

WESTINGHOUSE MODELS
H-196, H-207

TRADE NAME	Westinghouse Models, H-196, H-207		
MANUFACTURER	Westinghouse Electric Corp., Receiver Div., Sunbury, Pa.		
TYPE SET	Television Receiver (FM-AM-Phono H-207 only)		
TUBES	H-196 Twenty-eight, H-207 Thirty-six		
POWER SUPPLY	105-125 Volts, 60 Cycles AC	RATING:	TV-2.26 Amp., AM-.76 Amps. @ 117 Volts
TUNING RANGE	Channels 2 through 13, FM 88 to 108MC, AM 540-1600KC		

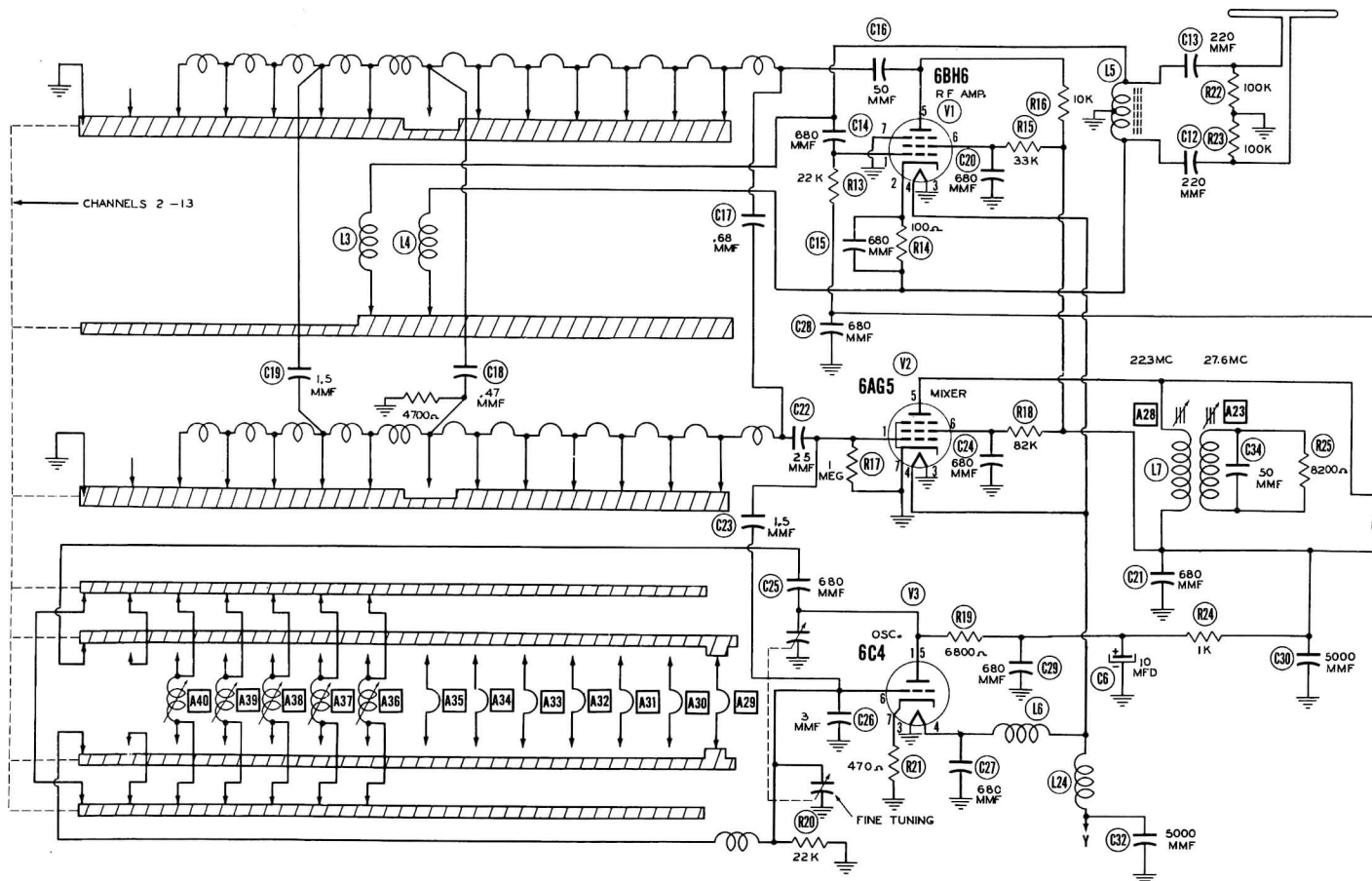
INDEX

	Page		Page
Alignment Instructions	6,7	Photographs (continued)	
Block Diagram	17	RF Tuner (TV)	10
Dial Cord Stringing	27	Resistor Identification (TV)	13,24
Disassembly Instructions	28	Trans., Inductor and Alignment Identification (TV)	4,9
Horizontal Sync. Disc. Adjustment	28	Schematic (AM-FM)	11,26
Parts List and Description	18,19,20,21,22	Schematic (TV)	2
Photographs		Sensitivity Control Adjustment	28
Cabinet-Rear View	27	Tube Placement Chart	5
Capacitor Identification (TV)	12,25	Voltage and Resistance Measurements	8
Chassis-Bottom View (AM-FM)	14,23	Width and Horizontal Linearity Adjustment	28
Chassis-Top View (AM-FM)	15		
Chassis-Top View (TV)	3,16		

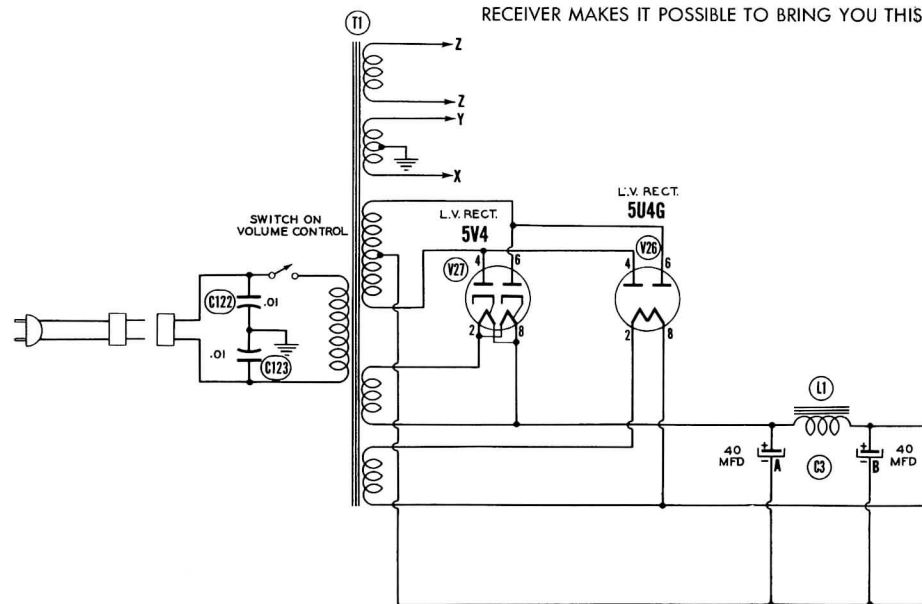
HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."
"Reproduction or use, without express permission, of editorial or pictorial con-

tent, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. Copyright 1949 by Howard W. Sams & Co., Inc., Indianapolis 7, Indiana, U. S. of America. Copyright under International Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc." Printed in U. S. of America



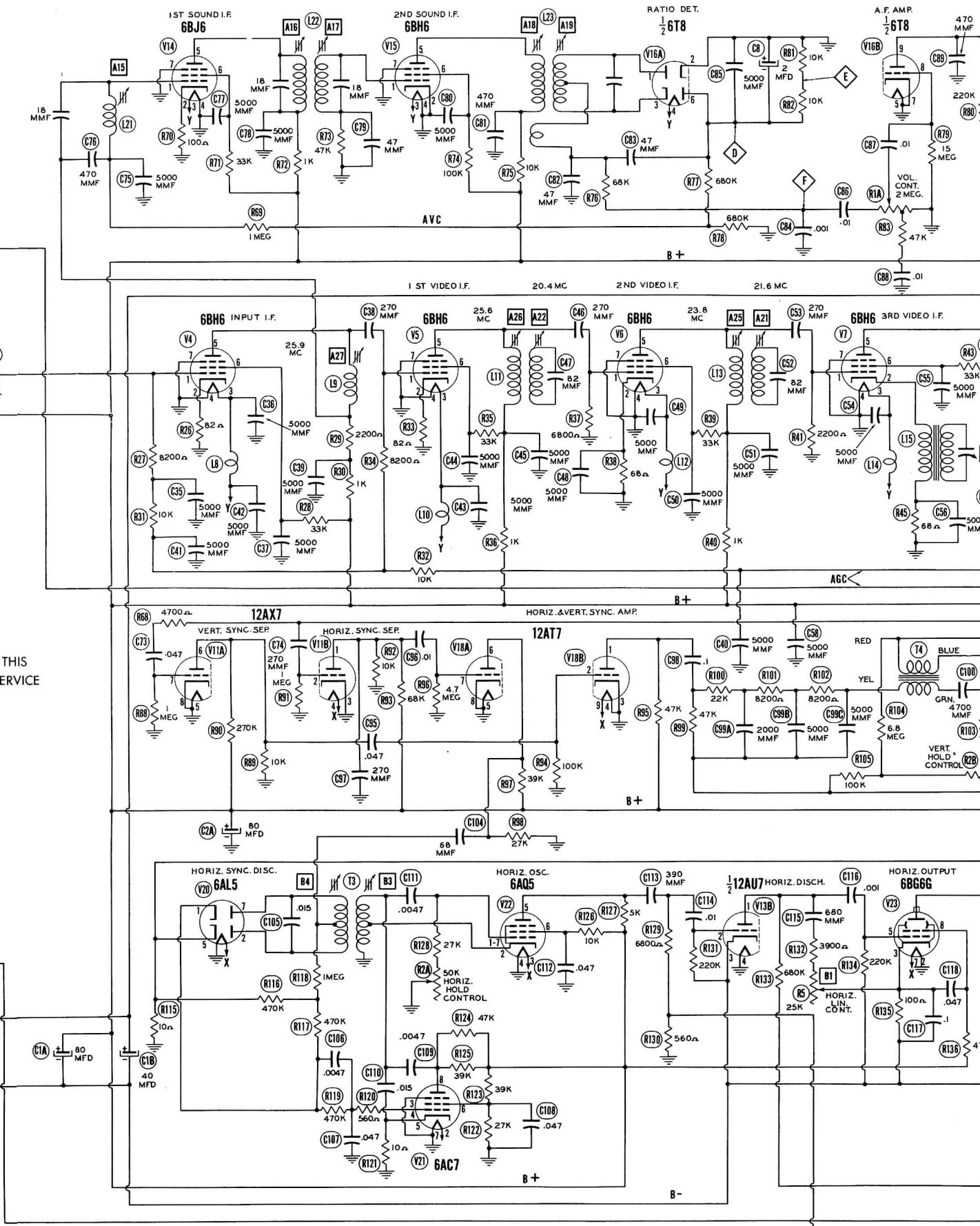
THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS

