ω	0Ω	.1Ω	†10KΩ	†1000Ω	0Ω		
V 10	6V6GT	0Ω	0Ω	†2.2KΩ	†60Ω	#470KΩ	26Ω	.1Ω	220Ω	
V 11	6AL5	1 Meg.	#200KΩ	.1Ω	0Ω	#1.2 Meg.	0Ω	25KΩ		
V 12	6AT6	#650KΩ	#340Ω	0Ω	.1Ω	#200KΩ	#85KΩ	†550KΩ		
V 13	6BA6	0Ω	0Ω	0Ω	.1Ω	†2KΩ	†2KΩ	100Ω		
V 14	6BA6	470KΩ	0Ω	0Ω	.1Ω	†2KΩ	†2KΩ	100Ω		
V 15	6AU6	22KΩ	0Ω	0Ω	.1Ω	†8KΩ	†8KΩ	0Ω		
V 16	6AL5	200KΩ	100KΩ	0Ω	.1Ω	0Ω	0Ω	100KΩ		
V 17	6AT6	10 Meg.	0Ω	0Ω	.1Ω	Inf.	Inf.	†330KΩ		
V 18	6J5	0Ω	0Ω	▲30KΩ	25KΩ	80KΩ	22KΩ	.1Ω	25KΩ	
V 19	6F6G	0Ω	0Ω	▲310Ω	▲1000Ω	220KΩ	200Ω	.1Ω	0Ω	
V 20	6F6G	0Ω	0Ω	▲290Ω	▲1000Ω	220KΩ	2.5KΩ	.1Ω	0Ω	
V 21	6SK7	0Ω	0Ω	0Ω	1 Meg.	0Ω	†4KΩ	.1Ω	†10KΩ	
V 22	6SH7	0Ω	0Ω	0Ω	1 Meg.	0Ω	†1000Ω	.1Ω	†7KΩ	
V 23	6J5	0Ω	0Ω	†9KΩ	†4KΩ	1 Meg.	#22KΩ	.1Ω	0Ω	
V 24	6J5	0Ω	0Ω	♦5.3 Meg. ♠ 3 Meg.	#60KΩ	1 Meg.	#20Ω	.1Ω	#0Ω	
V 25	6K6GT	0Ω	0Ω	†2KΩ	†2KΩ	#2.2 Meg.	#20Ω #3Ω	.1Ω	#4.5KΩ 1500Ω	
V 26	6H6	0Ω	0Ω	1.3 Meg.	1.3 Meg.	1.3 Meg.	40Ω	.1Ω	330KΩ	
V 27	6AC7	0Ω	.1Ω	0Ω	2 Meg.	0Ω	♦20KΩ	0Ω	♦25KΩ	
V 28	6K6GT	0Ω	.1Ω	♦5.5KΩ	♦18KΩ	75KΩ	46KΩ	0Ω	10Ω	
V 29	6J5	0Ω	0Ω	♦470KΩ	6.5KΩ	220KΩ	♦1.5KΩ	.1Ω	0Ω	
V 30	6BG6G	Inf.	0Ω	80Ω	Inf.	220KΩ	Inf.	.1Ω	♦4KΩ	TOP CAP ▲ 75Ω
V31	6BG6G	Inf.	0Ω	80Ω	♦4KΩ	220KΩ	♦2.5KΩ	.1Ω	♦4KΩ	TOP CAP ▲30Ω
V32	6AS7G	♦520KΩ ♦220KΩ	♦100Ω ♦70Ω	♦95Ω ♦65Ω	♦520KΩ ♦220KΩ	♦100Ω ♦70Ω	♦95Ω ♦65Ω	210KΩ	210KΩ	
V33	5V4G	Inf.	210KΩ	Inf.	♦100Ω ♦70Ω	Inf.	♦100Ω ♦70Ω	Inf.	210KΩ	
V34	1B3GT	Inf.	♦60 Meg.	Inf.	♦60 Meg.	Inf.	♦60 Meg.	♦60 Meg.	♦60 Meg.	TOP CAP ▲200Ω
V35	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP ♦60 Meg.
V36	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP Inf.
V37	5U4G	Inf.	15KΩ	Inf.	20Ω	Inf.	19Ω	Inf.	15KΩ	
V38	5U4G	Inf.	15KΩ	Inf.	19Ω	Inf.	20Ω	Inf.	15KΩ	
V39	5U4G	Inf.	10KΩ	Inf.	800Ω	Inf.	800Ω	Inf.	10KΩ	
V40	5U4G	Inf.	5KΩ	Inf.	250Ω	5KΩ	240Ω	Inf.	5KΩ	
V41	5TP4	0Ω	PIN 6 ♦35 Meg.	PIN 10 30KΩ	PIN 11 0Ω	PIN 12 .1Ω				

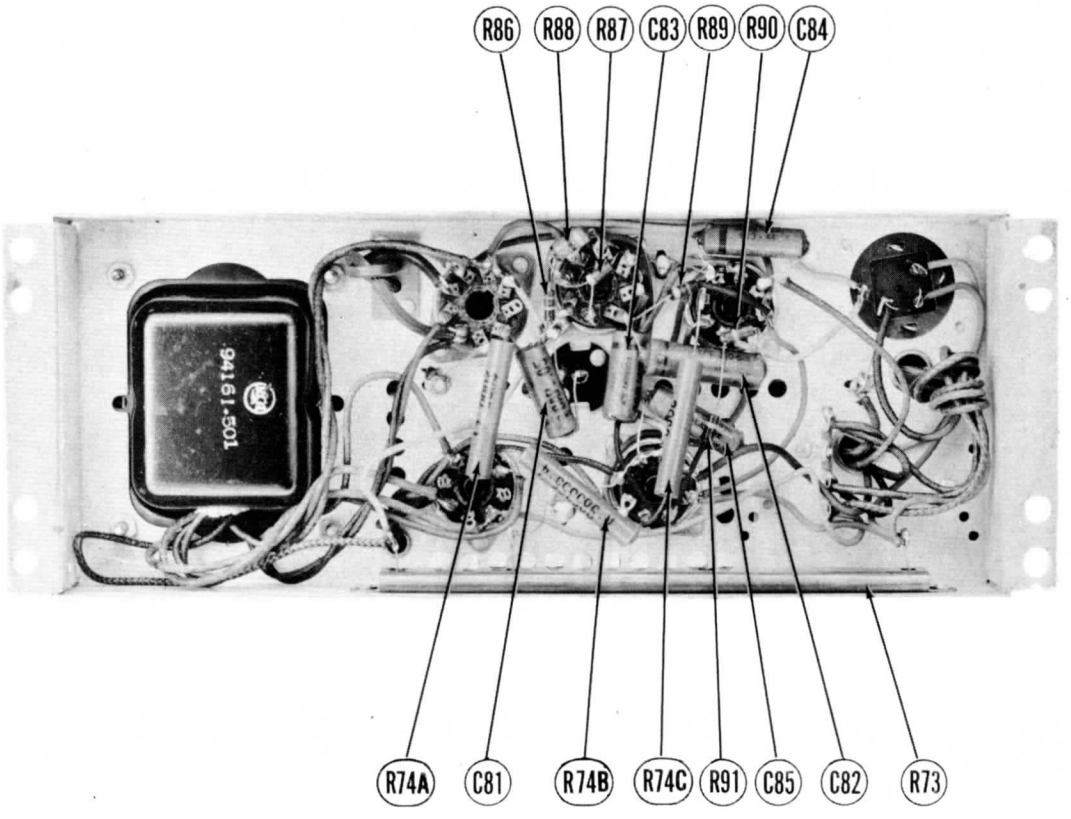
NOTE: CONTRAST CONTROL IS SET AT MAXIMUM FOR THESE MEASUREMENTS.
MEASURED FROM PIN 8 OF V24.
$ TAKEN WITH VACUUM TUBE VOLTMETER.
* DO NOT MEASURE.

† MEASURED FROM PIN 8 OF V39.
♦ MEASURED FROM PIN 8 OF V37.
♠ MEASURED FROM PIN 8 OF V24.
▬ MEASURED FROM PIN 8 OF V40.
▲ MEASURED FROM PIN 8 OF V33.

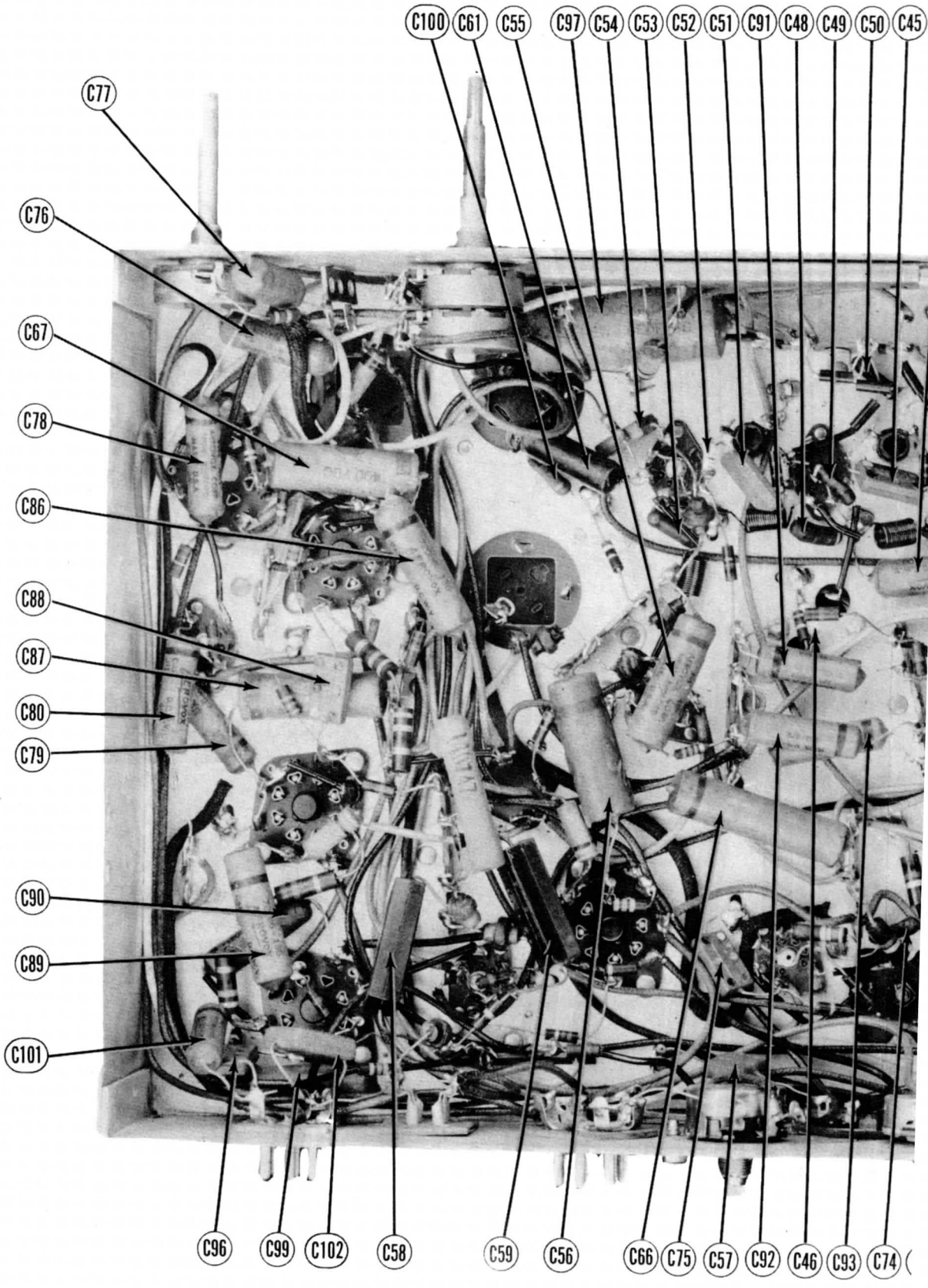
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. Front panels controls set at minimum.
6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.



