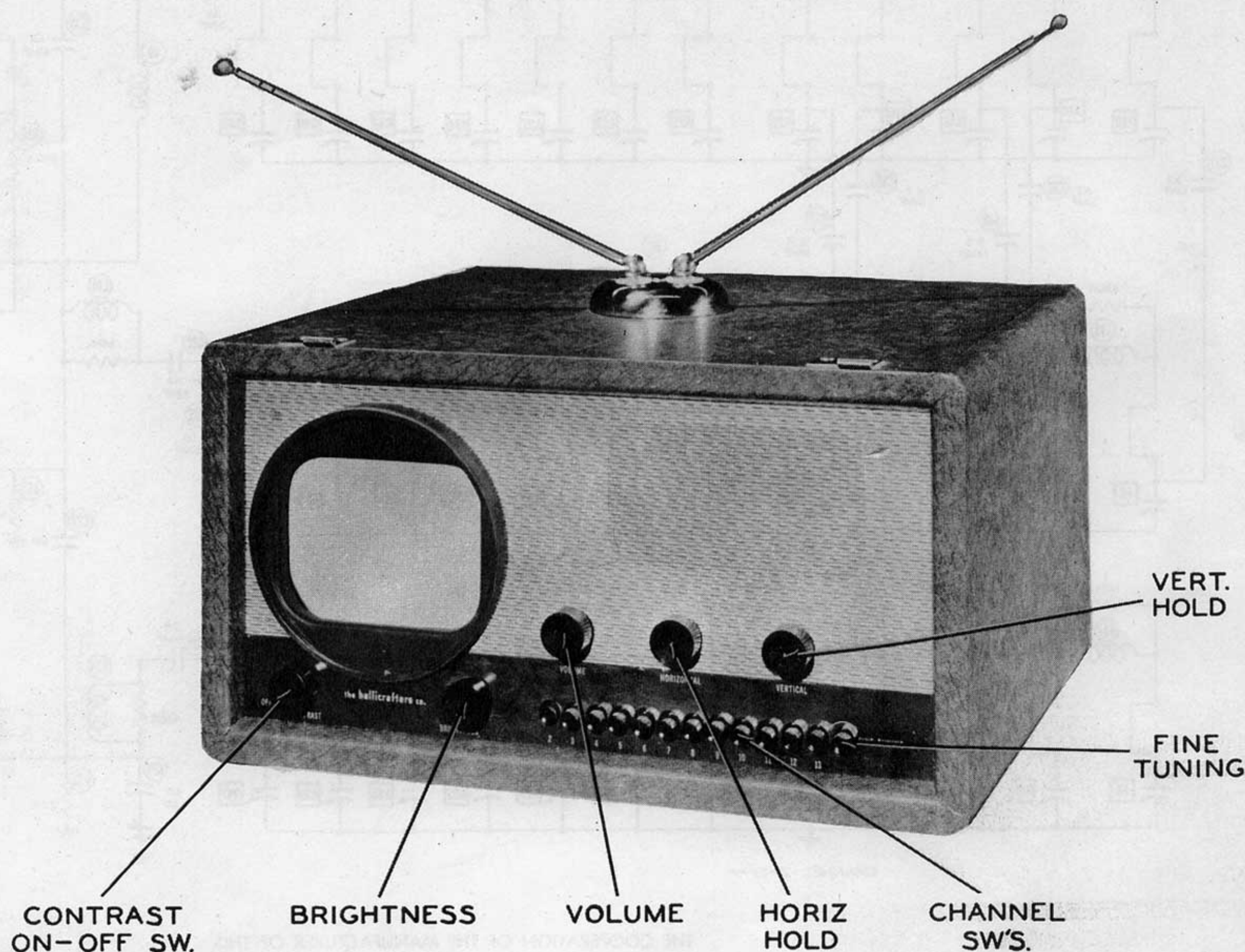




**HALLICRAFTERS MODELS
T-54, 505, 506, 514**

HALLICRAFTERS MODEL 514

TRADE NAME Hallicrafters, Models T-54, 505, 506, 514
MANUFACTURER The Hallicrafters Co., 4401 W. 5th Ave., Chicago, Illinois
TYPE SET Television Receiver
TUBES Twenty Two

POWER SUPPLY 105-125 Volts AC
TUNING RANGE—Channels 2 thru 13

RATING 1.05 Amp. at 117 Volts AC

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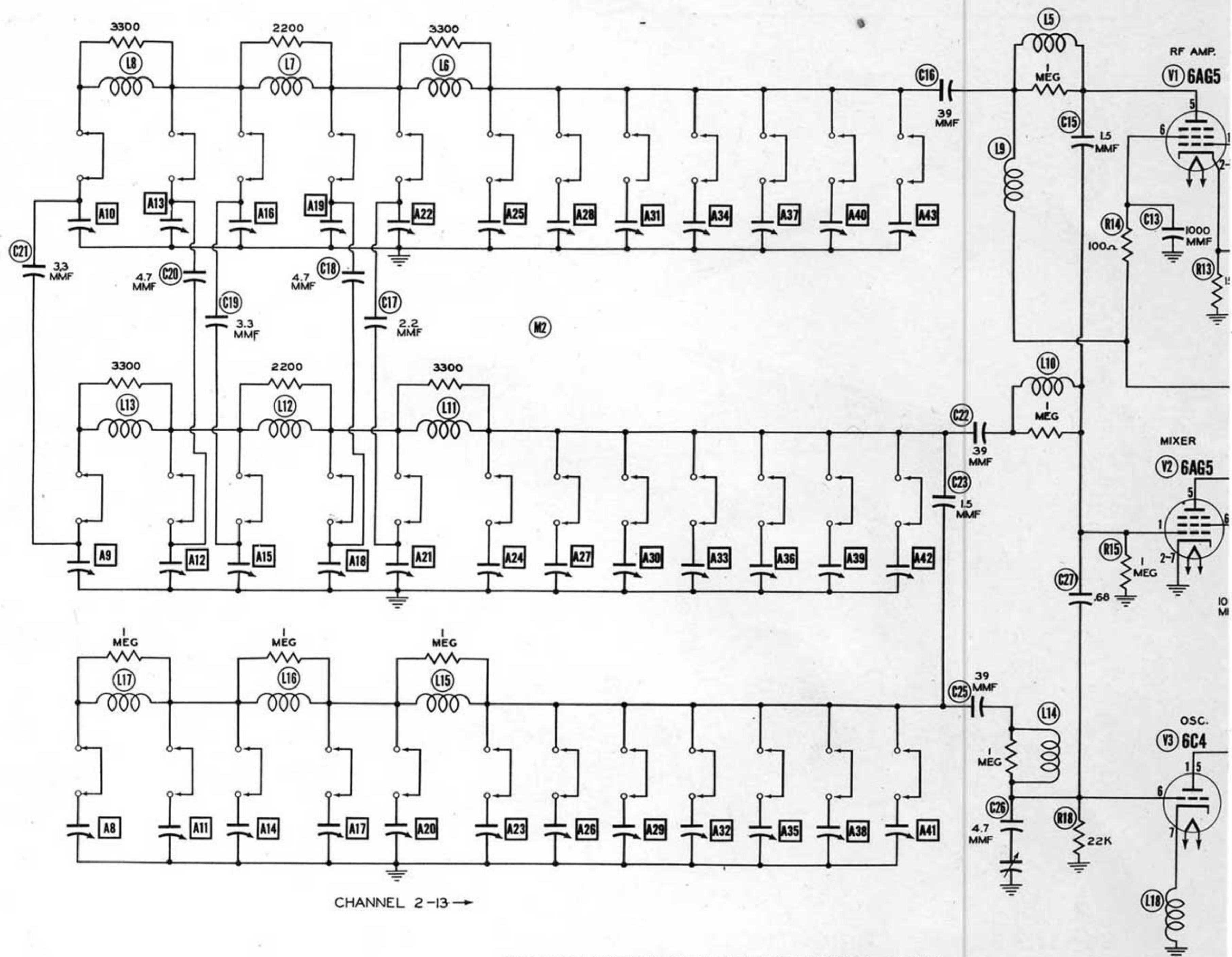
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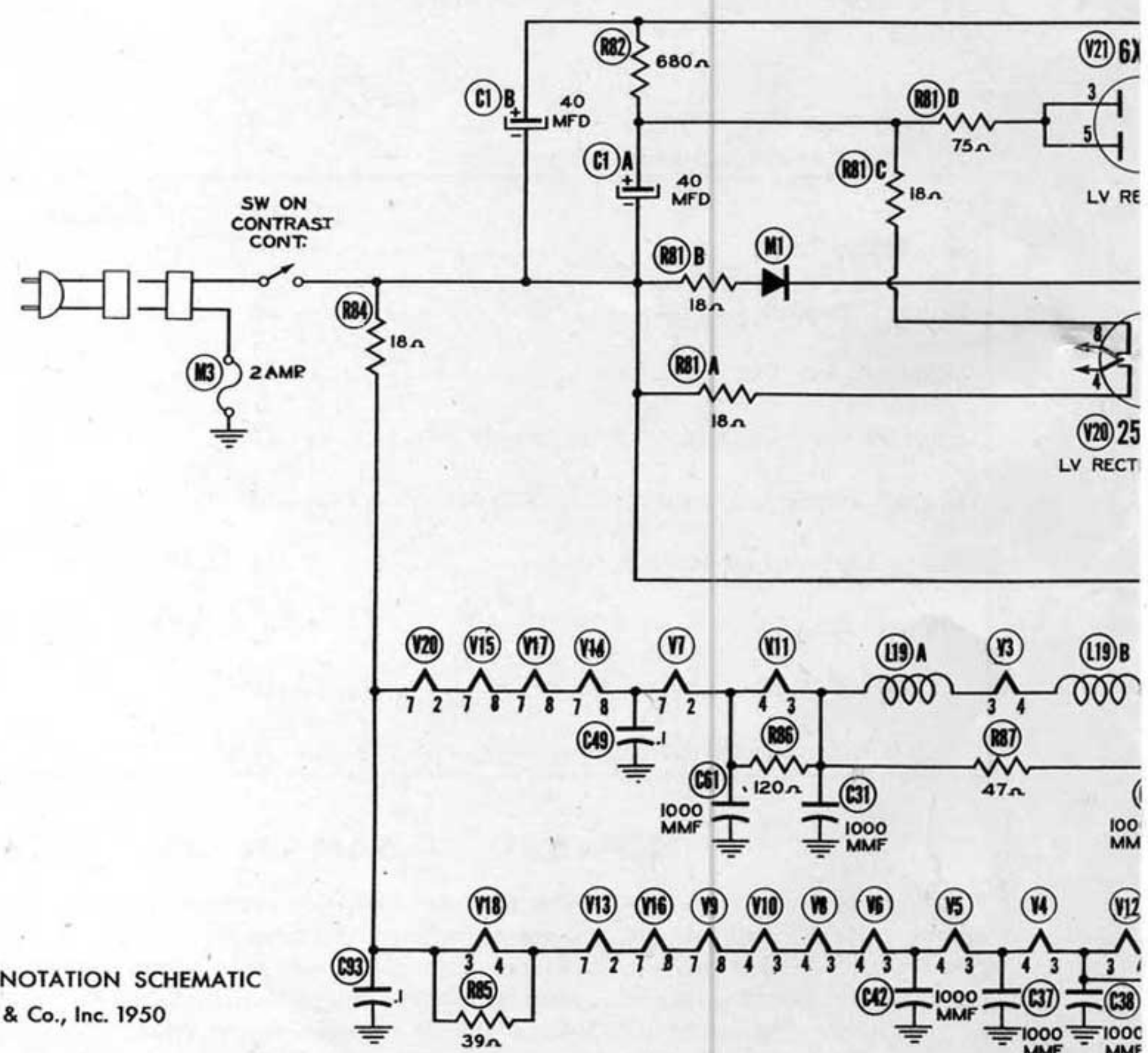
DATE 4 - 50