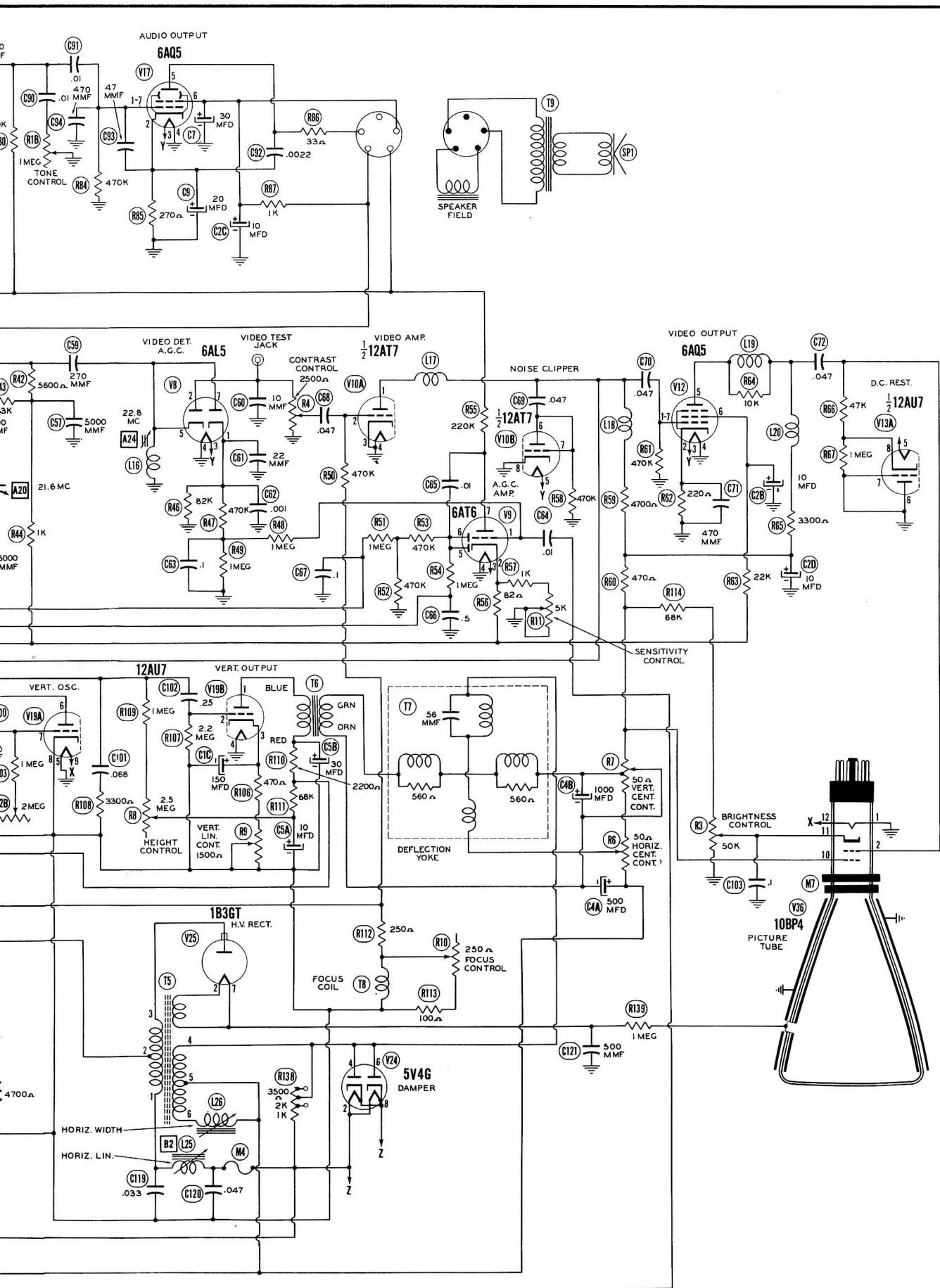


A PHOTOFAC STANDARD NOTATION SCHEMATIC
© Howard W. Sams & Co., Inc. 1949

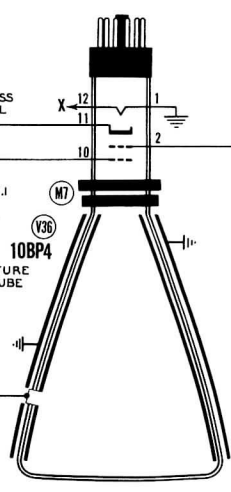
MANUFACTURER OF THIS
GIVE YOU THIS SERVICE

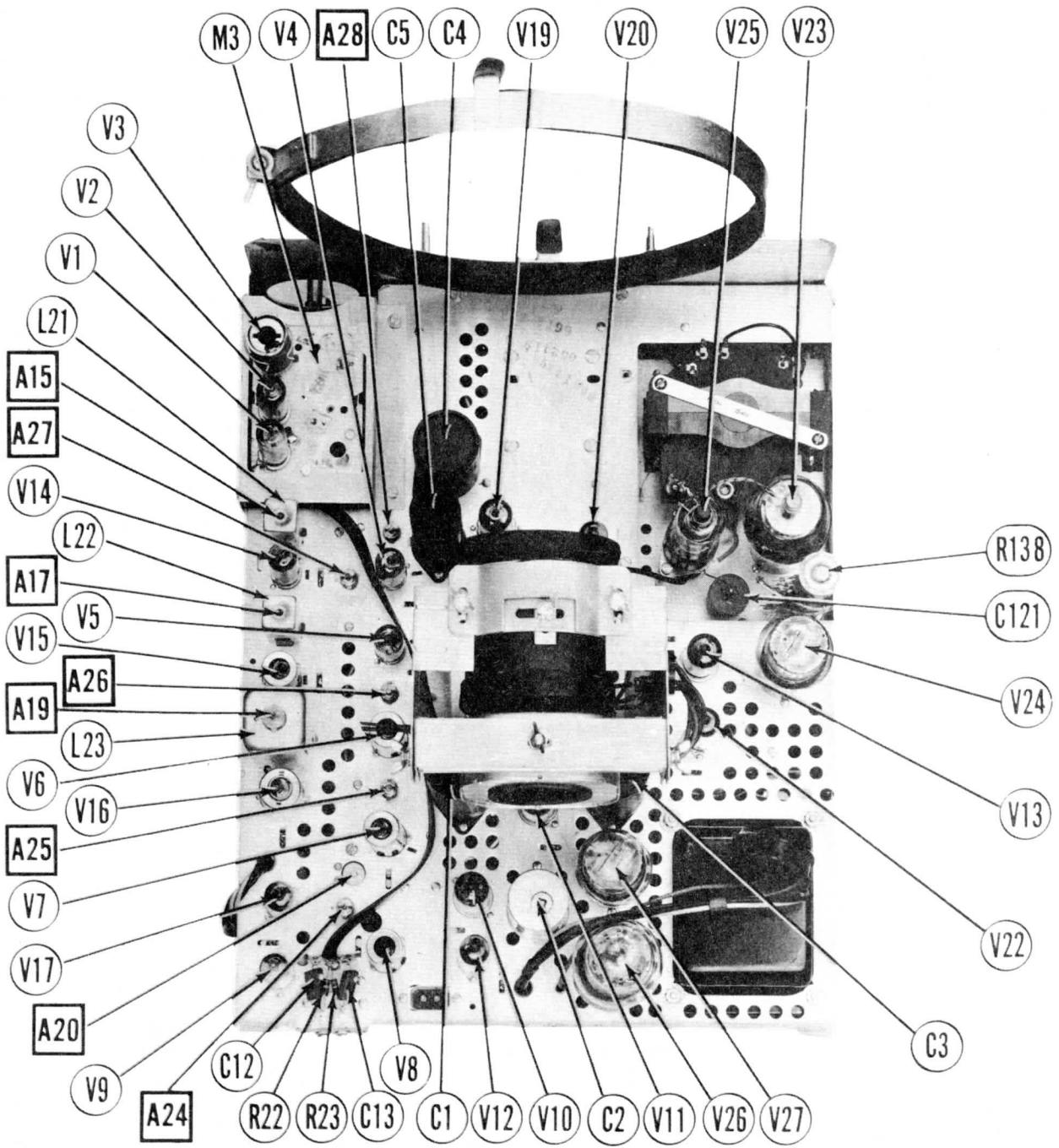
ATIC



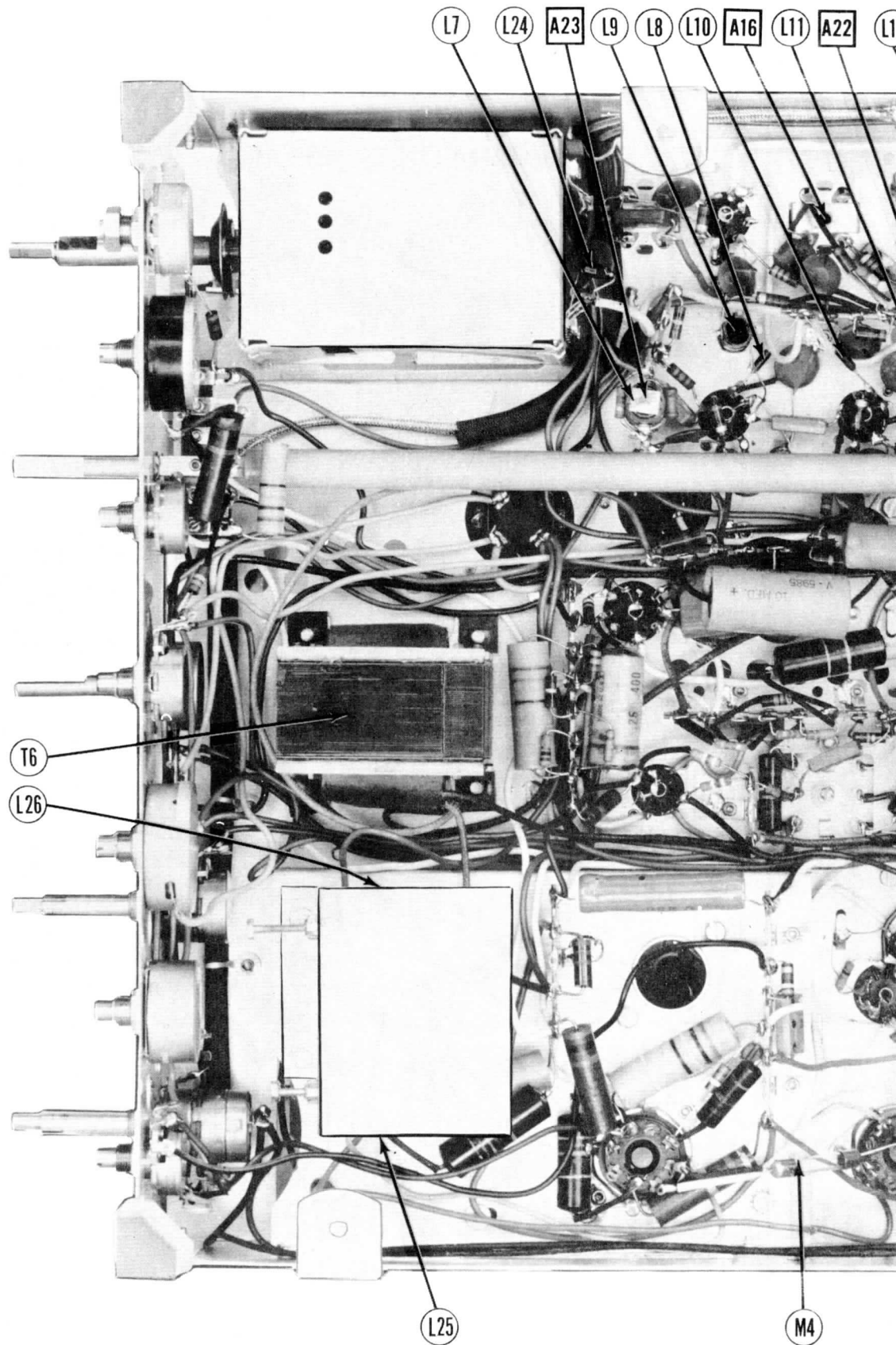


WESTINGHOUSE MODELS
H-196, H-207

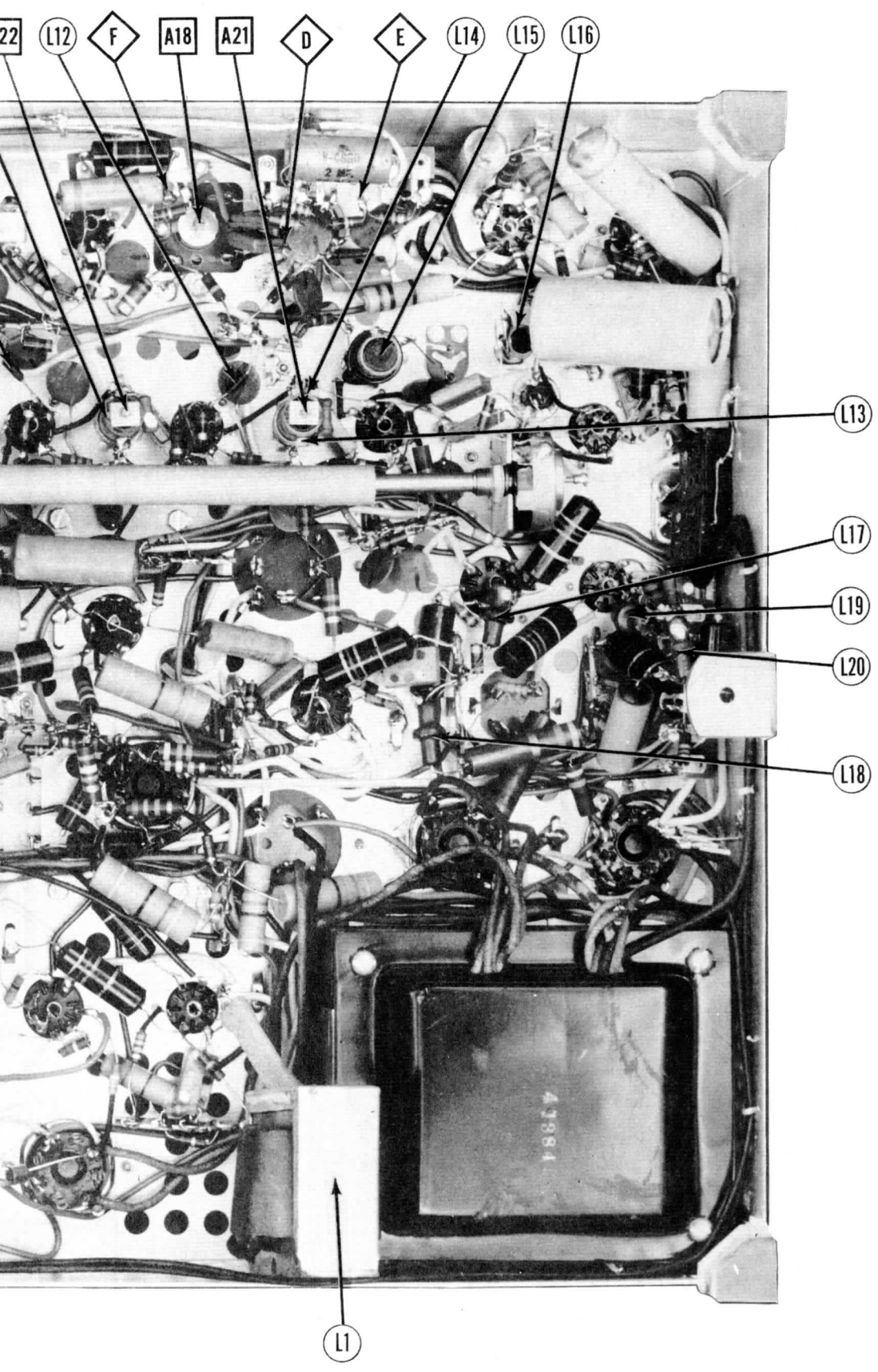




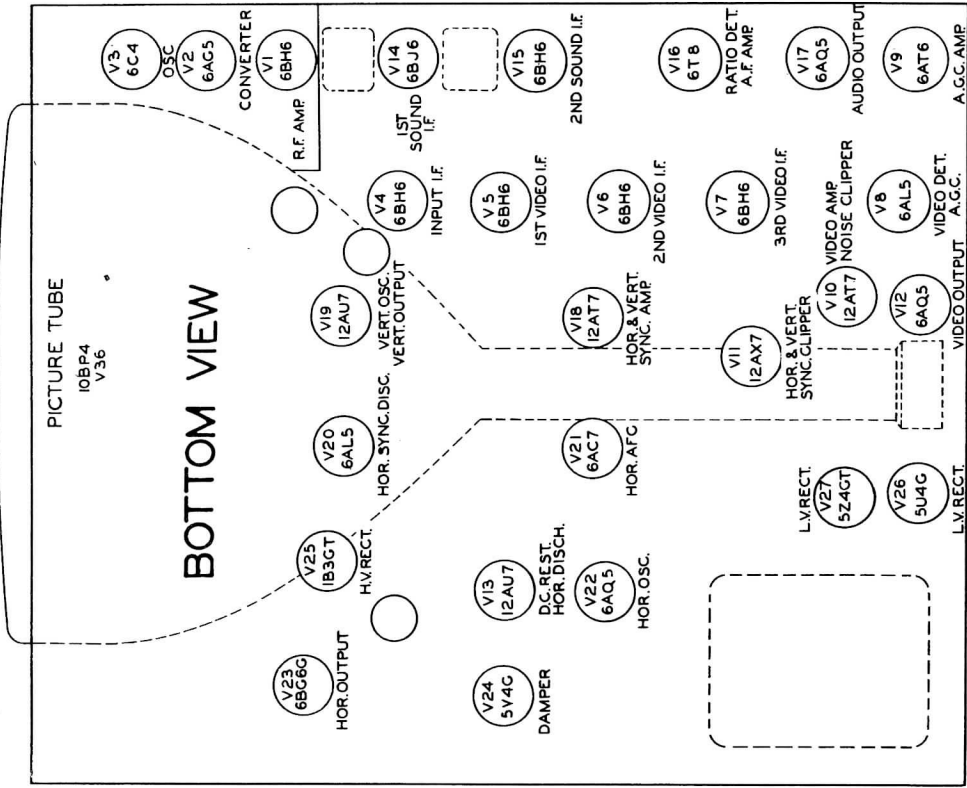
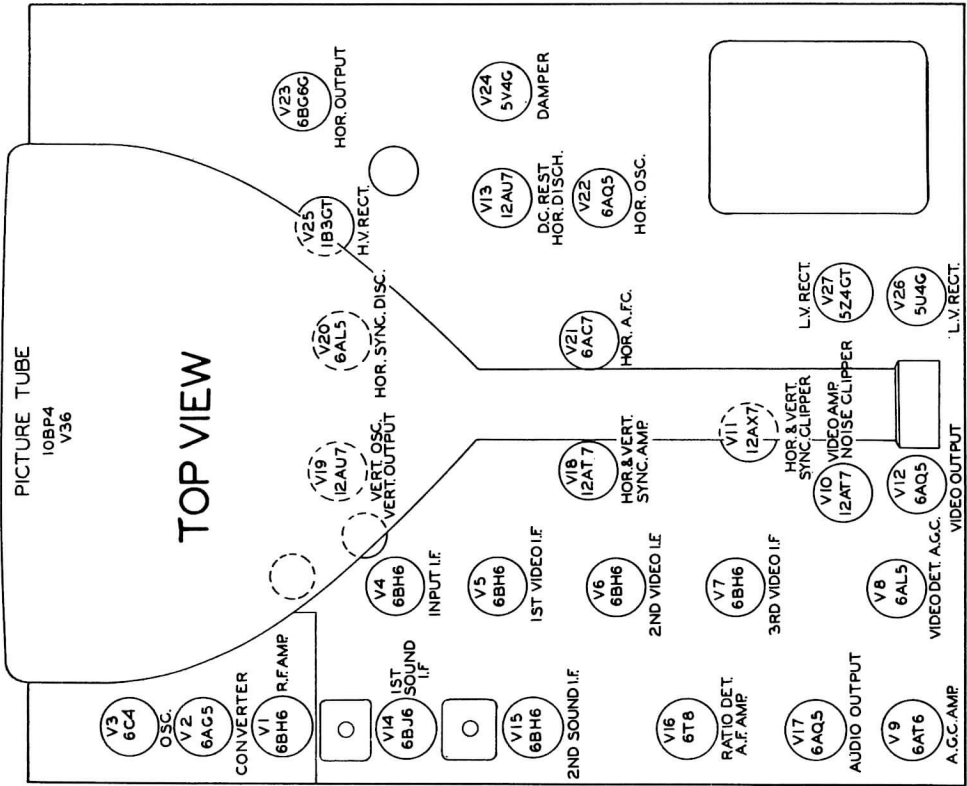
CHASSIS TOP VIEW



CHASSIS BOTTOM VIEW-TRANS., INDUCTO



VACUUM TUBE AND ALIGNMENT IDENTIFICATION



TUBE PLACEMENT CHART

WESTINGHOUSE MODELS
H-196, H-207

ALIGNMENT INSTRUCTIONS

RADIO ALIGNMENT

PRE-ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set dial pointer, turn tuning capacitor fully closed and set pointer at last reference mark at left hand edge of dial.
 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.

AM ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .1MFD	High side to pin 1 6BA6 (V30). Low side to chassis.	455KC	AM (center position)	Tuning cap fully open	Across voice coil	A1, A2	Adjust for maximum output.
2. .1MFD	High side to pin 1 6BE6 (V29). Low side to chassis.	"	"	"	"	A3, A4	" " " "
3.	Loop	1600KC	"	1600KC	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
4.	Loop	1400KC	"	Tune for maximum output.	"	A6	Rock tuning cap and adjust for maximum output.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Before starting step 7, connect two 100K Ω matched resistors ($\pm 5\%$) connected in series from pin 7 6AL5 (V5) to chassis. (See Schematic). Connect the DC Probe of the VTVM to point B and the common lead to point C.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
5. 1000MMF	High side to pin 1 6BA6 (V29). Low side to chassis.	10.7MC	FM (Ext. counter clockwise)	Tuning cap fully open	DC Probe to point Δ Common to chassis.	A7, A8 A9	Adjust for maximum deflection.
6. 1000MMF	High side to pin 7 12AT7 (V28). Low side to chassis.	"	"	"	"	A10, A11	" " " "
7. 1000MMF	"	"	"	"	DC Probe to point Δ Common lead to point Δ	A12	Adjust for zero reading. A positive or negative reading on either side denotes the correct setting. Remove the two 100K Ω resistors.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

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

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	SCOPE CONNECT	ADJUST	REMARKS
5. 1000MMF	High side to pin 1 6BA6 (V29). Low side to chassis.	10.7MC (450KC Sweep)	FM	Tuning cap fully open	Vertical Amp. to point Δ Low side to chassis.	A7, A8 A9	Disconnect stabilizer capacitor (C11). Adjust for maximum amplitude and symmetry as per Fig 1
6. 1000MMF	High side to pin 7 12AT7 (V30). Low side to chassis.	"	"	"	"	A10, A11	Adjust for maximum amplitude and symmetry as per Fig 1.
7. 1000MMF	"	"	"	"	Vertical Amp. to point Δ Low side to chassis.	A12	Reconnect stabilizer cap. Adjust so crossover point occurs at center of pattern as per Fig 2. If necessary, slightly re-touch A7 for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
8. 300 Ω carbon res.	High side to terminal 1 of antenna strip. Low side to terminal 2.	105MC	"	105MC	DC Probe to point Δ Low side to chassis.	A13	Adjust for maximum deflection.
9. 300 Ω carbon res.	"	"	"	Tune for maximum output.	"	A14	" " " "

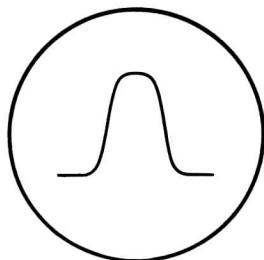


FIG. 1

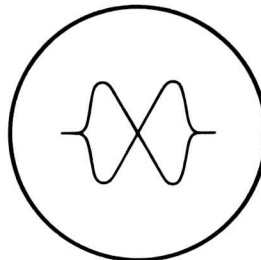


FIG. 2

TV ALIGNMENT

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Attenuate the signal generator to give approximately a 5 volt reading on the VTVM using the 10 volt scale.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
9. 500MMF	High side to pin 1 (Grid) of 6AG5 (V2). Low side to chassis.	21.6MC	3	DC Probe to Point D. Common to chassis.	A15, A16, A17, A18	Adjust for maximum deflection.
10. 500MMF	"	"	"	DC Probe to Point F. Common to chassis.	A19	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

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.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
9. 500MMF	High side to pin 1 (Grid) of 6AG5 (V2). Low side to chassis.	21.6MC (1MC Sweep)	21.45MC 21.6MC 21.8MC	3	Vert. Amp. to Point D. Low side to chassis.	A15, A16, A17, A18	Disconnect stabilizer cap (C8). Adjust for maximum amplitude and symmetry as per Fig 3.
10. 500MMF	"	"	21.35MC 21.6MC 21.85MC	3	Vert. Amp. to Point C. Low side to chassis.	A19	Reconnect stabilizer cap. Adjust A19 so 21.6MC marker appears at center of pattern as per Fig 4.

VIDEO IF ALIGNMENT

Connect the bias unit shown in Fig 5 to the AGC line.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
11. 500MMF	High side to pin 1 (Grid) of 6AG5 (V2). Low side to chassis.	21.6MC	3	DC Probe to Video Test Jack on chassis. Common to chassis.	A20	Adjust for minimum deflection.
12. 500MMF	"	21.6MC	"	"	A21	" " " "
13. 500MMF	"	20.4MC	"	"	A22	" " " "
14. 500MMF	"	27.6MC	"	"	A23	" " " "
15. 500MMF	"	22.8MC	"	"	A24	Adjust for maximum deflection.
16. 500MMF	"	23.8MC	"	"	A25	Adjust for maximum deflection. If A25 required adjustment, repeat step 12.
17. 500MMF	"	25.6MC	"	"	A26	Adjust for maximum deflection. If A26 required adjustment, repeat step 13.
18. 500MMF	"	25.9MC	"	"	A27	Adjust for maximum deflection.
19. 500MMF	"	22.3MC	"	"	A28	Adjust for maximum deflection. If A28 required adjustment, repeat step 14.

OVERALL VIDEO IF RESPONSE CHECK

Leave the bias unit connected for this visual check.

Shunt the vertical amplifier connections of the oscilloscope with a 500MMF capacitor and insert a 200KΩ resistor in series with the high side lead. Connect the horizontal amplifier to the synchronized sweep voltage output of the signal generator.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
20. 500MMF	High side to pin 1 (Grid) of 6AG5 (V2). Low side to chassis.	25MC (12MC Sweep)	21.6MC 22.5MC 23.0MC 25.3MC 26.1MC 27.0MC	3	Vert. Amp. thru 200KΩ to video test jack. Low side to chassis. (See instructions above)	A20 thru A28	Check to see that markers appear on pattern obtained as per Fig 6. Slight adjustment of A24 and A25 will usually properly place the markers. If readjustment of A25, A26 or A28 is made their respective traps must be rechecked. Do not adjust any trap except A22 to correct the response curve.