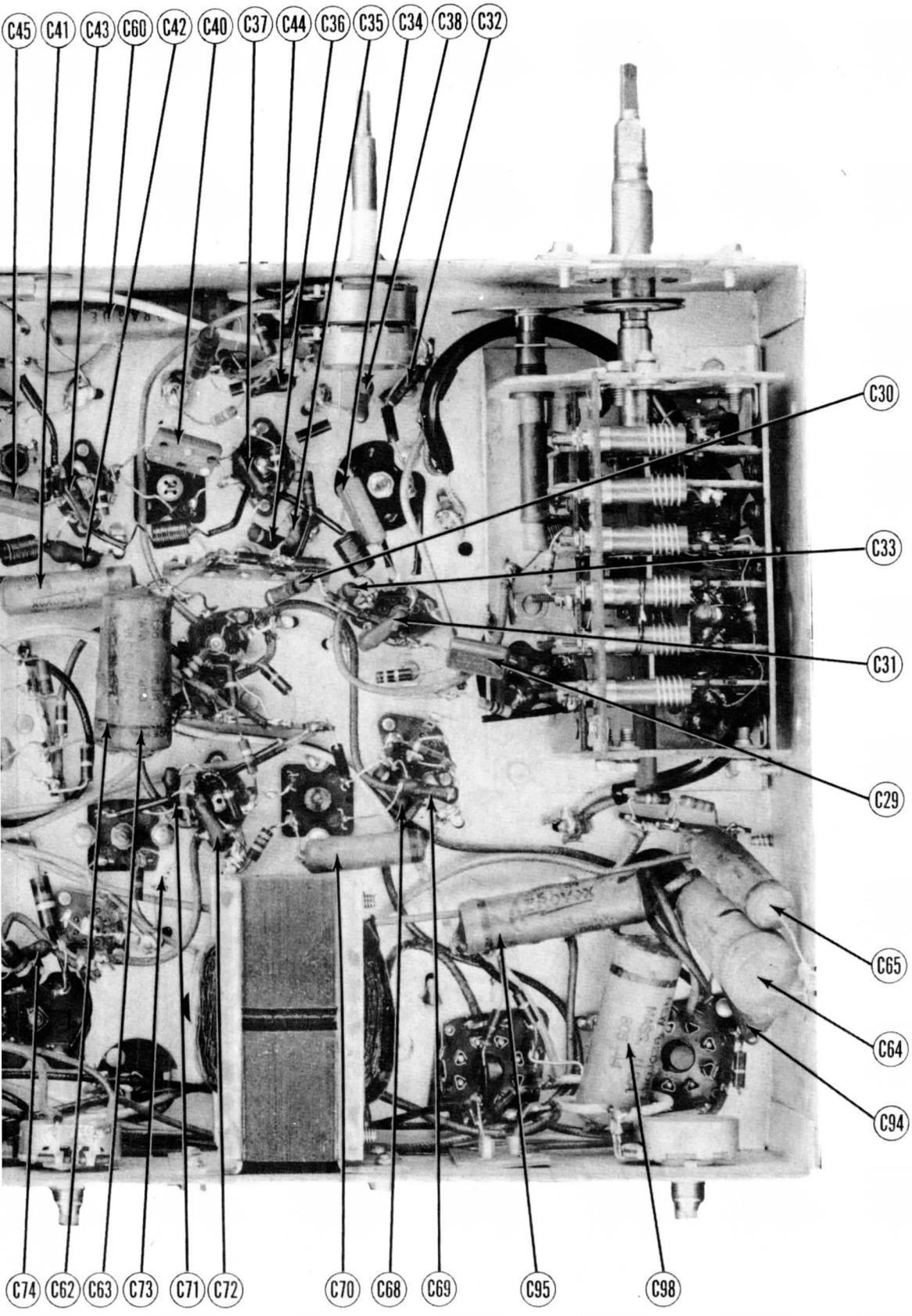
AUDIO CHASSIS-TOP VIEW



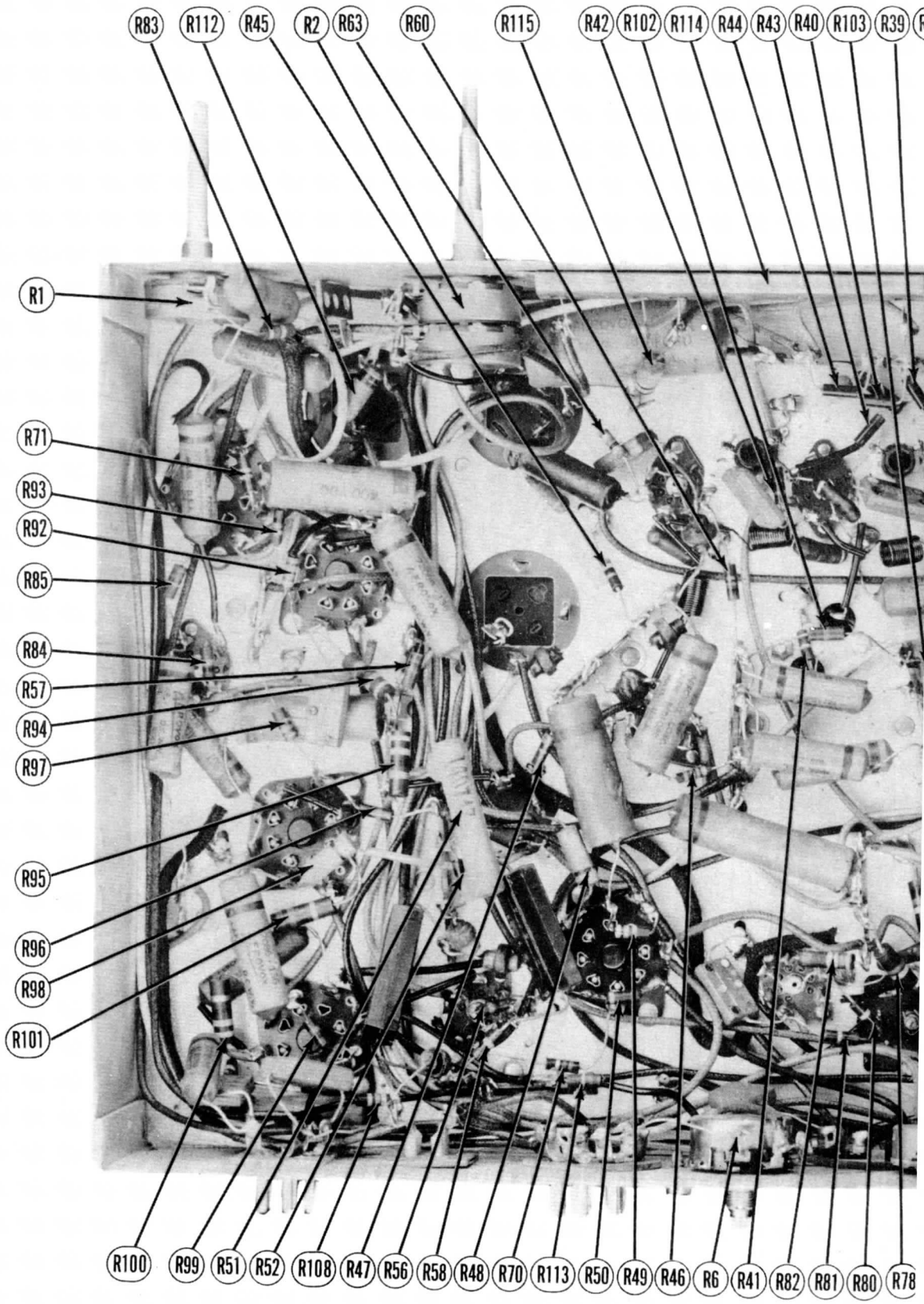
AUDIO CHASSIS-BOTTOM VIEW



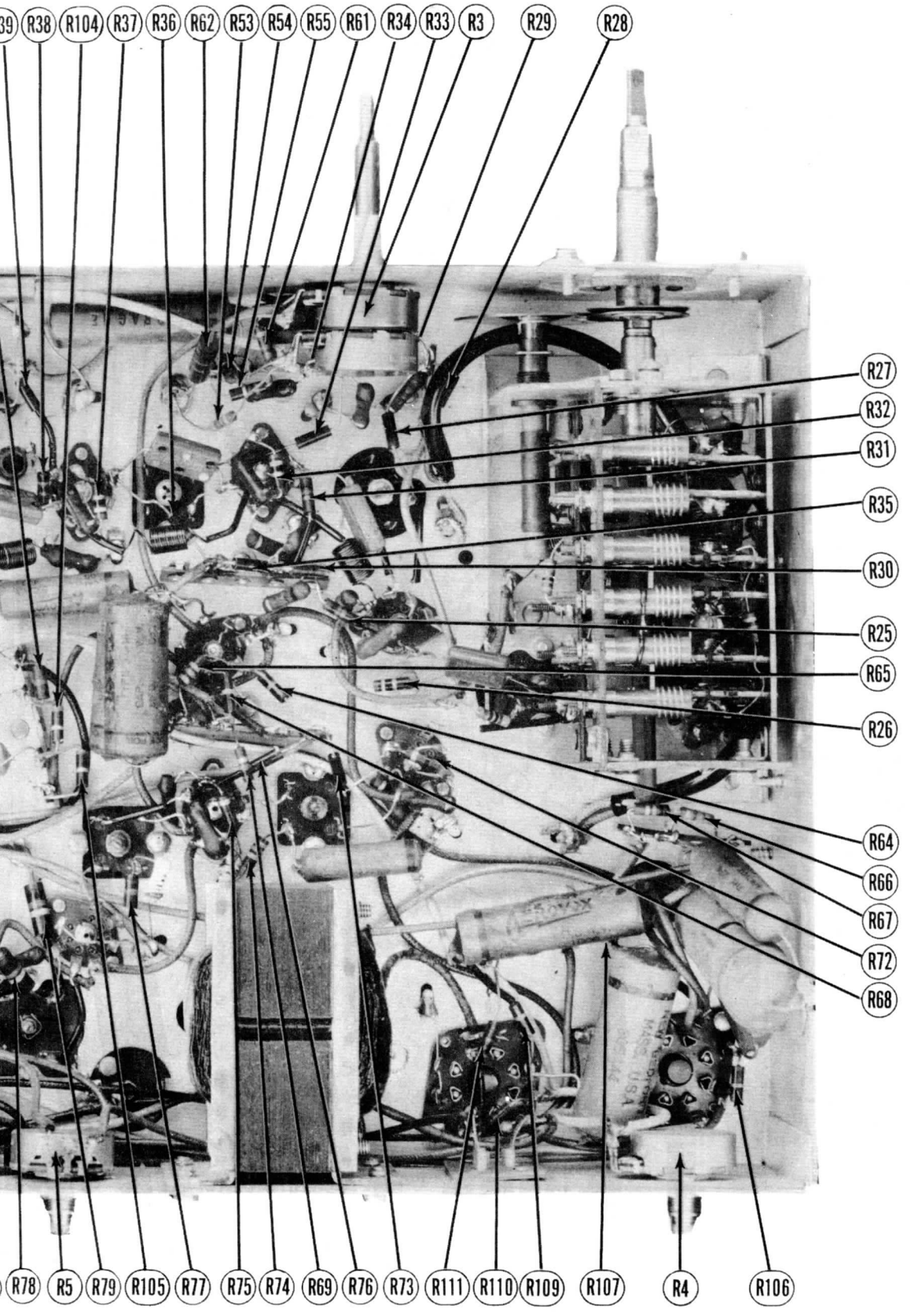
TV CHASSIS BOTTOM VIEW-C



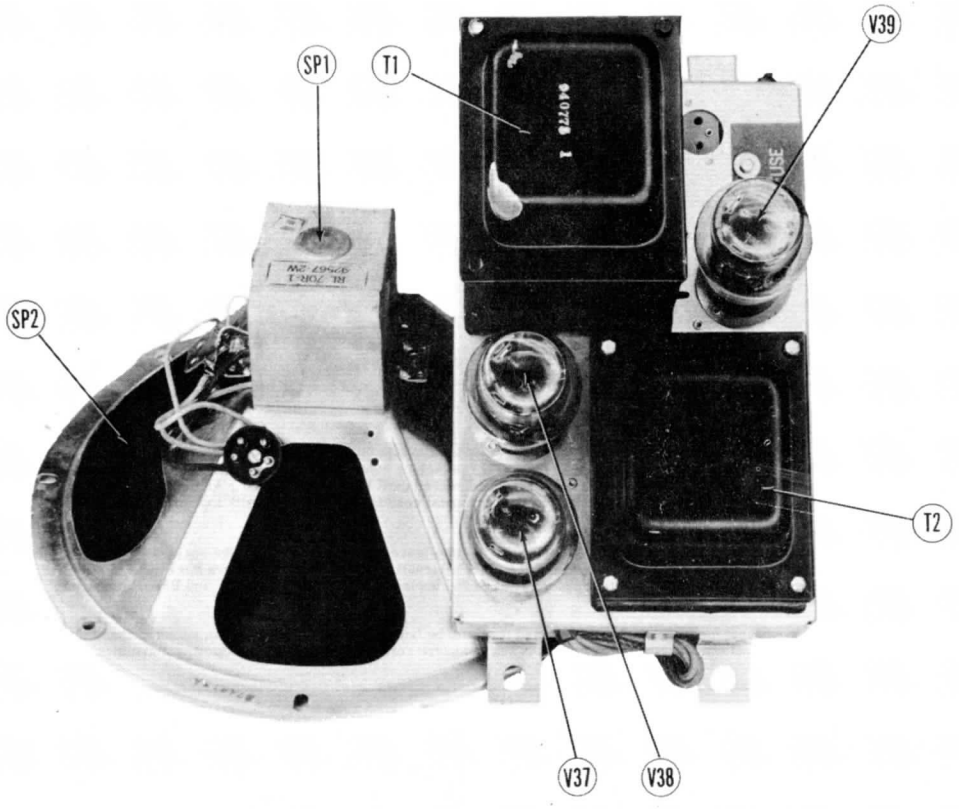
V-CAPACITOR IDENTIFICATION



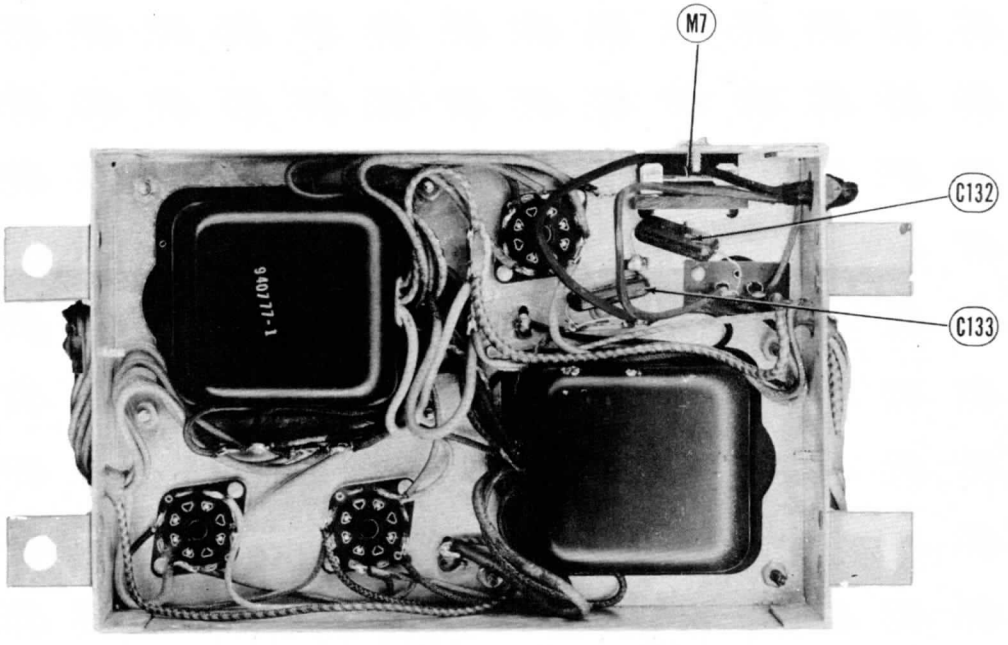
TV CHASSIS BOTTOM VIEW-



W-RESISTOR IDENTIFICATION



LOW VOLTAGE SUPPLY - TOP VIEW



LOW VOLTAGE SUPPLY - BOTTOM VIEW

OPTICAL BARREL ADJUSTMENTS

The following adjustments may be made with a test pattern from a station, in which case it must be definitely ascertained that the electrical focus is properly adjusted. If available, a test lamp is recommended. If a test lamp is used, it should be correctly centered in the kinescope holder and rotated until the picture appears properly on the screen. CAUTION: Test lamp should be turned on for only short periods of time as excessive heat will damage the corrector lens. The hole in the center of the corrector lens should be covered with a piece of black c ardboard. Figure 5 shows optimum adjustment conditions and should be used as a reference.

1. Optical Focus Adjustment (B4) .
   Figure 6 shows the result of misadjustment of this control. If the vertical and horizontal double lines are parallel and the entire picture goes through an optical focus simultaneously, all other adjustments are probably correct.

2. Lateral Optical Adjustment (B9).
   The lack of a parallel condition of the vertical double line as shown in Figure 7 indicates that the lateral optical adjustment needs adjusting. This condition may appear reversed, indicating that the lateral optical adjustment is off in the opposite direction. Figure 8 shows the result of trying to correct the above condition with the optical focus adjustment (B4).

3. Horizontal Optical Centering Adjustment (B5).
   Figure 9 shows the misadjustment of the horizontal optical centering adjustment; notice that the horizontal double lines are not parallel. Figure 10 shows the result of attempting to correct this condition with the optical fosus adjustment (B4). Notice that the picture is out of focus at the right and left edge - the oppsite of Figure 8.

4. Corrector Lens Centering Adjustment (B6).
   This adjustment is correct when the "halo" around the center dot of the pattern (when the optical focus is misadjusted) is circular as in Figure 6. Figure 12 shows the incorrect condition. Figure 11 shows this condition when B4 is set correctly. Notice the distorted image in the upper left portion of the figure.

5. Optical Barrel Vertical Tilt Adjustment (B7).
   If the top and bottom of the picture do not go through a focus simultaneously as B4 is adjusted through an optical focus, incorrect adjustment of the vertical tilt adjustment (B7) is indicated. I the top of the picture comes into focus first as the focus adjustment is turned clockwise, the adjustment nearest the focus adjustment should be lowered until the entire picture goes through a focus simultaneously in the vertical plane. With this adjustment incorrect, the horizontal condition of Figure 13 will appear vertically.

6. Optical Barrel Horizontal Tilt Adjustment (B8).
   If the left and right sides of the picture do not go through a focus simultaneously as in Figure 12, the horizontal tilt adjustments are incorrect and should be adjusted by raising one and lowering the other alternately until the entire picture goes through a focus horizontally at the same time. After adjustment of either the vertical or the horizontal tilt adjustments (B7 and B8) all previous adjustments should be rechecked

Figures 6 through 13 represent one misadjustment only and it should be borne in mind that any combinations of these misadjustments is posssible. Care must be exercised when analyzing individual cases to assure correct diagnosis of the existing mal-adjustments.

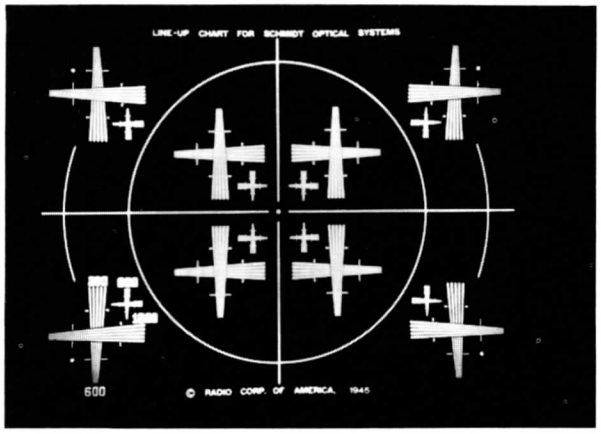


FIG. 5 - Image in optimum focus. Note 600 line definition is obtained in the corners of the picture.

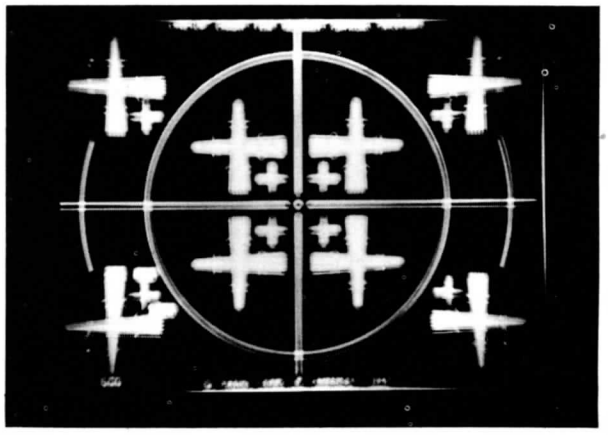


FIG. 6 - Optimum of adjustment position. Picture out of focus, showing double lines on both horizontal and vertical axes.

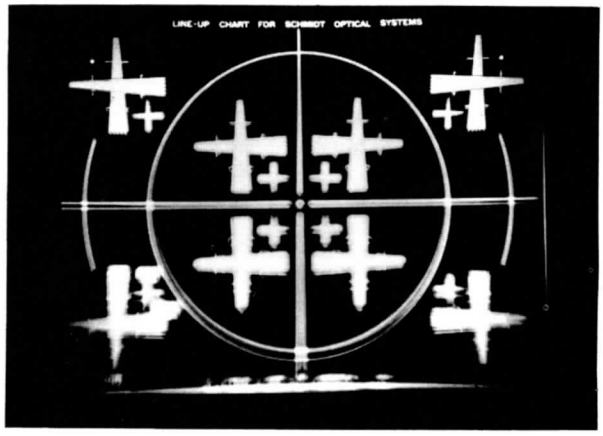


FIG. 7 - Lateral adjustment of optical barrel incorrect, as shown by a lack of a parallel condition of the vertical lines.