SET 91

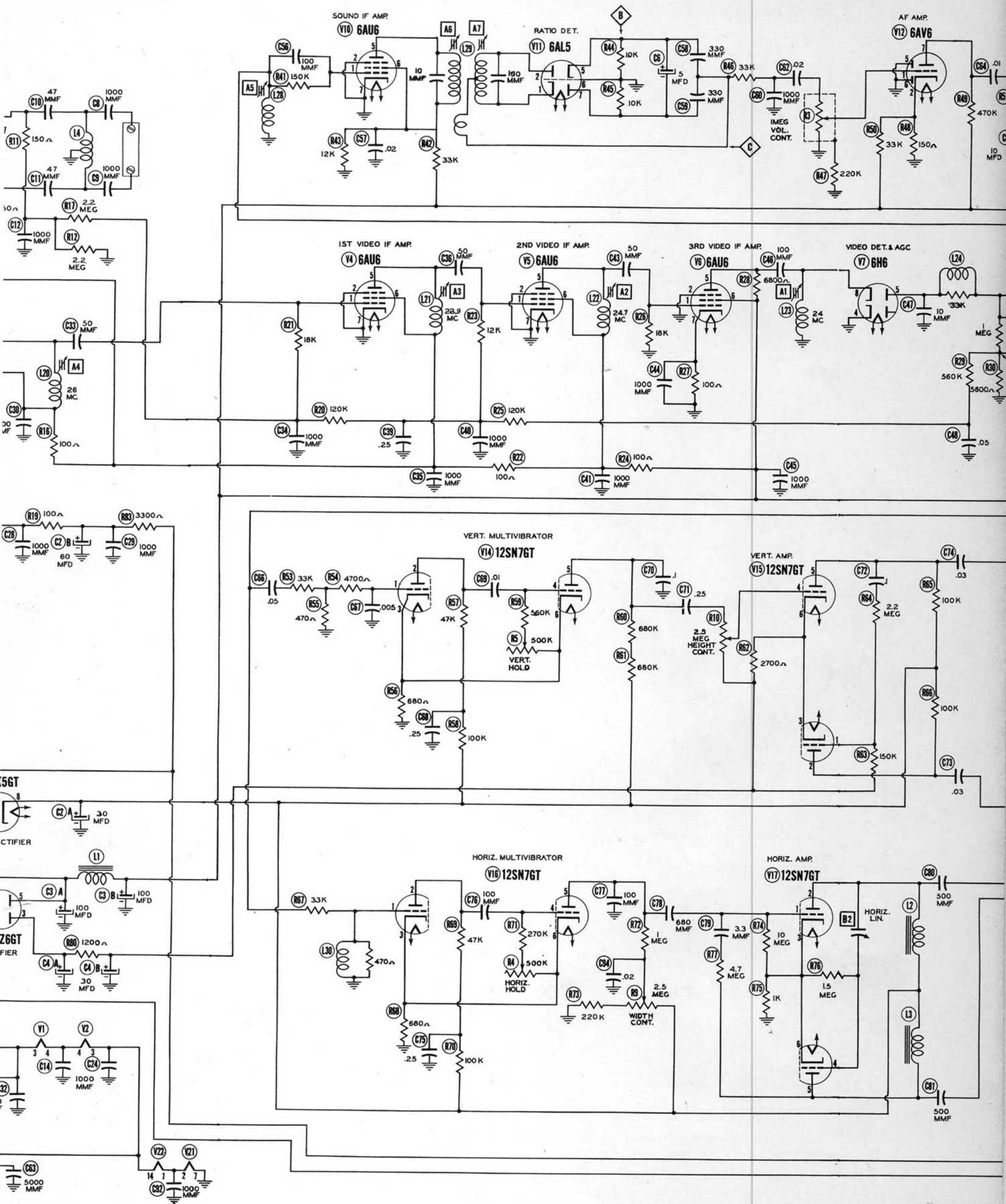
FOLDER 6

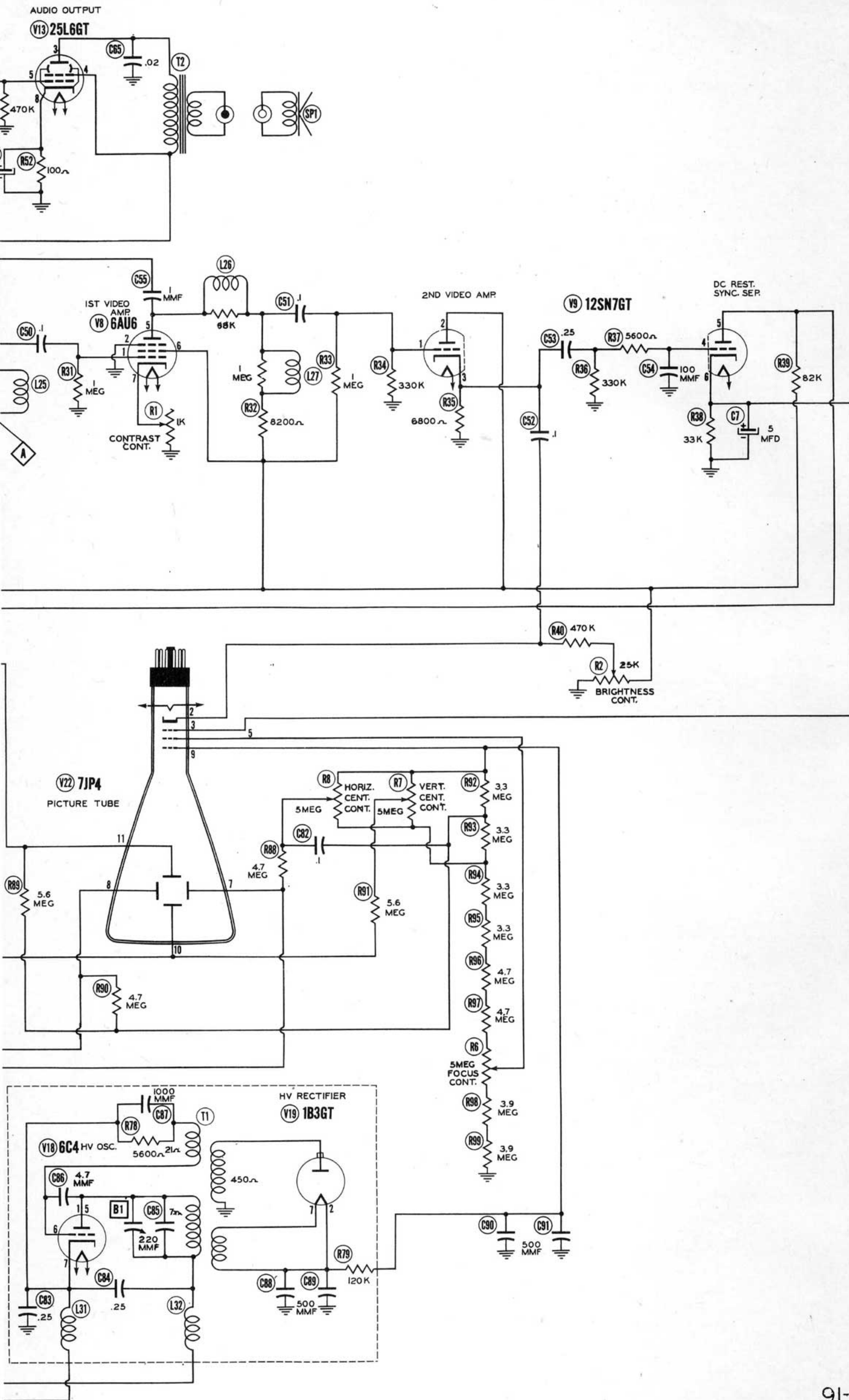


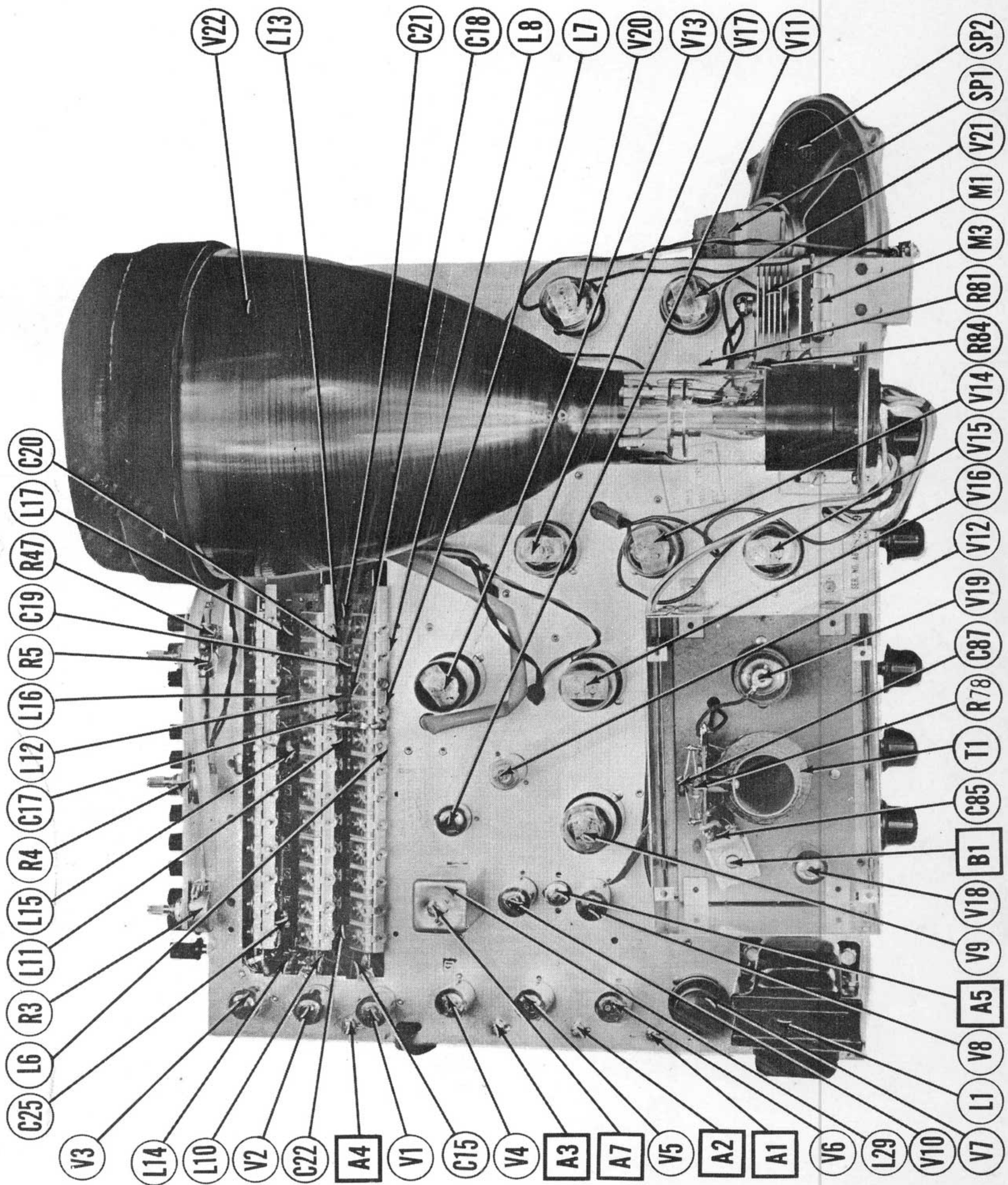
THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE



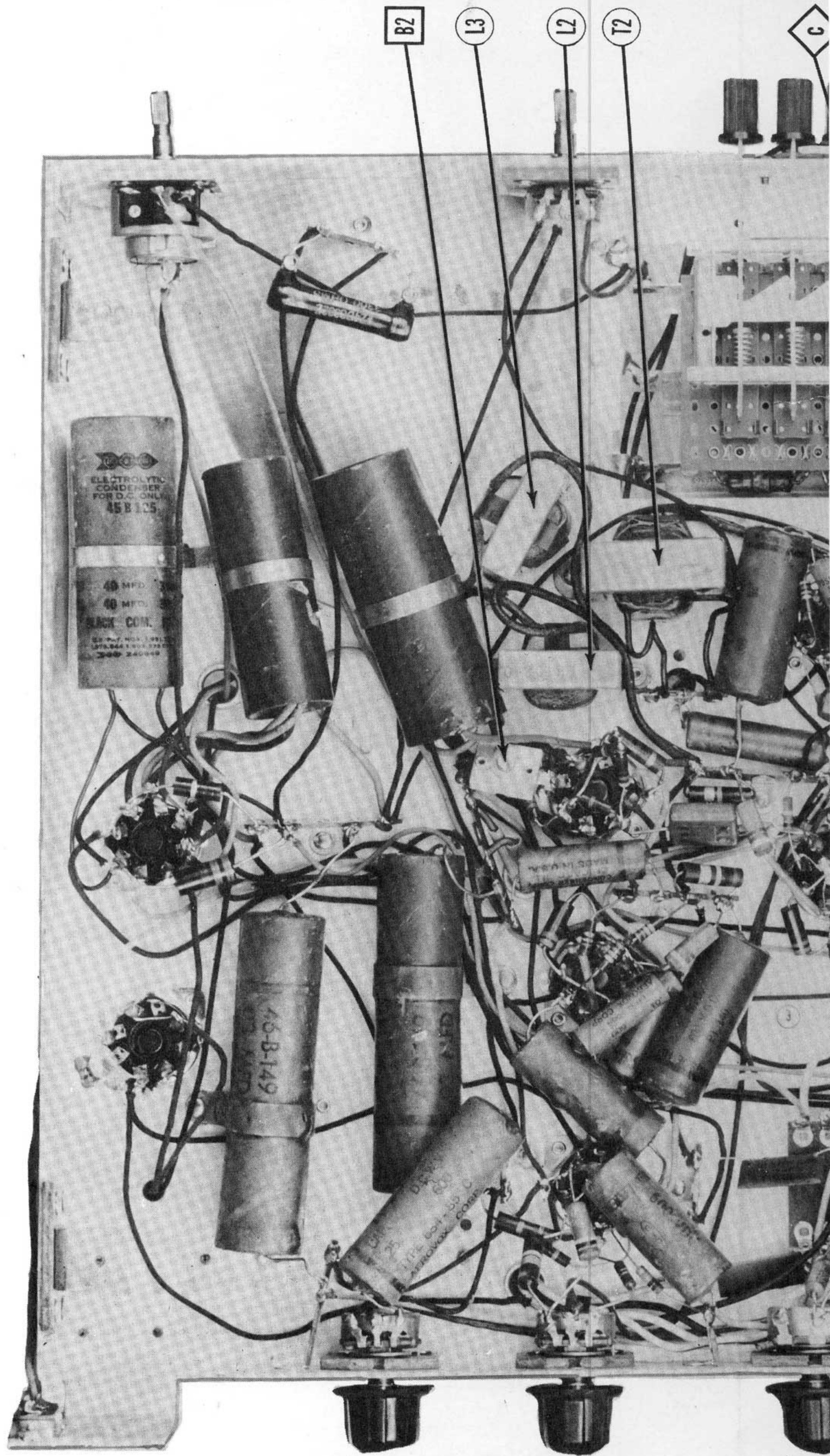
A PHOTOFAC STANDARD NOTATION SCHEMATIC
© Howard W. Sams & Co., Inc. 1950