TV OSCILLATOR ALIGNMENT

The RF amplifier and mixer circuits of the tuner are very stable and normally do not require adjustment in the field.

When adjusting the oscillator circuits, turn the fine tuning control to the mid point of its tuning range.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
21. Two 150Ω carbon res.	Insert 150Ω resistor in each generator lead and connect across antenna terminals.	215.75MC (Unmod.)	13	DC Probe to Point D. Common to chassis.	A29	Expand or compress the oscillator coil for maximum deflection.
22. "	"	209.75MC 203.75MC 197.75MC 191.75MC 185.75MC 179.75MC	12 11 10 9 8 7	"	A30 A31 A32 A33 A34 A35	" " " " " "
23. "	"	87.75MC 81.75MC 71.75MC 65.75MC 59.75MC	6 5 4 3 2	"	A36 A37 A38 A39 A40	Adjust slug for maximum deflection. " " " " "

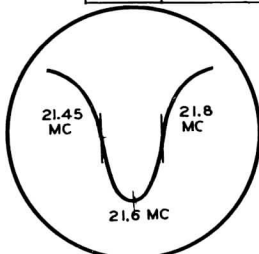


FIG. 1

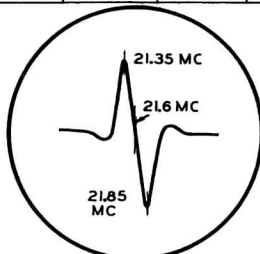


FIG. 2

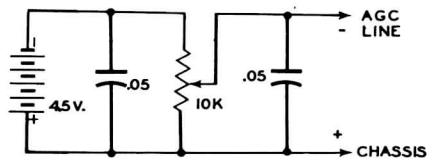


FIG. 3

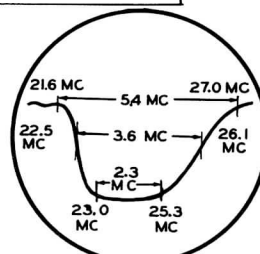


FIG. 4

WESTINGHOUSE MODELS
H-196, H-207

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	6BH6	OV	1VDC	OV	6.3VAC	170VDC	135VDC	OV		
V 2	6AG5	-8VDC	OV	OV	6.3VAC	245VDC	115VDC	OV		
V 3	6CA	170VDC	OV	OV	6.3VAC	170VDC	\$-5.6VDC	3.8VDC		
V 4	6BH6	-8VDC	7VDC	OV	6.2VAC	285VDC	160VDC	OV		
V 5	6BH6	-1VDC	7VDC	OV	6.2VAC	285VDC	160VDC	OV		
V 6	6BH6	OV	7VDC	OV	6.2VAC	285VDC	160VDC	OV		
V 7	6BH6	OV	7VDC	OV	6.2VAC	190VDC	150VDC	OV		
V 8	6AL5	3VDC	-1VDC	OV	6.3VAC	OV	OV	OV		
V 9	6AT6	OV	3.6VDC	OV	6.3VAC	OV	OV	OV		
V 10	12AT7	215VDC	-6VDC	OV	OV	-1VDC	-1VDC	235VDC		
V 11	12AX7	7.2VDC	-4VDC	OV	OV	OV	-8VDC	OV	6.3VAC	
V 12	6AQ5	7VDC	6.3VAC	OV	6.3VAC	OV	165VDC	OV		
V 13	12AU7	85VDC	-36VDC	OV	OV	OV	OV	6VDC	6.3VAC	
V 14	6BL6	-1VDC	1.2VDC	OV	6.3VAC	OV	285VDC	135VDC	OV	
V 15	6BH6	-3VDC	OV	OV	6.3VAC	OV	208VDC	105VDC	OV	
V 16	6T8	-8VDC	-1.3VDC	OV	-8VDC	OV	OV	OV	-8VDC	100VDC
V 17	6AQ5	OV	10VDC	OV	6.3VAC	OV	205VDC	225VDC	OV	
V 18	12AT7	70VDC	-8VDC	OV	6.3VAC	OV	65VDC	-4VDC	OV	6.3VAC
V 19	12AU7	300VDC	OV	OV	6.3VAC	OV	154VDC	-2.4VDC	1 OV	6.3VAC
V 20	6AL5	-6VDC	-3VDC	OV	OV	-2VDC	OV	-5.5VDC		
V 21	6AC7	OV	6.3VAC	OV	-4VDC	OV	90VDC	OV	190VDC	
V 22	6AQ5	-24VDC	OV	OV	6.3VAC	OV	165VDC	-24VDC		TOP CAP
V 23	69G63	OV	OV	OV	8.7VDC	OV	400VDC	6.3VAC	240VDC	
V 24	5V4G	OV	400VDC	OV	350VDC	OV	350VDC	OV	400VDC	
V 25	1B3GT									
* DO NOT MEASURE										
V 26	5U4G	OV	340VDC	OV	330VAC	190VDC	330VAC	340VDC	340VDC	
V 27	5Y4G	OV	380VDC	OV	330VAC	OV	330VAC	OV	380VDC	
V 28	12AT7	195VDC	-1VDC	OV	OV	OV	123VDC	-2.2VDC	OV	6.3VAC
V 29A	6BE6	\$-8.8VDC	OV	OV	6.5VAC	250VDC	125VDC	OV		
V 29B	6BE6	\$-8.8VDC	OV	OV	6.5VAC	250VDC	108VDC	-1VDC		
V 30	6BA6	-1VDC	OV	OV	6.5VAC	235VDC	107VDC	1.1VDC		
V 31	6BA6	OV	OV	OV	6.5VAC	235VDC	110VDC	1.2VDC		
V 32	6AL5	-8VDC	OV	OV	6.5VAC	OV	OV	-4VDC		
V 33	6AV6	-4VDC	OV	OV	6.3VAC	-3VDC	7VDC	90VDC		
V 34	6AV6	OV	OV	OV	6.3VAC	265VDC	OV	220VDC	OV	13.5VDC
V 35	1B3GT	OV	295VDC	OV	300VAC	OV	300VAC	OV	295VDC	
V 36	10BF4	OV	5VDC	OV	108VDC	16.3VAC				

* Do not measure from pin 8 of V19
 † Measured from pin 8 of V19
 ‡ Taken in broadcast position
 †† Taken in broadcast position

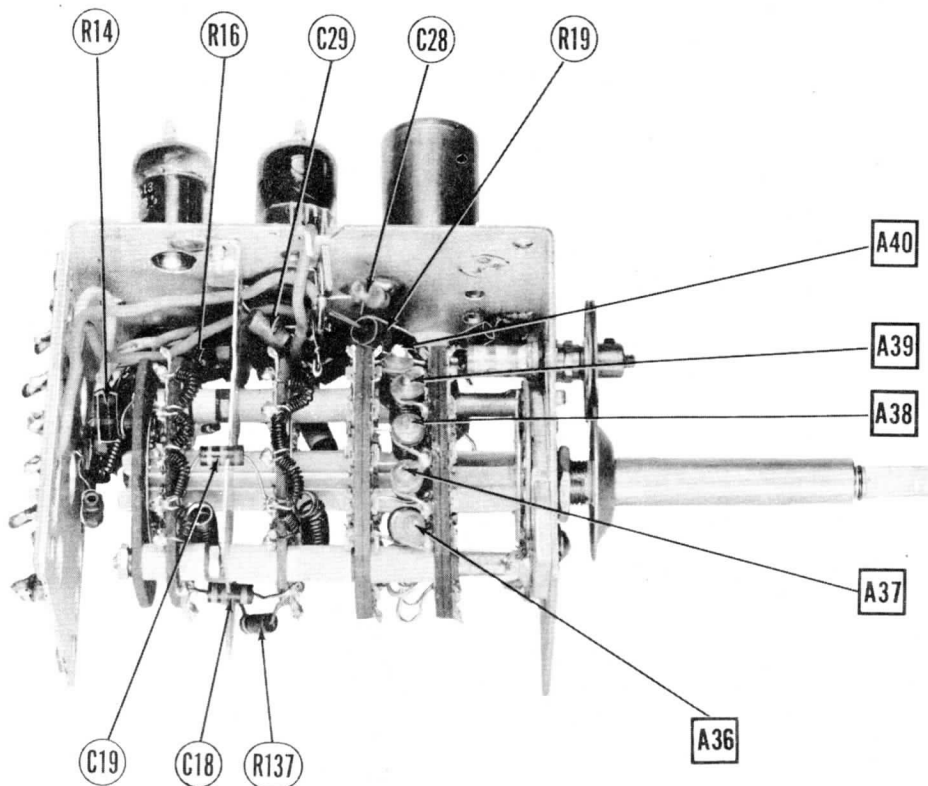
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.

RESISTANCE READINGS

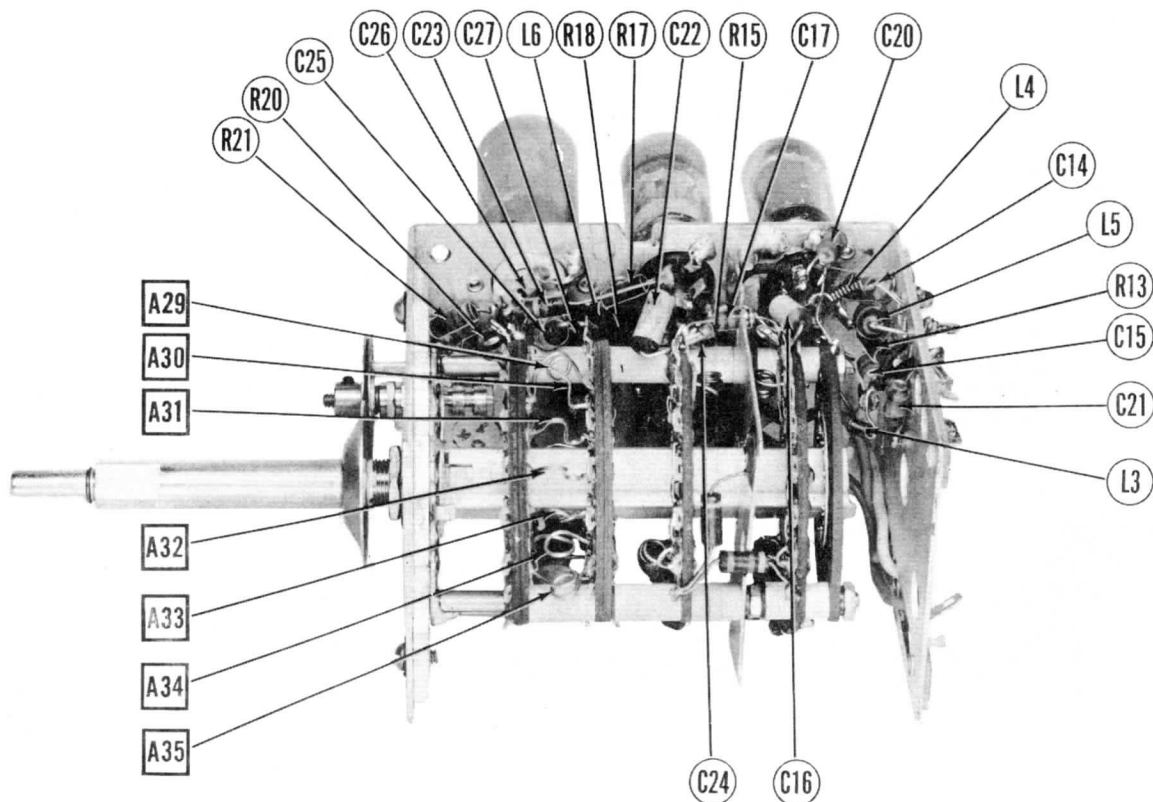
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BH6	1.4 Meg.	100Ω	Ω	.2Ω	*11KΩ	*26KΩ	Ω		
V 2	6AG5	1 Meg.	Ω	Ω	.2Ω	*100Ω	*50KΩ	Ω		
V 3	6CA	*8.5KΩ	Inf.	Ω	.2Ω	*8.5KΩ	22KΩ	470Ω		
V 4	6BH6	2 Meg.	82Ω	1Ω	Ω	*3.3KΩ	*34KΩ	Ω		
V 5	6BH6	2 Meg.	82Ω	1Ω	Ω	*100Ω	*34KΩ	Ω		
V 6	6BH6	6.8KΩ	66Ω	1Ω	Ω	*100Ω	*34KΩ	Ω		
V 7	6BH6	2.2KΩ	66Ω	1Ω	Ω	*6KΩ	*34KΩ	Ω		
V 8	6AL5	80KΩ	2.5KΩ	.2Ω	Ω	.2Ω	Ω	.2Ω		
V 9	6AT6	1.2 Meg.	100Ω	.2Ω	Ω	950KΩ	950KΩ	*220KΩ		
V 10	12AT7	*45.5KΩ	500KΩ	Ω	Ω	Ω	500KΩ	500KΩ	Ω	.2Ω
V 11	12AX7	*25KΩ	1 Meg.	Ω	Ω	*4KΩ	*22KΩ	1 Meg.	Ω	.2Ω
V 12	6AQ5	470KΩ	220Ω	.2Ω	Ω	*4KΩ	*22KΩ	470KΩ		
V 13	12AU7	650KΩ	220KΩ	1 Ω	Ω	Ω	Ω	Ω	1 Meg.	.2Ω
V 14	6BU6	1.5 Meg.	100Ω	.2Ω	Ω	*100Ω	*34KΩ	Ω		
V 15	6BH6	47KΩ	Ω	.2Ω	Ω	*10KΩ	*100KΩ	Ω		
V 16	6T8	Inf.	20KΩ	Inf.	.2Ω	Ω	Ω	Ω	15 Meg.	*220KΩ
V 17	6AQ5	470KΩ	270Ω	.2Ω	Ω	*150Ω	*100Ω	470KΩ		
V 18	12AT7	*50KΩ	100KΩ	Ω	Ω	Ω	*22KΩ	4.7 Meg.	Ω	.2Ω
V 19	12AU7	*3KΩ	1.2 Meg.	150Ω	Ω	Ω	*1 Meg.	11.2 Meg.	10Ω	.2Ω
V 20	6AL5	900KΩ	1.4 Meg.	.2Ω	Ω	10Ω	Ω	1.4 Meg.		
V 21	6AC7	Ω	.2Ω	Ω	1.4 Meg.	10Ω	*20KΩ	Ω	*20KΩ	
V 22	6AQ5	27KΩ	9Ω	.2Ω	Ω	*5KΩ	*10KΩ	27KΩ		
V 23	69G63	Inf.	Ω	110Ω	Inf.	1220KΩ	110KΩ	.2Ω	*5KΩ	**6KΩ
V 24	5V4G	Inf.	**6KΩ	Inf.	250Ω	Inf.	*250Ω	Inf.	5KΩ	
V 25	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	**6KΩ
V 26	5U4G	Ω	118KΩ	Inf.	120Ω	150KΩ	120Ω	1120KΩ	116KΩ	
V 27	5Y4G	Ω	1120KΩ	116KΩ	120Ω	Inf.	120Ω	Inf.	1120KΩ	
V 28	12AT7	Ω	400KΩ	83Ω	Ω	Ω	*13KΩ	450KΩ	Ω	.5Ω
V 29	6BE6	22KΩ	Ω	Ω	.5Ω	*5KΩ	*12KΩ	2 Meg.		
V 30	6BA6	1.2 Meg.	Ω	Ω	.5Ω	*4KΩ	*34KΩ	68Ω		
V 31	6BA6	.5Ω	Ω	Ω	.5Ω	*3.5KΩ	*33KΩ	68Ω		
V 32	6AL5	Inf.	Inf.	Ω	1Ω	Ω	Ω	15KΩ		
V 33	6AV6	10 Meg.	1.8Ω	Ω	.5Ω	470KΩ	150KΩ	*420KΩ		
V 34	6AV6	.5Ω	.6Ω	*90Ω	*200Ω	450KΩ	250KΩ	Ω	270Ω	
V 35	1B3GT	Inf.	120KΩ	Inf.	85Ω	Inf.	80Ω	Inf.	120KΩ	
V 36	10BF4	Ω	1 Meg.	**350Ω	**68KΩ	.2Ω				

* Measured from pin 8 of V26
 † Measured from pin 8 of V27
 ‡ Measured from pin 8 of V35
 †† Taken in broadcast position
 ‡ Taken in FM position

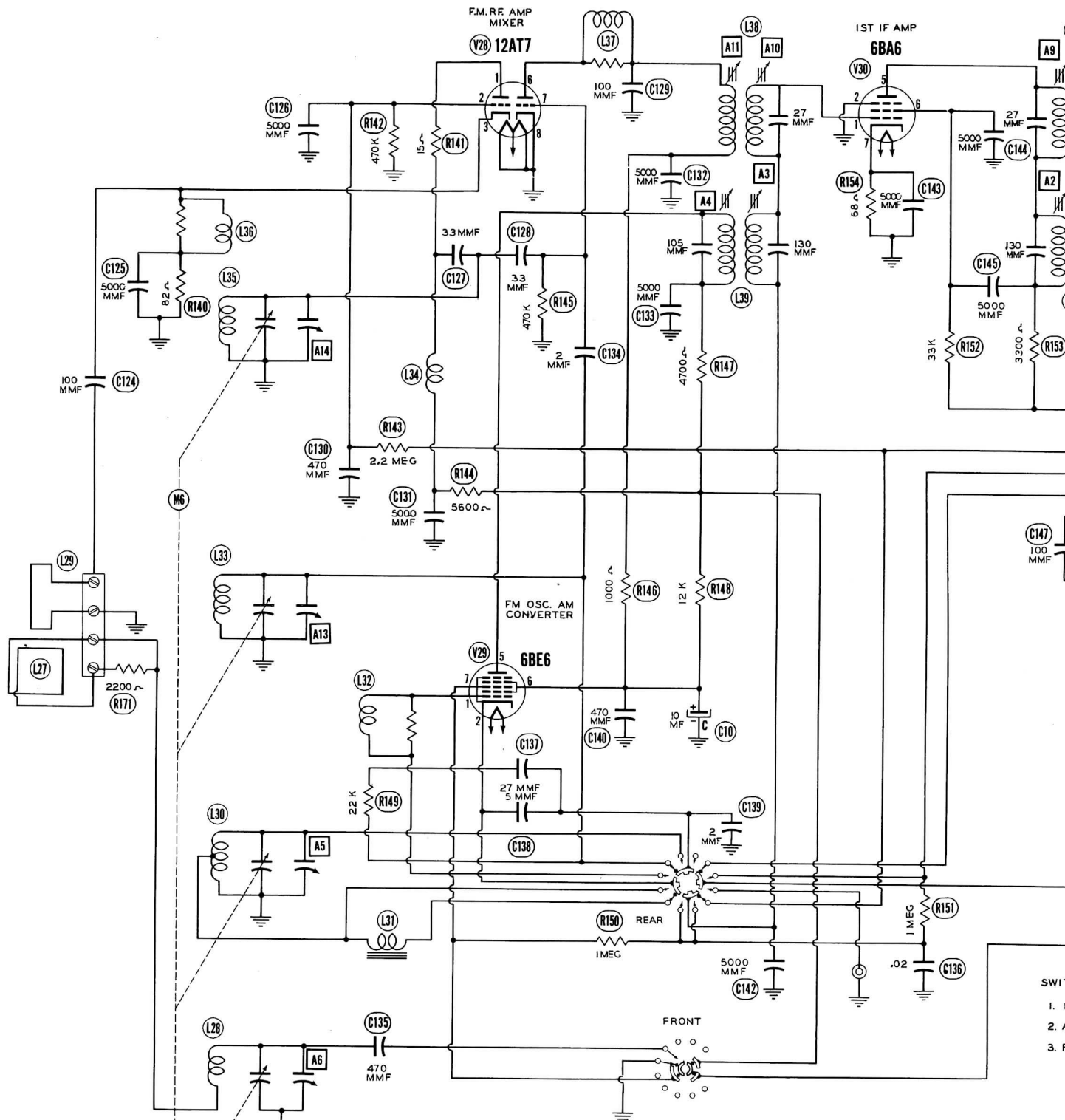
4. Line voltage maintained at 117 volts for voltage readings.
5. Front panels controls set at minimum.
6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.