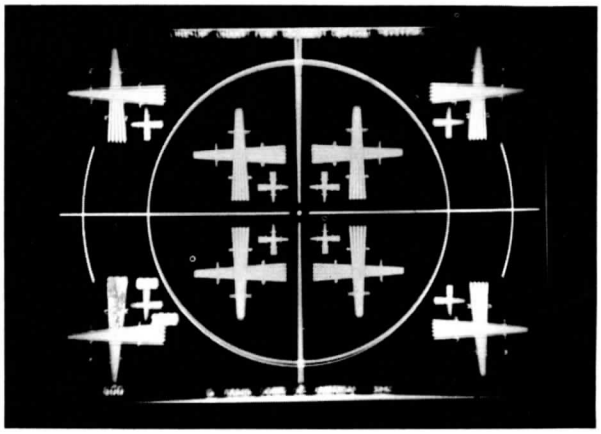


FIG. 8 - Same as shown in Fig. 7 except that the system has been focused for sharp definition of the center and an out-of-focus condition occurs at both top and bottom.

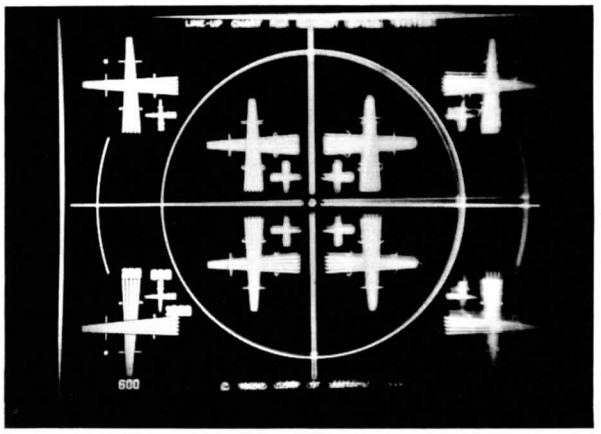


FIG. 9 - Out-of-focus condition due to incorrect horizontal adjustment. Image is sharp at the left-hand side of the picture.

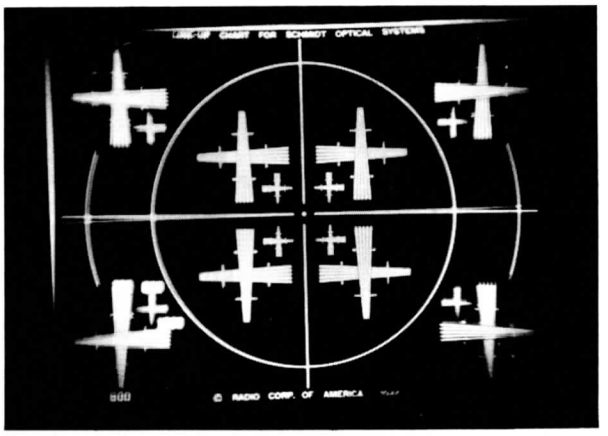


FIG. 10 - Same condition as Fig. 9 except that the picture has been focused by adjustment of the optical barrel to be correct at the center. Picture is out of focus at the right and left-hand sides but in focus along the vertical axis.

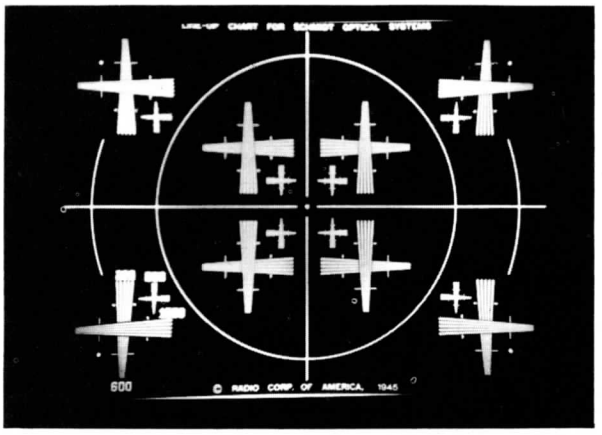


FIG. 11 - The aspherical corrector lens is off center and, in this case, the image is distorted in the upper left-hand quadrant.

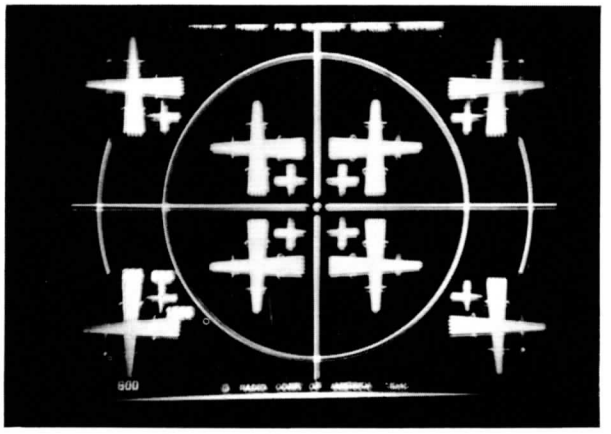


FIG. 12 - Aspherical correcting lens off center with optical system out-of-focus showing distorted "halo" around central dot.

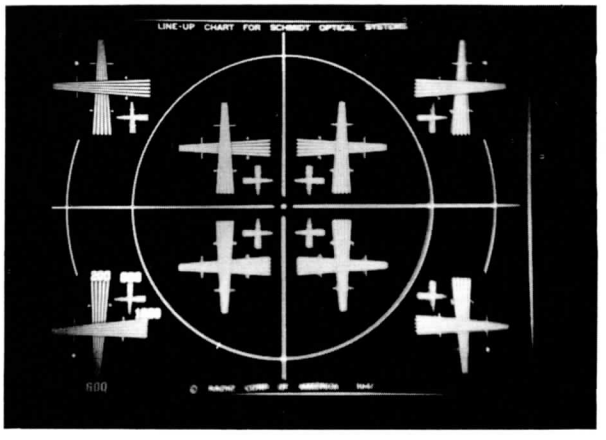
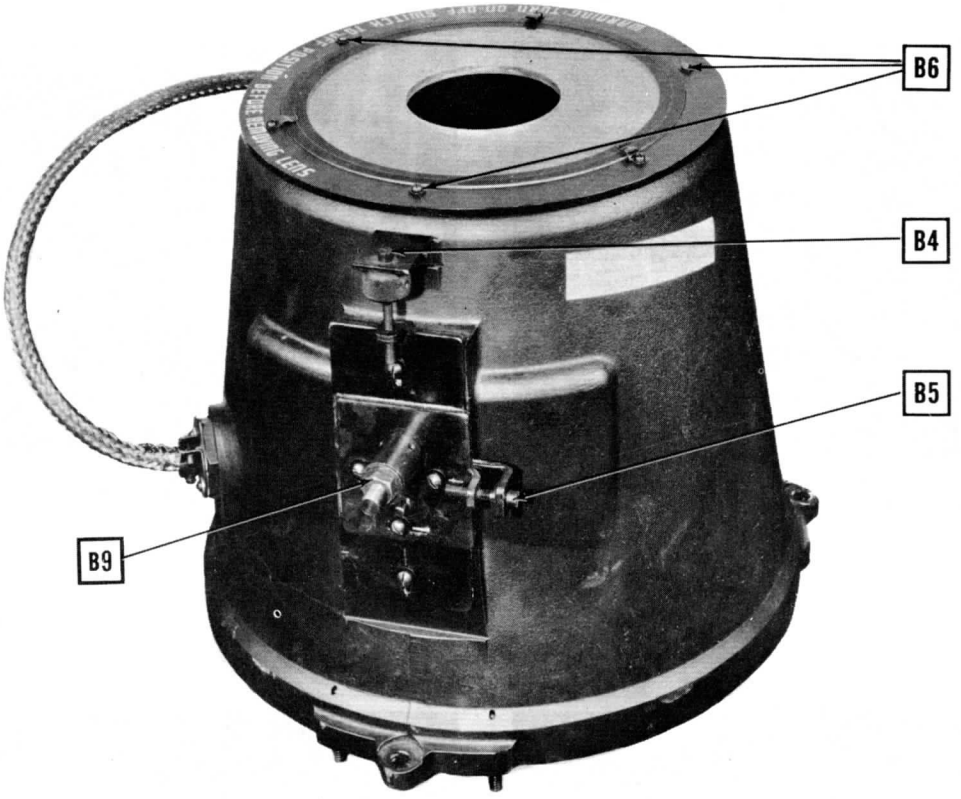
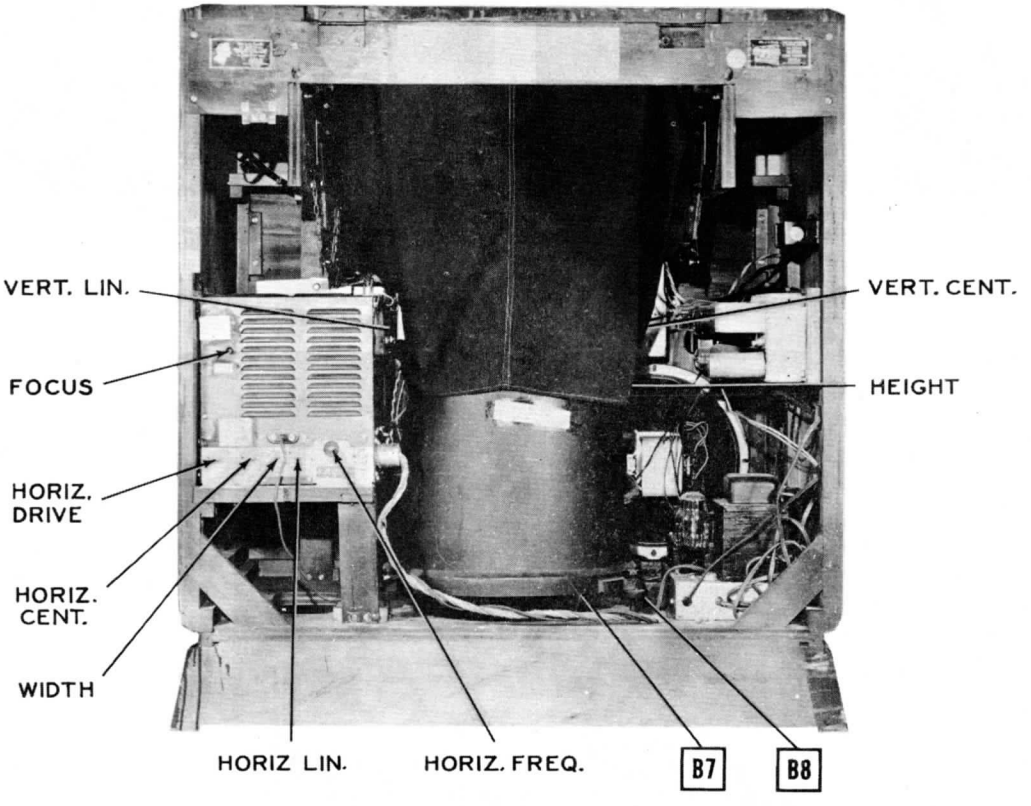


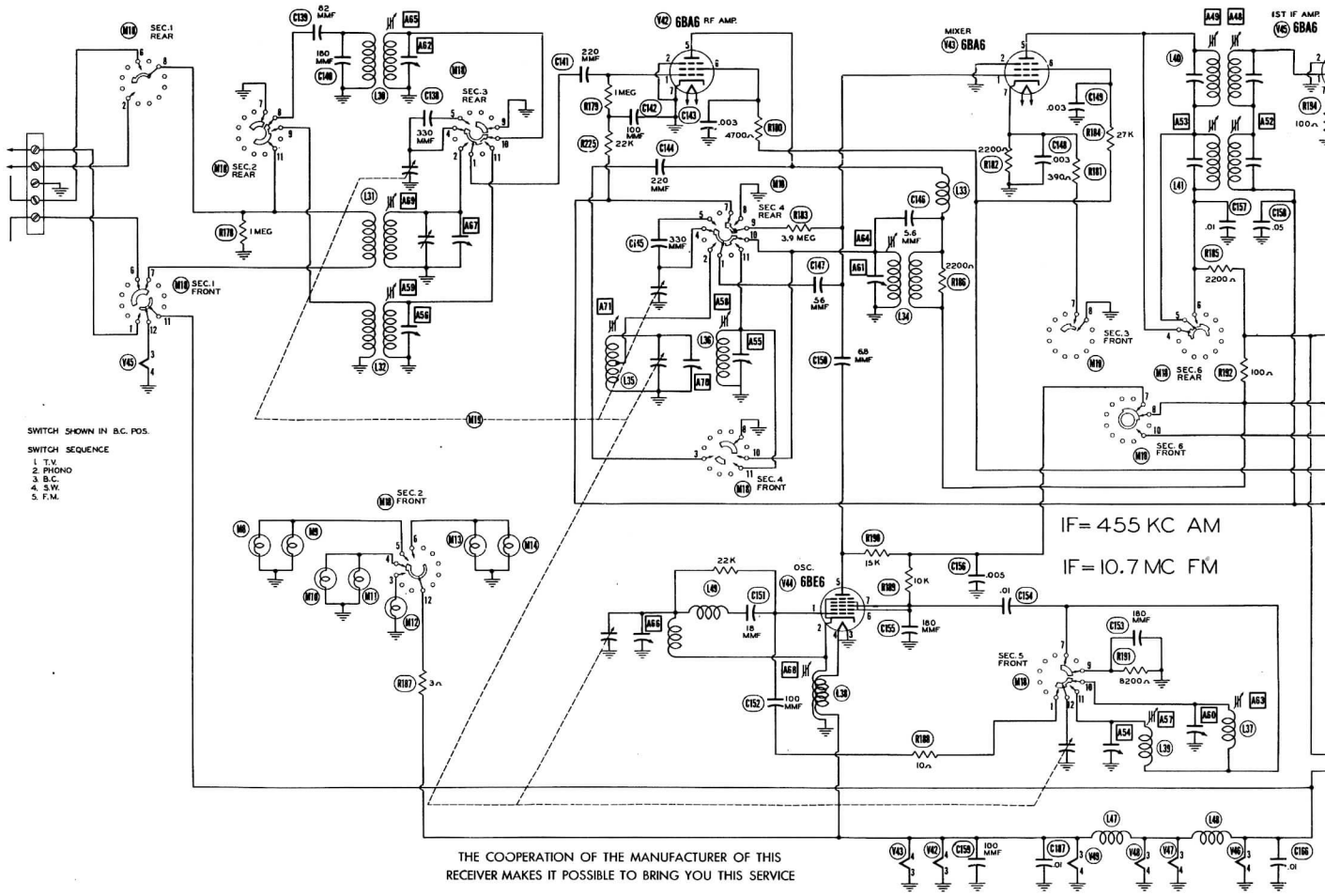
FIG. 13 - Incorrect adjustment of "tilt" of the optical barrel which produces a horizontal shift of the picture to the left and has a definite position of optimum focus for the left-hand side and the center of the picture.



OPTICAL BARREL



CABINET-REAR VIEW



VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V42	6BA6	-.1VDC	0V.	0V.	6.3VAC	260VDC	105VDC	0V.
V43	6BA6	-.6VDC	0V.	0V.	6.3VAC	260VDC	90VDC	1.3VDC
V44	6BE6	1-3VDC	0V.	0V.	6.3VAC	133VDC	152VDC	152VDC
V45	6BA6	-.3VDC	0V.	6.3VAC	0V.	260VDC	115VDC	1.2VDC
† V46	6AU6	-.6VDC	0V.	6.3VAC	0V.	260VDC	165VDC	0V.
† V47	6AU6	-.5VDC	0V.	6.3VAC	0V.	220VDC	125VDC	0V.
† V48	6AL5	0V.	-.6VDC	6.3VAC	0V.	0V.	0V.	-.3VDC
V49	6AT6	-.4VDC	0V.	6.3VAC	0V.	-.5VDC	0V.	125VDC

‡ TAKEN WITH VACUUM TUBE VOLTMETER.
† TAKEN IN FM POSITION.