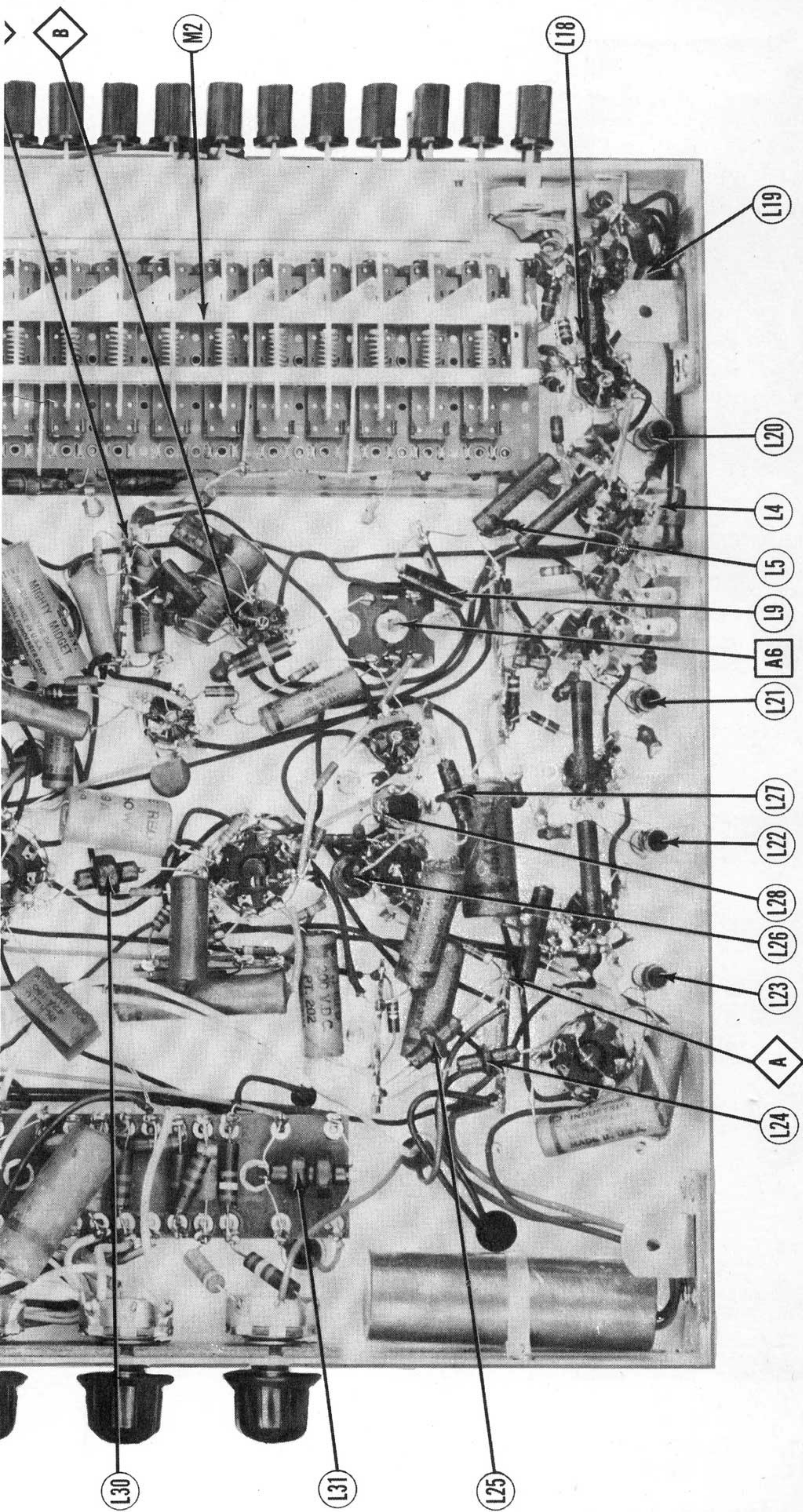






CHASSIS TOP VIEW

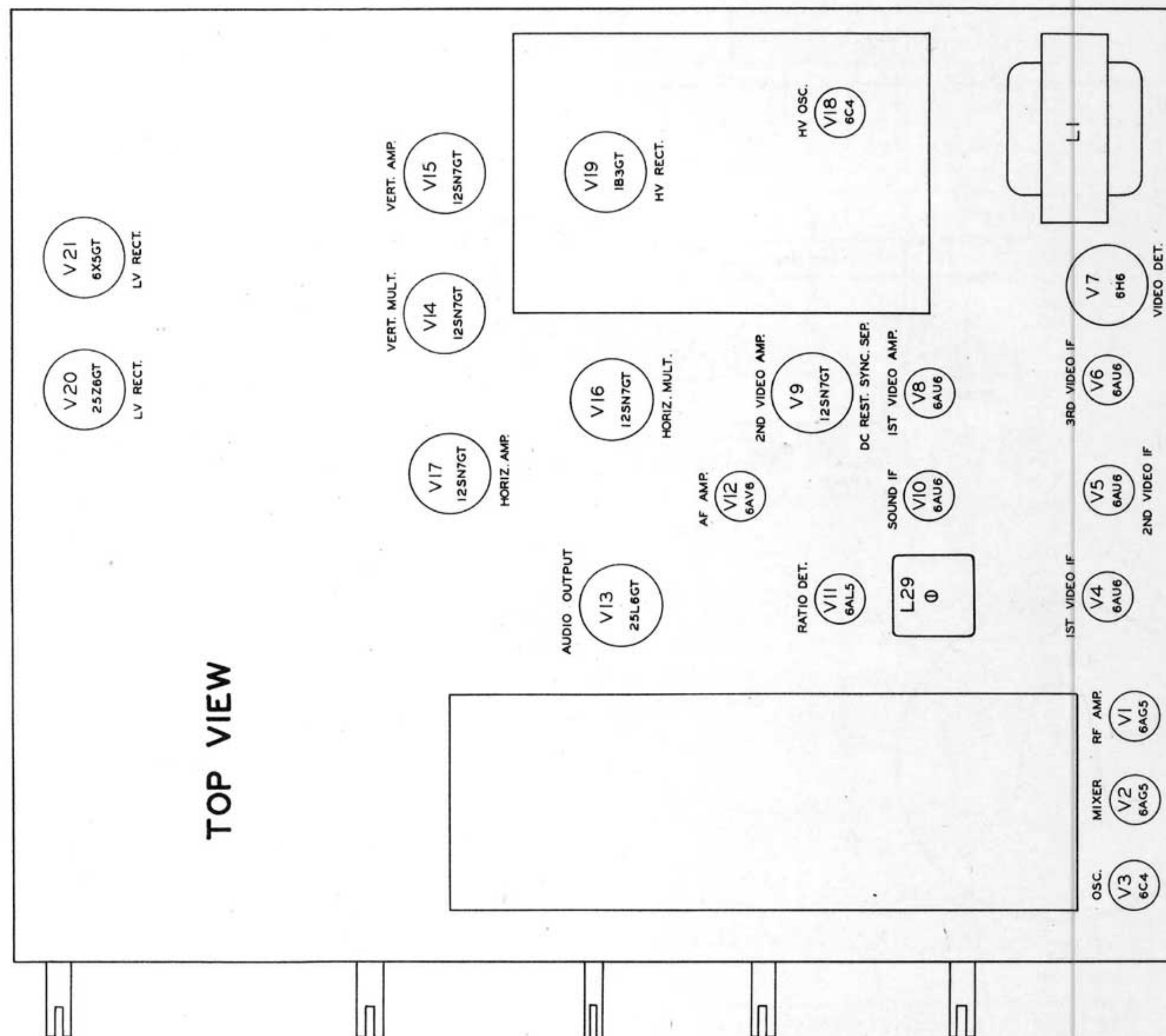
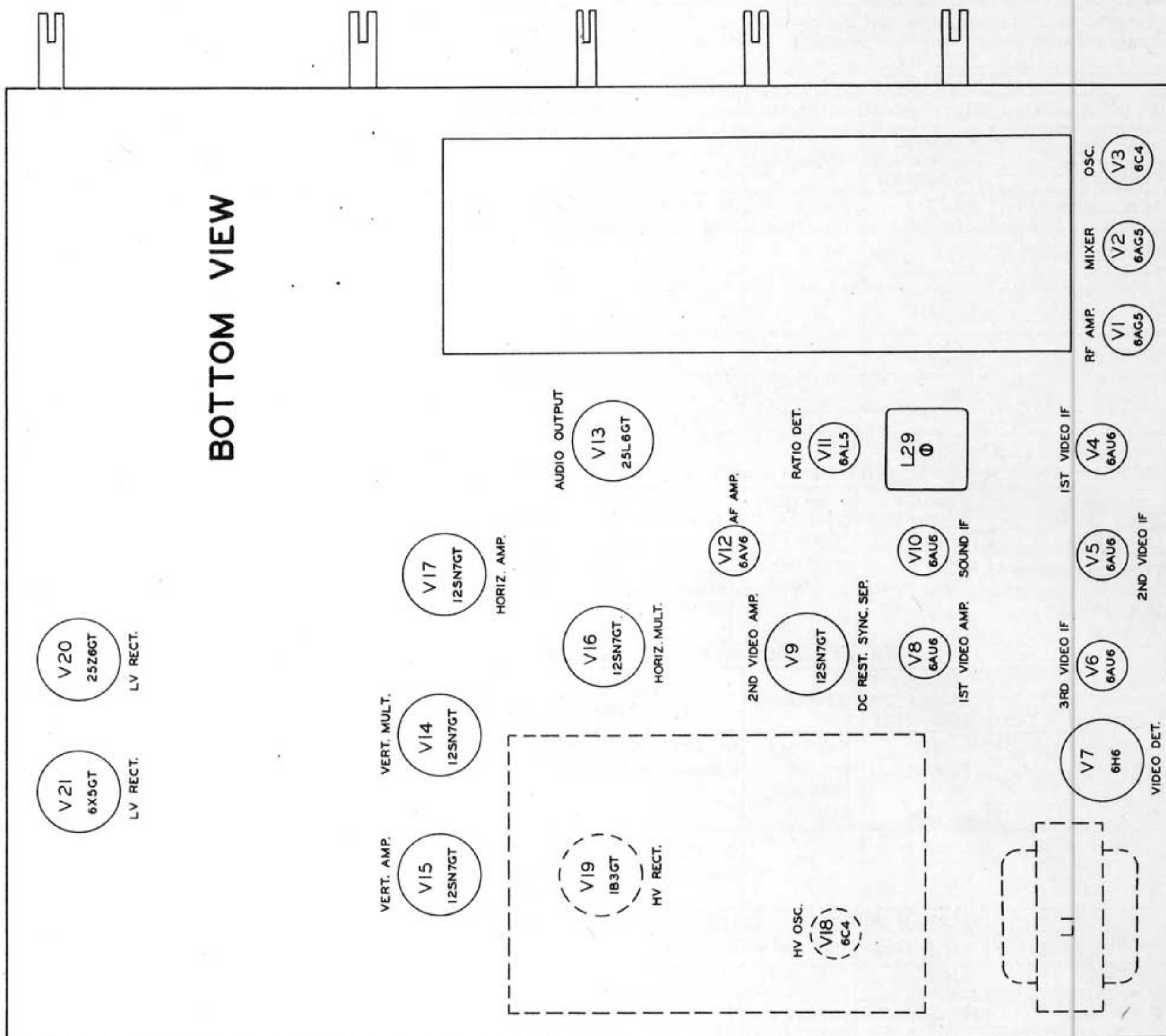




CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

HALLCRAFTERS MODELS
T-54, 505, 506, 514

TUBE PLACEMENT CHART



ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use an isolation transformer to protect the test equipment.

If the set is to be aligned with the picture tube removed, it will be necessary to short pins 1 and 14 on the picture tube socket to complete the filament circuit.

VIDEO IF ALIGNMENT

Depress one of the pushbuttons lightly to release all the buttons, this will disable the local oscillator tube and prevent erroneous indications.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. Direct	High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	24MC (Unmod.)	See instructions above	DC Probe to Point Δ . Common to chassis.	A1	Adjust for maximum deflection.
2. Direct	"	24.7MC	"	"	A2	"
3. Direct	"	22.9MC	"	"	A3	"
4. Direct	"	26MC	"	"	A4	"

OVERALL VIDEO IF RESPONSE CHECK

See instructions under Video IF Alignment.

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
5. Direct	High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	24MC (10MC SWP)	21.75MC 26.25MC	See instructions above.	Vert. Amp. to Point Δ . Low side to chassis.		Check for response curve similar to Fig 1 with markers as shown. If necessary re-touch A1 thru A4 for proper response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
6. .01MFD	High side to pin 1 (Grid) of 6AU6 (V7). Low side to chassis.	4.5MC (Unmod.)	Any channel not used locally	DC Probe to Point Δ . Common to chassis.	A5, A6	Adjust for maximum deflection.
7. .01MFD	"	"	"	DC Probe to Point Δ . Common to chassis.	A7	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

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

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
6. .01MFD	High side to pin 1 (Grid) of 6AU6 (V7). Low side to chassis.	4.5MC (450KC SWP)	4.5MC	Any channel not used locally	Vert. Amp. to Point Δ . Low side to chassis.	A5, A6	Disconnect stabilizer capacitor C6. Adjust for maximum amplitude and symmetry as per Fig 2.
7. .01MFD	"	"	"	"	Vert. Amp. to Point Δ . Low side to chassis.	A7	Reconnect capacitor C6. Adjust A7 so 4.5MC occurs at center of crossover lines as per Fig 3. Slightly retouch A6 for maximum amplitude and straightness of crossover lines.