RF TUNER-LEFT SIDE



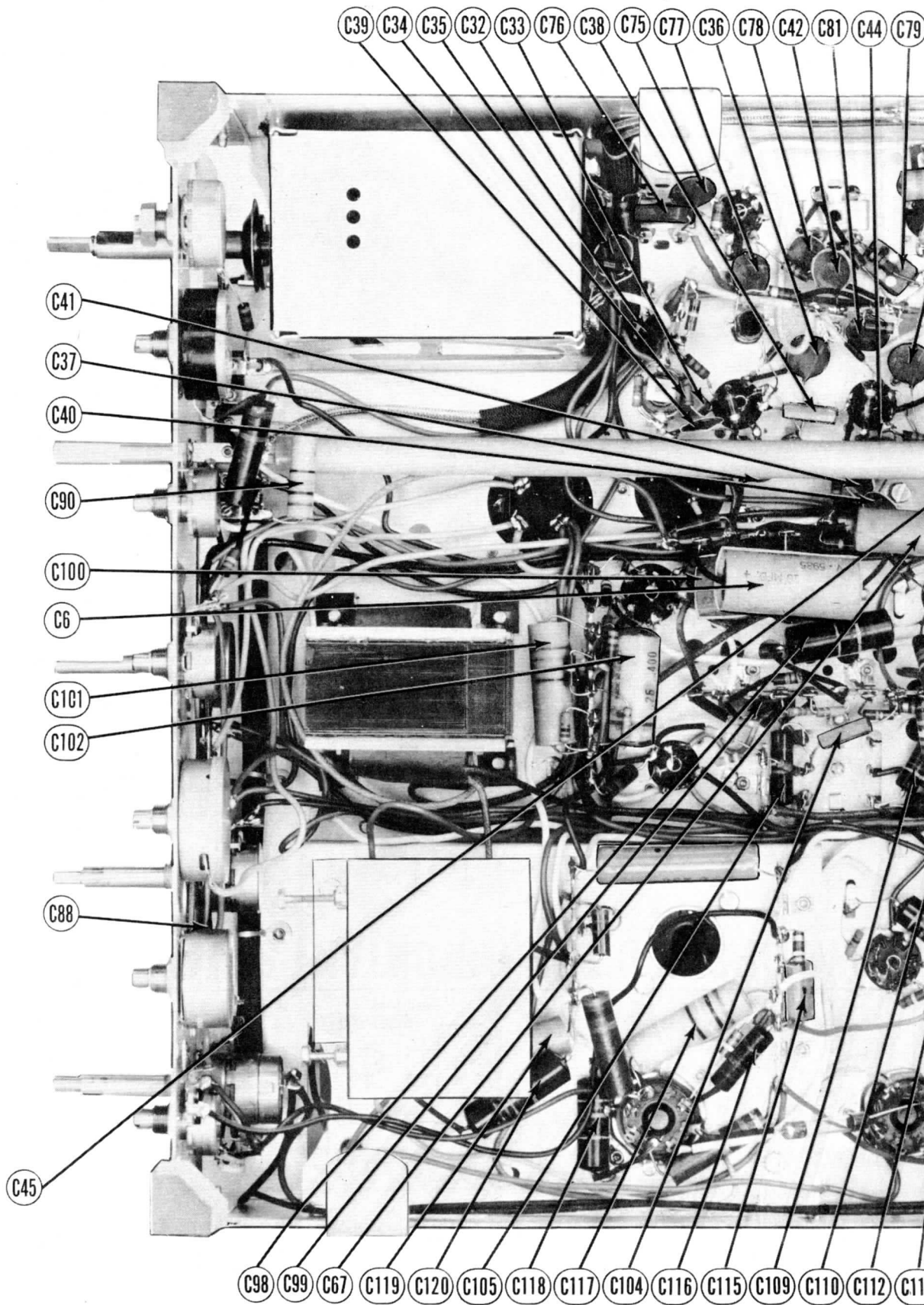
RF TUNER-RIGHT SIDE



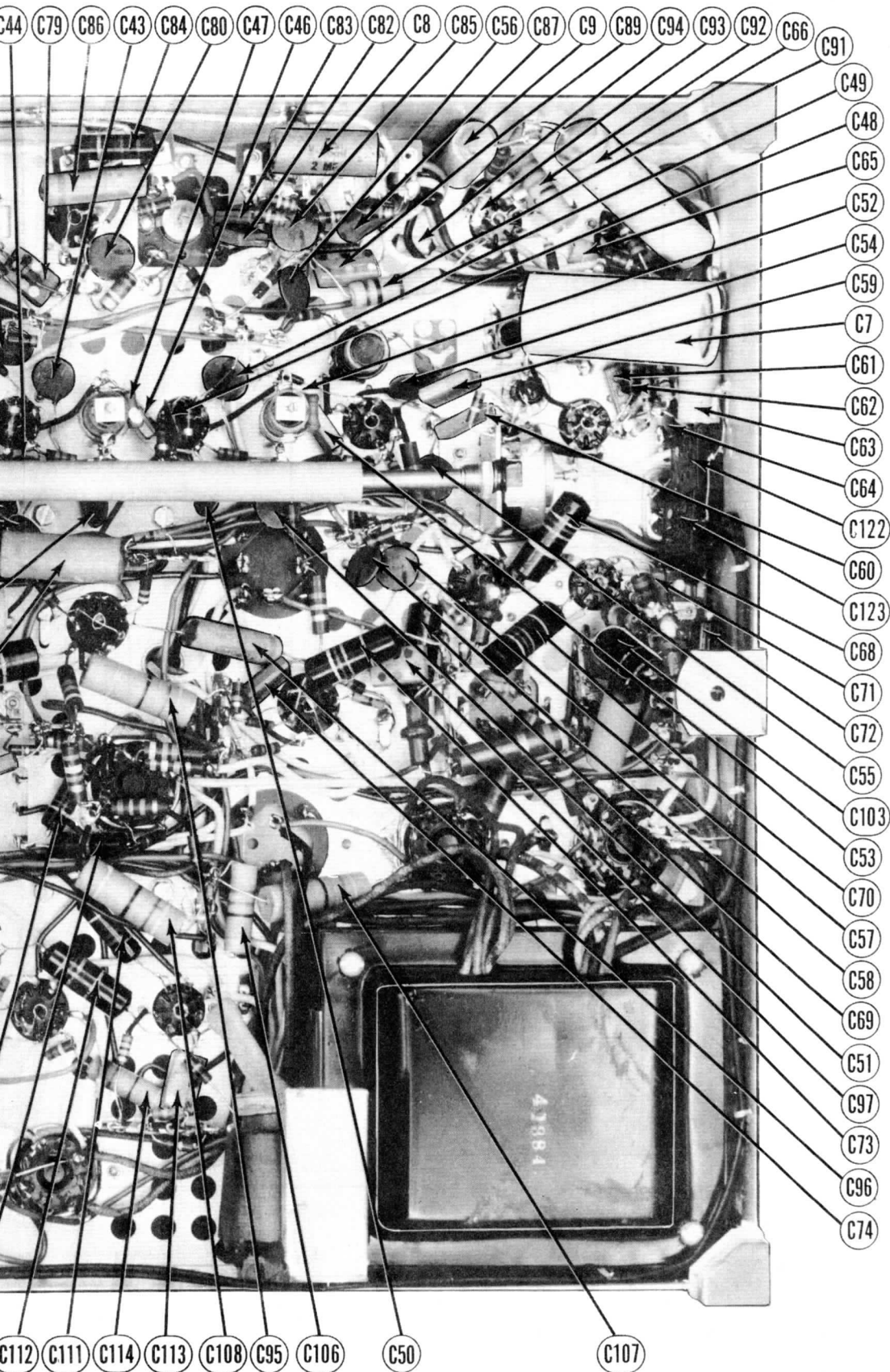
IF = 455 KC AM
 IF = 10.7 MC FM

THE COOPERATION OF
 RECEIVER MAKES IT POSSI

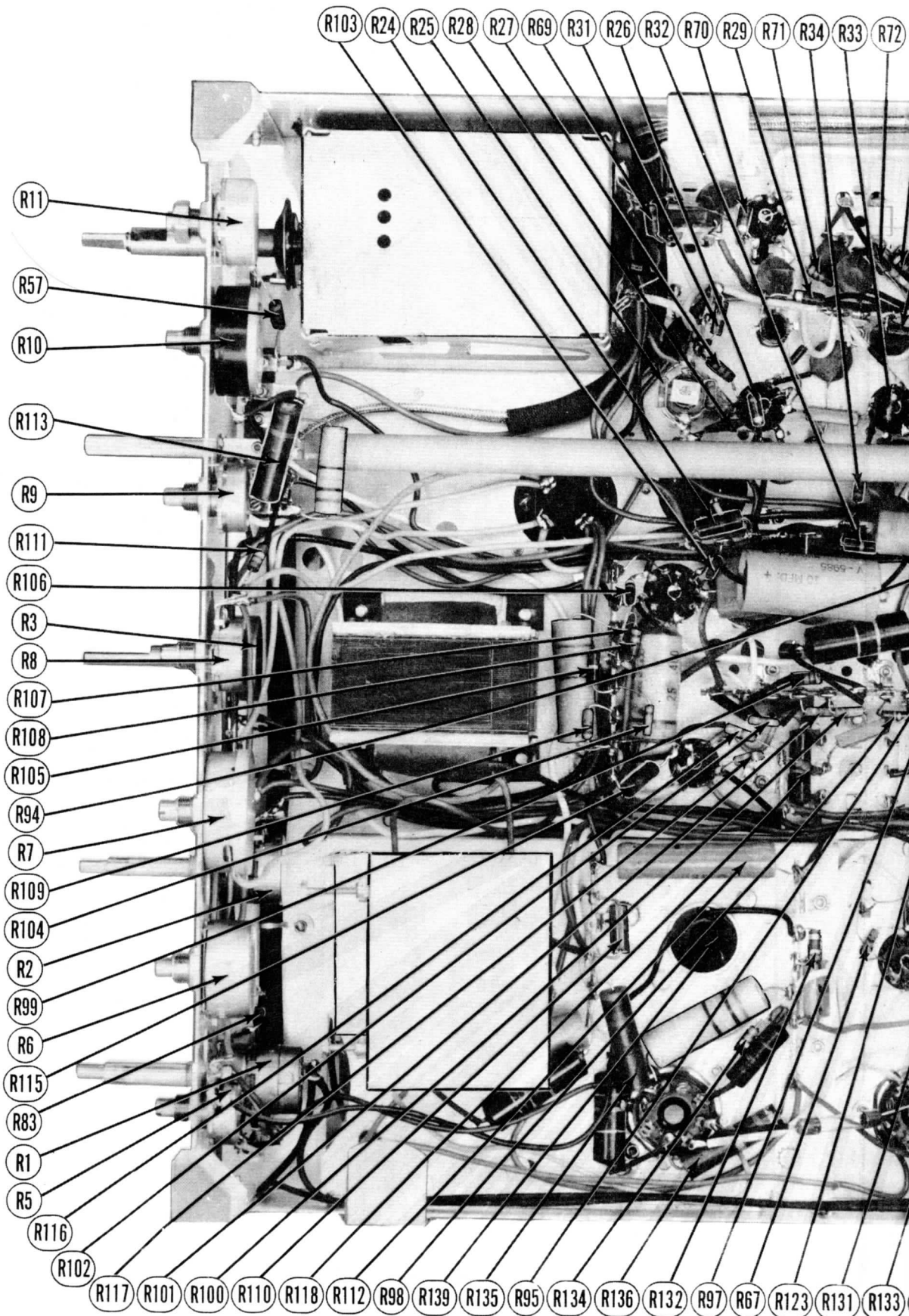
A PHOTOFAC STANDARD NOTATION SCHEMATIC
 © Howard W. Sams & Co., Inc. 1949



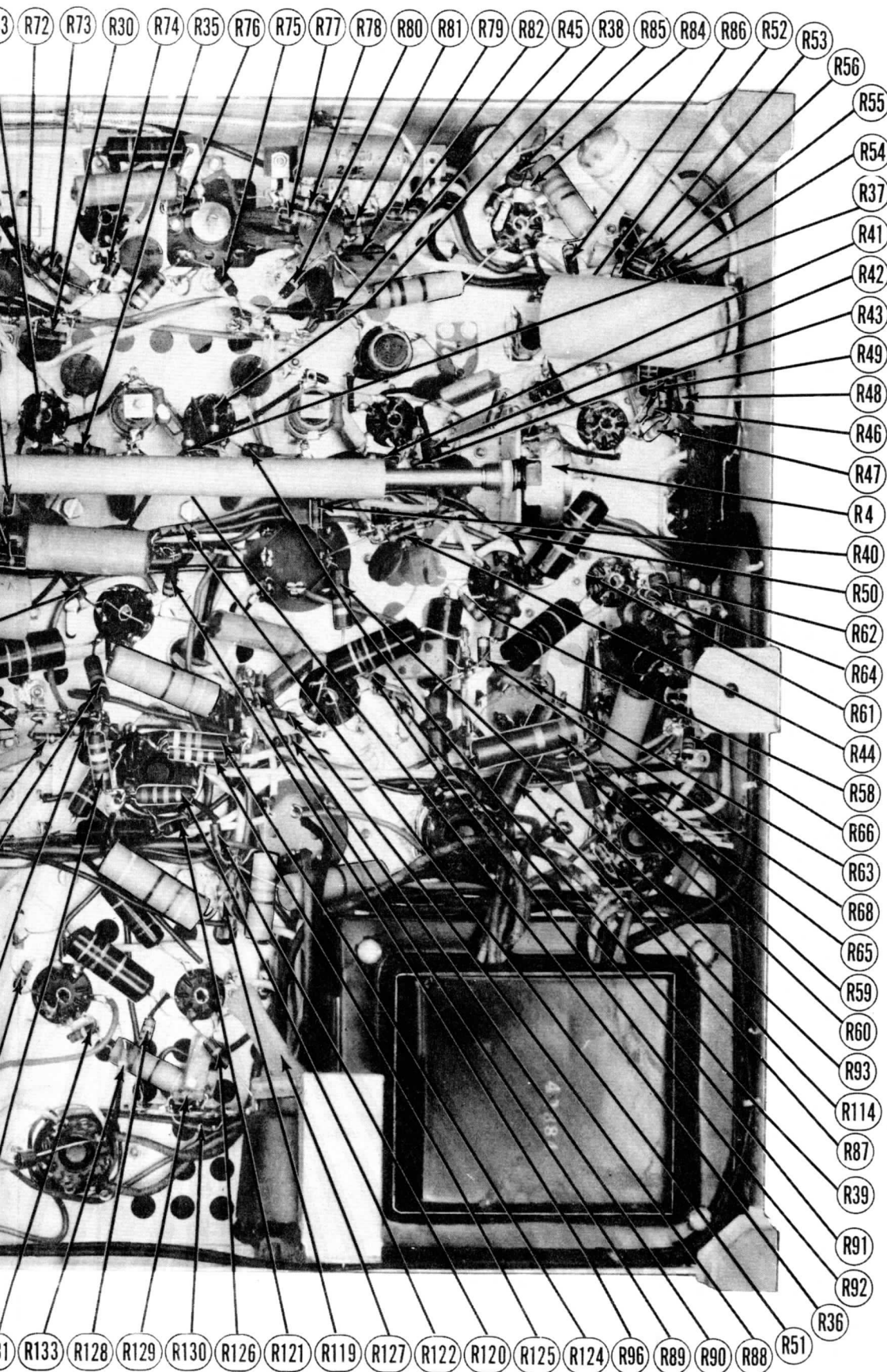
CHASSIS BOTTOM VIEW-CAP



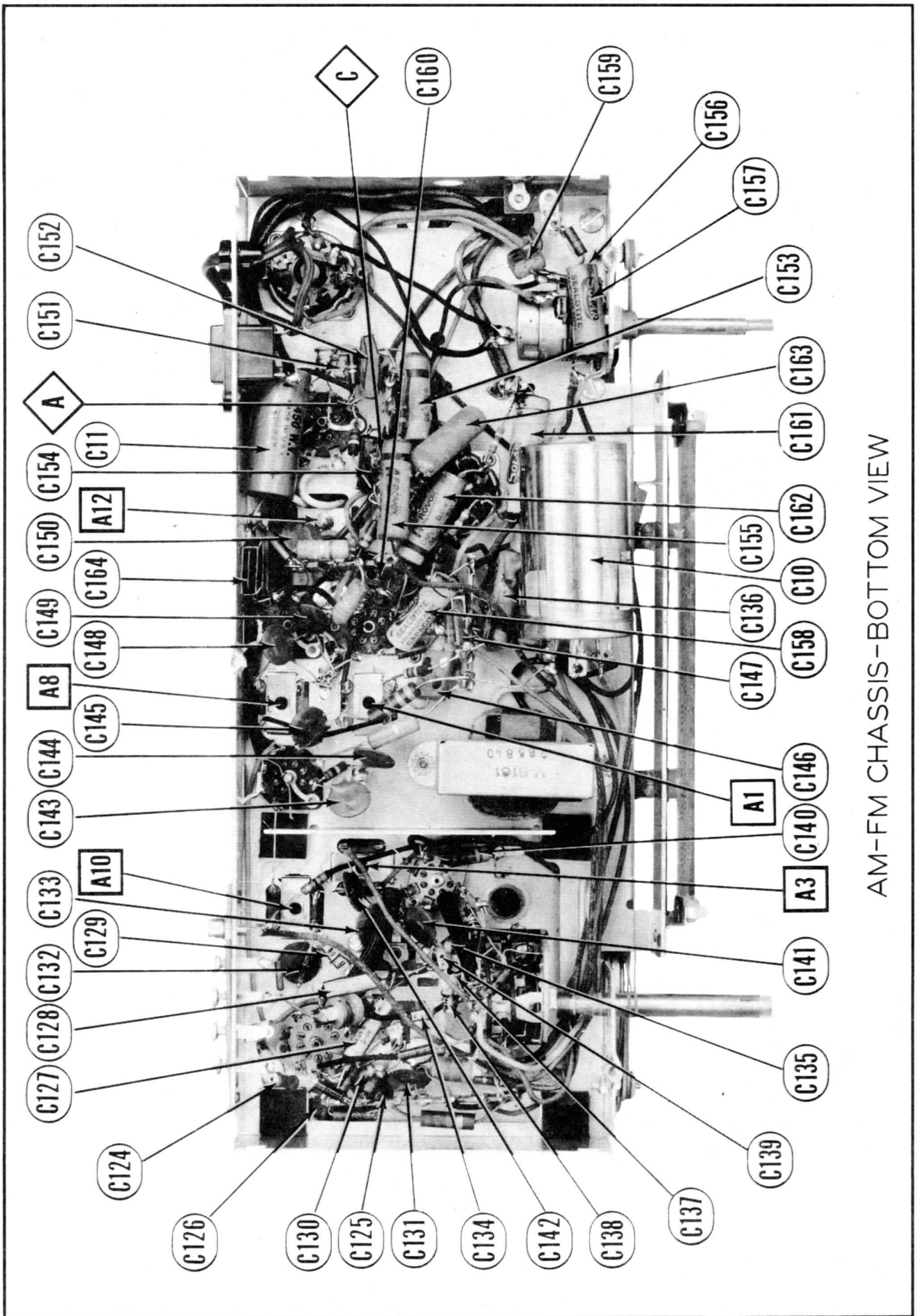
-CAPACITOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RESI