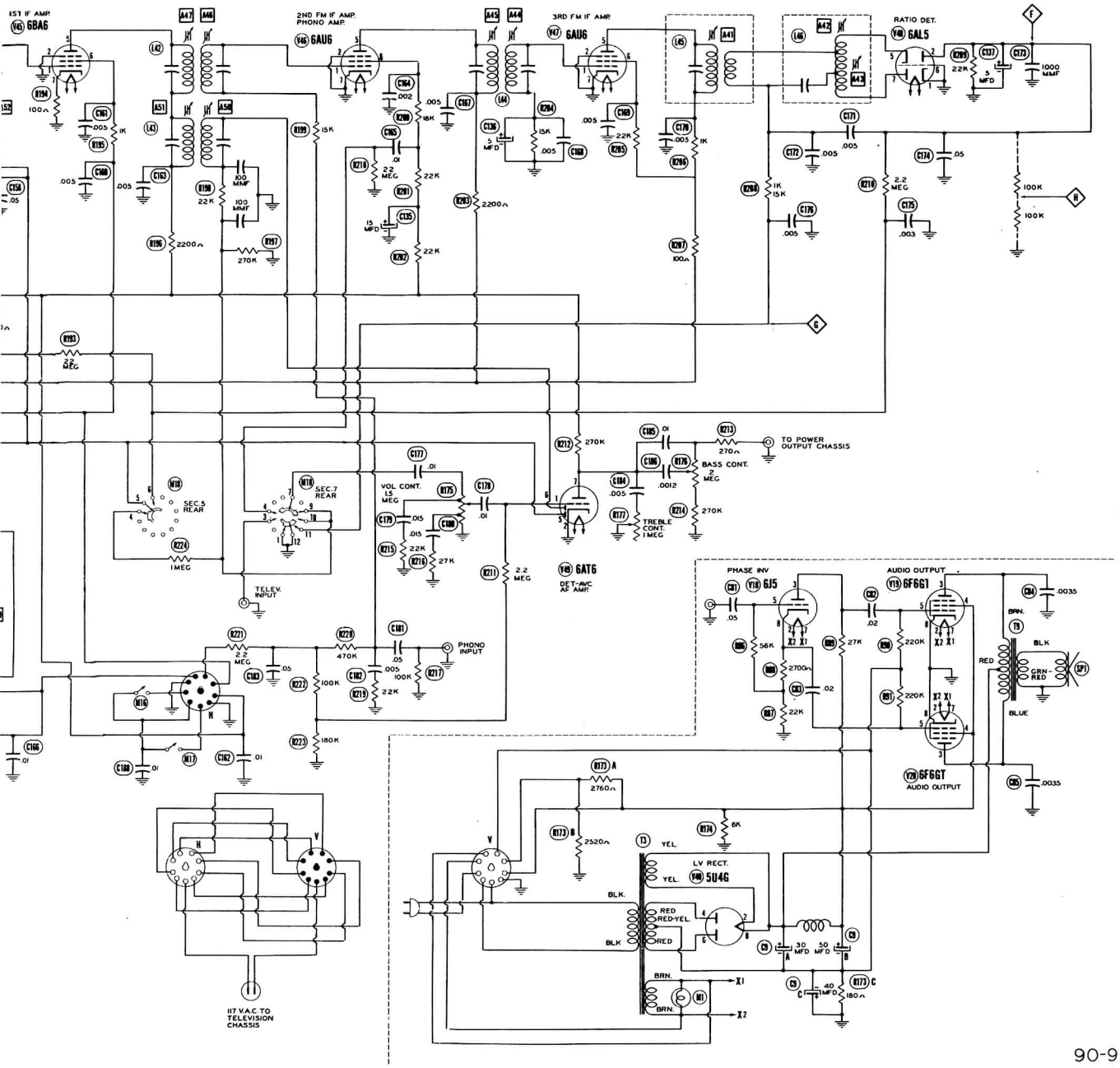
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V42	6BA6	2 Meg.	0Ω	0Ω	.1Ω	≈1.1KΩ	≈6.5KΩ	0Ω
V43	6BA6	4.8 Meg.	0Ω	0Ω	.1Ω	≈3.3KΩ	≈30KΩ	2.2KΩ
V44	6BE6	18KΩ	0Ω	0Ω	.1Ω	≈15KΩ	≈12KΩ	12KΩ
V45	6BA6	1.2 Meg.	0Ω	.1Ω	0Ω	≈2.2KΩ	≈3KΩ	90Ω
† V46	6AU6	670KΩ	0Ω	.1Ω	0Ω	≈2.2KΩ	≈60KΩ	0Ω
† V47	6AU6	15KΩ	0Ω	.1Ω	0Ω	≈5KΩ	≈25KΩ	0Ω
† V48	6AL5	0Ω	22KΩ	.1Ω	0Ω	Inf.	0Ω	Inf.
V49	6AT6	2.4 Meg.	0Ω	.1Ω	0Ω	1.2 Meg.	280KΩ	≈250KΩ

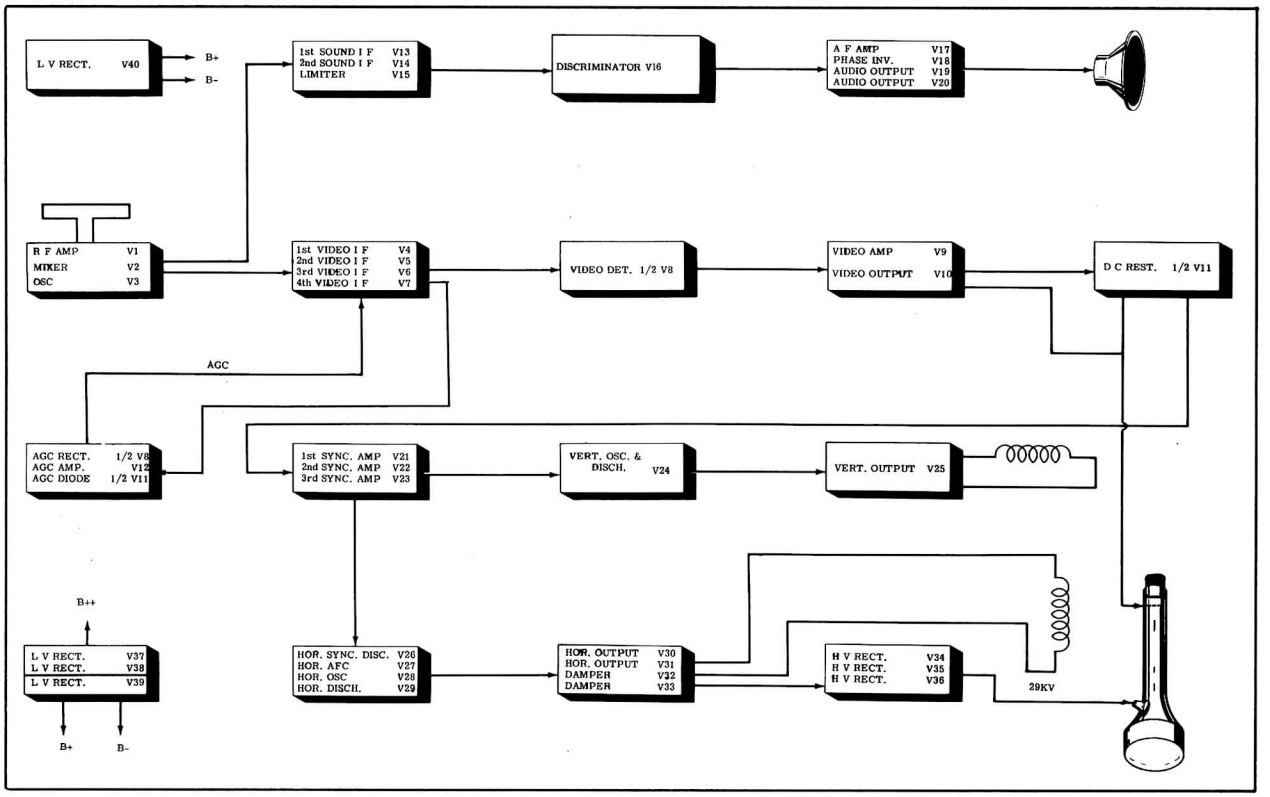
† TAKEN IN FM POSITION.
- MEASURED FROM PIN 8 OF V40.

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms.
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 ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC


1ST IF AMP.
V45 6BA6
2ND FM IF AMP.
PHONO AMP.
V46 6AU6
3RD FM IF AMP.
V47 6AU6
RATIO DET.
V48 6AL5
VOL. CONT.
1.5 MEG
BASS CONT.
2 MEG
TREBLE CONT.
1 MEG
TO POWER OUTPUT CHASSIS
SEC.5 REAR
SEC.7 REAR
TELEV. INPUT
PHONO INPUT
V49 6AT6
DET.-AVC AF AMP.
PHASE INV
V50 6J5
AUDIO OUTPUT
V51 6F6G1
V52 6F6GT
AUDIO OUTPUT
V53 5U4G
LV RECT.
117 V.A.C. TO TELEVISION CHASSIS

90-9



BLOCK DIAGRAM

DISASSEMBLY INSTRUCTIONS

1. Remove five push-on type knobs from controls.
2. Remove base socket of picture tube and feed thru hole in dust cloth. Some plugs connecting the various units are held in with 1/4" hex head bolts. Make sure these are removed before withdrawing plugs.
3. Remove plug of shielded cable from Hor. deflection chassis and feed cable thru hole in dust cloth.
4. Remove plug from left rear of TV chassis and feed cable thru dust cloth.
5. Loosen screw holding yoke clamp and slide yoke off neck of picture tube.
6. Loosen three screws holding clamps over glass plate. Push clamps aside and remove glass plate over neck of picture tube.
7. Loosen three screws around large end of picture tube and remove tube.
8. Remove power plug from left rear corner of power supply chassis leading to Hor. deflection chassis.
9. Remove plug on left side of deflection chassis. This cable leads to power supply chassis.
10. Remove two plugs on right rear of TV chassis. These cables lead to Hor. deflection chassis.
11. Remove three 3/8" hex head bolts holding Hor. deflection chassis to cabinet. Remove the chassis with care as HV lead to picture tube is still connected. Turn chassis over and remove sixteen 1/4" hex head bolts from bottom cover. Unsolder HV lead. Loosen clamp screws on top of Hor. deflection chassis and remove HV lead from this unit.
12. Disconnect short black power lead plug of power supply chassis. This cable leads to audio amplifier chassis.
13. Disconnect plug on right rear of TV chassis leading to power supply chassis.
14. Remove four 3/8" hex head bolts holding power supply chassis to cabinet. Remove chassis.
15. Remove speaker plug at speaker. This cable leads to audio amplifier chassis.
16. Remove octal plug from center of audio amplifier chassis.
17. Remove bayonet plug from center of audio amplifier chassis.
18. Remove panel lamp from inside bottom front of cabinet.
19. Remove four 3/8" hex head bolts holding audio amplifier chassis to side of cabinet, using care to hold chassis. Remove chassis.
20. Remove octal plug from upper right corner of TV chassis. This cable leads to resistor chassis.
21. Remove two screws holding resistor chassis to cabinet. Remove chassis.
22. Remove four hex head nuts 11/32" holding speaker to cabinet. Remove speaker.
23. Remove bayonet plug from center of TV chassis. This cable goes to audio amplifier chassis.
24. Remove two phillips head screws holding antenna terminal strip to upper left of cabinet.
25. Remove two 3/8" hex head bolts holding TV chassis to cabinet, holding chassis to prevent it falling. Remove TV chassis.
26. To remove picture tube housing, remove three 5/8" hex nuts holding picture tube housing to cabinet. Lift unit and remove.
27. Remove four screws holding on-off switch to control panel of cabinet.
28. Remove four screws holding automatic on-off switch to inside corner of control panel. Remove on-off switch wiring.

RADIO CRITICAL LEAD DRESSING

(Any lead dress should be made before alignment)

1. Lead from pin 5, tube V43, to terminal "C" on transformer L37 should be dressed close to chassis.

2. Leads to terminals "C" and "D" on transformer L38 should be dressed close together.

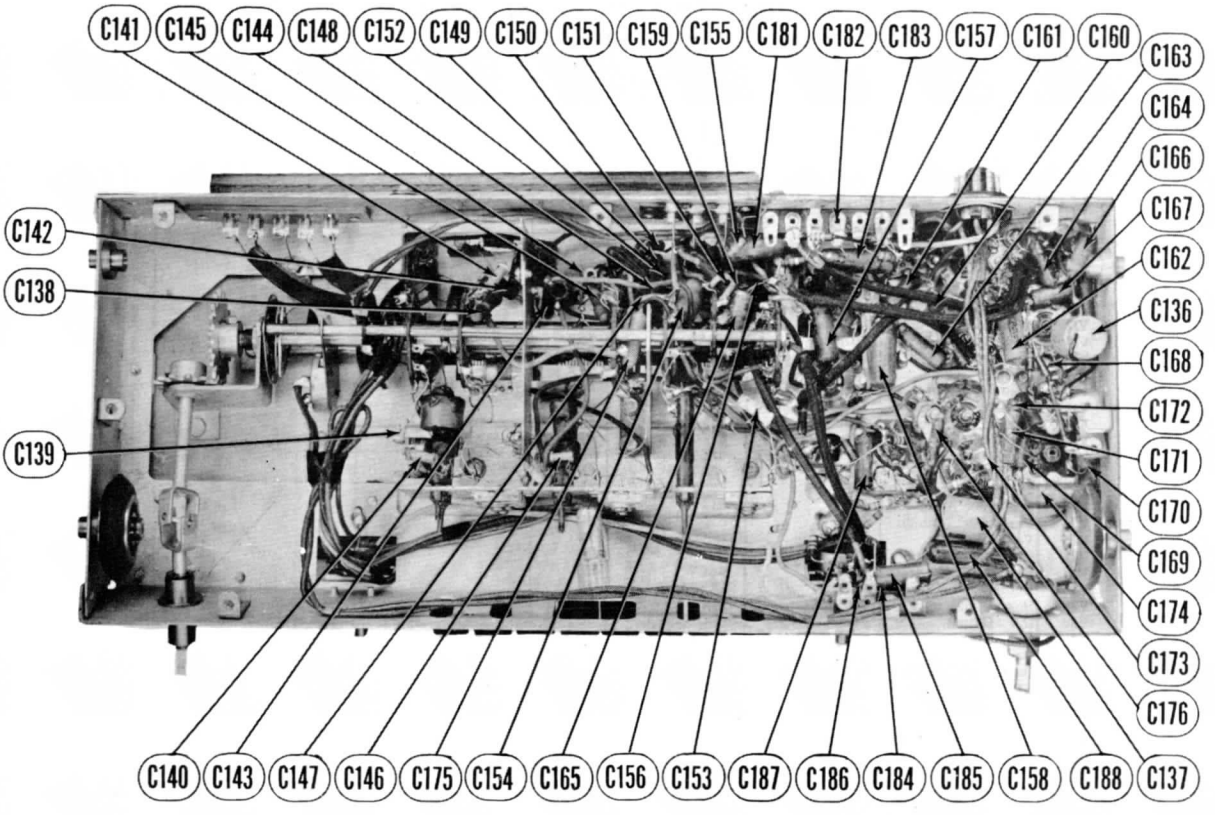
3. The following capacitors must be dressed close to the chassis with leads kept as short as possible: C157, C158, C168, C170, C174 and C173.

4. All FM coil connections must be soldered in exact place as the original. (One-sixteenth inch difference in length may be excessive.)

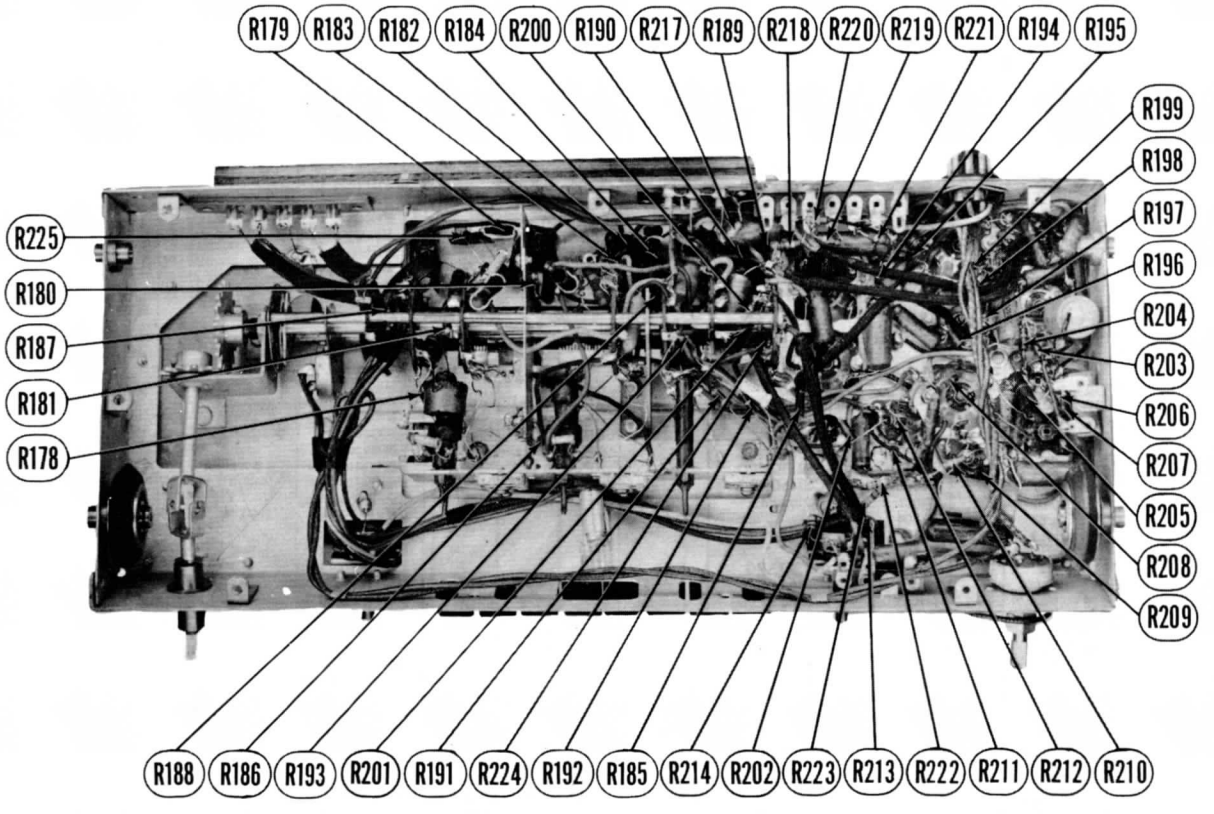
5. Lead from pin 7, tube V49, must be dressed away from lead to terminal "D" of transformer L48.