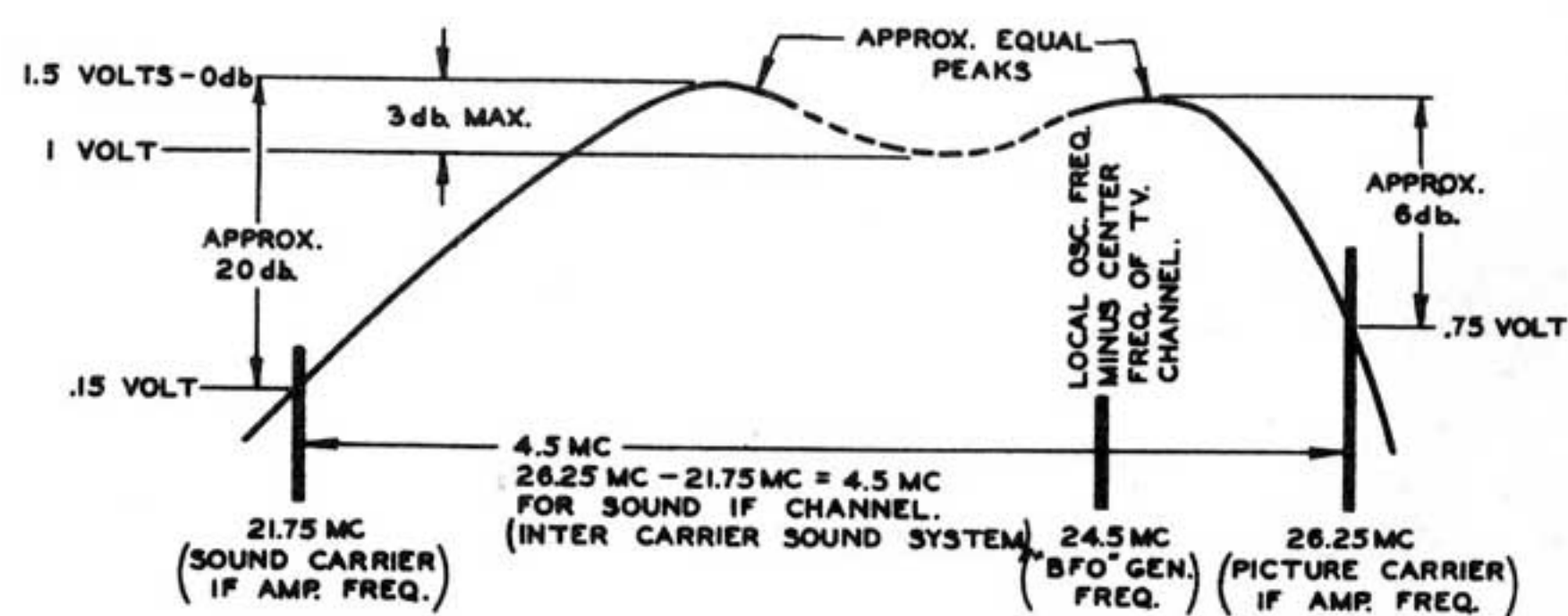


FIG. 1

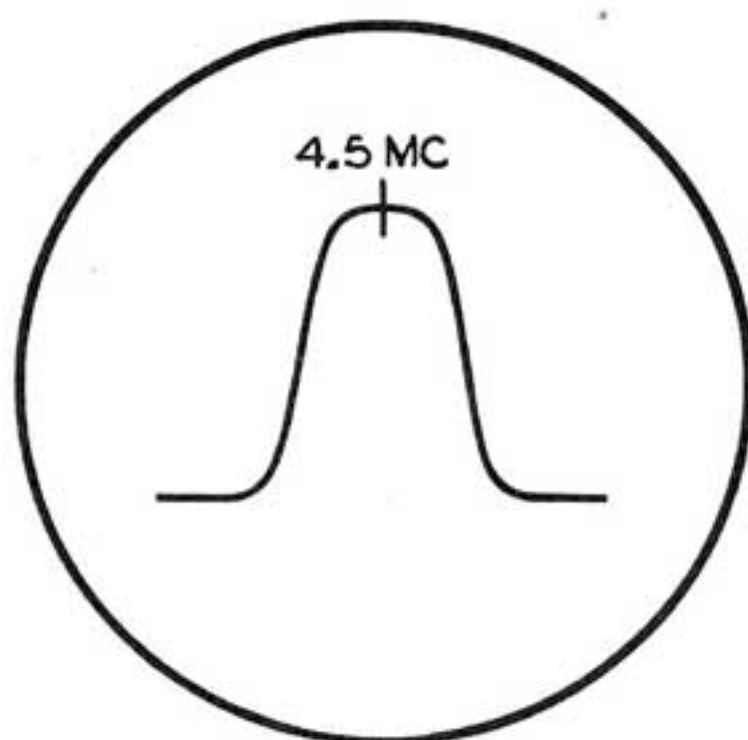


FIG. 2

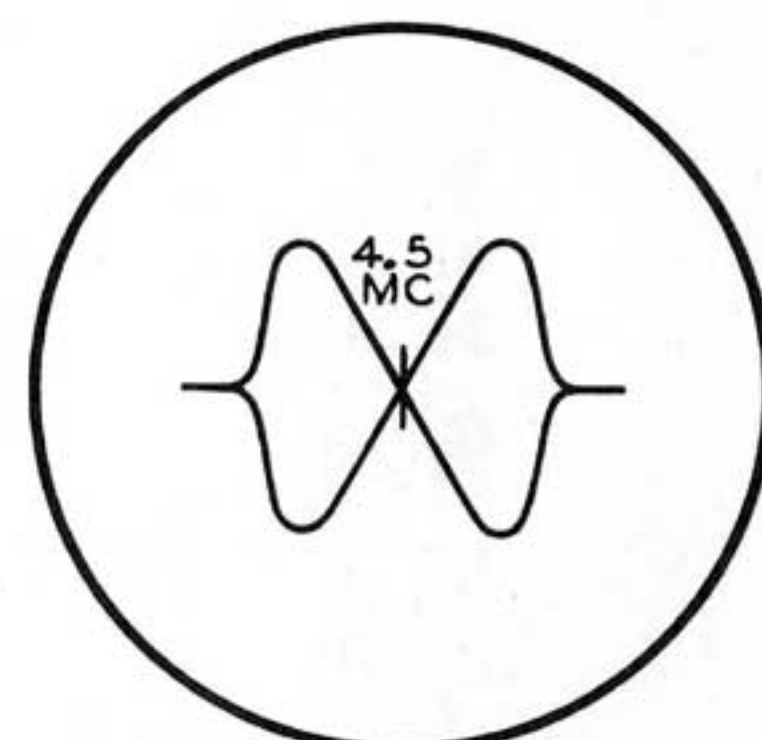


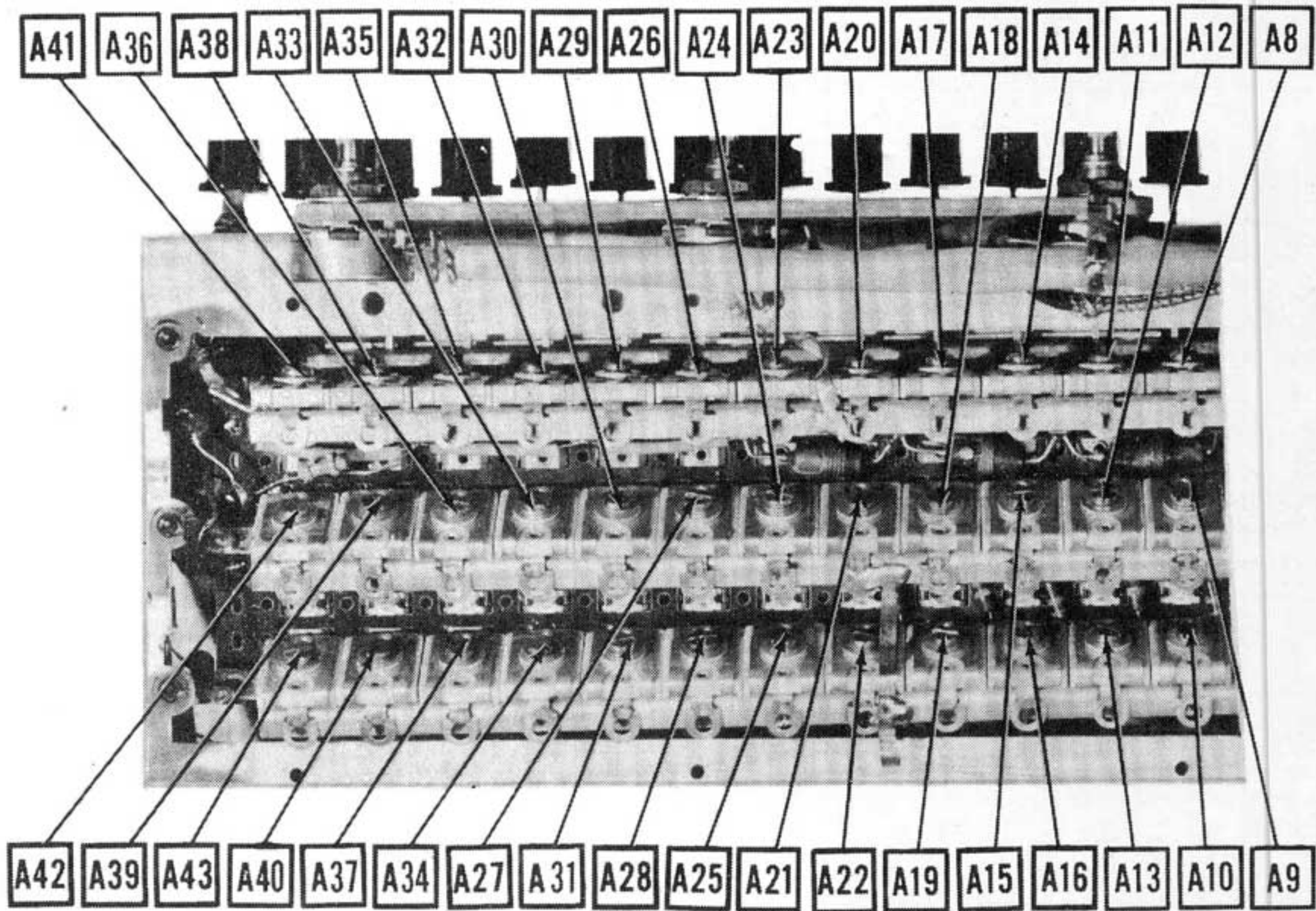
FIG. 3

ALIGNMENT INSTRUCTIONS (CONT.)

RF ALIGNMENT

The local oscillator operates 24.5MC above the center frequency of each TV channel. To set the local oscillator a separate "BFO" set at 24.5MC is used to obtain a zero beat with this difference frequency. Couple the "BFO" generator to the receiver by placing the output lead near the video detector tube (V7). Set the fine tuning control to the mid-position of its range.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	BFO GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8.	Two 150Ω carbon res.	Across antenna terminals with 150Ω in each lead.	57MC (Unmod.)	24.5MC	2	DC Probe to Point A. Common to chassis.	A8	Connect a .01MFD capacitor between pin 3 of V9 and pin 4 of V12. Adjust for a rough audio beat note in speaker. Remove the .01MFD capacitor.
9.	"	"	"	Off	2	"	A9, A10	Adjust for maximum deflection.
10.	"	"	63MC	24.5MC	3	"	A11	Reconnect .01MFD capacitor as in step 8. Adjust for beat note. Remove .01MFD cap.
11.	"	"	"	Off	3	"	A12, A13	Adjust for maximum deflection.
12.	"	"	69MC	24.5MC	4	"	A14	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
13.	"	"	"	Off	4	"	A15, A16	Adjust for maximum deflection.
14.	"	"	79MC	24.5MC	5	"	A17	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
15.	"	"	"	Off	5	"	A18, A19	Adjust for maximum deflection.
16.	"	"	85MC	24.5MC	6	"	A20	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
17.	"	"	"	Off	6	"	A21, A22	Adjust for maximum deflection.
18.	"	"	177MC	24.5MC	7	"	A23	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
19.	"	"	"	Off	7	"	A24, A25	Adjust for maximum deflection.
20.	"	"	183MC	24.5MC	8	"	A26	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
21.	"	"	"	Off	8	"	A27, A28	Adjust for maximum deflection.
22.	"	"	189MC	24.5MC	9	"	A29	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
23.	"	"	"	Off	9	"	A30, A31	Adjust for maximum deflection.
24.	"	"	195MC	24.5MC	10	"	A32	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
25.	"	"	"	Off	10	"	A33, A34	Adjust for maximum deflection.
26.	"	"	201MC	24.5MC	11	"	A35	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
27.	"	"	"	Off	11	"	A36, A37	Adjust for maximum deflection.
28.	"	"	207MC	24.5MC	12	"	A38	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
29.	"	"	"	Off	12	"	A39, A40	Adjust for maximum deflection.
30.	"	"	213MC	24.5MC	13	"	A41	Reconnect .01MFD cap as in step 8. Adjust for beat note. Remove .01MFD cap.
31.	"	"	"	Off	13	"	A42, A43	Adjust for maximum deflection.



RF TUNER ALIGNMENT POINTS

HALLICRAFTERS MODELS
T-54, 505, 506, 514

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6AG5	-.1VDC	.8VDC	26VAC	19VAC	105VDC	105VDC	.8VDC		
V 2	6AG5	-1.6VDC	0V.	13VAC	19VAC	105VDC	105VDC	0V.		
V 3	6C4	172VDC	0V.	33VAC	26VAC	172VDC	§ -7VDC	.1VDC		
V 4	6AU6	-1VDC	0V.	19VAC	25VAC	105VDC	105VDC	0V.		
V 5	6AU6	-.7VDC	0V.	25VAC	32VAC	105VDC	105VDC	0V.		
V 6	6AU6	0V.	0V.	32VAC	38VAC	85VDC	105VDC	.8VDC		
V 7	6H6	0V.	38VAC	0V.	0V.	-2.5VDC	0V.	44VAC	0V.	
V 8	6AU6	0V.	0V.	38VAC	45VAC	95VDC	105VDC	2VDC		
V 9	12SN7GT	19VDC	105VDC	25VDC	0V.	33VDC	2.1VDC	63VAC	49VAC	
V 10	6AU6	-.4VDC	0V.	45VAC	49VAC	20VDC	20VDC	0V.		
V 11	6AL5	0V.	0V.	33VAC	38VAC	.2VDC	0V.	-.2VDC		
V 12	6AV6	0V.	.5VDC	19VAC	13VAC	0V.	0V.	29VDC		
V 13	25L6GT	0V.	75VAC	105VDC	120VDC	0V.	0V.	100VAC	6.1VDC	
V 14	12SN7GT	0V.	55VDC	1.6VDC	-14VDC	80VDC	1.6VDC	55VAC	44VAC	
V 15	12SN7GT	0V.	▲265VDC	▲11VDC	▲0V.	▲340VDC	▲11VDC	75VAC	70VAC	
V 16	12SN7GT	0V.	55VDC	1.6VDC	-4.2VDC	70VDC	1.6VDC	75VAC	63VAC	
V 17	12SN7GT	-21VDC	390VDC	12VDC	1.4VDC	380VDC	12VDC	70VAC	55VAC	
V 18	6C4	■230VDC	0V.	106VAC	100VAC	■230VDC	■-32VDC	■.4VDC		
V 19	1B3GT	* DO NOT MEASURE.								
V 20	25Z6GT	260VDC	75VAC	-150VDC	116VAC	125VDC	117VAC	106VAC	260VDC	
V 21	6X5GT	0V.	6.4VAC	260VDC	0V.	260VDC	0V.	0V.	390VDC	
V 22	7JP4	PIN 1 6.4VAC	PIN 2 110VDC	PIN 3 2.3VDC	PIN 4 *	PIN 5 *	PIN 6 *	PIN 7 *	PIN 8 *	PIN 9 *
		PIN 10 110VDC	PIN 11 110VDC	PIN 12 2.3VDC	PIN 13 *	PIN 14 *	PIN 15 *	PIN 16 *	PIN 17 *	PIN 18 13VAC

§ TAKEN WITH VACUUM TUBE VOLTMETER.