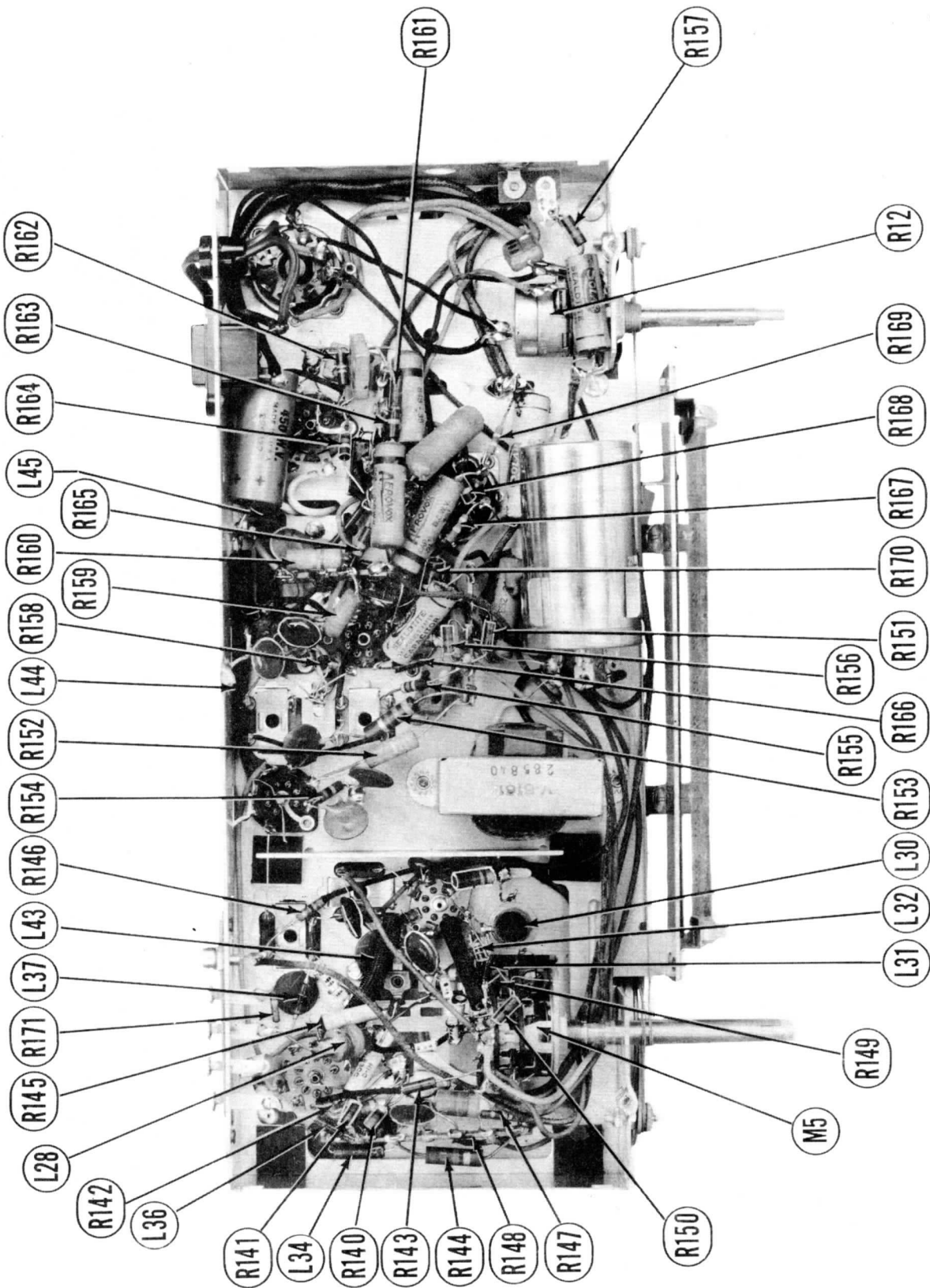


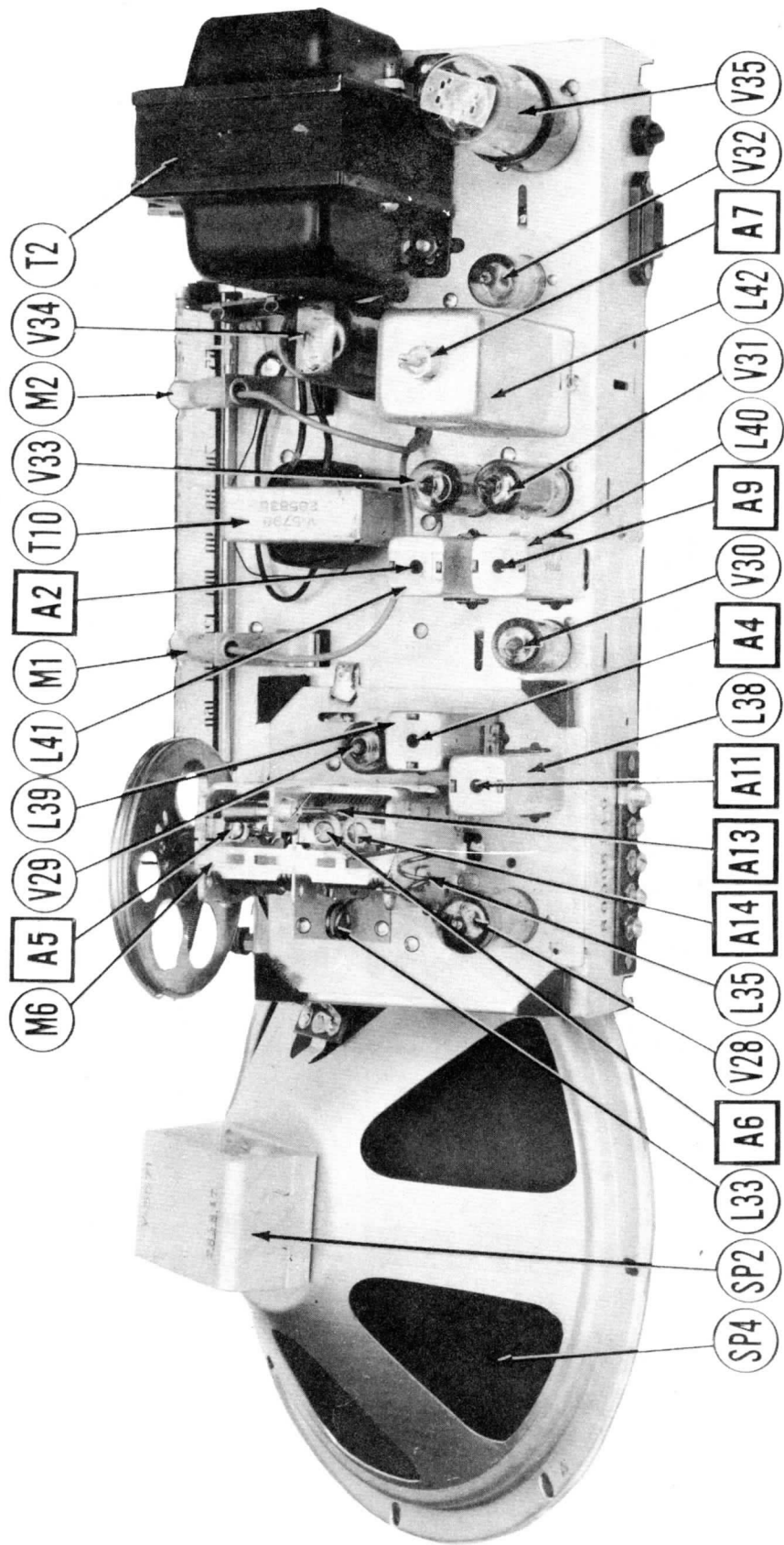
RESISTOR IDENTIFICATION



AM-FM CHASSIS - BOTTOM VIEW

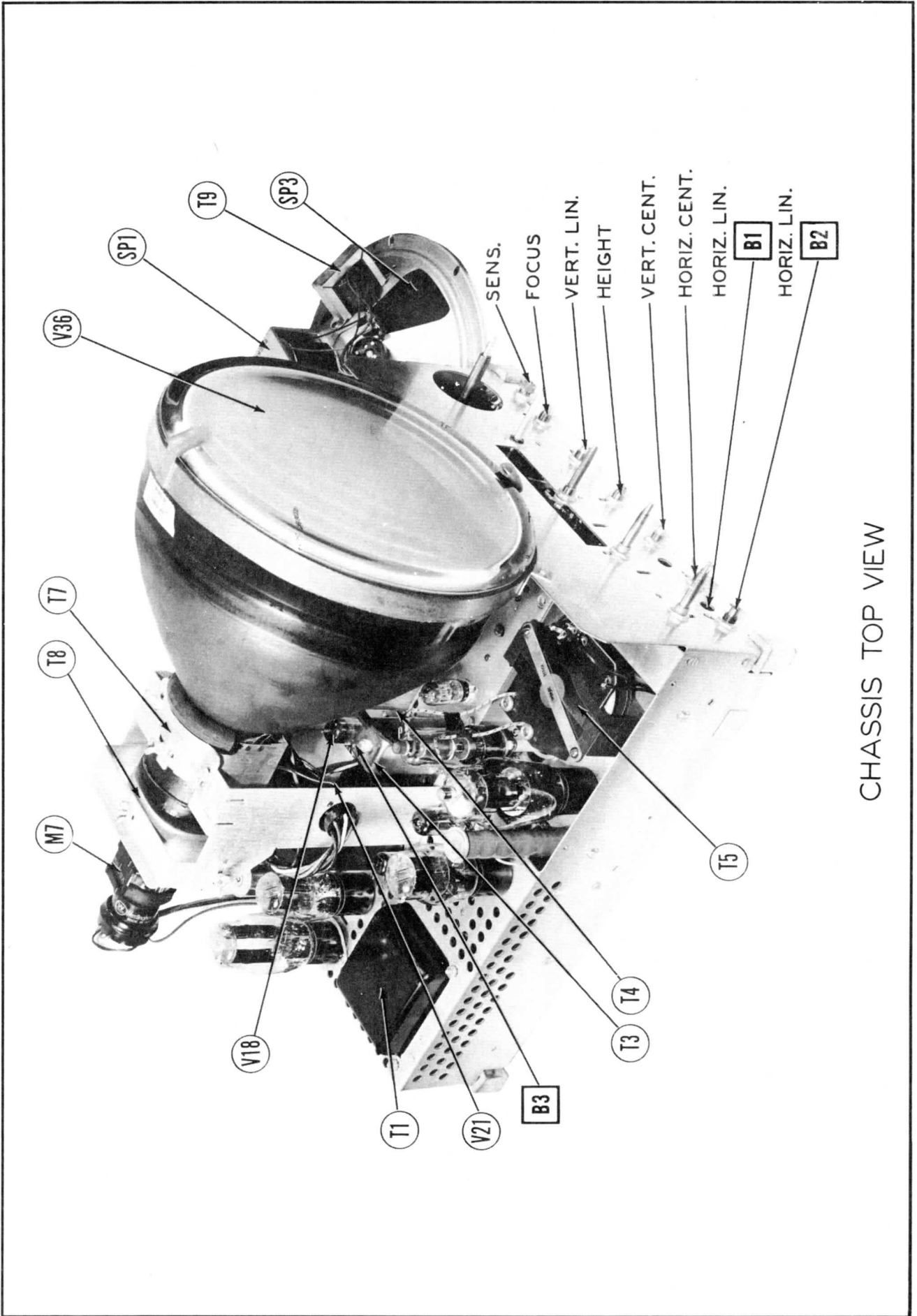
AM-FM CHASSIS - BOTTOM VIEW



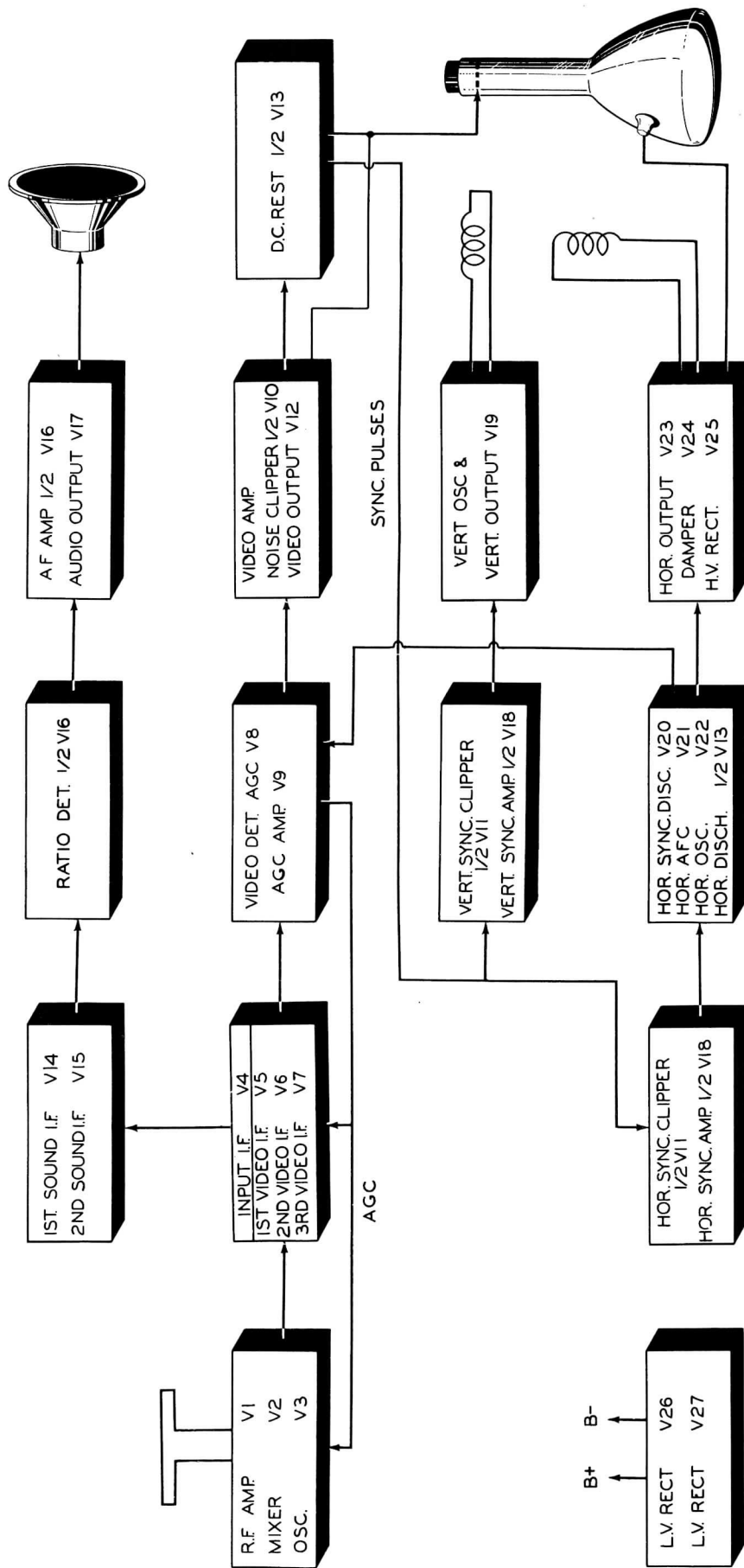


AM-FM CHASSIS-TOP VIEW

WESTINGHOUSE MODELS
H-196, H-207



CHASSIS TOP VIEW



BLOCK DIAGRAM

WESTINGHOUSE MODELS
H-196, H-207

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			RMA BASE TYPE	NOTES
		WESTING. PART No.	STANDARD REPLACEMENT			
V1	RF Amp.	6BH6	6BH6	7CM		
V2	Mixer	6AG5	6AG5	7BD		
V3	Oscillator	6C4	6C4	6BG		
V4	Input IF	6BH6	6BH6	7CM		
V5	1st Video IF	6BH6	6BH6	7CM		
V6	2nd Video IF	6BH6	6BH6	7CM		
V7	3rd Video IF	6BH6	6BH6	7CM		
V8	Video Det.-AGC	6AL5	6AL5	6BT		
V9	AGC Amp.	6AT6	6AT6	7BT		
V10	Video Amp-Noise Clipper	12AT7	12AT7	9A		
V11	Hor. & Vert. Sync. Sep.	12AX7	12AX7	9A		
V12	Video Output	6AQ5	6AQ5	7BZ		
V13	DC Rest.-Hor. Disch.	12AU7	12AU7	9A		
V14	1st Sound IF	6BJ6	6BJ6	7CM		
V15	2nd Sound IF	6BH6	6BH6	7CM		
V16	Ratio Det.-AF	6T8	6T8	9E		
V17	Audio Output	6AQ5	6AQ5	7BZ		
V18A	Horiz. & Vert. Sync. Amp.	12AT7	12AT7		The 12AT7 gives better vertical hold performance. Replace 12AU7 with 12AT7, no wiring change required.	
V18B	Horiz. & Vert. Sync. Amp.	12AU7	12AU7	9A		
V19	Vert. Osc.-Vert. Output	12AU7	12AU7	9A		
V20	Horiz. Sync. Disc.	6AL5	6AL5	6BT		
V21	Horiz. AFC	6AC7	6AC7	8N		
V22	Horiz. Osc.	6AQ5	6AQ5	7BZ		
V23	Horiz. Output	6BG6G	6BG6G	5BT		
V24	Damper	5V4	5V4	5L		
V25	HV Rect.	1B3GT	1B3GT	3C		
V26	LV Rect.	5U4	5U4	5T		
V27A	LV Rect.	5V4G	5V4G	5L		
V27B	LV Rect.	5Z4GT	5Z4GT	5L	Always use 5V4G for replacement.	
V28	FM RF Amp.-Mixer	12AT7	12AT7	9A		
V29	FM Osc.-AM Conv.	6BE6	6BE6	7CH		
V30	1st IF	6BA6	6BA6	7BK		
V31	FM 2nd IF	6BA6	6BA6	7BK		
V32	FM Det.	6AL5	6AL5	6BT		
V33	DET-AVC-AF	6AV6	6AV6	7BT		
V34	Power Output	6V6GT	6V6GT	7AC		
V35	Rectifier	5Y3GT	5Y3GT	5T		
V36	Picture Tube	10BP4	10BP4	12D		