6. All RF and IF wiring in the receiver is critical as to length and placement. It is therefore important when servicing, that extreme care should be taken so as not to disturb more of the wiring than absolutely necessary.

NOTE: Keep tuning capacitor rotor grounding brushed clean and making good contact.



RADIO CHASSIS-BOTTOM VIEW-CAPACITOR IDENTIFICATION



RADIO CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATON

TV PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		RCA PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6J6	6J6	7BF	
V2	Mixer	6J6	6J6	7BF	
V3	Oscillator	6J6	6J6	7BF	
V4	1st Video IF	6AG5	6AG5	7BD	
V5	2nd Video IF	6AG5	6AG5	7BD	
V6	3rd Video IF	6AG5	6AG5	7BD	
V7	4th Video IF	6AG5	6AG5	7BD	
V8	Video Det. - AGC Rect.	6AL5	6AL5	6BT	
V9	Video Amp.	6AU6	6AU6	7BK	
V10	Video Output	6V6GT	6V6GT	7AC	
V11	DC Restorer-AGC Diode	6AL5	6AL5	6BT	
V12	AGC Amp.	6AT6	6AT6	7BT	
V13	1st Sound IF	6BA6	6BA6	7BK	
V14	2nd Sound IF	6BA6	6BA6	7BK	
V15	Limiter	6AU6	6AU6	7BK	
V16	Disc.	6AL5	6AL5	6BT	
V17	1st AF Amp.	6AT6	6AT6	7BT	
V18	Phase Inv.	6J5	6J5	6Q	
V19	Audio Output	6F6G	6F6G	7S	
V20	Audio Output	6F6G	6F6G	7S	
V21	1st Sync. Amp.	6SK7	6SK7	8N	
V22	2nd Sync. Amp.	6SH7	6SH7	8BK	
V23	3rd Sync. Amp.	6J5	6J5	6Q	
V24	Vert. Osc. -Disch.	6J5	6J5	6Q	
V25	Vert. Output	6K6GT	6K6GT	7S	
V26	Hor. Sync. Disc.	6H6	6H6	7Q	
V27	Hor. AFC	6AC7	6AC7	8N	
V28	Hor. Osc.	6K6GT	6K6GT	7S	
V29	Hor. Disch.	6J5	6J5	6Q	
V30	Hor. Output	6BG6G	6BG6G	5BT	
V31	Hor. Output	6BG6G	6BG6G	5BT	
V32	Damper	6AS7G	6AS7G	8BD	
V33	Damper	5V4G	5V4G	5L	
V34	HV Rectifier	1B3GT	1B3GT	3C	
V35	HV Rectifier	1B3GT	1B3GT	3C	
V36	HV Rectifier	1B3GT	1B3GT	3C	
V37	LV Rectifier	5U4G	5U4G	5T	
V38	LV Rectifier	5U4G	5U4G	5T	
V39	LV Rectifier	5U4G	5U4G	5T	
V40	LV Rectifier	5U4G	5U4G	5T	
V41	Projection Tube	5TP4	5TP4		

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		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C1	70	400	72621	AF16J	UP8045			Filter
C2A	70	250	72622	AF1414F4B	UP9CJ350		TVL-50	▬ Filter
B	70	250						■ Filter
C	20	50						▲ Hor. Output Cath. Bypass
C3A	70	400	72623	AF862JA ‡	UP9BJ857		TVL-47	▬ Filter
B	10	400						▲ Hor. Output Screen Decoupling
C4A	100	15	72624	AF4D5020P	UP7CJ269			▲ Hor. Cent. Cont. Bypass
B	250	15						■ Hor. Cent. Cont. Bypass
C	20	150						▬ Damper Filter
C5A	40	450	72612	AF8J20D10B	UP9CJ1002		D12677	▬ Filter
B	100	150						■ Filter
C	50	50						▲ Vert. Output Cath. Bypass
C6A	80	450	71780	AF164J	UP9BJ857		TVL-47	▬ Filter
B	10	450						▲ Vert. Output Decoupling
C7A	40	450	72169	AF82J2H	UP9DJ784		TVL-59	▬ Filter
B	10	450		PRS450/40				■ Low Pass Filter
C	35	350						▲ Filter
D	10	350						Decoupling
C8	1000	3	72611	AF200A			TVL-42	Vert. Cent. Cont. Bypass
C9A	30	450	72955	AFH6J10J8A	UP9CJ884		D12684	▬ Filter
B	50	400						■ Filter
C	40	25						▲ Filter
C10	10			CN10JNPO		NPOK-10		Fixed Trimmer
C11	10			CN10JNPO		NPOK-10		Fixed Trimmer
C12	270		71540	GP270M		GP2K-250		RF Coupling
C13	270		71540	GP270M		GP2K-250		RF Coupling
C14	1500		71501	GP1500M		GP2L-0015		RF Bypass
C15	1.5		71500	CN1.5CNPO		NPOK-1.5		Neutralizing
C16	1.5		71500	CN1.5CNPO		NPOK-1.5		Neutralizing
C17	1500		71501	GP1500M		GP2L-0015		RF Decoupling
C18	.68		71504					RF Coupling
C19	4.7		71520					RF Coupling
C20	2.2		71502					RF Coupling
C21	22		33101	CN22JNPO				Fixed Trimmer
C22	1500		71501	GP1500M		GP2L-0015		Mixer Decoupling
C23	68			CN68JNPO				Fixed Trimmer
C24	1500		71501	GP1500M		GP2L-0015		Filament Bypass
C25	1500		71501	GP1500M		GP2L-0015		Osc. Decoupling
C26	10		45466	CN10JNPO		NPOK-10		Fixed Trimmer *
C27	4.7		71520	CN4.7DNPO				Osc. Feedback
C28	4.7		71520	CN4.7DNPO				Osc. Feedback
C29	270	500	39638	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C30	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	AGC Filter
C31	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	1st V. IF Decoupling
C32	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Decoupling
C33	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	1st V. IF Fil. Bypass
C34	82	1000	73090	1468-000075	5W5T1	GP2K-75	1FM-475	IF Coupling
C35	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	AGC Filter
C36	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	2nd V. IF Fil. Bypass
C37	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	2nd V. IF Decoupling
C38	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Decoupling
C39	43			CN43JNPO				Fixed Trimmer
C40	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-215	IF Coupling

CAPACITORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C41	.05	400	70615	P488-05	PTE4S5		TM-15	AGC Filter
C42	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	3rd V. IF Fil. Bypass
C43	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	3rd V. IF Decoupling
C44	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Decoupling
C45	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C46	82		71514	GP100K	5W5T1	GP1K-100	1FM-31	4th V. IF Cath. Bypass
C47	75			CN75JNPO		NPOM-75		Fixed Trimmer
C48	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	4th V. IF Fil. Bypass
C49	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	4th V. IF Decoupling
C50	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Decoupling
C51	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C52	33		38868	GP33K	5W5Q4	NPOL-33	1FM-44	IF Coupling
C53	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Video Det. Fil. Bypass
C54	10	500	72615	1468-00001	5W5Q1	GP1K-10	MS-41	V. Diode Filter
C55	.05	400	70615	P488-05	PTE4S5		TM-15	Video Coupling
C56	.05	600	70636	P688-05	PTE6S5		TM-15	Video Coupling
C57	680	500	53274	1468-00075	1W5T7	GP2K-750	1FM-37	2nd V. Amp. Cath. Bypass
C58	.05	600	72996	P688-05	PTE6S5		TM-15	Video Coupling
C59	.05	600	72996	P688-05	PTE6S5		TM-15	Video Coupling
C60	.25	200	70618	P488-25	GT2P25		TC-2	DC Res. Decoupling
C61	.001	600	70600	P688-001	PTE6D1	GP2L-001	TM-21	AGC Diode Filter
C62	.25	200	70618	P488-25	GT2P25		TC-2	AGC Filter
C63	.25	200	70618	P488-25	GT2P25		TC-2	AGC Filter
C64	.5	200	70619	P288-5	GT2P5		TC-5	AGC Filter
C65	.1	200	70617	P288-1	PTE4P1		TM-1	AGC Filter †
C66	.25	200	70618	P488-25	GT2P25		TC-2	AGC Coupling
C67	.1	400	70617	P488-1	PTE4P1		TM-1	AGC Filter
C68	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	1st S. IF Cath. Bypass
C69	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	1st S. IF Decoupling
C70	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	2nd S. IF Grid Filter
C71	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	2nd S. IF Cath. Bypass
C72	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	2nd S. IF Decoupling
C73	51		71771	GP51M	5W5Q5	GP1K-50	1FM-45	Limiter Grid Filter
C74	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	Limiter Decoupling
C75	470	500	39644	1468-0005	5W5T5	GP2K-500	1FM-35	RF Bypass
C76	.005	400	70606	P688-005	PTE6D5	GP2M-005	TM-25	Audio Coupling
C77	.01	200	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Tone Compensation
C78	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Audio Coupling
C79	.001	400	70600	P688-001	PTE6D1	GP2L-001	TM-21	AF Plate Bypass
C80	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Audio Coupling
C81	.05	200	71551	P288-05	PTE4S5		TM-15	Audio Coupling
C82	.02	600	70632	P688-02	PTE6S2		TM-12	Audio Coupling
C83	.02	600	70632	P688-02	PTE6S2		TM-12	Audio Coupling
C84	.0035	1000	70646	P1088-0033	PTE16D3		MB-23	Output Plate Bypass
C85	.0035	1000	70646	P1088-0033	PTE16D3		MB-23	Output Plate Bypass
C86	.05	400	70615	P488-05	PTE4S5		TM-15	Sync. Coupling
C87	.1	400	70617	P488-1	PTE4P1		TM-1	1st Sync. Amp. Plate Dec.
C88	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	Sync. Coupling
C89	.05	400	70615	P488-05	PTE4S5		TM-15	Sync. Coupling
C90	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Vert. Sync. Coupling
C91	.002	400	70601	P688-002	PTE6D2	GP2M-002	TM-22	Integrator Net.
C92	.005	400	70606	P688-005	PTE6D5	GP2M-005	TM-25	Integrator Net.
C93	.005	400	70606	P688-005	PTE6D5	GP2M-005	TM-25	Integrator Net.
C94	4700	500	72524	1467-005	1D5D5	GP2M-005	1FM-25	Vert. Osc. Grid Cap.
C95	.05	1000	73093	P1088-05	GT16S5		TR-15	Vert. Discharge
C96	1000	500	72616	1468-001	1W5D1	GP2L-001	1FM-21	RF Bypass
C97	.06	1600	73092	1684-06	GT16S5		TR-15	Vert. Osc. Plate Dec.
C98	.1	1000	70659	1084-1				Vert. Sweep Coupling
C99	.1	200	70617	P288-1	PTE4P1		TM-1	RF Bypass
C100	1500		71501	GP1500M	1W5D15	GP2L-0015	1FM-215	RF Bypass
C101	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Hor. Sync. Coupling
C102	1000	500	54346	1468-001	1W5D1	GP2L-001	1FM-21	Hor. Osc. Grid Filter
C103	82	500	72614					Hor. Sync. Coupling
C104	.015	400	71516	P488-015	PTE6S15			Fixed Trimmer
C105	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	AFC Filter
C106	.004	400	70605	P688-004	PTE6D4		TM-24	AFC Filter
C107	.05	400	70615	P488-05	PTE4S5		TM-15	Hor. Osc. Coupling
C108	.015	400	71516	P488-015	PTE6S15			Phase Shifter
C109	1200		72638					Phase Shifter
C110	.05	400	70615	P488-05	PTE4S5		TM-15	Hor. AFC Cont. Screen Bypass
C111	3900	500	39666	1467-004	1D5D4		1FM-24	AFC Coupling
C112	3900	500	39666	1467-004	1D5D4		1FM-24	Hor. Osc. Grid Cap.
C113	1000	500	39652	1468-001	1W5D1	GP2L-001	1FM-21	Hor. Osc. Grid Filter
C114	.05	600	70636	P688-05	PTE6S5		TM-15	Hor. Osc. Screen Bypass
C115	390	1000	73094	1468-0004	5W5T4		1FM-34	Differentiator Net.
C116	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Hor. Sync. Coupling
C117	.05	600	70636	P688-05	PTE6S5		TM-15	Hor. Sweep Coupling
C118	1000	500	39652	1468-001	1W5D1	GP2L-001	1FM-21	Hor. Feedback
C119	150	1000	73095					Hor. Sweep Coupling
C120	.01	400	70610	P488-01	PTE4S1	GP2-335-01	TM-11	Damper Cath. Bypass
C121	1000	500	39652	1468-001	1W5D1	GP2L-001	1FM-21	RF Bypass
C122	.1	600	70638	P688-1	PTE6P1		TM-1	Decoupling
C123	.05	400	71615	P488-05	PTE4S5		TM-15	Acc. Anode Bypass
C124	1000	500	39652	1468-001	1W5D1	GP2L-001	1FM-21	Filament Bypass
C125	1000	500	39652	1468-001	1W5D1	GP2L-001	1FM-21	Filament Bypass
C126	500	10000	71450	HV500		410-500		HV Filter
C127	500	10000	71450	HV500		410-500		HV Filter
C128	500	10000	71450	HV500		410-500		HV Filter
C129	500	10000	71450	HV500		410-500		HV Filter
C130	500	10000	71450	HV500		410-500		HV Filter
C131	500	10000	71450	HV500		410-500		Focus Anode Bypass
C132	.01	400	71770	P488-01	PTE4S1		TM-11	Line Filter
C133	.01	400	71770	P488-01	PTE4S1		TM-11	Line Filter
C134	56							Fixed Trimmer *

* Not used in all models.
† Some models use .01MFD in this application.
‡ Omit bypass section. Parallel sections to obtain desired capacity.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	RCA PART No.	IRC PART No.	CLAROSTAT PART No.	
R1	1 Meg.	½	70143	Q13-137X	T-98	Volume control, tapped at 250KΩ
R2A	1 Meg.	½	72758		970111-8	Vert. hold control } Dual Concentric
B	50KΩ	½				Horiz. hold control }
R3A	1000Ω	½	71971		970111-1	Contrast control } Dual Concentric
B	50KΩ	½				Brightness control }
R4	5000Ω	½	71441	Q11-114	M-19-S	Vert. linearity control
R5	2.5 Meg.	½	71440	Q11-239		Height control
R6	30Ω	2	72168	W-30X15	58-30CT	Vert. centering control-Wire Wound
R7	5000Ω	½	71441	Q11-114	M-19-S	Horiz. drive control
R8	30Ω	2	72181	W-30	43-30	Horiz. centering control-Wire Wound
R9	250KΩ	½	72182	Q13-130	M-64-Z	Horiz. linearity control
R10	15 Meg.	4	72183			Focus control