* DO NOT MEASURE.

▲ MEASURED FROM JUNCTION OF R62 AND R80.

■ MEASURED FROM ON-OFF SWITCH.

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 14
V 1	6AG5	1.3 Meg.	150Ω	9Ω	6.5Ω	†260Ω	†360Ω	150Ω					
V 2	6AG5	1 Meg.	0Ω	3.5Ω	6.5Ω	†360Ω	†360Ω	0Ω					
V 3	6C4	‡4KΩ	0Ω	13Ω	9Ω	‡4KΩ	22KΩ	2.5Ω					
V 4	6AU6	700KΩ	0Ω	6.5Ω	9Ω	†260Ω	†260Ω	0Ω					
V 5	6AU6	600KΩ	0Ω	9Ω	12Ω	†160Ω	†160Ω	0Ω					
V 6	6AU6	18KΩ	0Ω	12Ω	14Ω	†6.8KΩ	†60Ω	100Ω					
V 7	6H6	0Ω	15Ω	Inf.	0Ω	5.6KΩ	560KΩ	18Ω	.1Ω				
V 8	6AU6	1 Meg.	0Ω	14Ω	15Ω	†8.2KΩ	†60Ω	1000Ω					
V 9	12SN7GT	250KΩ	†60Ω	6.8KΩ	330KΩ	†30KΩ	33KΩ	20Ω	17Ω				
V 10	6AU6	150KΩ	0Ω	16Ω	17Ω	†15KΩ	†15KΩ	0Ω					
V 11	6AL5	Inf.	Inf.	13Ω	15Ω	10KΩ	0Ω	10KΩ					
V 12	6AV6	13Ω	150Ω	6.5Ω	3.5Ω	0Ω	0Ω	†470KΩ					
V 13	25L6GT	Inf.	23Ω	†280Ω	†60Ω	470KΩ	Inf.	25Ω	100Ω				
V 14	12SN7GT	5KΩ	‡150KΩ	680Ω	1 Meg.	‡1.4 Meg.	680Ω	22Ω	18Ω				
V 15	12SN7GT	▲150KΩ	▲100KΩ	▲2.7KΩ	▲2.5Meg. ▲60Ω	▲100KΩ	▲2.7KΩ	25Ω	24Ω				
V 16	12SN7GT	32Ω	‡150KΩ	680Ω	800KΩ	‡900KΩ	680Ω	23Ω	20Ω				
V 17	12SN7GT	10 Meg.	‡150Ω	1000Ω	1.5 Meg.	‡150Ω	1000Ω	24Ω	22Ω				
V 18	6C4	‡670Ω	Inf.	26Ω	25Ω	‡670Ω	‡5.6KΩ	‡60Ω					TOP CAP 460Ω
V 19	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.				
V 20	25Z6GT	60KΩ	25Ω	160KΩ	64Ω	10KΩ	46Ω	25Ω	60KΩ				
V 21	6X5GT	Inf.	2Ω	60KΩ	Inf.	60KΩ	Inf.	0Ω	70KΩ				
V 22	7JP4	PIN 1 2Ω	PIN 2 470KΩ	PIN 3 33KΩ	PIN 4 ‡20Meg.	PIN 5 ‡6.5Meg. ‡5 Meg.	PIN 6 ‡6.5Meg.	PIN 7 ‡6.5Meg.	PIN 8 ‡6.5Meg.	PIN 9 10Ω	PIN 10 ‡7.5Meg.	PIN 11 ‡6.8Meg.	PIN 14 3.5Ω

▲ MEASURED FROM JUNCTION OF R62 AND R80.

‡ MEASURED FROM PIN 7 OF V19.

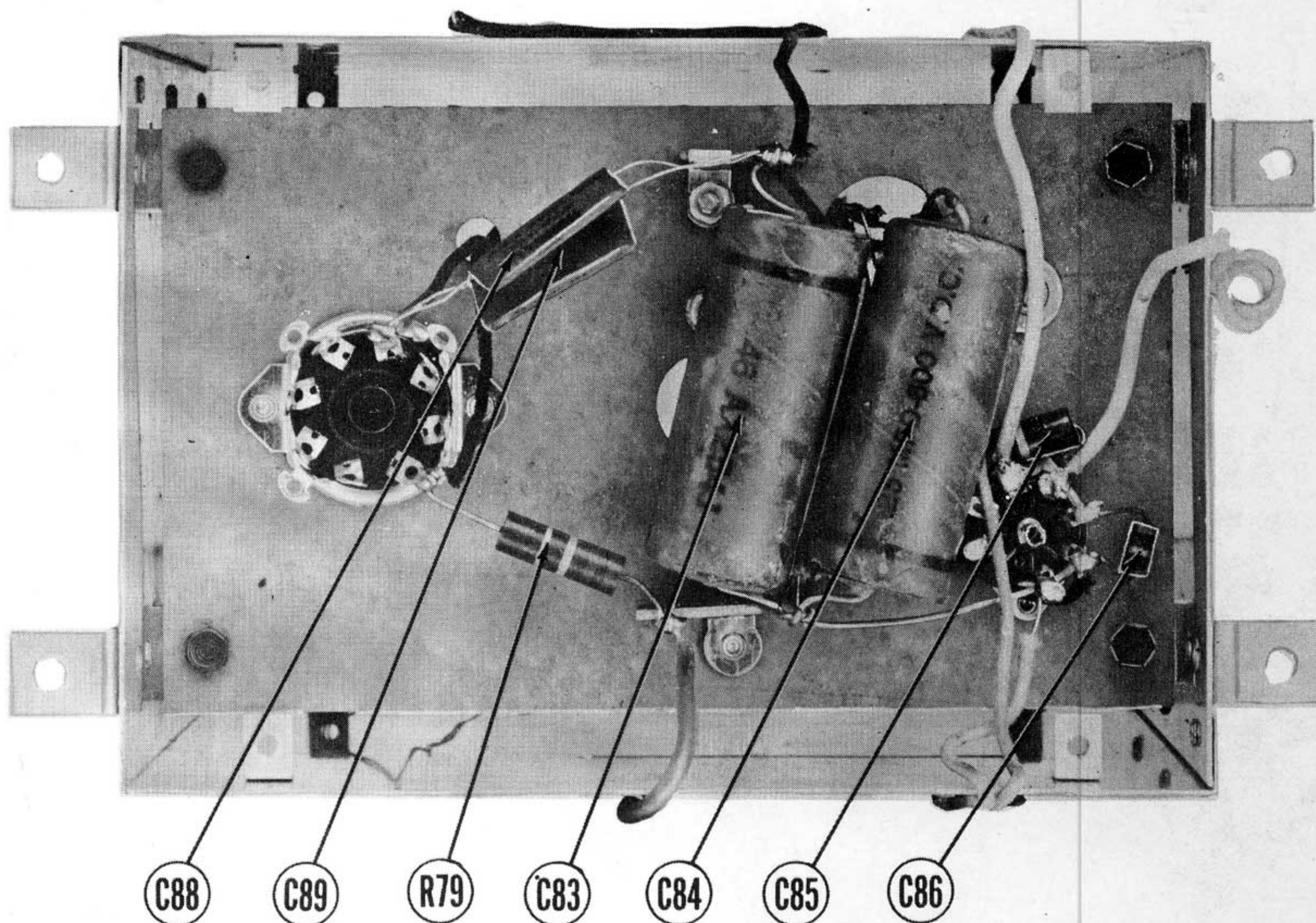
† MEASURED FROM PIN 5 OF V20.

‡ MEASURED FROM PIN 8 OF V20.

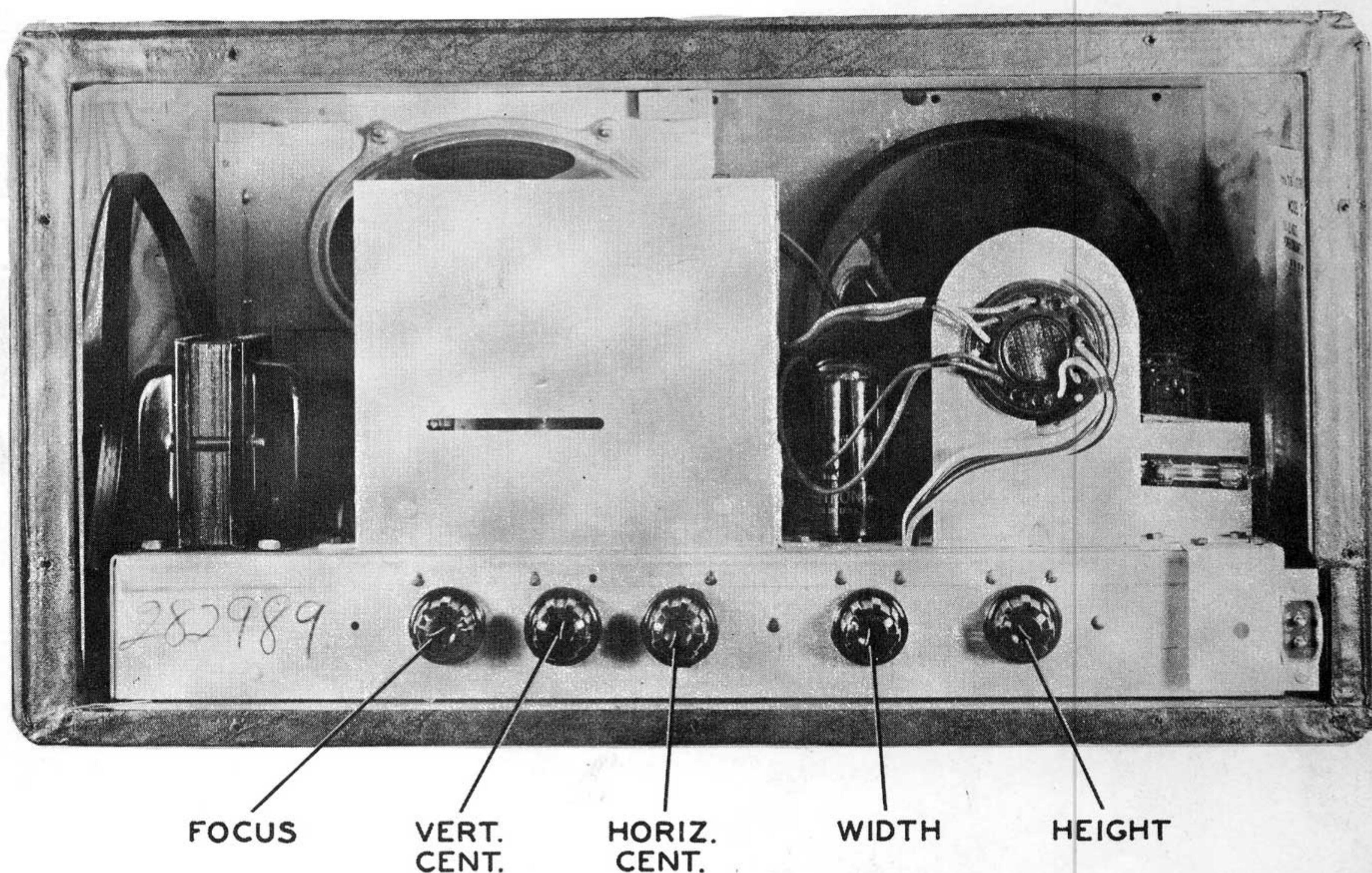
‡ MEASURED FROM PIN 8 OF V21.

▲ MEASURED FROM PIN 4 OF V20.