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	WESTING. PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	
C1A	80	400	V-5892	AFH168130B	UP11CJ			TVL-24
B	40	400			1046			▲ Filter
C	150	50						■ Filter
C2A	80	350	V-5891	AFH16222H	UP11DJ			▲ Vert. Output Cath. Byp.
B	10	350			1047			▲ Filter
C	10	350						■ V. Output Screen Byp.
D	10	350						▲ Filter
C3A	40	500	V-5894	AFH88K	UP4450			▲ Filter
B	40	500						▲ Filter
C4A	500	6	V-5893	EUB35	UP7BJ			TVL-20
B	1000	6			934			▲ Filter
C5A	10	400	V-5897	AFH26I	UP3145			TVL-10
B	30	400						▲ Hor. Cent. Bypass
C6	10	350	V-5895	PRS350/10	BR1045			▲ Vert. Cent. Bypass
C7	30	350	V-6570	PRS450/30	BR3045			■ Vert. Osc. Bypass
C8	2	50	V-4880	PRS150/4	BR245			▲ Vert. Osc. Plate Dec.
C9	20	25	V-3236	PRS25/25	BR202A			▲ Vert. Output Plate Dec.
C10A	20	400	V-6121		UP222		DY-404	UT-83
B	20	400			45C			TVL-23
C	10	350						TVL-12
D	20	25						TVL-6
C11	4	450	V-4885	PRS150/4	BR445		M-4-150	UT-4
C12	220	500				GP2K-200		▲ Decoupling
C13	220	500				GP2K-200		Output Cath. Bypass
C14	680					GP2K-750		Stabilizing Cap.
C15	680					GP2K-750		Ant. Coupling
C16	50					GP1K-50		" "
C17	.68							RF Coupling
C18	.47							" "
C19	1.5					NFOK-1.5		" "
C20	680					GP2K-750		" "
C21	680					GP2K-750		RF Screen Bypass
C22	25					GP1K-25		RF Bypass
C23	1.5					NFOK-1.5		RF Coupling
C24	680					GP2K-750		Osc. Coupling
C25	680					GP2K-750		Mixer Screen Bypass
C26	3					NFOK-3		Osc. Feedback
C27	680					GP2K-750		Osc. Tank Cap.
C28	680					GP2K-750		Osc. Fil. Bypass
C29	680					GP2K-750		AGC Filter
C30	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C31	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C32	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C33	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	M0.5-325	1FM-325
C34	50			1469-00005	5R5Q5		M0S.5-45	MS-45
C35	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C36	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C37	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C38	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	M0.5-325	1FM-325
C39	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C40	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C41	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25
C42	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25

ITEM No.	RATING		REPLACEMENT DATA			REPLACEMENT PART No.
	CAP.	VOLT	WESTING. PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	
C43	5000		V-5596	1467-005	1D5D5	
C44	5000		V-5596	1467-005	1D5D5	
C45	5000		V-5596	1467-005	1D5D5	
C46	270	500	RCM20B271M	1468-00025	5W5T25	
C47	82					
C48	5000		V-5596	1467-005	1D5D5	
C49	5000		V-5596	1467-005	1D5D5	
C50	5000		V-5596	1467-005	1D5D5	
C51	5000		V-5596	1467-005	1D5D5	
C52	82					
C53	270	500	RCM20B271M	1468-00025	5W5T25	
C54	5000		V-5596	1467-005	1D5D5	
C55	5000		V-5596	1467-005	1D5D5	
C56	5000		V-5596	1467-005	1D5D5	
C57	5000		V-5596	1467-005	1D5D5	
C58	5000		V-5596	1467-005	1D5D5	
C59	270	500	RCM20B271M	1468-00025	5W5T25	
C60	10	500	RCM20B100M	1468-00001	5W5Q1	
C61	22	500	RCM20B220M	1468-000025	5W5Q25	
C62	.001	800	V60236102M	P688-001	GT6D1	
C63	.1	400	V60234104M	P488-1	GT4P1	
C64	.01	400	V60234103M	P488-01	GT4S1	
C65	.01	400	V60234103M	P488-01	GT4S1	
C66	.5	400		484-5	GT4P5	
C67	.1	400	V60234104M	P488-1	GT4P1	
C68	.047	400	V60234503M	P488-047	GT4S5	
C69	.047	400	V60234503M	P488-047	GT4S5	
C70	.047	400	V60234503M	P488-047	GT4S5	
C71	.470	500	RCM20B471M	1468-0005	5W5T5	
C72	.047	400	V60234503M	P488-047	GT4S5	
C73	.047	400	V60234503M	P488-047	GT4S5	
C74	270	500	RCM20B271M	1468-00025	5W5T25	
C75	5000		V-5596	1467-005	1D5D5	
C76	470	500	RCM20B471M	1468-0005	5W5T5	
C77	5000		V-5596	1467-005	1D5D5	
C78	5000		V-5596	1467-005	1D5D5	
C79	.47	500	RCM20B470K	1468-00005	5W5Q5	
C80	5000		V-5596	1467-005	1D5D5	
C81	470		RCM20B471M	1468-0005	5W5T5	
C82	.47	500	RCM20B470K	1468-00005	5W5Q5	
C83	47	500	RCM20B470K	1468-00005	5W5Q5	
C84	.001	600	V60236102M	P688-001	GT6D1	
C85	5000		V-5596	1467-005	1D5D5	
C86	.01	400	V60234103M	P488-01	GT4S1	
C87	.01	400	V60234103M	P488-01	GT4S1	
C88	.01	400	V60234103M	P488-01	GT4S1	
C89	.470	500	RCM20B471M	1468-0005	5W5T5	
C90	.01	400	V60234103M	P488-01	GT4S1	
C91	.01	400	V60234103M	P488-01	GT4S1	
C92	.0022	600	V60236202M	P688-0022	GT6D2	
C93	.47		R2CC212Y	1468-00005	5W5Q5	
C94	470		R5CC212Y	1468-0005	5W5T5	
C95	.047	400	V60234503M	P488-047	GT4S5	
C96	.01	400	V60234103M	P488-01	GT4S1	
C97	270	500	RCM20C271K	1468-00025	5W5T25	
C98	.1	400	V60234104M	P488-1	GT4P1	
C99A	2000		V60801	1467-002	1W5D2	
B	5000			1467-005	1D5D5	
C	5000			1467-005	1D5D5	
C100	4700	500	RCM30B472J	1467-005	1D5D5	
C101	.068	400	V60234683M	P488-068	GT4P5	
C102	.25	400	V60664254M	P488-25	GT4P25	
C103	.1	400	V60234104M	P488-1	GT4P1	
C104	.68	500	RCM20B680M	1468-000075	5W5Q75	
C105	.015	200	V60232153M	P288-015	GT6S15	
C106	.0047	400	V60234402M	P688-0047	GT6D5	
C107	.047	400	V60234503M	P488-047	GT4S5	
C108	.047	400	V60234503M	P488-047	GT4S5	
C109	.0047	400	V60232153M	P688-0047	GT6S5	
C110	.015	400	V60234102M	P488-015	GT6D5	
C111	.0047	400	V60234102M	P488-0047	GT4S5	
C112	.047	400	V60234503M	P488-047	GT6S15	
C113	.047	400	V60234503M	P488-047	GT6D5	
C114	.01	400	RCM20B391M	1468-0004	5W5T4	
C115	.01	500	V60234103M	P488-01	GT4S1	
C116	.001	600	RCM20B681M	1479-0007	1W5T7	
C117	.1	400	V60236102M	P688-001	GT6D1	
C118	.047	400	V60234104M	P488-1	GT4P1	
C119	.033	600	V60236353K	P688-033	GT4S5	
C120	.047	600	V60236503M	P688-047	GT6S5	
C121	500	10000	V5895			
C122	.01	600	RCP10M6103M	P688-01	GT6S1	
C123	.01	600	RCP10M6103M	P688-01	GT6S1	
C124	100		R3CC30SL101M	1468-0001	5W5T1	
C125	5000		V5596	1467-005	1D5D5	
C126	5000		V5596	1467-005	1D5D5	
C127	33		R3CC26CK	1468-000025	5W5Q3	
C128	33		R3CC26CK	1468-000025	5W5Q3	
C129	100		R3CC30SL	1469-0001	5R5T1	
C130	470		R5CC212Y	1468-0005	5W5T5	
C131	5000		V5596	1467-005	1D5D5	
C132	5000		V5596	1467-005	1D5D5	
C133	5000		V5596	1467-005	1D5D5	
C134	2		R2CC30CK			
C1						

PARTS LIST AND DESCRIPTIONS

NOTES	ITEM No.	RATING		REPLACEMENT DATA						IDENTIFICATION CODES AND INSTALLATION NOTES		ITEM No.	RATING		WESTING. PART No.
		CAP.	VOLT	WESTING. PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	RESISTANCE	WATTS				
	C43	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st V. IF Fil. Bypass	C140	470		R5CC21ZY471M	
	C44	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st V. IF Screen Bypass	C141	5000		V5596	
	C45	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st V. IF Decoupling	C142	5000		V5596	
	C46	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	IF Coupling	C143	5000		V5596	
	C47	82								Fixed Trimmer	C144	5000		V5596	
	C48	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd V. IF Cath. Bypass	C145	5000		V5596	
	C49	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd V. IF Fil. Bypass	C146	100	500	RCM20A101M	
	C50	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd V. IF Screen Bypass	C147	100	500	RCM20A101M	
	C51	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd V. IF Decoupling	C148	5000		V5596	
	C52	82								Fixed Trimmer	C149	5000		V5596	
	C53	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	IF Coupling	C150	5000		V5596	
	C54	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	3rd V. IF Fil. Bypass	C151	150	500	RCM20A151J	
	C55	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	3rd V. IF Screen Bypass	C152	150	500	RCM20A151J	
	C56	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	3rd V. IF Cath. Bypass	C153	.002	600	RCM20A151J	
	C57	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	3rd V. IF Decoupling	C154	.01	200	V504013	
	C58	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	RF Bypass	C155	.01	400	RCM20A103A	
	C59	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	IF Coupling	C156	470	500	RCM20A471M	
	C60	10	500	RCM20B100M	1468-00001	5W541	GP1K-10	MO.5-41	MS-41	Diode Filter	C157	.05	200	RCM20A4503M	
	C61	22	500	RCM20B220M	1468-000025	5W5425	GP1K-25	MO.5-425	MS-425	AGC Diode Filter	C158	.01	400	RCM20A103A	
	C62	.001	600	V60236102M	P688-001	GT6D1	GP2L-001	ST-6-001	TM-21	AGC Diode Filter	C159	680	500	RCM20A681M	
	C63	.1	400	V60234104M	P488-1	GT4F1		ST-4-1	TM-1	AGC Filter	C160	150	500	RCM20A151M	
	C64	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Sweep Coupling	C161	.03	400	RCM20A4303AF	
	C65	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	AGC Coupling	C162	.01	400	RCM20A4303AF	
	C66	.5	400					ST-4-5	TM-5	AGC Filter	C163	.005	600	RCM20A103AF	
	C67	.1	400	V60234104M	P488-1	GT4F1		ST-4-1	TM-1	"	C164	.01	200	V504013	
	C68	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Video Coupling					
	C69	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	"					
	C70	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	"					
	C71	470	500	RCM20B471M	1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	Video Output Cath. Byp					
	C72	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Video Coupling					
	C73	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	"					
	C74	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	"					
	C75	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	AVC Filter					
	C76	470	500	RCM20B471M	1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	Voltage Divider					
	C77	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st S. Screen Bypass					
	C78	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st S. Plate Decoupl.					
	C79	47	500	RCM20B470K	1468-00005	5W545	GP1K-50	MO.5-45	1FM-45	2nd S. Grid Filter					
	C80	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd S. Screen Bypass					
	C81	470	500	RCM20B471M	1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	2nd S. Plate Decoupl.					
	C82	47	500	RCM20B470K	1468-00005	5W545	GP1K-50	MO.5-45	1FM-45	Diode Load Cap					
	C83	47	500	RCM20B470K	1468-00005	5W545	GP1K-50	MO.5-45	1FM-45	" " " "					
	C84	.001	600	V60236102M	P688-001	GT6D1	GP2L-001	ST-6-001	TM-21	De-emphasis					
	C85	5000		V-5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	RF Bypass					
	C86	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling					
	C87	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	"					
	C88	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Tone Compensation					
	C89	.40	500	RCM20B471M	1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	AF Plate Bypass					
	C90	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Tone Compensation					
	C91	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling					
	C92	0.022	600	V60236202M	P688-0022	GT6D2	GP2L-002	ST-6-002	TM-22	Output Plate Bypass					
	C93	47	470K	R2CC21ZY	1468-00005	5W545	GP1K-50	MO.5-45	1FM-45	RF Bypass *					
	C94	470		R5CC21ZY	1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	" " *					
	C95	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Sync. Coupling					
	C96	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	"					
	C97	270	500	RCM20B271M	1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	Video Bypass					
	C98	.1	400	V60234104M	P488-1	GT4F1		ST-4-1	TM-1	Vert. Sync. Coupling					
	C99A	2000		V60601	1467-002	1W5D2		FM-22	1FM-22	Integrator Net.					
	B	5000								"					
	C	5000								"					
	C100	4700	500	RCM30B472J	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	Vert. Osc. Grid					
	C101	.680	400	V60234883M	P488-068	GT4P25		TC-2	TC-2	Vert. Discharge					
	C102	.25	400	V60664254M	P488-25	GT4P25		TC-1	TC-1	Vert. Coupling					
	C103	.1	400	V60234104M	P488-1	GT4F1		ST-4-1	TM-1	Fic. Tube Cath. Bypass					
	C104	68	500	RCM20B680M	1468-00075	5W547	GP1K-75	MO.5-47	1FM-47	Hor. Sync. Coupling					
	C105	.015	200	V60232153M	P288-015	GT6S15		ST-6-005	TM-25	Fixed Trimmer					
	C106	.0047	400	V60234402M	P488-0047	GT4S5	GP2M-005	ST-4-05	TM-15	Sync. Coupling					
	C107	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	AF Filter					
	C108	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Hor. AFC Screen Bypass					
	C109	.0047	400	V60232153M	P488-0047	GT6D5	GP2M-005	ST-6-005	TM-25	AFC Coupling					
	C110	.015	400	V60232153M	P488-015	GT6S15		ST-6-005	TM-25	Phase Shifter					
	C111	.0047	400	V60234402M	P488-0047	GT6D5	GP2M-005	ST-6-005	TM-25	Hor. Osc. Grid Cap.					
	C112	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Hor. Osc. Screen Bypass					
	C113	390	500	RCM20B391M	1468-0004	5W5T4		MO.5-34	1FM-34	Differentiator Net.					
	C114	.01	400	V60234103M	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Hor. Osc. Coupling					
	C115	680	500	RCM20B681M	1479-0007	1W5T7	GP2K-750	MW.5-37	1FM-27	Hor. Discharge					
	C116	.001	600	V60236102M	P688-001	GT6D1	GP2L-001	ST-6-001	TM-21	Hor. Coupling					
	C117	.1	400	V60234104M	P488-1	GT4F1		ST-4-1	TM-1	Hor. Output Cath. Byp.					
	C118	.047	400	V60234503M	P488-047	GT4S5		ST-4-05	TM-15	Hor. Output Screen Byp					
	C119	.033	600	V60236353K	P688-033					Damper Filter					
	C120	.47	600	V60236503M	P688-047	GT6S5		ST-6-05	TM-15	"					
	C121	500	10000	V5895						HV Filter					
	C122	.01	600	RCM10M103M	P688-01	GT6S1		ST-6-01	TM-11	Line Filter					
	C123	.01	600	RCM10M103M	P688-01	GT6S1		ST-6-01	TM-11	"					
	C124	100		R3CC308L101M	1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	Ant. Coupling					
	C125	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	FM RF Cath. Bypass					
	C126	5000		V5596	1467-005	1D5D5									