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	RCA PART No.	IRC PART No.	ALL RESISTORS ARE ± 10% UNLESS OTHERWISE STATED.
R11	150Ω	½			RF Grid
R12	150Ω	½			RF Grid
R13	1000Ω	½			Bias Filter
R14	4700Ω	½			RF Plate
R15	4700Ω	½		BTS-4700	RF Plate
R16	1000Ω	½		BTS-1000	RF Decoupling
R17	1 Meg.	½			Mixer Grid
R18	10KΩ	½		BTS-10K	Mixer Grid Shunt
R19	1000Ω	½		BTS-1000	Mixer Decoupling
R20	150Ω	½			Decoupling Network
R21	4700Ω	½			Osc. Plate
R22	47Ω	½			Osc. Cathode
R23	100KΩ	½			Osc. Grid
R24	100KΩ	½			Osc. Grid
R25	10KΩ 5%	½			1st Video IF Grid
R26	39Ω	½			1st Video IF Cathode
R27	1000Ω 20%	½			1st Video IF Decoupling
R28	150Ω 20%	½			Decoupling Network
R29	150Ω 20%	½			Decoupling Network
R30	1000Ω 20%	½		BTS-1000	AGC Network
R31	10KΩ 5%	½			2nd Video IF Grid
R32	39Ω	½			2nd Video IF Cathode
R33	1000Ω 20%	½			2nd Video IF Decoupling
R34	150Ω 20%	½			Decoupling Network
R35	1000Ω 20%	½		BTS-1000	AGC Network
R36	4700Ω 5%	½			3rd Video IF Grid
R37	39Ω	½			3rd Video IF Cathode
R38	2700Ω 5%	½			3rd Video IF Plate
R39	1000Ω 20%	½			3rd Video IF Decoupling
R40	150Ω 20%	½			Decoupling Network
R41	150Ω	½			4th Video IF Cathode
R42	5600Ω 5%	½			4th Video IF Plate
R43	1000Ω 20%	½			4th Video IF Decoupling
R44	150Ω 20%	½			Decoupling Network
R45	3900Ω	½		BTS-3900	Video Det. Diode Load
R46	470KΩ	½		BTS-470K	Video Amp. Grid
R47	3300Ω	½		BTS-3300	Video Amp. Plate
R48	6800Ω 20%	1		BTA-6800	Filter
R49	470KΩ 20%	½		BTS-470K	Video Output Grid
R50	220Ω	½		BW-½-220	Video Output C athode
R51	2200Ω	10	72613	AB-2250	Video Output Plate-Wire Wound
R52	10KΩ 20%	½		BTS-10K	Phase Correction
R53	33KΩ	½		BTS-33K	Voltage Divider
R54	150KΩ 20%	½		BTS-150K	Voltage Divider
R55	27KΩ	½		BTS-27K	DC Rest. Load
R56	1 Meg. 20%	½		BTS-1 Meg.	DC Rest. Load
R57	22KΩ 20%	½		BTS-22K	Isolation
R58	100KΩ	½		BTS-100K	Picture Tube Grid
R59	2.2 Meg.	½		BTS-2.2 Meg.	Voltage Divider-See Note
R60	10KΩ 5%	½		BTS-10K-5%	AGC Diode Load
R61	330Ω	½		BW-½-330	Voltage Divider
R62	22KΩ 5%	1		BTA-22K-5%	Voltage Divider
R63	82KΩ	½		BTS-82K	AGC Diode Load
R64	100KΩ	½		BTS-100K	AGC Filter
R65	470KΩ	½		BTS-470K	AGC Filter
R66	56KΩ	½		BTS-56K	AGC Amp. Plate
R67	1 Meg.	½		BTS-1 Meg.	Voltage Divider
R68	100KΩ	½		BTS-100K	AGC Network
R69	1 Meg.	½		BTS-1 Meg.	Voltage Divider
R70	27KΩ	½		BTS-27K	AGC Diode Load
R71	220KΩ	½		BTS-220K	Voltage Divider
R72	100Ω	½			1st Sound IF Cathode
R73	1000Ω 20%	½			1st Sound IF Decoupling
R74	470KΩ 20%	½			2nd Sound IF Grid
R75	100Ω	½			2nd Sound IF Cathode
R76	1000Ω 20%	½			2nd Sound IF Decoupling
R77	22KΩ 20%	½			Limiter Grid
R78	10KΩ	1			Limiter Decoupling
R79	10KΩ	1		BTA-10K	Voltage Divider
R80	100KΩ	½		BTS-100K	Disc. Diode Load
R81	100KΩ	½		BTS-100K	De-emphasis
R82	5.1Ω	½	72067	BW-½-4.7	Disc. Filament-Wire Wound
R83	27KΩ	½		BTS-27K	Tone Compensation
R84	10 Meg. 20%	½		BTS-10 Meg.	1st AF Grid
R85	330KΩ	½		BTS-330K	1st AF Plate
R86	56KΩ	½		BTS-56K	2nd AF Grid
R87	22KΩ	½		BTS-22K	2nd AF Grid
R88	2700Ω	½		BTS-2700	2nd AF Cathode
R89	27KΩ	½		BTS-27K	2nd AF Plate
R90	220KΩ 20%	½		BTS-220K	Output Grid
R91	220KΩ 20%	½		BTS-220K	Output Grid
R92	6.8 Meg.	½		BTS-6.8 Meg.	1st Sync. Grid
R93	1 Meg.	½		BTS-1 Meg.	1st Sync. Grid
R94	4700Ω	1		BTA-4700	1st Sync. Plate
R95	4700Ω	1		BTA-4700	1st Sync. Plate Decoupling
R96	1 Meg.	½		BTS-1 Meg.	2nd Sync. Grid
R97	4.7 Meg. 20%	½		BTS-4.7 Meg.	2nd Sync. Grid

RESIS

ITEM No.	RATING		REPLACEMENT DATA	
	RESISTANCE	WATTS	RCA PART No.	IRC PART N
R98	6800Ω	1		BTA-680(
R99	1 Meg.	½		BTS-1 Me
R100	4700Ω	1		BTA-470(
R101	3300Ω	1		BTA-330(
R102	22KΩ 20%	½		BTS-22K
R103	22KΩ 20%	½		BTS-22K
R104	8200Ω	½		BTS-8200
R105	8200Ω	½		BTS-8200
R106	1.2 Meg.	½		BTS-1.2 1
R107	1.5 Meg.	½		BTS-1.5 1
R108	470KΩ 20%	½		BTS-470K
R109	2.2 Meg.	½		BTS-2.2 1
R110	1000Ω	½		BTS-1000
R111	8200Ω 5%	½		BTS-8200
R112	1000Ω	1		BW-1-100(
R113	330KΩ	½		BTS-330K
R114A	125Ω	2.5	72171	
B	9500Ω	2		
R115	2700Ω	1		BTA-2700
R116	470KΩ 20%	½		BTS-470K
R117	470KΩ 20%	½		BTS-470K
R118	470KΩ 20%	½		BTS-470K
R119	470KΩ	½		BTS-470K
R120	560Ω	½		BTS-560
R121	22KΩ	2		BT-2-22K
R122	47KΩ	1		BTA-47K
R123	100KΩ 20%	½		BTS-100K
R124	27KΩ	1		BTA-27K
R125	10Ω 5%	½		BW-½-10-5
R126	27KΩ	½		BTS-27K
R127	3300Ω	10	48207	AB-3500
R128	15KΩ	1		BTA-15K
R129	6800Ω 20%	½		BTS-6800
R130	220KΩ	½		BTS-220K
R131	470KΩ	½		BTS-470K
R132	100Ω 20%	½		
R133	100Ω 20%	½		
R134	47Ω 20%	½		
R135	100Ω 20%	½		
R136	100Ω 20%	½		
R137	47Ω 20%	½		
R138	220KΩ	½		BTS-220I
R139	80Ω	5	72631	AB-75
R140	100Ω 20%	½		
R141	2200Ω 20%	½		BTS-220(
R142	27KΩ	1		BTA-27K
R143	180KΩ	½		BTS-180K
R144	4.7Ω	½	72633	
R145	4.7Ω	½	72633	
R146	4.7Ω	½	72633	
R147	1.5 Meg.	2		
R148	1.5 Meg.	2		
R149	1.5 Meg.	2		
R150	1.5 Meg.	2		
R151	2.2 Meg.	2		
R152	10 Meg.	2		
R153	10 Meg.	2		
R154	10 Meg.	2		
R155	10 Meg.	2		
R156	1 Meg.	½		
R157	100KΩ	1		
R158	68KΩ	1		BTA-68K
R159	33KΩ	½		BTS-33K
R160	2200Ω	1		BTA-220(
R161	4700Ω	½		BTS-4700
R162	68KΩ	2		BT-2-68K
R163	2450Ω	16.5	72184	DG-2500
R164	68KΩ	2		BT-2-68K
R165	120KΩ	1		BTA-120K
R166	39KΩ	2		BT-2-39K
R167	68KΩ	1		BTA-68K
R168	68KΩ	2		BT-2-68K
R169	120KΩ	1		BTA-120K
R170	39KΩ	2		BT-2-39K
R171	68KΩ	1		BTA-68K
R172A	640Ω	10.5	72170	DG-650
B	970Ω	9		AB-1000
R173A	2760Ω	10	71660	AB-3000
B	2520Ω	4		AB-2500
C	180Ω	3.5		
R174A	2000Ω	5	48344	AB-2000
B	2000Ω	5	48344	AB-2000
C	2000Ω	5	48344	AB-2000

Note. Not used in all models.

TRANSFO

ITEM No.	RATING				RCA
	PRI.	SEC. 1	SEC. 2	SEC. 3	PART
T1	117VAC ⓐ 2.5A	900VCT .260ADC	5VAC ⓐ 6A	6.3VAC Tap. ⓐ	72176
			SEC. 4	5VAC	
			6.3VAC ⓐ 3.3A		
T2	117VAC ⓐ 1.55A	720VCT .180ADC	5VAC ⓐ 3A	6.3VAC ⓐ 7.2A	72177

Drill new mounting holes.

TRANSFO

ITEM No.	RATING				RCA
	PRI.	SEC. 1	SEC. 2	SEC. 3	PART
T3	117VAC at 1.07A	750VCT .140ADC	5VAC at 3A	6.3VAC at 2A	37048

TV PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RCA PART No.	REPLACEMENT DATA IRC PART No.	IDENTIFICATION CODES
R98	6800Ω	1		BTA-6800	2nd Sync. Plate
R99	1 Meg.	½		BTS-1 Meg.	3rd Sync. Grid
R100	4700Ω	1		BTA-4700	3rd Sync. Plate
R101	3300Ω	1		BTA-3300	Decoupling
R102	22KΩ 20%	½		BTS-22K	Voltage Divider
R103	22KΩ 20%	½		BTS-22K	Integrator
R104	8200Ω	½		BTS-8200	Integrator
R105	8200Ω	½		BTS-8200	Integrator
R106	1.2 Meg.	½		BTS-1.2 Meg.	Vert. Osc. Grid
R107	1.5 Meg.	½		BTS-1.5 Meg.	Voltage Divider
R108	470KΩ 20%	½		BTS-470K	Feedback
R109	2.2 Meg.	½		BTS-2.2 Meg.	Vert. Output Grid
R110	1000Ω	½		BTS-1000	Vert. Output Cathode
R111	8200Ω 5%	½		BTS-8200-5%	Vert. Peaking
R112	1000Ω	1		BW-1-1000	Filter
R113	330KΩ	½		BTS-330K	Bias Filter
R114A	125Ω	2.5	72171		Bias Network-Wire Wound
B	9500Ω	2			Voltage Divider-Wire Wound
R115	2700Ω	1		BTA-2700	Voltage Divider
R116	470KΩ 20%	½		BTS-470K	Horiz. Sync. Disc. Load
R117	470KΩ 20%	½		BTS-470K	Horiz. Sync. Disc. Load
R118	470KΩ 20%	½		BTS-470K	Horiz. Sync. Disc. Load
R119	470KΩ	½		BTS-470K	Horiz. AFC Filter Network
R120	560Ω	½		BTS-560	Horiz. AFC Grid
R121	22KΩ	2		BT-2-22K	Horiz. AFC Plate
R122	47KΩ	1		BTA-47K	Horiz. AFC Screen
R123	100KΩ 20%	½		BTS-100K	Horiz. AFC Screen
R124	27KΩ	1		BTA-27K	Voltage Divider
R125	10Ω 5%	½		BW-½-10-5%	Phase Shifter
R126	27KΩ	½		BTS-27K	Horiz. Osc. Grid
R127	3300Ω	10	48207	AB-3500	Horiz. Osc. Plate-Wire Wound
R128	15KΩ	1		BTA-15K	Horiz. Osc. Screen
R129	6800Ω 20%	½		BTS-6800	Horiz. Peaking
R130	220KΩ	½		BTS-220K	Horiz. Discharge Grid
R131	470KΩ	½		BTS-470K	Horiz. Discharge Plate
R132	100Ω 20%	½			Parasitic Supp.
R133	100Ω 20%	½			Parasitic Supp.
R134	47Ω 20%	½			Parasitic Supp.
R135	100Ω 20%	½			Parasitic Supp.
R136	100Ω 20%	½			Parasitic Supp.
R137	47Ω 20%	½			Parasitic Supp. -See Note
R138	220KΩ	½		BTS-220K	Horiz. Output Grid
R139	80Ω	5	72631	AB-75	Horiz. Output Cathode-Wire Wound
R140	100Ω 20%	½			Parasitic Supp.
R141	2200Ω 20%	½		BTS-2200	Feedback
R142	27KΩ	1		BTA-27K	Damper Grid
R143	180KΩ	½		BTS-180K	Damper Grid Filter
R144	4.7Ω	½	72633		HV Filament-Wire Wound
R145	4.7Ω	½	72633		HV Filament-Wire Wound
R146	4.7Ω	½	72633		HV Filament-Wire Wound
R147	1.5 Meg.	2			Voltage Divider
R148	1.5 Meg.	2			Voltage Divider
R149	1.5 Meg.	2			Voltage Divider
R150	1.5 Meg.	2			Voltage Divider
R151	2.2 Meg.	2			Voltage Divider
R152	10 Meg.	2			Voltage Divider
R153	10 Meg.	2			Voltage Divider
R154	10 Meg.	2			Voltage Divider
R155	10 Meg.	2			Voltage Divider
R156	1 Meg.	½			Voltage Divider
R157	100KΩ	1			HV Filter
R158	68KΩ	1		BTA-68K	Voltage Divider
R159	33KΩ	½		BTS-33K	Voltage Divider
R160	2200Ω	1		BTA-2200	Bleeder
R161	4700Ω	½		BTS-4700	Bleeder
R162	68KΩ	2		BT-2-68K	Bleeder
R163	2450Ω	16.5	72184	DG-2500	Bleeder-Wire Wound
R164	68KΩ	2		BT-2-68K	Bleeder
R165	120KΩ	1		BTA-120K	Bleeder
R166	39KΩ	2		BT-2-39K	Bleeder
R167	68KΩ	1		BTA-68K	Bleeder
R168	68KΩ	2		BT-2-68K	Bleeder
R169	120KΩ	1		BTA-120K	Bleeder
R170	39KΩ	2		BT-2-39K	Bleeder
R171	68KΩ	1		BTA-68K	Bleeder
R172A	640Ω	10.5	72170	DG-650	Bleeder-Wire Wound
B	970Ω	9		AB-1000	Filter-Wire Wound
R173A	2760Ω	10	71660	AB-3000	Bleeder-Wire Wound
B	2520Ω	4		AB-2500	Bleeder-Wire Wound
C	180Ω	3.5			Bias Network-Wire Wound
R174A	2000Ω	5	48344	AB-2000	Bleeder-Wire Wound
B	2000Ω	5	48344	AB-2000	Bleeder-Wire Wound
C	2000Ω	5	48344	AB-2000	Bleeder-Wire Wound

Note. Not used in all models.

TRANSFORMER (POWER)

ITEM No.	RATING PRI.	SEC. 1	SEC. 2	SEC. 3	REPLACEMENT DATA RCA PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	117VAC @ 2.5A	900VCT .260ADC	5VAC @ 6A	6.3VAC Tap. @ 5VAC	72176			
			SEC. 4 6.3VAC @ 3.3A					
T2	117VAC @ 1.55A	720VCT .180ADC	5VAC @ 3A	6.3VAC @ 7.2A	72177	P-6315 #	PH-200	P-3063

Drill new mounting holes.

TRANSFORMER (POWER)

ITEM No.	RATING PRI.	SEC. 1	SEC. 2	SEC. 3	REPLACEMENT DATA RCA PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T3	117VAC at 1.07A	750VCT .140ADC	5VAC at 3A	6.3VAC at 2A	37048	P-6014 #	PH-145	P-2954 #

ITEM No.	RATING DC RESISTANCE PRI.	SEC.
T4	37Ω	34Ω Tap. @ 9Ω
T5	180Ω	1400Ω
T6	180Ω Tap @ 30Ω	SEC. 1 0Ω
		SEC. 2 0Ω
		SEC. 3 0Ω
		SEC. 4 2.96Ω tap. @ .46Ω & .3Ω
T7	700Ω	10Ω
T8A	14Ω	
B	68Ω	

ITEM No.	RATING IMPEDANCE PRI.	SEC.	DC RES. PRI.	SEC.
T9	11KΩ CT	2.3Ω	600Ω CT	.3Ω

ITEM No.	RATINGS FIELD RES.	V. C. IMP.
SP1	1060Ω	2.3 Ω
	CONE DIA.	V. C. DIA.
SP2	12"	1 1/2"

ITEM No.	RATINGS TOTAL DIRECT CURRENT	D. C. RESISTANCE
L1	.255A	75Ω
L2	.180A	70Ω

ITEM No.	USE	DC RES. PRI.
L3	Ant. Input	0Ω
L4	Interference Trap	0Ω
L5	Interference Trap	0Ω
L6	Fil. Choke	0Ω
L7	Mixer Grid Trap	0Ω
L8	1st Video IF & Sound Trap	.2Ω
L9	2nd Video IF	.2Ω
L10	3rd Video IF	.2Ω
L11	4th Video IF	.2Ω
L12	Sound Trap	.1Ω
L13	5th Video IF	.2Ω
L14	Peaking	5Ω
L15	Peaking	8Ω
L16	Peaking	5Ω
L17	Peaking	4Ω
L18	Peaking	4Ω
L19	Peaking	2Ω
L20	Peaking	2Ω
L21	Fil. Choke	0Ω
L22	Fil. Choke	0Ω
L23	Fil. Choke	0Ω
L24	Fil. Choke	0Ω
L25	Fil. Choke	0Ω
L26	1st Sound IF	0Ω
L27	2nd Sound IF	0Ω
L28	Disc. Trans.	0Ω
L29	Width Cont.	.1Ω

ITEM No.	BASE TYPE	VOLTS
M1	Bayonet	7.5
M8 thru M13	Bayonet	7.5
M14	Bayonet	7.5

SCRIPTIONS (Continued)

S (CONT.)