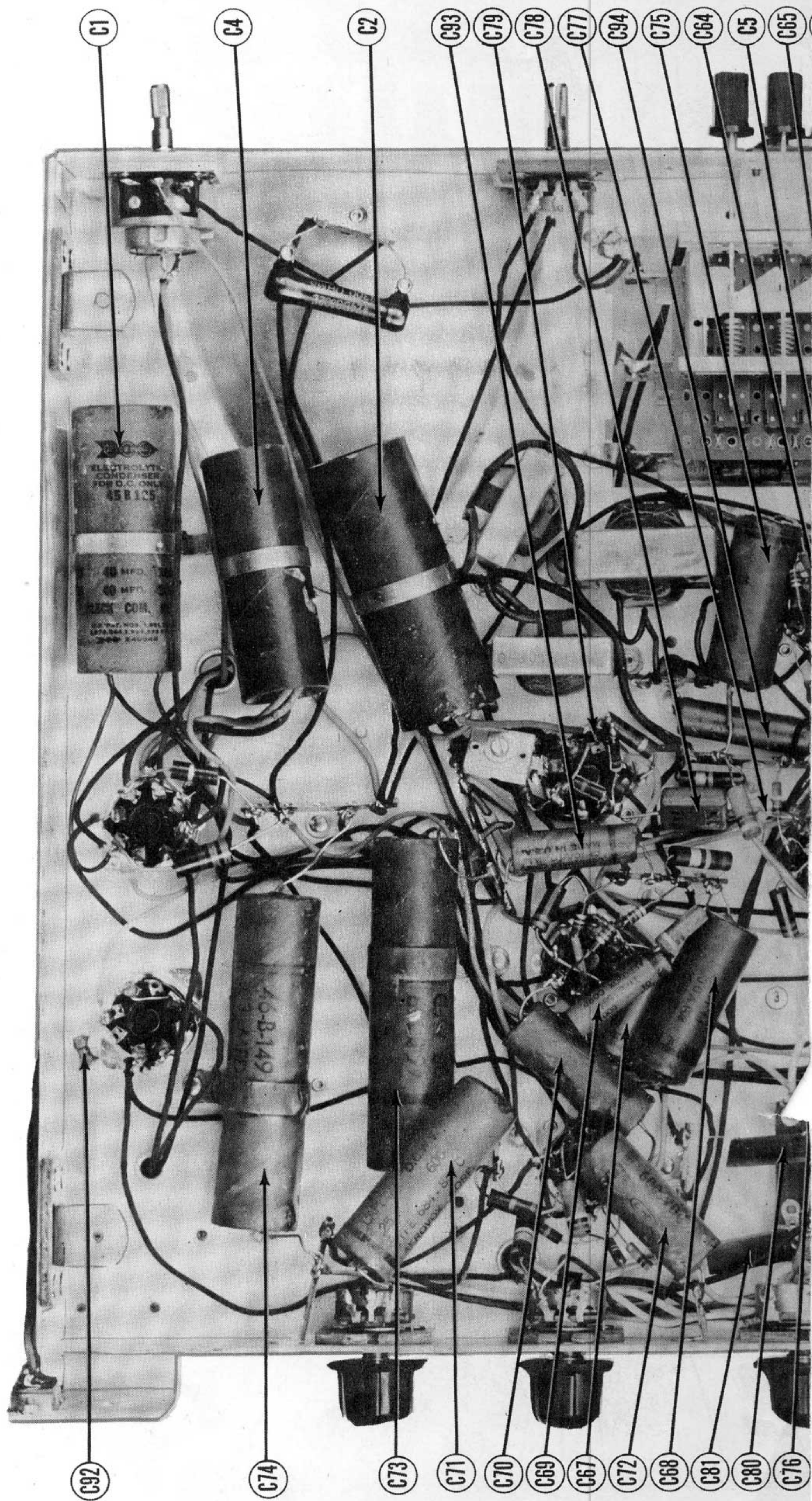
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
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.



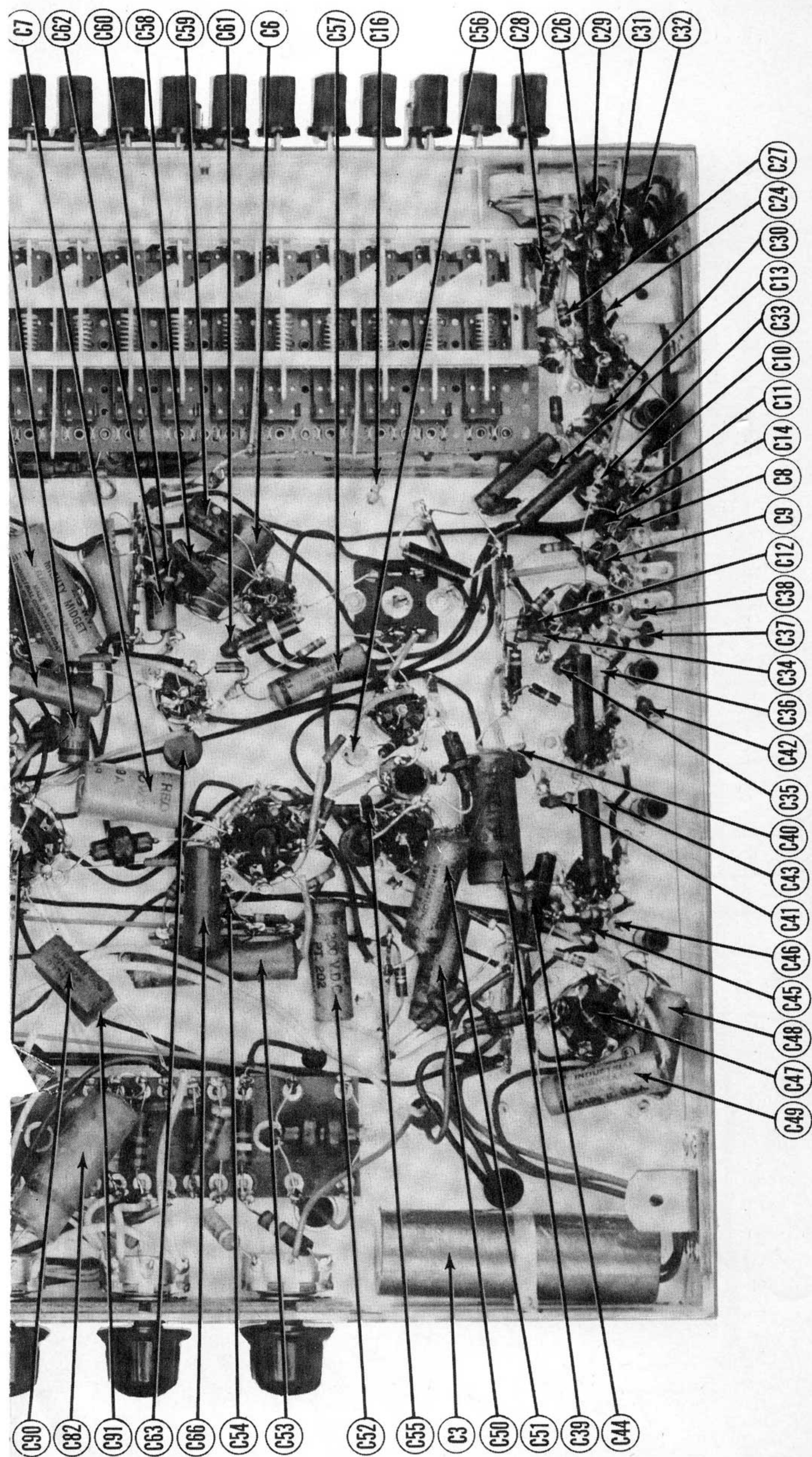
HIGH VOLTAGE SUPPLY - BOTTOM VIEW

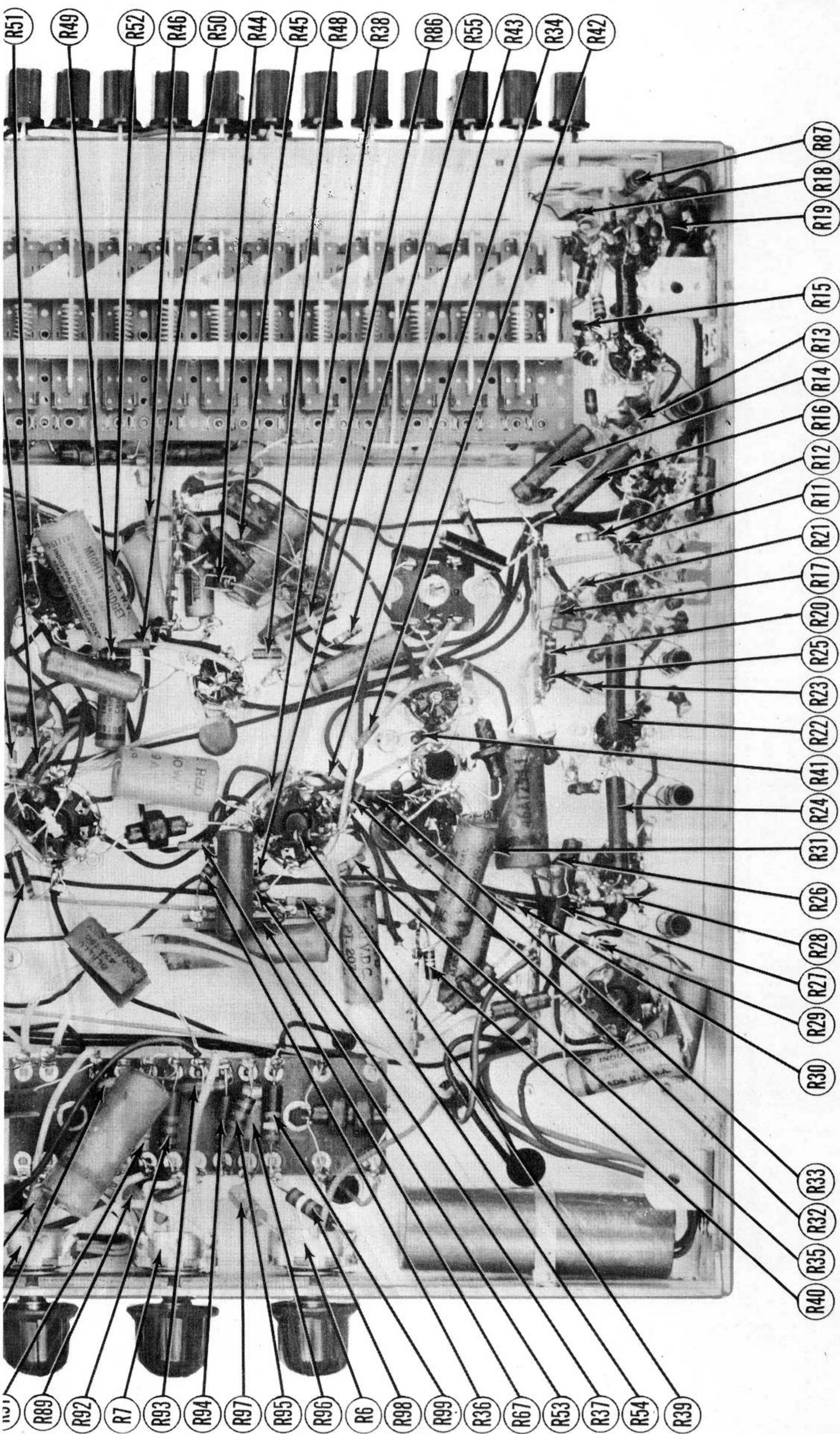


CABINET - REAR VIEW



CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION





CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

**HALLCRAFTERS MODELS
T-54, 505, 506, 514**

HIGH VOLTAGE OSCILLATOR ADJUSTMENT

Connect a 50 Meg. bleeder, consisting of five 10 Meg. resistors, in series with a 0-150 microampere meter across the high voltage filter capacitor C90. Adjust the high voltage oscillator trimmer (B1) to read 95 microamperes with the trimmer on the high capacity side of maximum current.

HORIZONTAL WIDTH AND LINEARITY ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.

Turn the horizontal and vertical hold controls to synchronize the picture.

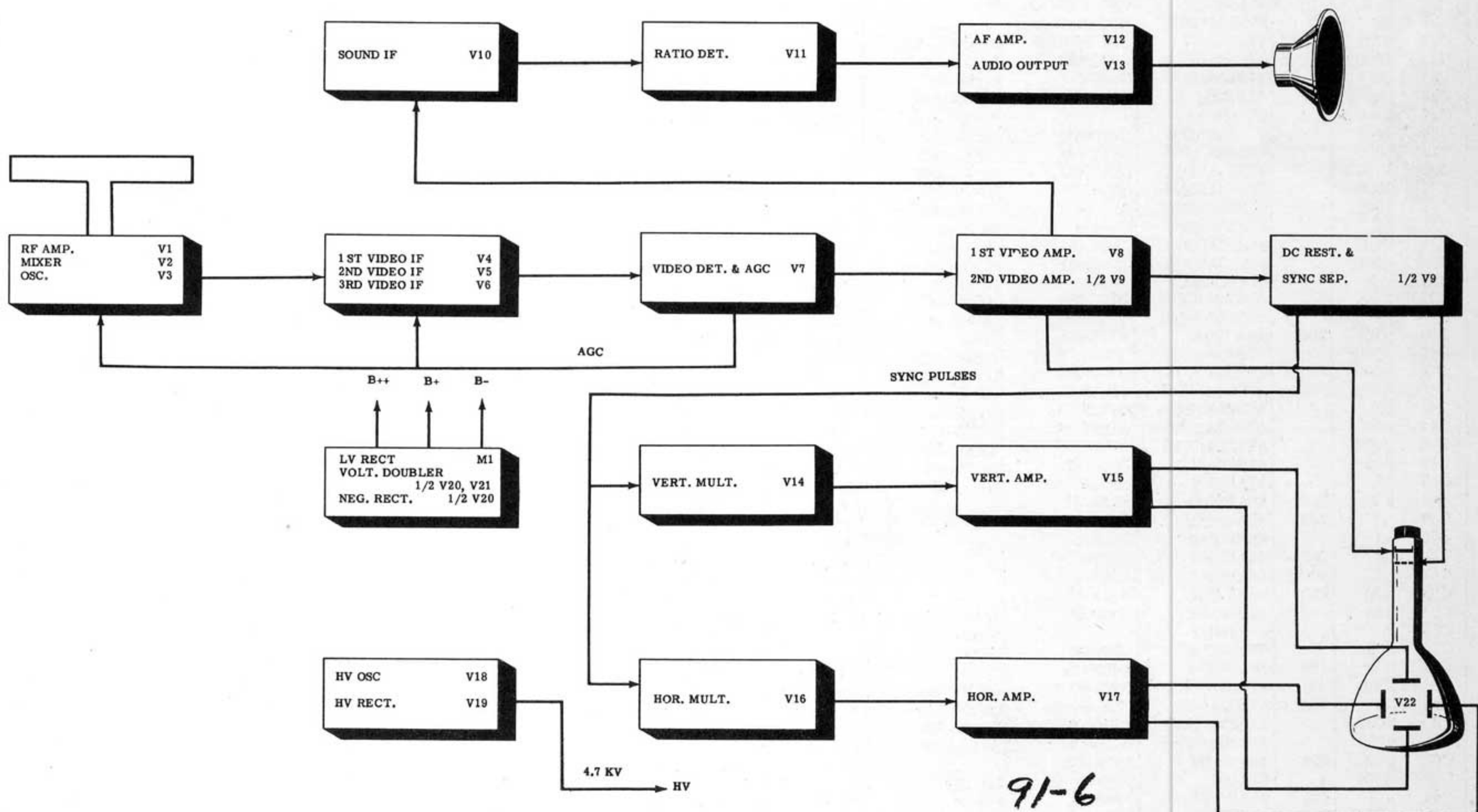
Adjust the width control until the picture fills the mask horizontally. Adjust the horizontal linearity trimmer (B2) until the picture fills the mask horizontally.