DESCRIPTIONS

ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
M-005	MW.5-25	1FM-25	1st V. IF Fil. Bypass
M-005	MW.5-25	1FM-25	1st V. IF Screen Bypass
M-005	MW.5-25	1FM-25	1st V. IF Decoupling
K-250	MW.5-325	1FM-325	IF Coupling
M-005	MW.5-25	1FM-25	Fixed Trimmer
M-005	MW.5-25	1FM-25	2nd V. IF Cath. Bypass
M-005	MW.5-25	1FM-25	2nd V. IF Fil. Bypass
M-005	MW.5-25	1FM-25	2nd V. IF Screen Bypass
M-005	MW.5-25	1FM-25	2nd V. IF Decoupling
K-250	MW.5-325	1FM-325	IF Coupling
M-005	MW.5-25	1FM-25	3rd V. IF Fil. Bypass
M-005	MW.5-25	1FM-25	3rd V. IF Screen Bypass
M-005	MW.5-25	1FM-25	3rd V. IF Cath. Bypass
M-005	MW.5-25	1FM-25	3rd V. IF Decoupling
M-005	MW.5-25	1FM-25	RF Bypass
K-10	MW.5-325	1FM-325	IF Coupling
K-10	MW.5-41	MS-41	Diode Filter
K-25	MW.5-425	MS-425	AGC Diode Filter
L-001	ST-6-001	TM-21	AGC Diode Filter
ST-4-1	TM-1	AGC Filter	
ST-4-1	TM-11	Sweep Coupling	
ST-4-1	TM-11	AGC Coupling	
ST-4-5	TC-5	AGC Filter	
ST-4-1	TM-1	"	
ST-4-05	TM-15	Video Coupling	
ST-4-05	TM-15	"	
ST-4-05	TM-15	"	
K-500	MW.5-35	1FM-35	Video Output Cath. Byp
ST-4-05	TM-15	Video Coupling	
ST-4-05	TM-15	"	
K-250	MW.5-325	1FM-325	"
M-005	MW.5-25	1FM-25	AVC Filter
K-500	MW.5-35	1FM-35	Voltage Divider
M-005	MW.5-25	1FM-25	1st S. Screen Bypass
M-005	MW.5-25	1FM-25	1st S. Plate Decoup.
K-50	MW.5-45	1FM-45	2nd S. Grid Filter
M-005	MW.5-25	1FM-25	2nd S. Screen Bypass
K-500	MW.5-35	1FM-35	2nd S. Plate Decoup.
K-50	MW.5-45	1FM-45	Diode Load Cap †
K-50	MW.5-45	1FM-45	" †
L-001	ST-6-001	TM-21	De-emphasis
M-005	MW.5-25	1FM-25	RF Bypass
ST-4-01	TM-11	Audio Coupling	
ST-4-01	TM-11	"	
ST-4-01	TM-11	Tone Compensation	
K-500	MW.5-35	1FM-35	AF Plate Bypass
ST-4-01	TM-11	Tone Compensation	
ST-4-01	TM-11	Audio Coupling	
ST-6-002	TM-22	Output Plate Bypass	
ST-6-002	TM-22	RF Bypass *	
K-500	MW.5-35	1FM-35	"
ST-4-05	TM-15	Sync. Coupling	
ST-4-01	TM-11	"	
MW.5-325	1FM-325	Video Bypass	
ST-4-1	TM-1	Vert. Sync. Coupling	
MW.5-22	1FM-22	Integrator Net.	
MW.5-25	1FM-25	"	
MW.5-25	1FM-25	"	
MW.5-25	1FM-25	"	
ST-4-25	TC-2	Vert. Osc. Grid	
ST-4-1	TM-1	Vert. Discharge	
MOS.5-47	1FM-47S	Vert. Coupling	
ST-4-1	TM-1	Fic. Tube Cath. Bypass	
ST-4-1	TM-1	Hor. Sync. Coupling	
M-005	ST-6-005	TM-25	Fixed Trimmer
ST-4-05	TM-15	Sync. Coupling	
ST-4-05	TM-15	AFC Filter	
ST-6-005	TM-25	Hor. AFC Screen Bypass	
M-005	ST-6-005	TM-25	AFC Coupling
M-005	ST-6-005	TM-25	Phase Shifter
ST-4-05	TM-15	Hor. Osc. Grid Cap.	
ST-4-05	TM-15	Hor. Osc. Screen Bypass	
MW.5-34	1FM-34	Differentiator Net.	
ST-4-01	TM-11	Hor. Osc. Coupling	
MW.5-37	1FM-27	Hor. Discharge	
ST-6-001	TM-21	Hor. Coupling	
ST-4-1	TM-1	Hor. Output Cath. Byp.	
ST-4-05	TM-15	Hor. Output Screen Byp	
ST-6-05	TM-15	Damper Filter	
ST-6-01	TM-11	HV Filter	
ST-6-01	TM-11	Line Filter	
MW.5-31	1FM-31	Ant. Coupling	
MW.5-25	1FM-25	FM RF Cath. Bypass	
MW.5-25	1FM-25	RF Grid Filter	
MW.5-43	MS-43	RF Coupling	
MW.5-43	MS-43	"	
MW.5-43	MS-43	"	
MOS.5-31	MS-31	Fixed Trimmer ± 5%	
MW.5-35	1FM-35	RF Bypass	
MW.5-25	1FM-25	RF Plate Decoup.	
MW.5-25	1FM-25	Mixer Plate Decoup.	
MW.5-25	1FM-25	Conv. Plate Decoup.	
MW.5-25	1FM-25	Osc. Grid Cap.	
MW.5-35	1FM-35	RF Coupling	
ST-4-02	TM-12	AVC Filter	
MW.5-25	MS-43	Osc. Grid Cap.	
MW.5-55	MS-55	Osc. Feedback	
MW.5-55	MS-55	Fixed Trimmer	

ITEM No.	RATING		REPLACEMENT DATA						IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	WESTING. PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	
C140	470		R5CC21Z471M	1468-0005	5W5T5	GP2K-500	MW.5-35	1FM-35	Osc. Anode Bypass
C141	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	Conv. Fil. Bypass
C142	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	AVC Filter
C143	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st IF Cath. Bypass
C144	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st IF Screen Bypass
C145	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	1st IF Decoupling
C146	100	500	RCM20A101M	1468-0001	5W5T1	GP1K-100	MW.5-31	1FM-31	Diode Filter
C147	100	500	RCM20A101M	1468-0001	5W5T1	GP1K-100	MW.5-31	1FM-31	"
C148	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd IF Cath. Bypass
C149	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd IF Screen Bypass
C150	5000		V5596	1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	2nd IF Plate Decoup.
C151	150	500	RCM20A151J	1468-0015	5W5T15	GP2K-150	MW.5-315	1FM-315	Diode Load Cap. §
C152	150	500	RCM20A151J	1468-0015	5W5T15	GP2K-150	MW.5-315	1FM-315	" §
C153	.002	200	RCP10W620A	P688-002	G72S1	GP2M-002	ST-6-002	TM-22	De-emphasis
C154	.01	200	V504015	P488-01	G74S1	GP2-335-01	ST-4-01	TM-11	Decoupling
C155	.01	400	RCP10W413M	P488-01	G74S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling
C156	.01	400	RCM20A470M	1468-0005	5W5T5	GP2K-500	ST-4-05	TM-15	Tone Compensation
C157	.05	200	RCP10W4503M	P288-05	G72S5	GP2K-500	ST-4-05	TM-15	"
C158	.01	400	RCM20A103A	P488-01	G74S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling
C159	.01	400	RCM20A103A	P488-01	G74S1	GP2K-750	MW.5-37	1FM-37	Tone Compensation
C160	680	500	RCM20A681M	1468-00075	1W5T7	GP2K-150	MW.5-315	1FM-315	AF Plate Bypass
C161	.03	400	RCP10W4303A	P488-03	G74S3	GP2K-150	MW.5-315	1FM-315	AF Plate Decoupling
C162	.01	400	RCP10W4103A	P488-01	G74S1	GP2-335-01	ST-6-01	TM-11	Audio Coupling
C163	.005	600	RCP10W6502A	P688-005	G76D5	GP2-335-01	ST-6-005	TM-25	Output Plate Bypass
C164	.01	200	V504015	P288-01	G72S1	GP2-335-01	ST-4-01	TM-11	Filament Bypass

* Not used in all models.
 † When either item C82 or C83 are replaced, replace both with capacitors of equal value.
 ‡ When either item C151 or C152 are replaced, replace both with capacitors of equal value.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	WESTING. PART No.	IRC PART No.	CLAROSTAT PART No.	
R1A	2 Meg.	½	V-6305			Volume control tapped @ 500KΩ *
B	1 Meg.	½				Tone control and switch (Dual Concentric)
R1A	50KΩ	½	V-5914			Volume control tapped @ 5KΩ ‡
B	2 Meg.	½				Tone control and switch (Dual Concentric)
R2A	50KΩ	½	V-6304			Horiz. hold control (Dual Concentric)*
B	2 Meg.	½				Vert. hold control
R2A	50KΩ	½	V-5912			Horiz. hold control (Dual Concentric) ‡
B	1 Meg.	½				Vert. hold control
R3A	50KΩ	½	V-6306 or V-6095	D11-123 A	M-44-S Not Req.	Brightness control
B	Shaft	½				Attach to R3A Per Instructions
R4	2500Ω	½	V-5615			Contrast control
R5A	25KΩ	½	V-5910	D11-120	AM-40-S	Horiz. Linearity control
B	Shaft	½				Attach to R5A Per Instructions
R6	50Ω	1	V-5911	W-50 ‡	KSS-3 †	Horiz. centering control
R7	50Ω	1	V-5613			Vert. centering control tapped @ 25Ω
R8	2.5 Meg	½	V-5909		AM-83-S	Height control
B	Shaft	½				Attach to R8A Per Instructions
R9	1500Ω	½	V-5968		KSS-3	Vert. linearity control
R10	250Ω	1	V-5908	W-300 ‡	58-300 ‡	Focus control
R11A	5000Ω	½	V-5607	D11-114	AM-19-S	Sensitivity control
B	Shaft	½				Attach to R11A Per Instructions
R12A	500KΩ	½	V-6122		KSS-3 †	Volume control tapped @ 50K
B	2 Meg.	½				Tone control and switch (Dual Concentric)

‡ File slot in shaft to accommodate screw driver.
 † File out split on knurled shaft to accommodate screw driver.
 * Used in early production.
 ‡ Used in later production.

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	WESTINGHOUSE PART No.	IRC PART No.	
R13	22KΩ	½			RF Amp Grid
R14	100Ω	½			RF Amp. Cathode
R15	33KΩ	½			RF Amp. Screen
R16	10KΩ	½			RF Amp. Plate
R17	1 Meg.	½			Mixer Grid
R18	82KΩ	½			Mixer Screen
R19	6800Ω	½			Osc. Plate
R20	22KΩ	½			Osc. Grid
R21	470Ω	½			Osc. Cathode
R22	100KΩ	½			Ant. Shunt
R23	100KΩ	½			"
R24	1000Ω	½	RC30AE102M	BTS-1000	Osc. Decoupling
R25	8200Ω	½	RC20AE822M		Trap Shunt
R26	82Ω	½	RC20AE820K		Input IF Cathode
R27	8200Ω	½	RC20AE822K		Input IF Grid
R28	33KΩ	½	RC20AE333K	BTS-33K	Input IF Screen Decoupling
R29	2200Ω	½	RC20AE222K	BTS-2200	Input IF Plate
R30	1000Ω	½	RC20AE102M	BTS-1000	Input IF Plate Decoupling
R31	10KΩ	½	RC20AE103M	BTS-10K	AGC Network
R32	10KΩ	½	RC20AE103M	BTS-10K	"
R33	82Ω	½	RC20AE820K		1st Video IF Cathode
R34	8200Ω	½	RC20AE822K		1st Video IF Grid
R35	33KΩ	½	RC20AE333M	BTS-33K	1st Video IF Screen Decoupling
R36	1000Ω	½	RC20AE102M	BTS-1000	1st Video IF Decoupling
R37	6800Ω	½	RC20AE682K	BTS-6800	2nd Video IF Grid
R38	68Ω	½	RC20AE680K		2nd Video IF Cathode
R39	33KΩ	½	RC20AE333M	BTS-33K	2nd Video IF Screen Decoupling
R40	1000Ω	½	RC20AE102M	BTS-1000	2nd Video IF Decoupling
R41	2200Ω	½	RC20AE222K	BTS-2200	3rd Video IF Grid
R42	5600Ω	½	RC30AE562M	BTA-5600	3rd Video IF Plate
R43	33KΩ	½	RC20AE333M	BTS-33K	3rd Video IF Screen Decoupling
R44	1000Ω	½	RC20AE102K	BTS-1000	3rd Video IF Decoupling
R45	68Ω	½	RC20AE680K		3rd Video IF Cathode
R46	82KΩ	½	RC20AE822M	BTS-82K	AFC Filter Load
R47	470KΩ	½	RC20AE474K	BTS-470K	AFC Filter
R48	1 Meg.	½	RC20AE105M	BTS-1 Meg.	AFC Amp. Grid
R49	1 Meg.	½	RC20AE105M	BTS-1 Meg.	Voltage Divider
R50	470KΩ	½	RC20AE474K	BTS-470K	1st Video Amp. Grid
R51	1 Meg.	½	RC20AE105M	BTS-1 Meg.	AGC Network
R52	470KΩ	½	RC20AE474K	BTS-470K	"
R53	470KΩ	½	RC20AE474K	BTS-470K	"

WESTINGHOUSE MODELS
H-196, H-207

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	WESTING.	IRC	
			PART No.	PART No.	
R54	1 Meg.	1	RC20AE105M	BTS-1 Meg.	AGC Network
R55	220KΩ	1	RC20AE224M	BTS-220K	AGC Amp. Plate
R56	82Ω	1	RC20AE823M		AGC Amp. Cathode
R57	1000Ω	1	RC20AE102M	BTS-1000	Voltage Divider
R58	470KΩ	1	RC20AE474K	BTS-470K	Noise Clipper Load
R59	4700Ω	2	RC40AE472J	BT-2-4700	Video Amp. Plate
R60	470Ω	1	RC30AE471M	BTA-470	Video Amp. Decoupling
R61	470KΩ	1	RC20AE474K	BTS-470K	Video Output Grid
R62	220Ω	1	RC30AE221K		Video Output Cathode
R63	22KΩ	1	RC20AE223M	BTS-22K	Video Output Screen Decoupling
R64	10KΩ	1	RC20AE103K	BTS-10K	Peaking Coil Shunt
R65	3300Ω	5	V5924	ABA-3500 #	Video Output Plate
R66	47KΩ	1	RC20AE473M	BTS-47K	Picture Tube Grid
R67	1 Meg.	1	RC20AE105M	BTS-1 Meg.	DC Restorer Load
R68	4700Ω	1	RC20AE472J	BTS-4700-5%	Phase Correction
R69	1 Meg.	1	RC20AE105M		AVC Network
R70	100Ω	1	RC20AE101K		1st Sound IF Cathode
R71	33KΩ	1	RC20AE333M	BTS-33K	1st Sound IF Screen Decoupling
R72	1000Ω	1	RC20AE102M	BTS-1000	1st Sound IF Plate Decoupling
R73	47KΩ	1	RC20AE473M		2nd Sound IF Grid
R74	100KΩ	1	RC20AE104M	BTS-100K	2nd Sound IF Screen Decoupling
R75	10KΩ	1	RC20AE103M	BTS-10K	2nd Sound IF Plate Decoupling
R76	68KΩ	1	RC20AE683M	BTS-68K	De-emphasis
R77	680KΩ	1	RC20AE684M	BTS-680K	AVC Network
R78	680KΩ	1	RC20AE684M	BTS-680K	"
R79	15 Meg.	1	RC20AE156M	BTS-15 Meg.	AF Grid
R80	220KΩ	1	RC20AE224M	BTS-220K	AF Plate
R81	10KΩ	1	RC20AE103J	BTS-10K-5%	Ratio Det. Diode Load
R82	10KΩ	1	RC20AE103J	BTS-10K-5%	"
R83	47KΩ	1	RC20AE473M	BTS-47K	Tone Compensation
R84	470KΩ	1	RC20AE474K	BTS-470K	Output Grid
R85	270Ω	1	RC30AE271M	BW-1-270	Output Cathode
R86	33Ω	2	RC20AE330M		Parasitic Suppressor
R87	1000Ω	2	RC40AE102M	BT-2-1000	Filter
R88	1 Meg.	1	RC20AE105M	BTS-1 Meg.	Vert. Sync. Clipper Grid
R89	10KΩ	1	RC20AE103K	BTS-10K	Vert. Sync. Clipper Bleeder
R90	270KΩ	1	RC30AE274K	BTA-270K	Vert. Sync. Clipper Plate
R91	1 Meg.	1	RC20AE105M	BTS-1 Meg.	Horiz. Sync. Clipper Grid
R92	10KΩ	1	RC20AE103K	BTS-10K	Horiz. Sync. Clipper Bleeder
R93	68KΩ	1	RC30AE683K	BTA-68K	Horiz. Sync. Clipper Plate
R94	100KΩ	1	RC20AE104M	BTS-100K	Vert. Sync. Amp. Grid
R95	47KΩ	1	RC30AE472K	BTA-47K	Vert. Sync. Amp. Plate
R96	4.7 Meg.	1	RC20AE475M	BTS-4.7 Meg.	Horiz. Sync. Amp. Grid
R97	39KΩ	1	RC30AE393K	BTA-39K	Horiz. Sync. Amp. Plate
R98	27KΩ	1	RC20AE273K	BTS-27K	Voltage Divider
R99	47KΩ	1	RC20AE473M	BTS-47K	Differentiator
R100	22KΩ	1	RC20AE223M	BTS-22K	Integrator
R101	8200Ω	1	RC20AE822M	BTS-8200	"
R102	8200Ω	1	RC20AE822M	BTS-8200	"
R103	1 Meg.	1	RC20AE105M	BTS-1 Meg.	Vert. Osc. Grid See Note
R104	6.8 Meg.	1	RC20AE685M	BTS-6.8 Meg.	Voltage Divider
R105	100KΩ	1	RC20AE104M	BTS-100K	"
R106	470Ω	1	RC20AE471M	BTS-470	Vert. Output Cathode
R107	2.2 Meg.	1	RC20AE225M	BTS-2.2 Meg.	Vert. Output Grid
R108	3300Ω	1	RC20AE332M	BTS-3300	Vert. Peaking
R109	1 Meg.	1	RC20AE105M	BTS-1 Meg.	Vert. Osc. Plate
R110	2200Ω	1	RC30AE222M	BTA-2200	Vert. Output Decoupling
R111	68KΩ	1	RC20AE683M	BTS-68K	Vert. Osc. Decoupling
R112	250Ω	10	V5922	AB-250	Bias Network
R113	100Ω	2	RC40AE101M	BW-2-100	Focus Coil Shunt
R114	68KΩ	1	RC20AE683M	BTS-68K	Voltage Divider
R115	10Ω	1	RC30AE100K	BW-1-10	Bias Network
R116	470KΩ	1	RC20AE474M	BTS-470K	Sync. Discriminator Load
R117	470KΩ	1	RC20AE474M	BTS-470K	"
R118	1 Meg.	1	RC20AE105M	BTS-1 Meg.	"
R119	470KΩ	1	RC20AE474M	BTS-470K	AFC Filter
R120	560Ω	1	RC20AE561M	BTS-560	Horiz. AFC Grid
R121	10Ω	1	RC20AE100K		AFC Input Load
R122	27KΩ	1	RC30AE273K	BTA-27K	Horiz. AFC Voltage Divider
R123	39KΩ	1	RC30AE393K	BTA-39K	Horiz. AFC Screen Decoupling
R124	47KΩ	1	RC30AE473K	BTA-47K	Horiz. AFC Plate
R125	39KΩ	1	RC30AE393M	BTA-39K	"
R126	10KΩ	1	RC20AE103M	BTS-10K	Horiz. Osc. Screen Decoupling
R127	5000Ω	10	V5925	AB-5000	Horiz. Osc. Plate
R128	27KΩ	1	RC20AE102M	BTS-27K	Horiz. Osc. Grid
R129	6800Ω	1	RC20AE682M	BTS-6800	Differentiator
R130	560Ω	1	RC20AE561K	BTS-560	"
R131	220KΩ	1	RC20AE224M	BTS-220K	Horiz. Discharge Grid
R132	3900Ω	1	RC20AE392M	BTS-3900	Horiz. Peaking
R133	680KΩ	1	RC20AE684M	BTS-680K	Horiz. Discharge Plate
R134	220KΩ	1	RC20AE224M	BTS-220K	Horiz. Output Grid
R135	100Ω	2	RC40AE101M		Horiz. Output Cathode
R136	4700Ω	2	RC40AE472K	BT-2-4700-5%	Horiz. Output Screen Decoupling
R137	4700Ω	2			Mixer Coil Shunt
R138	8KΩ	1	V5963		Horiz. Damping tapped @ 4.5KΩ, 6KΩ and 7KΩ
R139	1 Meg.	1	RC20AE105M		HV Filter
R140	82Ω	1	RC10AE820K	BW-1-82	FM RF Cathode
R141	15Ω	1	RC10AE150M	BW-1-15	Parasitic Suppressor
R142	470KΩ	1	RC10AE474M	BTS-470K	FM RF Grid
R143	2.2 Meg.	1	RC10AE225M	BTS-2.2 Meg.	AVC Network
R144	5600Ω	1	RC30AE562K	BTA-5600	FM RF Plate
R145	470KΩ	1	RC10AE474M	BTS-470K	Mixer Grid
R146	1000Ω	1	RC10AE102K	BTS-1000	Mixer Plate Decoupling
R147	4700Ω	2	RC10AE472K	BTS-4700	Conv. Plate Decoupling
R148	12KΩ	2	RC41AE123K	BT-2-12K	Osc. Anode
R149	22KΩ	1	RC10AE223K	BTS-22K	Osc. Grid
R150	1 Meg.	1	RC10AE105M	BTS-1 Meg.	AVC Network
R151	1 Meg.	1	RC10AE105M	BTS-1 Meg.	"
R152	33KΩ	1	RC30AE333K	BTA-33K	IF Screen Dropping
R153	3300Ω	1	RC30AE332K	BTA-3300	IF Plate Decoupling
R154	68Ω	1	RC10AE680K	BW-1-68	IF Cathode
R155	47KΩ	1	RC10AE473M	BTS-47K	Diode Filter
R156	2.2 Meg.	1	RC10AE225M	BTS-2.2 Meg.	Diode Load
R157	1500Ω	1	RC10AE152M	BTS-1500	Tone Compensation
R158	68Ω	1	RC10AE680K	BW-1-68	2nd IF Cathode
R159	33KΩ	1	RC30AE333K	BTA-33K	2nd IF Screen Dropping
R160	3300Ω	1	RC30AE332K	BTA-3300	2nd IF Plate Decoupling
R161	220Ω	1	RC10AE221M	BW-1-220	RF Filter
R162	15KΩ	1	RC10AE153K	BTS-15K	Ratio Det. Diode Load
R163	47KΩ	1	RC10AE473M	BTS-47K	De-emphasis
R164	220KΩ	1	RC10AE224M	BTS-220K	AVC Network