IDENTIFICATION CODES
2nd Sync. Plate
3rd Sync. Grid
3rd Sync. Plate
Decoupling
Voltage Divider
Integrator
Integrator
Integrator
Vert. Osc. Grid
Voltage Divider
Feedback
Vert. Output Grid
Vert. Output Cathode
Vert. Peaking
Filter.
Bias Filter
Bias Network-Wire Wound
Voltage Divider-Wire Wound
Voltage Divider
Horiz. Sync. Disc. Load
Horiz. Sync. Disc. Load
Horiz. Sync. Disc. Load
Horiz. AFC Filter Network
Horiz. AFC Grid
Horiz. AFC Plate
Horiz. AFC Screen
Horiz. AFC Screen
Voltage Divider
Phase Shifter
Horiz. Osc. Grid
Horiz. Osc. Plate-Wire Wound
Horiz. Osc. Screen
Horiz. Peaking
Horiz. Discharge Grid
Horiz. Discharge Plate
Parasitic Supp.
Parasitic Supp.
Parasitic Supp.
Parasitic Supp.
Parasitic Supp.
Parasitic Supp. -See Note
Horiz. Output Grid
Horiz. Output Cathode-Wire Wound
Parasitic Supp.
Feedback
Damper Grid
Damper Grid Filter
HV Filament-Wire Wound
HV Filament-Wire Wound
HV Filament-Wire Wound
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
Voltage Divider
HV Filter
Voltage Divider
Voltage Divider
Bleeder
Bleeder
Bleeder
Bleeder-Wire Wound
Bleeder
Bleeder
Bleeder
Bleeder
Bleeder
Bleeder
Bleeder
Bleeder
Bleeder -Wire Wound
Filter -Wire Wound
Bleeder-Wire Wound
Bleeder-Wire Wound
Bias Network-Wire Wound
Bleeder-Wire Wound
Bleeder-Wire Wound
Bleeder-Wire Wound

R (POWER)

	REPLACEMENT DATA		
	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
	P-6315 #	PH-200	P-3063

ER (POWER)

	REPLACEMENT DATA		
	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
	P-6014 #	PH-145	P-2954 #

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING DC RESISTANCE PRI.	RATING DC RESISTANCE SEC.	RCA PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	NOTES
T4	37Ω	34Ω Tap @ 9Ω	71428				Hor. Osc. Transformer
T5	180Ω	1400Ω	71775	A-8121	TBO-1	A-4009	Vert. Osc. Transformer
T6	180Ω Tap @ 30Ω	SEC. 1 0Ω	72178				Hor. Output Trans.
		SEC. 2 0Ω					
		SEC. 3 0Ω					
		SEC. 4 2.96Ω tap @ .46Ω & .3Ω					
T7	700Ω	10Ω	72952	A-8115	TSO-1		Vert. Output Trans.
T8A	14Ω		72196				Hor. Deflection Coil
B	68Ω						Vert. Deflection Coil

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING IMPEDANCE PRI.	RATING IMPEDANCE SEC.	RATING DC RES. PRI.	RATING DC RES. SEC.	RCA PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	INSTALLATION NOTES
T9	11KΩ CT	2.3Ω	600Ω CT	.3Ω	71661	A-3823	RO-110	A-2901	

SPEAKER

ITEM No.	RATINGS FIELD RES.	RATINGS V. C. IMP.	RCA PART No.	JENSEN PART No.	QUAM PART No.	NOTES
SP1	1060Ω	2.3 Ω	71144	ST-744 MOD. F12-S	12E10	
	CONE DIA.	V. C. DIA.				
SP2	12"	1 1/2"				

FILTER CHOKE

ITEM No.	RATINGS TOTAL DIRECT CURRENT	RATINGS D. C. RESISTANCE	RATINGS INDUCTANCE (0 CURRENT 1000 ↶)	RCA PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	INSTALLATION NOTES
L1	.255A	75Ω	1.8 Henries	72179	C-2326 †	TR-4225	C-2991 †	† Drill one new
L2	.180A	70Ω	2.2 Henries	72167	C-2325 †	TR-4225	C-2974 †	mounting hole.

COILS (RF-IF)

ITEM No.	USE	DC RES. PRI.	DC RES. SEC.	RCA PART No.	MEISSNER PART No.	NOTES
L3	Ant. Input	0Ω		71507		Part of tuner.
L4	Interference Trap	0Ω		73239		Part of tuner includes 10MMF capacitor.
L5	Interference Trap	0Ω		73239		Part of tuner includes 10MMF capacitor.
L6	Fil. Choke	0Ω		71505		Part of tuner.
L7	Mixer Grid Trap	0Ω		71506		Part of tuner.
L8	1st Video IF & Sound Trap	.2Ω	0Ω	71495		Part of tuner includes 68MMF capacitor.
L9	2nd Video IF	.2Ω		71423		Includes 43MMF capacitor.
L10	3rd Video IF	.2Ω	0Ω	71425		Includes 56MMF capacitor.
L11	4th Video IF	.2Ω		73708		Includes 56MMF capacitor (not in set).
L12	Sound Trap	.1Ω		71422		Includes 75MMF capacitor.
L13	5th Video IF	.2Ω		71426		
L14	Peaking	5Ω		71529		120 microhenries wound on 22KΩ resistor.
L15	Peaking	8Ω		71526		250 microhenries
L16	Peaking	5Ω		71529		120 microhenries wound on 22KΩ resistor.
L17	Peaking	4Ω		71527		93 microhenries
L18	Peaking	4Ω		72619		93 microhenries wound on 10KΩ resistor.
L19	Peaking	2Ω		72618		20 microhenries.
L20	Peaking	2Ω		71793		36 microhenries.
L21	Fil. Choke	0Ω		71505		
L22	Fil. Choke	0Ω		71505		
L23	Fil. Choke	0Ω		71505		
L24	Fil. Choke	0Ω		71505		
L25	Fil. Choke	0Ω		71505		
L26	1st Sound IF	0Ω	0Ω	71424		Includes 10MMF and 33MMF capacitor.
L27	2nd Sound IF	0Ω	0Ω	71424		Includes 10MMF and 33MMF capacitor.
L28	Disc. Trans.	0Ω	0Ω	71427		Includes 2-56MMF and 47MMF capacitor.
L29	Width Cont.	.1Ω		72180		

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	RCA PART No.		NOTES
M1	Bayonet	7.5	.2	White	11765		Type #51
M8 thru							
M13	Bayonet	7.5	.2	White	11765		Type #51 Radio dial band lights
M14	Bayonet	7.5	.15	Blue			Type #47

TV **PARTS LIST AND DESCRIPTIONS (Continued)**

MISCELLANEOUS

ITEM No.	PART NAME		RCA PART No.	NOTES
M2	RF Tuner		KRK2A	
M3	Power Switch		70155	
M4	Interlock Switch		73212	
M5	High Peaking Switch		30953	
M6	Remote Control Switch		73852	
M7	Fuse		73151	Type MDL 2.8A
	Cabinet Back		73210	Mahogany
	Cabinet Back		73211	Walnut
	Cabinet Back		73245	Toasted Mahogany
	Knob		71536	Brightness and Hor. hold for walnut and mahogany instruments.
	Knob		72569	Brightness and Hor. hold for toasted mahogany instruments.
	Knob		71534	Channel selector for walnut and mahogany instruments.
	Knob		72568	Channel selector for toasted mahogany instruments.
	Knob	MODELS	71535	Contrast and Vert. hold for walnut and hmahogany instrucments.
	Knob	8PCS41	72565	Contrast and Vert. hold for toasted mahogany instruments.
	Knob	8PCS41B	71533	Fine tuning for walnut and mahogany instruments.
	Knob	8PCS41C	72567	Fine tuning for toasted mahogany instruments.
	Knob		71821	Volume and power switch for walnut and mahogany instruments.
	Knob		72800	Volume and power switch for toasted mahogany instruments.
	Knob		72824	Remote control switch brown for toasted mahogany instruments.
	Knob		71822	Remote control switch maroon for walnut or mahogany instruments.
	Mirror		70145	45 degree mirror.
	Lens		72188	Corrector lens.
	Cabinet Back		73481	Walnut
	Cabinet Back		73418	Mahogany
	Knob	MODEL	71883	Radio tone control
	Knob	648PV	71821	Radio tuning, volume control-On-Off switch and selector switch.
	Knob		71536	Horiz. hold and brightness
	Knob		71533	Fine tuning
	Knob		71534	Channel selector.
	Knob		71535	Vert. hold and contrast
	Mirror		72187	Spherical mirror for KRK 1A
	Mirror		73325	Spherical mirror for KRK 4 (12 inch).

RADIO **PARTS LIST AND DESCRIPTIONS**

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		RCA PART No.	STANDARD REPLACEMENT		
V42	RF Amp.	6BA6	6BA6	7BK	Radio Chassis RK121 used with RCA 648PV
V43	Mixer	6BA6	6BA6	7BK	
V44	Oscillator	6BE6	6BE6	7CH	
V45	1st IF Amp.	6BA6	6BA6	7BK	
V46	2nd FM IF Amp. - Phono Amp.	6AU6	6AU6	7BK	
V47	3rd FM IF Amp.	6AU6	6AU6	7BK	
V48	Ratio Det.	6AL5	6AL5	6BT	
V49	DET.-AVC-AF	6AT6	6AT6	7BT	

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		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C135	15	300	32223	AF2I	UP1AJ57		EL-203	Decoupling
C136	5	50	72121	PRS150/4	BR550		TA-55	3rd IF Grid Filter
C137	5	50	72121	PRS150/4	BR550		TA-55	Stabilizing Cap.
C138	330		71919	CN330KN750		N750M-330		Fixed Padder
C139	82		71514	GP100K	5W5T1	GP1K-100	1FM-31	RF Coupling
C140	180		71922	CN180KN750		N750L-180		Fixed Trimmer
C141	220		71920	GP220M	5W5T25	GP2K-220	1FM-325	RF Coupling
C142	100		39396	GP100M	5W5T1	GP1K-100	1FM-31	AVC Filter
C143	.003	200	71921	P285-003	ZYW4D5	GP2M-003	68P3	RF Screen Bypass
C144	220		71920	GP220M	5W5T25	GP2K-220	1FM-325	RF Coupling
C145	330		71919	CN330KN750		N750M-330		Fixed Padder
C146	5.6		71930	GP5K	5W5V5	NPOK-5	MS-55	RF Coupling
C147	56		71924	GP51K	5W5Q5	GP1K-56	1FM-45	RF Coupling
C148	.003	200	71921	P285-003	ZYW4D5	GP2M-003	68P3	Mixer Cathode Bypass
C149	.003	200	71921	P285-003	ZYW4D5	GP2M-003	68P3	Mixer Screen Bypass
C150	6.8		39043			NPOK-6.8		Osc. Coupling
C151	18			GP18K		GP1K-18		Osc. Grid Cap.
C152	100		39396	GP100K	5W5T1	GP1K-100	1FM-31	Osc. Grid Cap.
C153	180		71922	CN180KN750		N750L-180		Fixed Trimmer
C154	.01	400	71925	P485-01	ZNW4S1	821-01	68P8	Osc. Feedback
C155	180	500	71933	1468-0002	5W5T2	GP2K-180	1FM-32	Osc. Anode Bypass
C156	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	Decoupling
C157	.01	400	71925	P485-01	ZNW4S1	821-01	68P8	Mixer Plate Decoupling
C158	.05	200	71551	P285-05	ZYW1S5		68P16	AVC Filter
C159	100		39396	GP100M	5W5T1	GP1K-100	1FM-31	Filament Bypass
C160	.005	200	71926	P285-005	ZYW4D5	811-005	68P11	RF Bypass
C161	.005	200	71926	P285-005	ZYW4D5	811-005	58P11	1st IF Screen Bypass
C162	.01	600	70631	P688-01	PTE6S1	821-01	TM-11	RF Bypass
C163	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	1st IF Plate Decoupling
C164	.002	400	71927	P485-002	ZYW4D2	GP2M-002	68P27	2nd IF Screen Bypass
C165	.01	400	71925	P485-01	ZNW4S1	821-01	68P8	Audio Coupling
C166	.01	200	71923	P285-01	ZZW1S1	821-01	68P14	2nd IF Filament Bypass
C167	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	2nd IF Plate Decoupling
C168	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	3rd IF Grid Filter
C169	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	3rd IF Screen Bypass
C170	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	3rd IF Plate Decoupling
C171	.005	200	71926	P285-005	ZYW4D5	811-005	68P11	Diode Load Cap.
C172	.005	200	71926	P285-005	ZYW4D5	811-005	68P11	Diode Load Cap.
C173	1000		71929	GP1000M	1W5D1	GP2L-001	1FM-21	RF Bypass
C174	.05	200	71551	P285-05	ZYW1S5		68P16	AVC Filter
C175	.003	200	71921	P285-003	ZYW4D5	GP2M-003	68P3	AVC Filter
C176	.005	200	71926	P285-005	ZYW4D5	811-005	68P11	De-emphasis
C177	.01	400	71925	P488-01	PTE4S1	821-01	68P8	Audio Coupling
C178	.01	400	71925	P488-01	PTE4S1	821-01	68P8	Audio Coupling
C179	.015	200	72120	P285-015	PTE6S15			Tone Compensation
C180	.015	200	72120	P285-015	PTE6S15			Tone Compensation

RADIO **PARTS LIST AND DESCRIPTIONS (Continued)**

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C181	.05	200	71551	P285-05	PTE4S5		68P16	Audio Coupling
C182	.005	200	71926	P285-005	ZYW4D5	811-005	68P11	Tone Compensation
C183	.05	200	71551	P285-05	PTE4S5		68P16	Bias Filter
C184	.005	400	71553	P485-005	ZYW4D5	811-005	68P6	Tone Compensation
C185	.01	400	71925	P485-01	PTE4S1	821-01	68P8	Tone Compensation
C186	.0012	400	72117	P485-0015	ZYN6D1	GP2L-0012	68P1	Tone Compensation
C187	.01	200	71923	P285-01	ZZW1S1	821-01	68P14	DET-AVC-AF Fil. Bypass
C188	.01	600	71588	P688-01	PTE6S1	821-01	TM-11	Line Filter

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	RCA PART No.	IRC PART No.	CLAROSTAT PART No.	
R175	1.5 Meg.	½	71596	Q18-139XX	T-95	Volume control, tapped at 250KΩ and 500KΩ
R176	2 Meg.	½	38401	Q13-139	M-66-Z	Bass control
R177	1 Meg.	½	38405	Q13-137	M-63-Z	Treble control