Due to interaction between B2 and the width control, it may be necessary to repeat the adjustments for optimum results.

DISASSEMBLY INSTRUCTIONS

1. Remove five push-on type control knobs.
2. Remove ten screws holding rear cover. Remove cover.
3. Remove speaker plug.
4. Remove four screws holding chassis. Remove chassis.
5. Remove four 11/32" hex nuts holding speaker. Remove speaker.

HALLCRAFTERS MODELS
T-54, 505, 506, 514



BLOCK DIAGRAM

TUBES (SYLVANIA or Equivalent)

CAPACITORS (CON

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		HALLICRAFTER PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6AG5	6AG5	7BD	
V2	Mixer	6AG5	6AG5	7BD	
V3	Oscillator	6C4	6C4	6BG	
V4	1st Video IF	6AU6	6AU6	7BK	
V5	2nd Video IF	6AU6	6AU6	7BK	
V6	3rd Video IF	6AU6	6AU6	7BK	
V7	Video Det. & AGC	6H6	6H6	7Q	
V8	1st Video Amp.	6AU6	6AU6	7BK	
V9	2nd Video Amp. - DC Restorer-Sync. Sep.	12SN7GT	12SN7GT	8BD	
V10	Sound IF Amp.	6AU6	6AU6	7BK	
V11	Ratio Det.	6AL5	6AL5	6BT	
V12	AF Amp.	6AV6	6AV6	7BT	
V13	Audio Output	25L6GT	25L6GT	7AC	
V14	Vert. Multivibrator	12SN7GT	12SN7GT	8BD	
V15	Vert. Amp.	12SN7GT	12SN7GT	8BD	
V16	Hor. Multivibrator	12SN7GT	12SN7GT	8BD	
V17	Hor. Amp.	12SN7GT	12SN7GT	8BD	
V18	HV Oscillator	6C4	6C4	6BG	
V19	HV Rectifier	1B3GT	1B3GT	3C	
V20	LV Rectifier	25Z6GT	25Z6GT	7Q	
V21	LV Rectifier	6X5GT	6X5GT	6S	
V22	Picture Tube	7JP4	7JP4	14G	

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	HALLICRAFTERS PART No.	AEROVOX PART No.	ERIE PART No.	SPRAGUE PART No.	
C1A	40	300	45B125	PRSA88G		TVL-64*	Filter-Red
B	40	300					Filter-Red
C2A	30	450	45B126	PRSA6J12G		TVL-30	Filter-Red
B	60	300				##	Filter-Yellow
C3A	100	150	45B124	PRSA2020D			Filter-Red
B	100	150					Filter-Red
C4A	30	200	45B123	PRS250/40		EL-245 *	Filter-Red-Black
B	30	200		PRS250/40			Filter-Yellow-Blue
C5	10	25	45A121	PRS25/10		TVA-5	Output Cathode Bypass
C6	5	50	45A109	PRS150/4		TVA-13	Stabilizing Cap.
C7	5	50	45A109	PRS150/4		TVA-13	DC Res. Cathode Bypass
C8	1000		47B20A102N1	GP1000M	GP2L-001		Ant. Coupling
C9	1000		47B20A102N1	GP1000M	GP2L-001		Ant. Coupling
C10	47		47B20470K5	GP47M	GPIK-47		RF Coupling
C11	47		47B20470K5	GP47M	GPIK-47		RF Coupling
C12	1000		47B20A102N1	GP1000M	GP2L-001		AGC Filter
C13	1000		47B20A102N1	GP1000M	GP2L-001		RF Screen Bypass
C14	1000		47B20A102N1	GP1000M	GP2L-001		RF Filament Bypass
C15	1.5		47A160-3	CN1.5CNPO	NPOK-1.5		RF Coupling
C16	39		47B20390K5	GP39K	GPIK-39		RF Coupling
C17	2.2		47A160-4				RF Coupling
C18	4.7		47A160-6	CN4.7DNPO	NPOK-4.7		RF Coupling
C19	3.3		47A160-5	CN3.3CNPO	NPOK-3.3		RF Coupling
C20	4.7		47A160-6	CN4.7DNPO	NPOK-4.7		RF Coupling
C21	3.3		47A160-5	CN3.3CNPO	NPOK-3.3		RF Coupling
C22	39		47B20390K5	GP39K	GPIK-39		RF Coupling
C23	1.5		47A160-3	CN1.5CNPO	NPOK-1.5		RF Coupling *
C24	1000		47B20A102N1	GP1000M	GP2L-001		Conv. Filament Bypass
C25	39		47B20390K5	GP39K	GPIK-39		Osc. Grid Cap.
C26	4.7		47A160-6	CN4.7DNPO	NPOK-4.7		Fixed Trimmer
C27	.68		47A160-1				Osc. Coupling
C28	1000		47B20A102N1	GP1000M	GP2L-001		Osc. Plate Bypass
C29	1000		47B20A102N1	GP1000M	GP2L-001		RF Bypass
C30	1000		47B20A102N1	GP1000M	GP2L-001		Conv. Decoupling
C31	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	Filament Bypass
C32	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	Filament Bypass
C33	50		47B20500K5	GP50M	GPIK-50	1FM-45	IF Coupling
C34	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	AGC Filter
C35	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	1st V. IF Decoupling
C36	50		47B20500K5	GP50M	GPIK-50	1FM-45	IF Coupling
C37	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	1st V. IF Fil. Bypass
C38	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	1st V. IF Fil. Bypass
C39	.25	200	46AT254J	P488-25		TC-2	AGC Filter
C40	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	AGC Filter
C41	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	2nd V. IF Decoupling
C42	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	2nd V. IF Fil. Bypass
C43	50		47B20500K5	GP50M	GPIK-50	1FM-45	IF Coupling
C44	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	3rd V. IF Cathode Bypass
C45	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	3rd V. IF Decoupling
C46	100		47B20101K5	GP100M	GPIK-100	1FM-31	IF Coupling
C47	10		47A160-11	GP10K	GPIK-10	MS-41	V. Diode Filter
C48	.05	200	46AU503J	P288-05		TM-15	AGC Filter
C49	.1	200	46AU104J	P288-1		TM-1	V. Det. Filament Bypass
C50	.1	200	46AU104J	P288-1		TM-1	Video Coupling
C51	.1	200	46AU104J	P288-1		TM-1	Video Coupling
C52	.1	200	46AU104J	P288-1		TM-1	Video Coupling
C53	.25	200	46AT254J	P488-25		TC-2	Video Coupling
C54	100		47B20101K5	GP100M	GPIK-100	1FM-31	DC Res. Grid Bypass
C55	1		47A160-2		NPOK-1.5		S. IF Coupling
C56	100		47B20101K5	GP100M	GPIK-100	1FM-31	S. IF Coupling
C57	.02	200	46AU203J	P488-02		TM-12	S. IF Decoupling
C58	330	500	47B0331K5	1468-00035	GP2K-330	1FM-335	Diode Load Cap. §
C59	330	500	47B0331K5	1468-00035	GP2K-330	1FM-335	Diode Load Cap. §
C60	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	De-emphasis
C61	1000		47B20A102N1	GP1000M	GP2L-001	1FM-21	Ratio Det. Fil. Bypass
C62	.02	200	46AU203J	P488-02		TM-12	Audio Coupling
C63	5000		47A168	BPD-5	811-005	29C1	AF Amp. Fil. Bypass
C64	.01	400	46AU103J	P488-01	821-01	TM-11	Audio Coupling
C65	.02	200	46AU203J	P488-02		TM-12	Output Plate Bypass

ITEM No.	RATING		REPLACEMENT DATA		
	CAP.	VOLT	HALLICRAFTERS PART No.	AEROVOX PART No.	ERIE PART No.
C66	.05	200	46AU503J	P288-05	
C67	.005	200	46AU502J	P688-005	811-005
C68	.25	600	46AX254J	684-25	
C69	.01	600	46AZ103J	P688-01	821-01
C70	.1	600	46AY104J	P688-1	
C71	.25	600	46AX254J	684-25	
C72	.1	600	46AY104J	P688-1	
C73	.03	6000	46AB149	6089M-03	
C74	.03	6000	46AB149	6089M-03	
C75	.25	600	46AX254J	684-25	
C76	100		47B20101K5	GP100M	GPIK-100
C77	100		47B20101K5	GP100M	GPIK-100
C78	680	500	47X20A681M	1468-00075	GP2K-680
C79	3.3		47A160-5	CN3.3CNPO	NPOK-3.3
C80	500	5000	47A190	5084-0005	
C81	500	5000	47A190	5084-0005	
C82	.1	600	46AY104J	P688-1	
C83	.25	600	46AX254J	684-25	
C84	.25	600	46AX254J	684-25	
C85	220	500		1469-0002	GP2K-220
C86	4.7		47A160-6	CN4.7DNPO	NPOK-4.7
C87	1000		47B20A102N1	GP1000M	GP2L-001
C88	500	5000	47A190		
C89	500	5000	47A190		
C90	500	5000	47A190	5084-0005	
C91	500	5000	47A190	5084-0005	
C92	1000		47B20A102N1	GP1000M	GP2L-001
C93	.1	200	46AU104J	P288-1	
C94	.02	600		P688-02	

* Not used in all models.

† Some models use .001MFD (MFGR'S Part no. 46A146) for items

‡ Some models use .001MFD (MFGR'S Part no. 46A146) for items

§ When either item C58 or C59 are replaced, replace both with c

♦ Use mounting strap.

Parallel sections to obtain desired capacity.

CONTRO

ITEM No.	RATING		REPLACEMENT DATA		
	RESISTANCE	WATTS	HALLICRAFTERS PART No.	IRC PART No.	CLAROSTAT PART No.
R1	1000Ω	2	25B739	Q11-120	AM-40-S
R2A	25KΩ	1/2	25B722	Not Req.	KSS-3
B	Shaft		Not Req.	Not Req.	AM-63-Z
R3A	1 Meg.	1/2	25B721	Q13-137	KSS-3
B	Shaft		Not Req.	Not Req.	AM-58-S
R4A	500KΩ	1/2	25B720	Q11-133	KSS-3
B	Shaft		Not Req.	Not Req.	AM-58-S
R5A	500KΩ	1/2	25B720	Q11-133	KSS-3
B	Shaft		Not Req.	Not Req.	AM-85-S
R6A	5 Meg.	1/2	25B723	Q11-141	KSS-3
B	Shaft		Not Req.	Not Req.	AM-85-S
R7A	5 Meg.	1/2	25B723	Q11-141	KSS-3
B	Shaft		Not Req.	Not Req.	AM-84-S
R8A	5 Meg.	1/2	25B723	Q11-141	KSS-3
B	Shaft		Not Req.	Not Req.	AM-84-S
R9A	2.5 Meg.	1/2	25B724	Q11-239	KSS-3
B	Shaft		Not Req.	Not Req.	AM-84-S
R10A	2.5 Meg.	1/2	25B724	Q11-239	KSS-3
B	Shaft		Not Req.	Not Req.	

RESISTO

ITEM No.	RATING		REPLACEMENT DATA		
	RESISTANCE	WATTS	HALLICRAFTER PART No.	IRC PART No.	ALL
R11	150Ω	1/2	23X20X151M		R1
R12	2.2 Meg. 10%	1/2	23X20X225M	BTS-2.2 Meg.	AC
R13	150Ω	1/2	23X20X151M		RI
R14	100Ω	1	23X20X101M	BW-1-100	RI
R15	1 Meg.	1/2	23X20X105M		MI
R16	100Ω	1	23X20X101M	BW-1-100	MI
R17	2.2 Meg. 10%	1/2	23X20X225M	BTS-2.2 Meg.	AC
R18	22KΩ 10%	1/2	23X20X223M		Os
R19	100Ω	1	23X20X101M	BW-1-100	Os
R20	120KΩ 10%	1/2	23X20X124K	BTS-120K	AC
R21	18KΩ 10%	1/2	23X20X183K		1st
R22	100Ω	1	23X20X101M	BW-1-100	1st
R23	12KΩ 10%	1/2	23X20X123K		2n
R24	100Ω	1	23X20X101M	BW-1-100	2n
R25	120KΩ 10%	1/2	23X20X124K	BTS-120K	AC
R26	18KΩ 10%	1/2	23X20X183K		3r
R27	100Ω	1	23X20X101M	BW-1-100	3r
R28	6800Ω	1/2	23X20X682M	BTS-6800	3r
R29	560KΩ 10%	1/2	23X20X564M	BTS-560K	AC
R30	5600Ω 10%	1/2	23X20X562K	BTS-5600	Vi
R31	1 Meg.	1/2	23X20X105M	BTS-1 Meg.	1st
R32	8200Ω	1/2	23X20X822M	BTS-8200	1st
R33	1 Meg.	1/2	23X20X105M	BTS-1 Meg.	Vo
R34	330KΩ 10%	1/2	23X20X334M	BTS-330K	2n
R35	6800Ω	1/2	23X20X682M	BTS-6800	2n
R36	330KΩ 10%	1/2	23X20X334M	BTS-330K	Sy
R37	5600Ω 10%	1/2	23X20X562K	BTS-5600	Sy
R38	33KΩ	1/2	23X20X333M	BTS-33K	DC
R39	82KΩ 10%	1/2	23X20X823M	BTS-82K	DC
R40	470KΩ 10%	1/2	23X20X474M	BTS-470K	Vo
R41	150KΩ	1/2	23X20X154M		So
R42	33KΩ	1/2	23X20X333M	BTS-33K	So

ID DESCRIPTIONS

(CONT.)