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
			WESTINGHOUSE	IRC	
	RESISTANCE	WATTS	PART No.	PART No.	
R165	3.3 Meg.	1/2	RC10AE335M	BTS-3.3 Meg.	AFC Network
R166	10 Meg.	1/2	RC10AE106M	BTS-10 Meg.	AF Grid
R167	470KΩ	1/2	RC10AE474M	BTS-470K	AF Plate Load
R168	150KΩ	1/2	RC10AE154M	BTS-150K	AF Plate Decoupling
R169	470KΩ	1/2	RC10AE474M	BTS-470K	Output Grid
R170	270Ω	1	RC30AE271K	BW-1-270	Output Cathode
R171	2200Ω	1/2	RC10AE222K	BTS-2200	Ant. Loading

Note. On sets using 1 Meg Vert. hold control use 1.5 Meg in this application.
 ‡ Set slider at 3300Ω

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
					WESTINGHOUSE	STANCOR	CHICAGO	MERIT
	PRI.	SEC. 1	SEC. 2	SEC. 3	PART No.	PART No.	PART No.	PART No.
T1	117VAC	670VCT	5VAC	5VAC	V-5936			
	② 2.26A	② .320 ADC	② 3A	② 2A				
		SEC. 4	SEC. 5	SEC. 6				
T2	117VAC	590VCT	5VAC	6.4VAC	V-6131			
	② .76A	② .114 ADC	② 2A	② 3.7A				
		SEC. 1	SEC. 2	SEC. 3				

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
			WESTINGHOUSE	STANCOR	CHICAGO	MERIT	
	DC RESISTANCE	SEC.	PART No.	PART No.	PART No.	PART No.	
T3	42Ω CT	36Ω Tap ② 9Ω	V-5935				Hor. Sync. Disc. Trans.
T4	178Ω	910Ω	V-5937	A-8121	TBO-1	A-4000	Vert. Block Osc. Trans. Hor. Output Trans.
T5	400Ω	SEC. 1	V-5934	A-8117			
	180Ω Tap ② 10.2Ω Tap ② .54Ω	SEC. 2					
T6	610Ω	0Ω 9.3Ω	V-5938	A-8115	TSO-1 ∅	A-3035 ∅	Vert. Output. Trans. Hor. Deflection Yoke Vert. Deflection Yoke Focus Coil
T7A	14Ω		V-6073	DY-1			
T8	240Ω		V-5900	FC-10			

∅ Drill new mounting holes.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		WESTINGHOUSE	STANCOR	THORDAR'N	MERIT	
	PRI.	SEC.	PRI.	SEC.	PART No.	PART No.	PART No.	PART No.	
T9A	6100Ω	3.2Ω	540Ω	.6Ω	*	A-3877	RO-9	A-2930	* Used in model H-196
B	5400Ω	3.2Ω	560Ω	.6Ω	#	A-3823	RO-9	A-2902	# Used in model H-207
T10	4600Ω	3.6Ω	400Ω	.4Ω	V-5798#	A-3823	RO-9	A-2902	

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
			WESTINGHOUSE	JENSEN	QUAM	
	FIELD	V. C. IMP.	HOUSE PART No.	PART No.	PART No.	
SP1A	1000Ω	3.2Ω	V-5978 *	ST-191	52E10	* Used in model H-196.
B	1000Ω	3.2Ω	V-6268 #	MOD.F5-W	10E10	# Used in model H-207.
SP2	PM	3.2Ω	V-5571 #	ST-119	10A31	
				MOD.P10-T		
SP3A	5"	9/16"				
B	9 1/2"	3/4"				
SP4	9 1/2"	3/4"				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (∅ CURRENT 1000 ∩)	WESTING.	STANCOR	CHICAGO	MERIT	
				PART No.	PART No.	PART No.	PART No.	
L1	.127A	255Ω	9 Henry	V-5921	C-2326 ∅	R-8120	C-2993∅	∅ Drill one new mounting hole.
L2	.114A	200Ω	5 Henry	V-6161				

WESTINGHOUSE MODELS
H-196, H-207

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	WESTINGHOUSE PART No.	MEISSNER PART No.	
L3	Ant. Coil	0Ω				Part of Tuner Assembly Pt. #V-5941-1 " " " " " "
L4	Ant. Coil	0Ω				
L5	Ant. Input	.2ΩCT				
L6	Fil. Choke					
L7	1st Video IF	.1Ω	0Ω	V-5905-1		
L8	Fil. Choke	1Ω		V-4886-1		
L9	2nd Video IF	.1Ω		V-5903-2		
L10	Fil. Choke	1Ω		V-4886-1		
L11	3rd Video IF	.1Ω	0Ω	V-5905-2		
L12	Fil. Choke	1Ω		V-4886-1		
L13	4th Video IF	.1Ω	0Ω	V-5905-3		
L14	Fil. Choke	1Ω		V-4886-1		
L15	IF Trap	0Ω	0Ω	V-5899		
L16	Video Det.	.1Ω		V-5903-2		
L17	Peaking	5.5Ω		V-5902-1		Inductance-140 Microhenries Inductance-115 Microhenries Inductance-115 Microhenries Inductance-140 Microhenries
L18	Peaking	4.8Ω		V-5902-2		
L19	Peaking	4.8Ω		V-5902-2		
L20	Peaking	5.5Ω		V-5902-1		
L21	1st Sound IF	.2Ω		V-5932		
L22	2nd Sound IF	.2Ω	.2Ω	V-5933		
L23	Ratio Det.	.2Ω	0Ω	V-5939		
L24	Fil. Choke	.5Ω		V-4886-2		
L25	Horiz. Linearity Control	35Ω		V-5901		
L26	Width Control	.3Ω		V-5904		
L27	AM Loop Ant	0Ω		V-5982-2		
L28	Loop Loading	2Ω		V-6157		
L29	FM Dipole Ant.	0Ω		V-5986-3		
L30	AM Osc.	9Ω		V-6164		
L31	RF Choke	.5Ω		V-4886-2		
L32	RF Choke	0Ω		V-4886-7		Wound on 22Ω resistor
L33	FM Osc.	0Ω		V-6138		
L34	RF Choke	1.5Ω		V-4886-4		
L35	FM Ant.	0Ω		V-6139		
L36	RF Choke	0Ω		V-4886-10		Wound on resistor
L37	RF Plate Chk.	0Ω		V-4886-6		Wound on 820Ω resistor
L38	1st FM IF	.5Ω	.5Ω	V-6142		
L39	1st AM IF	16Ω	16Ω	V-6130	16-6678	
L40	2nd FM IF	.5Ω	.5Ω	V-6129		
L41	2nd AM IF	15Ω	15Ω	V-6130	16-6678	
L42	Ratio Det.	1Ω	0Ω	V-6128		
L43	Fil. Choke	.5Ω		V-4886-2		
L44	Fil. Choke	.5Ω		V-4886-2		
L45	Fil. Choke	1Ω		V-4886-1		

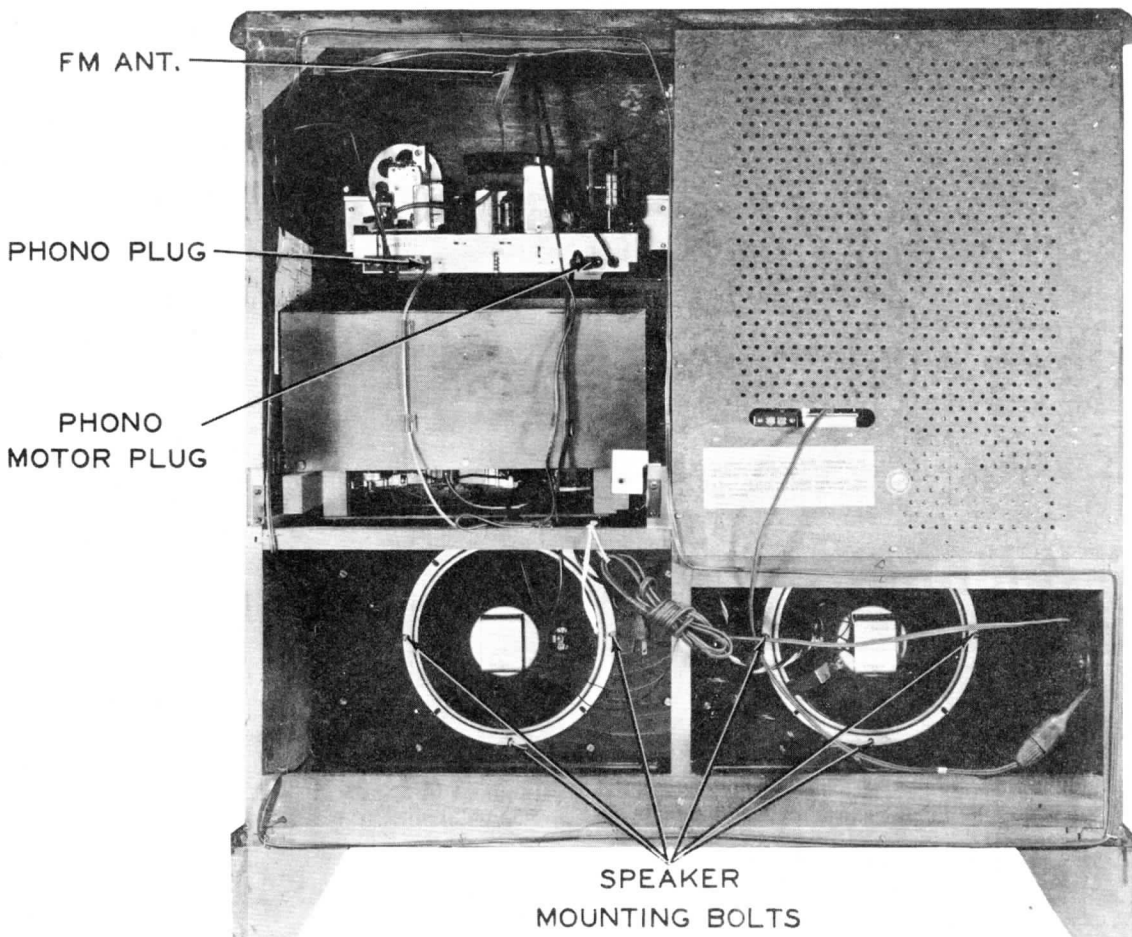
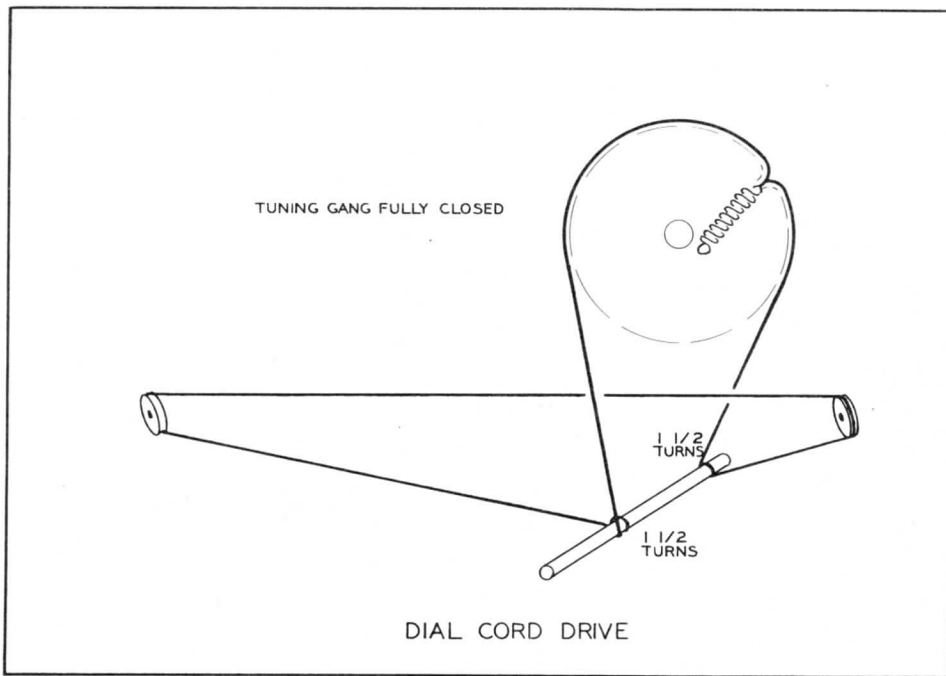
DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					WESTINGHOUSE PART No.		
M1	Bayonet	6-8V	0.15A	Brown			Type #47
M2	Bayonet	6-8V	0.15A	Brown			Type #47

MISCELLANEOUS

ITEM No.	PART NAME	WESTINGHOUSE PART No.	NOTES
M3	Tuner Assembly	V-5941-1	Complete, Less Tubes 250V, 1/4 Amp.
M4	Fuse	V-6171-3	
M5	Band Switch	V-6140	AM Two Gang (48-552MMF-W/T) (37-212MMF-W/T) PM Type On-Off-Tone, Horiz. Hold (For Sets Using Brown Rear Knobs) Volume, Vert. Hold (For Sets Using Brown Rear Knobs) Brightness, Contrast (For Sets Using Brown Rear Knobs) Fine Tuning (For Sets Using Brown Rear Knobs) Channel Selector (For Sets Using Brown Rear Knobs) On-Off-Tone, Horiz. Hold (For Sets Using Brass Rear Knobs) Brightness, Contrast, Front (For Sets Using Brass Rear Knobs) Volume, Vert, Hold, Rear (For Sets Using Brass Rear Knobs) Brightness Contrast Rear (For Sets Using Brass Rear Knobs) Fine Tuning (For Sets Using Brass Rear Knobs) Channel Selector (For Sets Using Brass Rear Knobs) For Sets Using Brown Rear Knobs. For Sets Using Brass Rear Knobs. Mahogany Blonde Picture Tube Antenna Ceramic Variable
M6	Tuning Cap	V-6137	
	Ion Trap	V-5940	
	Knob	V-4362-4	
	Knob	V-5028-3	
	Knob Assembly	V-5039-2	
	Knob Assembly	V-7878	
	Knob Assembly	V-7879	
	Knob	V-6146-1	
	Knob	V-6146-5	
	Knob	V-6147-1	
	Knob	V-6245-1	
	Knob Assembly	V-7892	
	Knob Assembly	V-7893	
	Channel Indicator	V-6037	
	Channel Indicator	V-6308-1	
	Cabinet	V-1166-1	
	Cabinet	V-1166-2	
	Socket Assembly	V-5928	
	Terminal Board	V-6294	
A20	Sound Trap Trimmer	V-3713-3	

DIAL CORD STRINGING



CABINET-REAR VIEW

WESTINGHOUSE MODELS
H-196, H-207

SENSITIVITY CONTROL ADJUSTMENT

For average conditions, this control may be set as follows:

1. Disconnect antenna from receiver.
2. Connect VTVM from AGC line to chassis.
3. Turn sensitivity control fully clockwise.
4. Now slowly turn the control counter-clockwise until VTVM reading decreases to 0.6 volt.
5. If voltage will not decrease to 0.6 volt turn control to the point where the voltage stops decreasing.

Another method of adjustment is as follows:

1. Disconnect antenna from receiver.
2. Turn contrast control fully clockwise.
3. Turn brightness control just to the point where the raster appears.
4. Turn the sensitivity control fully counter-clockwise and notice the black noise dots which appear on the raster.
5. Slowly turn the sensitivity control clockwise to the point when the noise dots disappear.
6. Back up the control to point where the noise dots reappear.

The two methods outlined above are for average conditions. For extremely weak or strong signals this control should be adjusted for best picture quality on all available stations.

HORIZONTAL SYNC. DISCRIMINATOR ADJUSTMENT

1. Set the horizontal hold control to the mid point of its rotation. Turn slug B3 until picture "syncs" horizontally.
2. If a black vertical bar appears on picture, center the horizontal hold control, and set the contrast control slightly below normal and adjust B4 until black bar moves off the right hand edge of the picture. The final setting for B1 is when the black bar is off the picture to the right and there is no evidence of "fold-over" or white vertical streaks on the left hand side of the picture.

WIDTH AND HORIZONTAL LINEARITY ADJUSTMENTS

A balance must be obtained between these three adjustments to make the picture symmetrical and fill the mask horizontally.

The width control governs the overall width of the picture.

Horizontal linearity B1 mainly controls the right side of the picture while B2 controls chiefly the center of the picture.

If it is impossible to obtain good horizontal linearity after adjusting the three controls above, it may be necessary to move the tap on the damping resistor R138. Normally this tap is the third lug from the top of the resistor. If the left side of the picture is abnormally contracted move the tap toward the top of the resistor.

Adjustment of B1 may be necessary after the tap has been changed.

DISASSEMBLY INSTRUCTIONS

MODEL H-207 AM (TV CHASSIS)

1. Remove eight push-on type control knobs.
2. Remove ten screws holding back cover. Remove back cover by lifting up and pulling out.
3. Remove speaker plug at speaker.
4. Remove three 7/16" hex head bolts holding chassis. Remove chassis.
5. Remove four wood screws holding speaker. Remove speaker.

MODEL H-207 AM (AM-FM CHASSIS)

1. Remove four push-on type control knobs.
2. Remove phono motor plug and phono pick-up plug from rear of chassis.
3. Remove FM and AM antenna leads from terminal strip at rear of chassis.
4. Remove speaker plug at front of chassis.
5. Remove three 1/4" hex head self tapping screws holding chassis. Remove chassis.

MODEL H-196 AM

1. Remove eight push-on type control knobs.
2. Remove eight screws holding back cover. Remove back cover by lifting up and pulling out.
3. Remove speaker plug from speaker.
4. Remove three 7/16" hex head bolts holding chassis. Remove chassis.
5. Remove four wood screws holding speaker. Remove speaker.