RESISTORS

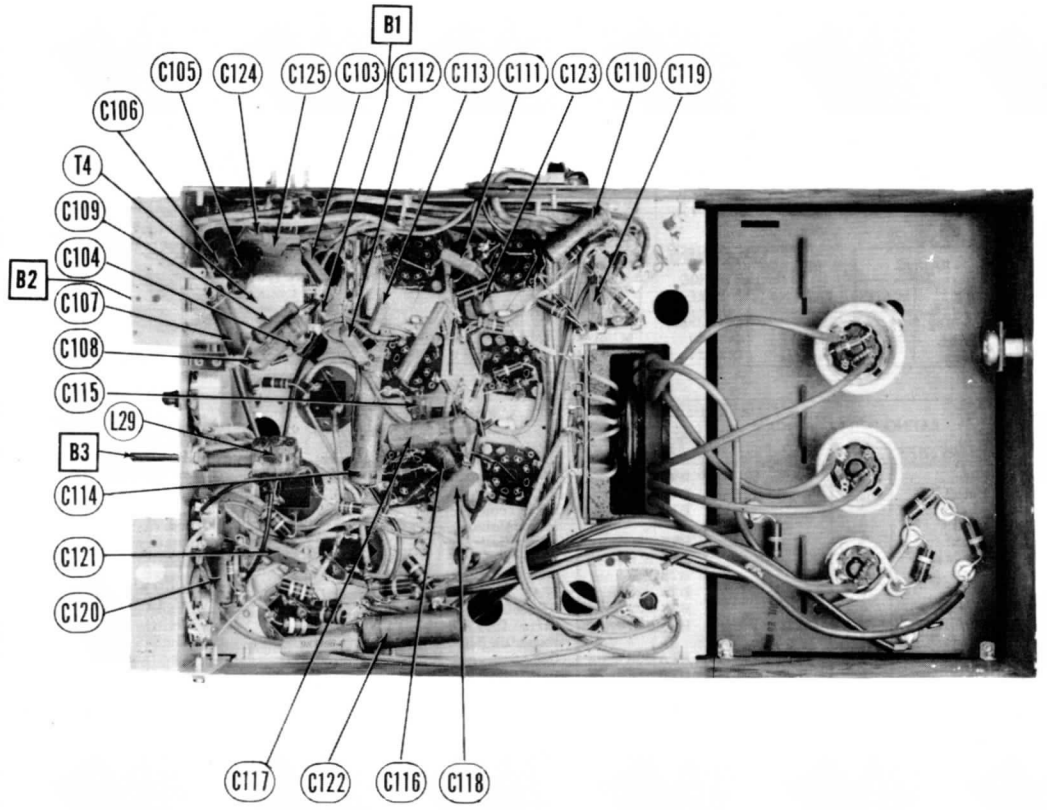
ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	RCA PART No.	IRC PART No.	
R178	1 Meg.	½		BTS-1 Meg.	FM Ant. Loading
R179	1 Meg.	½		BTS-1 Meg.	RF Grid
R180	4700Ω	½		BTS-4700	RF Screen
R181	390Ω	½			Mixer Cathode
R182	2200Ω	½		BTS-2200	Mixer Cathode
R183	3.9 Meg.	½		BTS-3.9 Meg.	Mixer Grid
R184	27KΩ	½		BTS-27K	Mixer Screen
R185	2200Ω	½		BTS-2200	Mixer Decoupling
R186	2200Ω	½		BTS-2200	RF Coil Shunt
R187	3Ω	½	72323	BW-½-3.3	Series Dial Lamp-Wire Wound
R188	10Ω	½			Parasitic Supp.
R189	10KΩ	1		BTA-10K	Osc. Screen
R190	15KΩ	1		BTA-15K	Osc. Plate
R191	8200Ω	½		BTS-8200	Osc. Coil Shunt
R192	100Ω	½		BW-½-100	Decoupling
R193	22 Meg.	½		BTS-22 Meg.	Delayed AVC
R194	100Ω	½			1st IF Cathode
R195	1000Ω	½		BTS-1000	1st IF Screen
R196	2200Ω	½		BTS-2200	1st IF Plate Decoupling
R197	270KΩ	½		BTS-270K	Diode Load
R198	22KΩ	½		BTS-22K	Diode Filter
R199	15KΩ	½		BTS-22K	2nd FM IF Grid
R200	18KΩ	½		BTS-18K	2nd FM IF Screen
R201	22KΩ	½		BTS-22K	2nd FM IF Screen
R202	22KΩ	½		BTS-22K	2nd FM IF Screen Decoupling
R203	2200Ω	½		BTS-2200	2nd FM IF Plate Decoupling
R204	15KΩ	½		BTS-15K	3rd FM IF Grid
R205	22KΩ	1		BTA-22K	3rd FM IF Screen
R206	1000Ω	½		BTS-1000	3rd FM IF Plate Decoupling
R207	1000Ω	½		BTS-1000	Decoupling
R208	15KΩ	½		BTS-15K	De-emphasis
R209	22KΩ	½		BTS-22K	Ratio Det. Diode Load
R210	2.2 Meg.	½		BTS-2.2 Meg.	AVC Network
R211	2.2 Meg.	½		BTS-2.2 Meg.	AF Grid
R212	270KΩ	½		BTS-270K	AF Plate
R213	270Ω	½		BW-½-270	Isolation
R214	270KΩ	½		BTS-270K	Tone Compensation
R215	22KΩ	½		BTS-22K	Tone Compensation
R216	27KΩ	½		BTS-27K	Tone Compensation
R217	180KΩ	½		BTS-180K	Phono Input Shunt
R218	2.2 Meg.	½		BTS-2.2 Meg.	Tone Compensation
R219	22KΩ	½		BTS-22K	Tone Compensation
R220	470KΩ	½		BTS-470K	Bias Network
R221	2.2 Meg.	½		BTS-2.2 Meg.	Bias Network
R222	100KΩ	½		BTS-100K	Bias Network
R223	180KΩ	½		BTS-180K	Bias Network
R224	1 Meg.	½		BTS-1 Meg.	AVC Network
R225	22KΩ	½		BTS-22K	AVC Network

COILS (RF-IF)

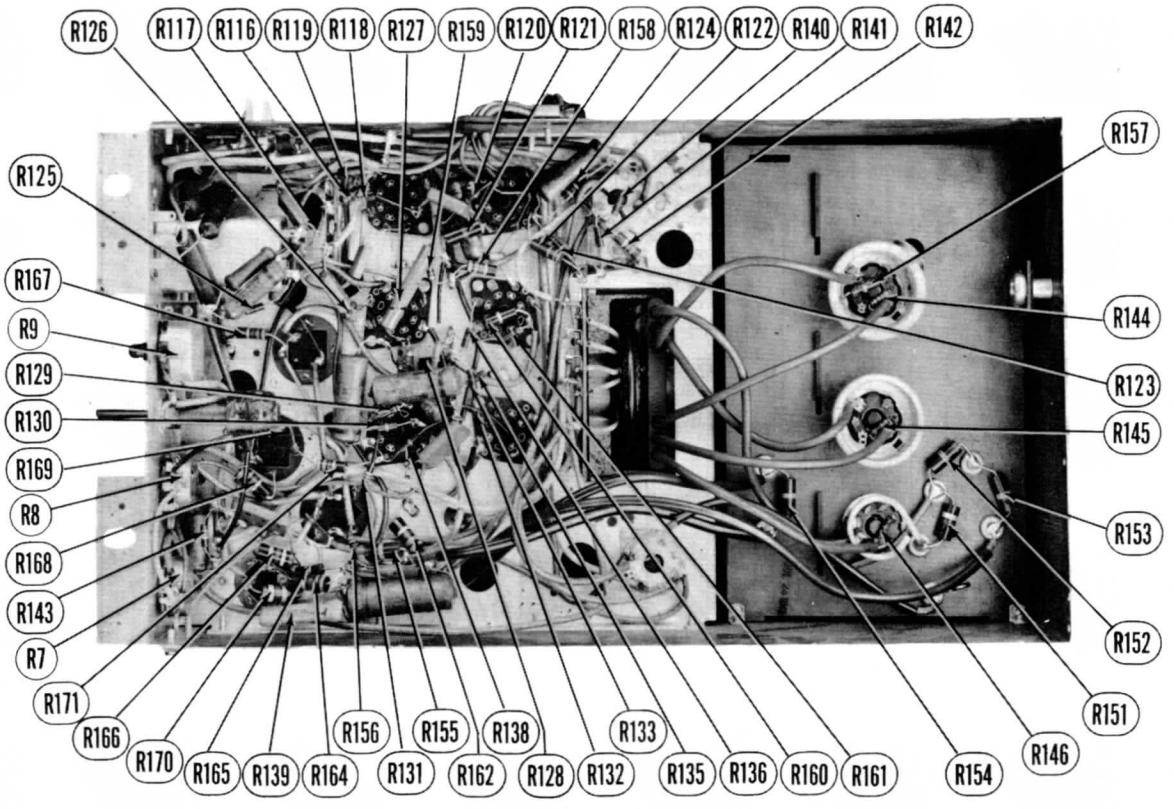
ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	RCA PART No.	MEISSNER PART No.	
L30	AM Ant.	16Ω	2Ω	72071		
L31	FM Ant.	0Ω	0Ω	71940		
L32	SW Ant.	.1Ω	.1Ω	71856		
L33	RF Choke	16Ω		71939		
L34	AM RF Coil	41Ω	3.5Ω	71857		
L35	FM RF Coil	0Ω		71938		
L36	SW RF Coil	0Ω		71854		
L37	AM Osc.	4Ω		71852		
L38	FM Osc.	0Ω		71937		
L39	SW Osc.	0Ω		71853		
L40	1st FM IF	.1Ω	.3Ω	71845		
L41	1st AM IF	6Ω	6Ω	71846		
L42	2nd FM IF	.3Ω	.3Ω	71847		
L43	2nd AM IF	6Ω	6Ω	71848		
L44	3rd FM IF	.3Ω	.3Ω	71849		
L45	Driver Trans.	.3Ω	.2Ω	71935		
L46	Ratio Det. Trans.	.1Ω		71934		
L47	Fil. Choke	.5Ω		71942		
L48	Fil. Choke	.5Ω		71942		
L49	Para. Supp.	0Ω		30492		

MISCELLANEOUS

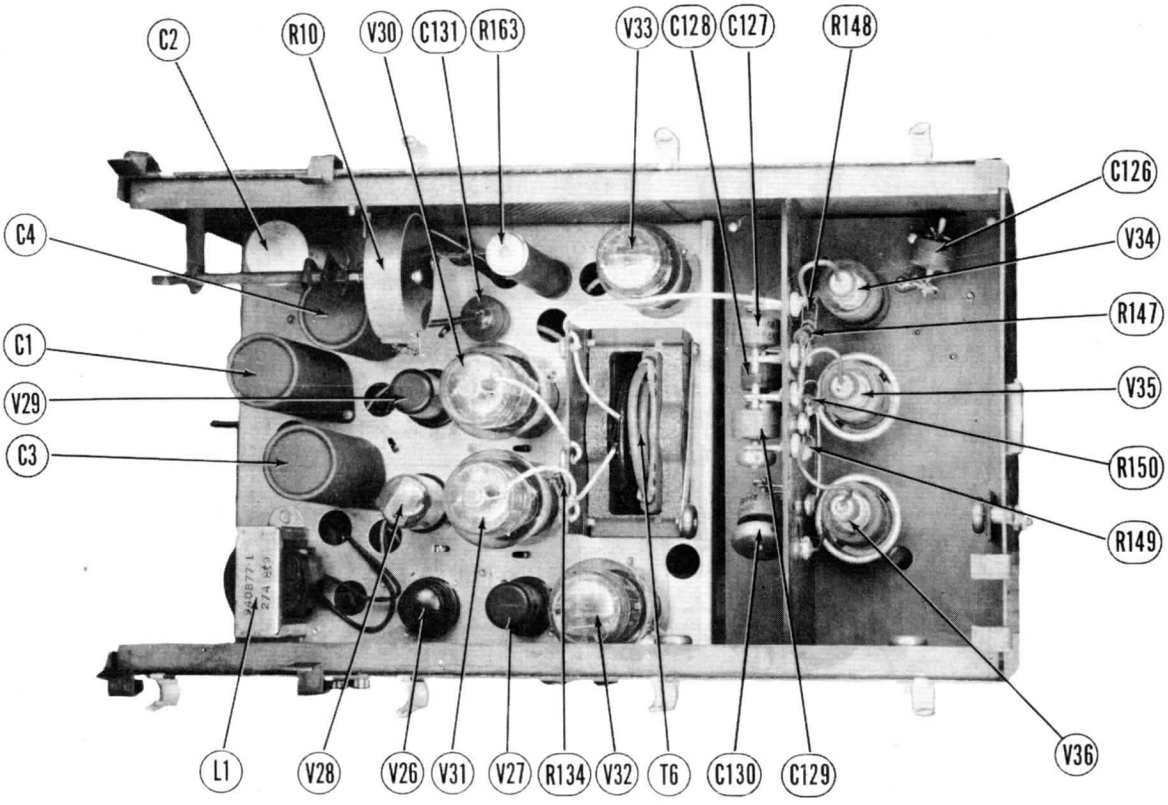
ITEM No.	PART NAME	RCA PART No.	NOTES
M16	Switch	72062	On-Off
M17	Switch	72517	TV power
M18	Bandswitch	72063	
M19	Tuning Cap.		



HORIZONTAL SWEEP CHASSIS-BOTTOM VIEW
CAPACITOR IDENTIFICATION



HORIZONTAL SWEEP CHASSIS-BOTTOM VIEW
RESISTOR IDENTIFICATION



HORIZONTAL SWEEP CHASSIS-TOP VIEW

RADIO PUSH BUTTON ADJUSTMENT

The push buttons may be set for any desired stations, either AM, FM or shortwave.

Turn the set on and allow ten minutes warm up.

Remove the push button by pulling forward and note the lock screw under the button.

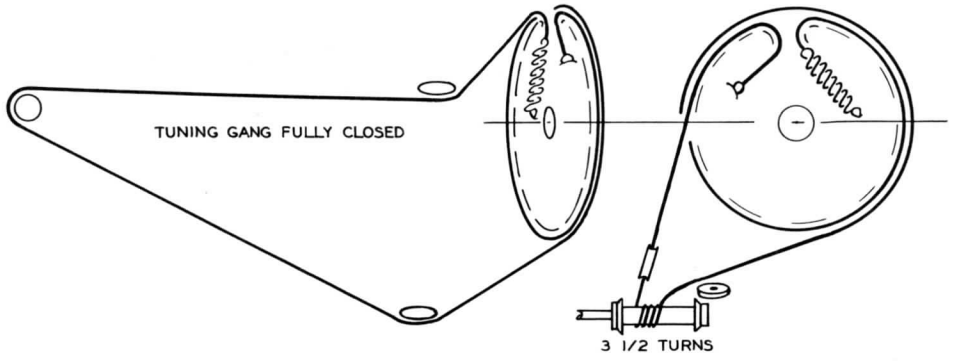
Loosen the lock screw and carefully tune in the desired station manually.

Push the push button rod in until it is against the stop.

Release the rod and tighten the lock screw.

Repeat the above procedure for each push button.

Check the setting of each button by carefully tuning in the station the button is set for, and then pressing the push button. If there is any change, repeat the adjustment procedure above.



DIAL CORD STRINGING

SWEEP CIRCUIT ADJUSTMENTS

1. VERTICAL ADJUSTMENTS

a. Turn the vertical centering control so test pattern is centered on the screen vertically.

b. Adjust the height control so test pattern fills the mask vertically.

c. Adjust the vertical linearity control for proper vertical symmetry of test pattern

The height and vertical linearity controls are interacting and steps la and lb should be alternately adjusted for optimum results.

2. HORIZONTAL OSCILLATOR ALIGNMENT CHECK

While receiving a television signal turn the horizontal hold control fully counterclockwise. Remove the signal momentarily by switching to another channel and back again. The picture should pull back into synchronization.

Now turn the horizontal hold control fully clockwise and momentarily remove the signal. The picture should again pull back into synchronization when the signal is restored.

If the picture "syncs" properly under these checks, it is not necessary to align the horizontal oscillator. However, if the picture is not normal or stable proceed with the horizontal oscillator alignment.

3. SLIGHT RETOUCH ALIGNMENT

If the receiver failed in the above check at either extreme position of the horizontal hold control, it may be possible to align the horizontal oscillator by making slight adjustments.

Tune in a TV station and adjust the fine tuning control for best sound quality. Adjust vertical hold control to synchronize the picture vertically. Adjust the contrast control to slightly less than normal. Turn the horizontal hold control to the extreme position where the picture failed to "sync". Momentarily remove the signal. Adjust B2 until the picture pulls into synchronization. Check the "pull-in"points of the horizontal hold control as outlined in step 2.

4. COMPLETE HORIZONTAL OSCILLATOR ALIGNMENT

Tune in a TV station and adjust the fine tuning control for best sound quality. Adjust the vertical hold control to sync the picture vertically. Turn the contrast control to slightly less than normal. Adjust B1 until the blanking bar which may appear in the picture, moves to the right and off the raster. If ripples occur in the raster, turn B1 clockwise until the unstable condition is removed. The correct setting for this adjustment is when the end of the adjusting screw protrudes approximately $\frac{1}{2}$ inch from the bushing.

Turn the horizontal hold control fully counterclockwise and adjust B2 clockwise until the picture fails to synchronize. Now slowly turn B2 counterclockwise to the point where the picture just pulls into synchronization. Readjust B1 so that the left side of the picture is close to the left side of the raster but does not fold over.

Turn the horizontal hold control fully clockwise. The right side of the picture should be near the right side of the raster but should not fold over ; if it does readjust B1.

Momentarily remove the signal. When the signal is restored, the picture should pull into synchronization. If it does not, turn B2 counter-clockwise until the picture falls into "sync".

Turn the horizontal hold control fully counterclockwise. The picture should fall into synchronization after momentary removal of the signal.

If the picture fails to synd after momentary removal of the signal at both extremes of the horizontal hold control, there may be insufficient pull-in range. However, if the picture will pull-in through 3/4 of the hold control range, operation will be satisfactory.

5. HORIZONTAL WIDTH AND LINEARITY ADJUSTMENTS.

Turn the horizontal drive clockwise as far as possible without crowding the righthand side of the picture.

Adjust the horizontal linearity control so the picture is symmetrical from left to right (slight readjust of the horizontal drive may be necessary).

Adjust the width control (B3) so the picture fills the mask horizontally.

Adjust the horizontal centering to align the picture with the mask. In some cases it may be necessary to shift the picture tube in the holder to properly center the picture on the screen.