DATA		IDENTIFICATION CODES AND INSTALLATION NOTES
ERIE PART No.	SPRAGUE PART No.	
5	TM-15 TM-25 TC-2 TM-11 TM-1 TC-2 TM-1	Sync. Coupling Integrator Net. Vert. MV Decoupling Vert. MV Feedback Vert. Discharge Vert. Sweep Coupling Vert. Sweep Coupling Vert. Sweep Coupling
-100	TC-2	Hor. MV Decoupling
-100	1FM-31	Hor. MV Feedback
-680	1FM-31	Hor. Discharge
-3.3	1FM-37	Hor. Sweep Coupling Hor. Feedback
	TVM-356	Hor. Sweep Coupling
	TVM-356	Hor. Sweep Coupling
	TM-1	Cent. Cont. Bypass
	TC-2	Line Filter
	TC-2	HV Osc. Decoupling
-220	MS-32	Fixed Trimmer *
-4.7	MS-55	HV Osc. Feedback
-001	1FM-21	HV Osc. Grid Cap. HV Filter † HV Filter † HV Filter † HV Filter †
	TVM-356	HV Filter †
	TVM-356	HV Filter †
-001	1FM-21	Rect. Fil. Bypass
	TM-1	Filament Bypass
	TM-12	Hor. MV Decoupling *

For items C88 and C89.
For items C90 and C91.
With capacitors of equal value.

NTROLS

STAT T No.	INSTALLATION NOTES
0-S	Contrast control and switch-Wire Wound
3-Z	Brightness control
8-S	Attach to R2A per instructions
8-S	Volume control
8-S	Attach to R3A per instructions
8-S	Horiz. hold control
8-S	Attach to R4A per instructions
8-S	Vert. hold control
8-S	Attach to R5A per instructions
5-S	Focus control
5-S	Attach to R6A per instructions
5-S	Vert. centering control
5-S	Attach to R7A per instructions
5-S	Horiz. centering control
4-S	Attach to R8A per instructions
4-S	Width control
4-S	Attach to R9A per instructions
4-S	Height control
4-S	Attach to R10A per instructions

SISTORS

IDENTIFICATION CODES	
ALL RESISTORS ARE ± 20% UNLESS OTHERWISE STATED.	
RF Grid	
AGC Network	
RF Cathode	
RF Screen Decoupling-Wire Wound	
Mixer Grid	
Mixer Decoupling-Wire Wound	
AGC Network	
Osc. Grid	
Osc. Plate-Wire Wound	
AGC Network	
1st Video IF Grid	
1st Video IF Decoupling-Wire Wound	
2nd Video IF Grid	
2nd Video IF Decoupling-Wire Wound	
AGC Network	
3rd Video IF Grid	
3rd Video IF Cathode-Wire Wound	
3rd Video IF Plate	
AGC Network	
Video Det. Diode Load	
1st Video Amp. Grid	
1st Video Amp. Plate	
Voltage Divider	
2nd Video Amp. Grid	
2nd Video Amp. Cathode	
Sync. Sep. Grid	
Sync. Sep. Grid	
DC Rest. Cathode	
DC Rest. Plate	
Voltage Divider	
Sound IF Grid	
Sound IF Decoupling	

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
			HALLICRAFTER	IRC	
	RESISTANCE	WATTS	PART No.	PART No.	
R43	12KΩ 10%	1	23X20X123K	BTS-12K	Voltage Divider
R44	10KΩ 5%	1	23X20X103J	BTS-10K-5%	Ratio Det. Diode Load
R45	10KΩ 5%	1	23X20X103J	BTS-10K-5%	Ratio Det. Diode Load
R46	33KΩ	1	23X20X333M	BTS-33K	De-emphasis
R47	220KΩ 10%	1	23X20X224K	BTS-220K	Isolation
R48	150Ω	1	23X20X151M	BW-150	AF Cathode
R49	470KΩ 10%	1	23X20X474K	BTS-470K	AF Plate
R50	33KΩ	1	23X20X333M	BTS-33K	Voltage Divider
R51	470KΩ 10%	1	23X20X474K	BTS-470K	Output Grid
R52	100Ω	1	23X30X101M	BW-1-100	Output Cathode
R53	33KΩ	1	23X20X333M	BTS-33K	Integrator
R54	4700Ω	1	23X20X472M	BTS-4700	Integrator
R55	470Ω 10%	1	23X20X471K	BTS-470	Voltage Divider
R56	680Ω	1	23X30X681M	BTA-680	Vert. MV Cathode
R57	47KΩ	1	23X30X473M	BTA-47K	Vert. MV Plate
R58	100KΩ 10%	1	23X30X104M	BTA-100K	Vert. MV Plate Decoupling
R59	560KΩ 10%	1	23X20X564K	BTS-560K	Vert. MV Grid
R60	680KΩ 10%	1	23X20X684K	BTS-680K	Vert. MV Plate-See Note 1
R61	680KΩ 10%	1	23X20X684K	BTS-680K	Vert. MV Plate-See Note 1
R62	2700Ω 10%	1	23X30X272K	BTA-2700	Vert. Amp. Cathode
R63	150KΩ	1	23X20X154M	BTS-150K	Vert. Amp. Grid
R64	2.2 Meg. 10%	1	23X20X225K	BTS-2.2 Meg.	Voltage Divider
R65	100KΩ 10%	1	23X30X104M	BTA-100K	Vert. Amp. Plate
R66	100KΩ	1	23X30X104M	BTA-100K	Vert. Amp. Plate
R67	33KΩ	1	23X20X333M	BTS-33K	Horiz. MV Grid
R68	680Ω	1	23X30X681M	BTA-680	Horiz. MV Cathode
R69	47KΩ	1	23X30X473M	BTA-47K	Horiz. MV Plate
R70	100KΩ 10%	1	23X30X104M	BTA-100K	Horiz. MV Plate Decoupling
R71	270KΩ	1	23X20X274M	BTS-270K	Horiz. MV Grid
R72	1 Meg.	1	23X20X105M	BTS-1 Meg.	Horiz. MV Plate
R73	220KΩ 10%	1	23X20X224K	BTS-220K	Voltage Divider
R74	10 Meg.	1	23X20X106M	BTS-10 Meg.	Horiz. Amp. Grid
R75	1000Ω 10%	1	23X30X102K	BTA-1000	Horiz. Amp. Cathode
R76	1.5 Meg.	1	23X20X155M	BTS-1.5 Meg.	Horiz. Amp. Grid
R77	4.7 Meg.	1	23X20X475M	BTS-4.7 Meg.	Feedback
R78	5600Ω 10%	1	23X20X562K	BTS-5600	HV Osc. Grid
R79	120KΩ 10%	1	23X30X124K		HV Filter
R80	1200Ω 10%	1	23X30X122K	BW-1-1200	Filter
R81A	18Ω	2 1/2			Surge Limiter-Wire Wound
B	18Ω	2 1/2			Surge Limiter-Wire Wound
C	18Ω	4	24B879		Surge Limiter-Wire Wound
D	75Ω	4			Surge Limiter-Wire Wound
R82	680Ω	2	23X40X681M	BW-2-680	Filter
R83	3300Ω	10	24BG332E		Filter-Wire Wound
R84	18Ω	10	24BG180E		Filament Dropping-Wire Wound
R85	39Ω 10%	1	23X30X390K	BW-1-39	HV Osc. Filament Shunt
R86	120Ω 10%	2	23X40X121M	BW-2-120	Ratio Det. Filament Shunt
R87	47Ω 10%	1	23X30X470K	BW-1-47	Osc. Filament Shunt
R88	4.7 Meg.	1	23X30X475M	BTA-4.7 Meg.	Horiz. Deflection Load
R89	5.6 Meg.	1	23X30X565M	BTA-5.6 Meg.	Vert. Deflection Load
R90	4.7 Meg.	1	23X30X475M	BTA-4.7 Meg.	Horiz. Deflection Load
R91	5.6 Meg.	1	23X30X565M	BTA-5.6 Meg.	Vert. Deflection Load
R92	3.3 Meg.	1	23X30X335M	BTA-3.3 Meg.	Voltage Divider
R93	3.3 Meg.	1	23X30X335M	BTA-3.3 Meg.	Voltage Divider
R94	3.3 Meg.	1	23X30X335M	BTA-3.3 Meg.	Voltage Divider
R95	3.3 Meg.	1	23X30X335M	BTA-3.3 Meg.	Voltage Divider
R96	4.7 Meg.	1	23X30X475M		Voltage Divider
R97	4.7 Meg.	1	23X30X475M		Voltage Divider
R98	3.9 Meg.	1	23X30X395M		Voltage Divider
R99	3.9 Meg.	1	23X30X395M		Voltage Divider

Note 1. Some models use 750KΩ resistor in this application.

TRANSFORMER

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	HALLICRAFTERS PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	7Ω	450Ω	21Ω	0Ω	51B1150			

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		Hallicrafters PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T2	1900Ω	3.6Ω	225Ω	.7Ω	55B080-3	A-3876	A-2928	RO-2	

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			NOTES
			HALLICRAFTER	VIKING	QUAM	
	FIELD RES.	V. C. IMP.	PART No.	PART No.	PART No.	
SP1	PM	3.6Ω	85B070	57J9	57A1	
SP2	CONE DIA.	V. C. DIA.				
	4-3/4" x 7"	9/16"				

HALLICRAFTERS MODELS
T-54, 505, 506, 514

PARTS LIST AND DESCRIPTIONS (Continued)

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 μ)	Hallicrafters PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L1	.115A	58 Ω	3.7 Henries	56C093	C-2304①	C-2991 ①	TR-4200①	① Drill new mounting holes.

CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 μ)	Hallicrafters PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L2		155 Ω		56A102				
L3		155 Ω		56A102				

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	HALLICRAFTER PART No.	MEISSNER PART No.	
L4	Ant. Input	.1 Ω CT		51A1039		
L5	RF Coil	0 Ω		51A1049		Wound on 1 Meg. resistor.
L6	RF Coil	0 Ω		51A1050		Wound on 3.3K Ω , 1 watt resistor
L7	RF Coil	0 Ω		51A1051		Wound on 2.2K Ω , 1 watt resistor
L8	RF Coil	0 Ω		51A1048		Wound on 3.3K Ω , 1 watt resistor
L9	RF Choke	2.5 Ω		53B008		Red color code
L10	Mixer Coil	0 Ω		51A1041		Wound on 1 Meg. resistor
L11	Mixer Coil	0 Ω		51A1046		Wound on 3.3K Ω , 1 watt resistor
L12	Mixer Coil	0 Ω		51A1047		Wound on 2.2K Ω , 1 watt resistor
L13	Mixer Coil	0 Ω		51A1048		Wound on 3.3K Ω , 1 watt resistor
L14	Osc. Coil	0 Ω		50A1041		Wound on 1 Meg. resistor
L15	Osc. Coil	0 Ω		50A1042		Wound on 1 Meg, 1 watt resistor
L16	Osc. Coil	0 Ω		50A1043		Wound on 1 Meg., 1 watt resistor
L17	Osc. Coil	0 Ω		50A1044		Wound on 1 Meg., 1 watt resistor
L18	Osc. Cath. Choke	2.5 Ω		53B008		Red color code
L19A	Fil. Choke	.1 Ω		53A133		Dual winding
B	Fil. Choke	.1 Ω				
L20	1st Video IF	.1 Ω		50A372-1		
L21	2nd Video IF	.1 Ω		50A372-1		
L22	3rd Video IF	.1 Ω		50A372-1		
L23	4th Video IF	.1 Ω		50A372-1		
L24	Peaking	8 Ω		51A1053		Wound on 33K Ω , 1 watt resistor
L25	Peaking	11 Ω		51A1054		Wound on 1 Meg., 1 watt resistor
L26	Peaking	15 Ω		51A1055		Wound on 68K Ω , 1 watt resistor
L27	Peaking	15 Ω		51A1057		Wound on 1 Meg., 1 watt resistor
L28	Sound IF	5 Ω		51B1037		
L29	Ratio Det.					
	Trans.	5 Ω	1 Ω	50B406		
L30	Sync. Shaping	30 Ω		51B1040		Wound on 470 Ω , 1 watt resistor
L31A	HV Osc. Cath. Choke	40 Ω		53A134		Dual Winding
B	HV Osc. Plate Choke	40 Ω				

SELENIUM RECTIFIER

ITEM No.	RATING	REPLACEMENT DATA			NOTES
	CURRENT	HALLICRAFTER PART No.	SYLVANIA PART No.		
M1	.180A	27B147	NE-5		

MISCELLANEOUS

ITEM No.	PART NAME	HALLICRAFTERS PART No.	NOTES
M2	RF Tuner	49X11203	Includes push-button switch, trimmers and coils
M3	Fuse	39A307	Type 3AG, 2A
M4	Antenna	57B126	Portable (Model 514)
	Cabinet Back	80844	Models 505, 506, 506M
	Knob	15B141	Height, width, Hor. centering, Vert. centering, Focus
	Knob	15B068-4	Model T-54
	Knob	15B068-3	Models 505, 506M, 514 } Vert. Hold, Hor. Hold
	Knob	15B093-1	Model 506 } Volume, Brightness, On-Off Contrast
	Knob	17A041	Models T-54, 506 } Push-Buttons and
	Knob	17A041-1	Models 505, 506M, 514 } Fine Tuning
	Trimmer Assembly	44B365	RF and Mixer (12 sections each)
	Trimmer Assembly	44B364	Oscillator (12 section)
	Trimmer	44A377	Hor. Linearity Adjustment
	Trimmer	48A199	Fine Tuning
	Trimmer	44A359	HV Osc.
	Socket	6B298	Picture Tube