PHOTOFACT* Folder

*TRADE MARK

PILOT
MODEL TV-37

VOLUME CONTROL ON-OFF SWITCH

BRIGHTNESS CONTROL

HI-LO BAND SWITCH

TUNING CONTROL

CONTRAST CONTROL

PILOT
MODEL TV-37

TRADE NAME Pilot, Model TV-37
MANUFACTURER Pilot Radio Corp., 37-06 36th St., Long Island City, New York
TYPE SET Television Receiver
TUBES Twenty-one

POWER SUPPLY 105-125 Volts, 60 Cycle AC
TUNING RANGE—Channels 2 through 13 RATING .45 Amps @ 117 Volts

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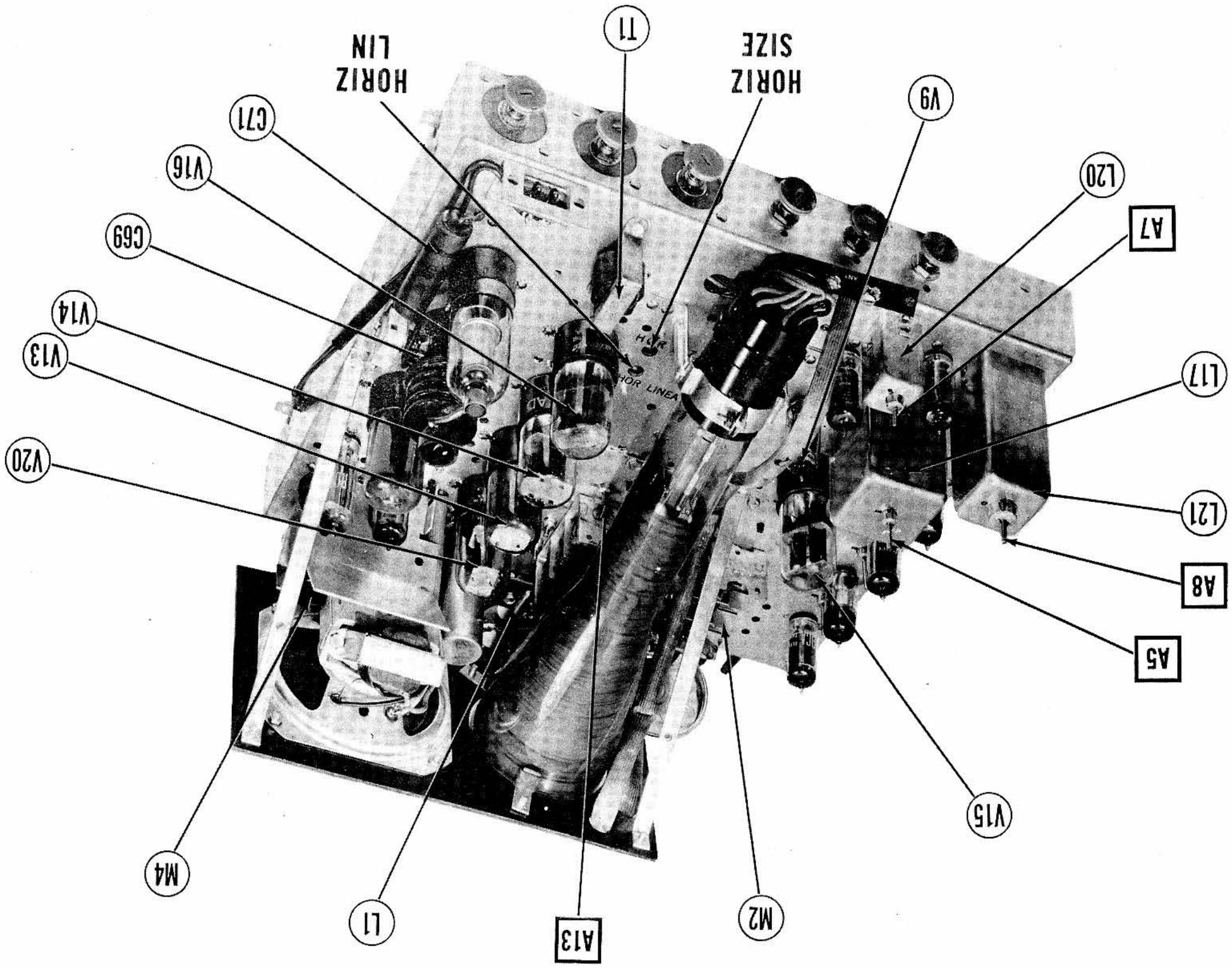
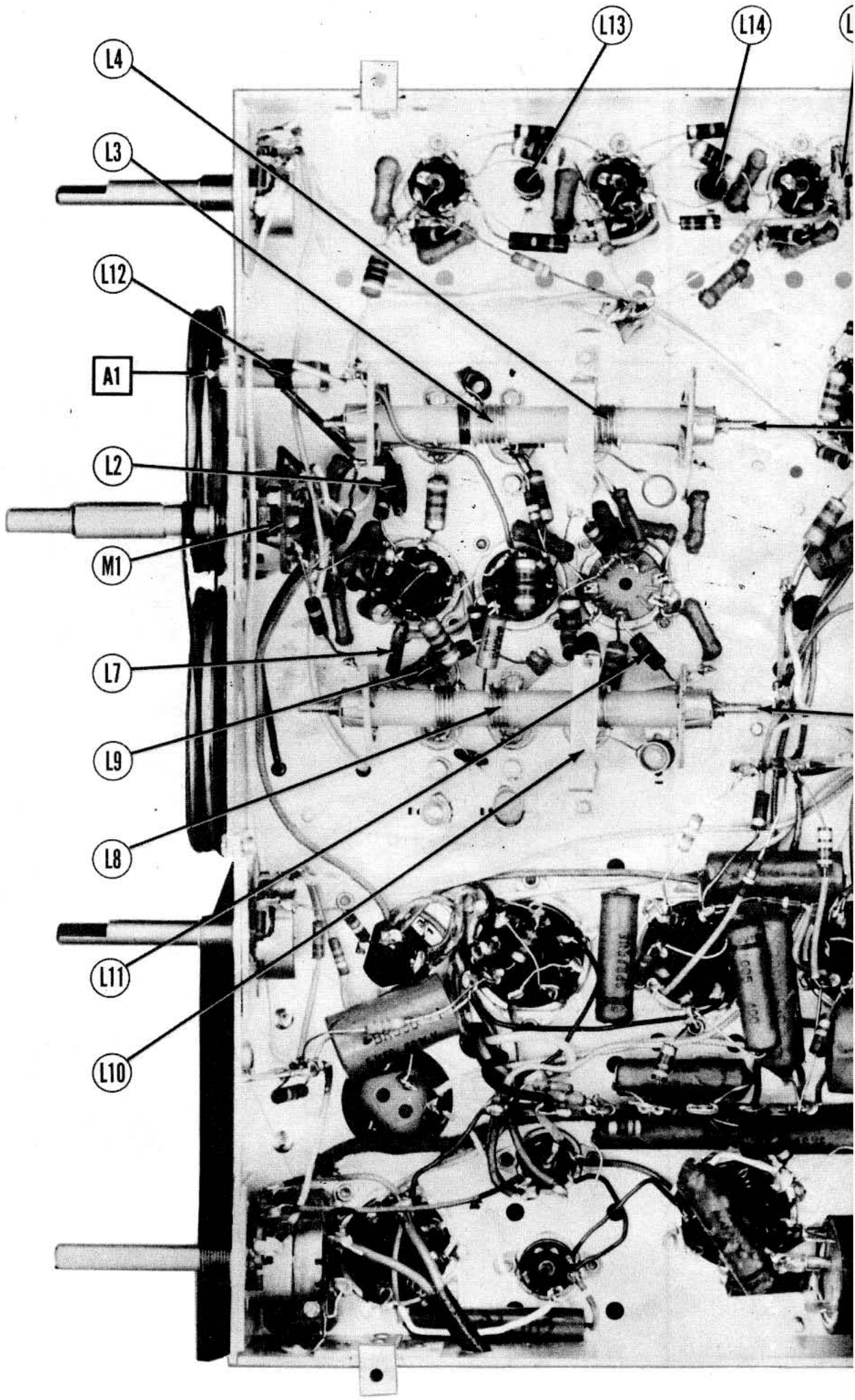
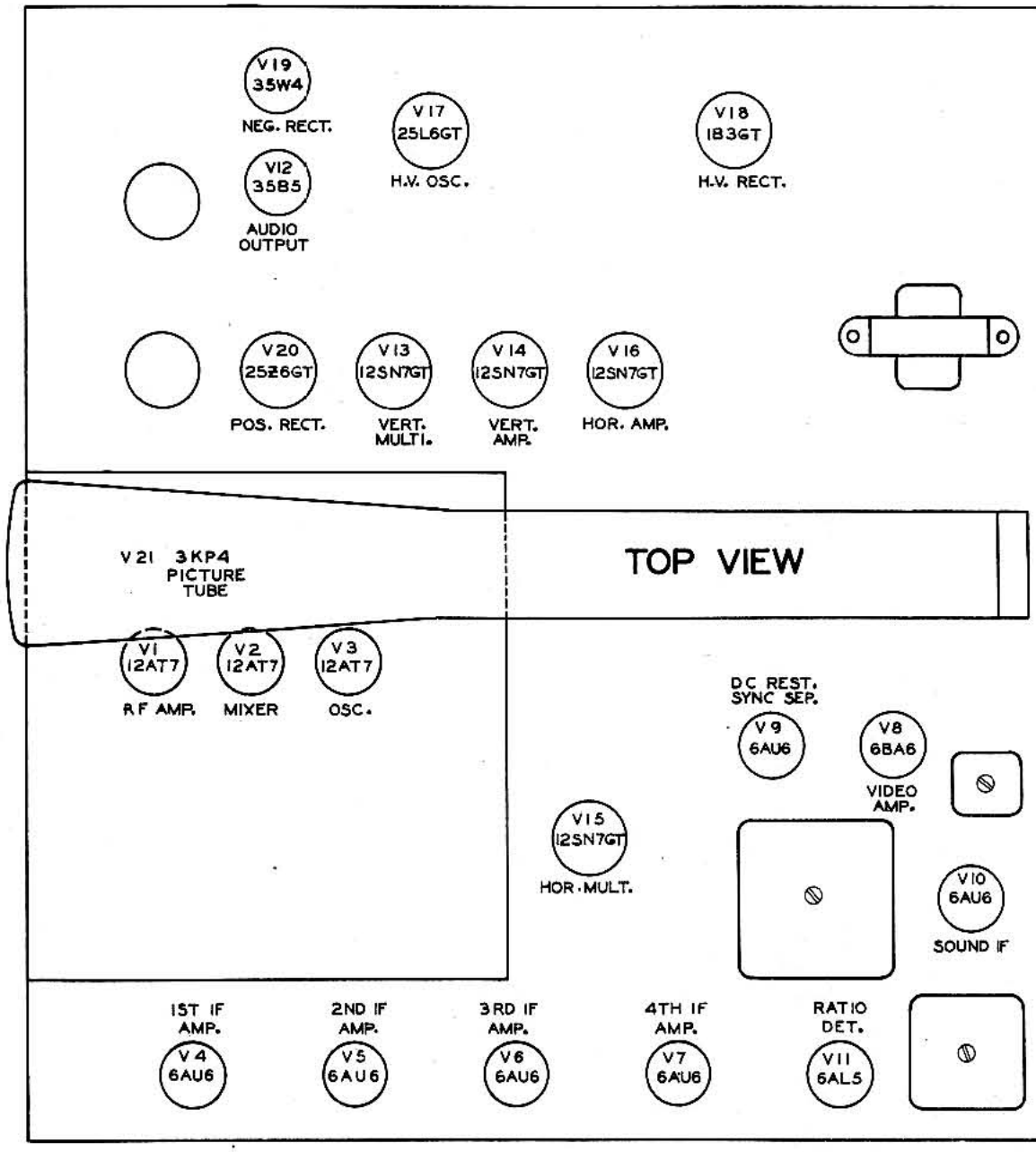
DATE 5/49 4910-16 SET #62 FOLDER 16

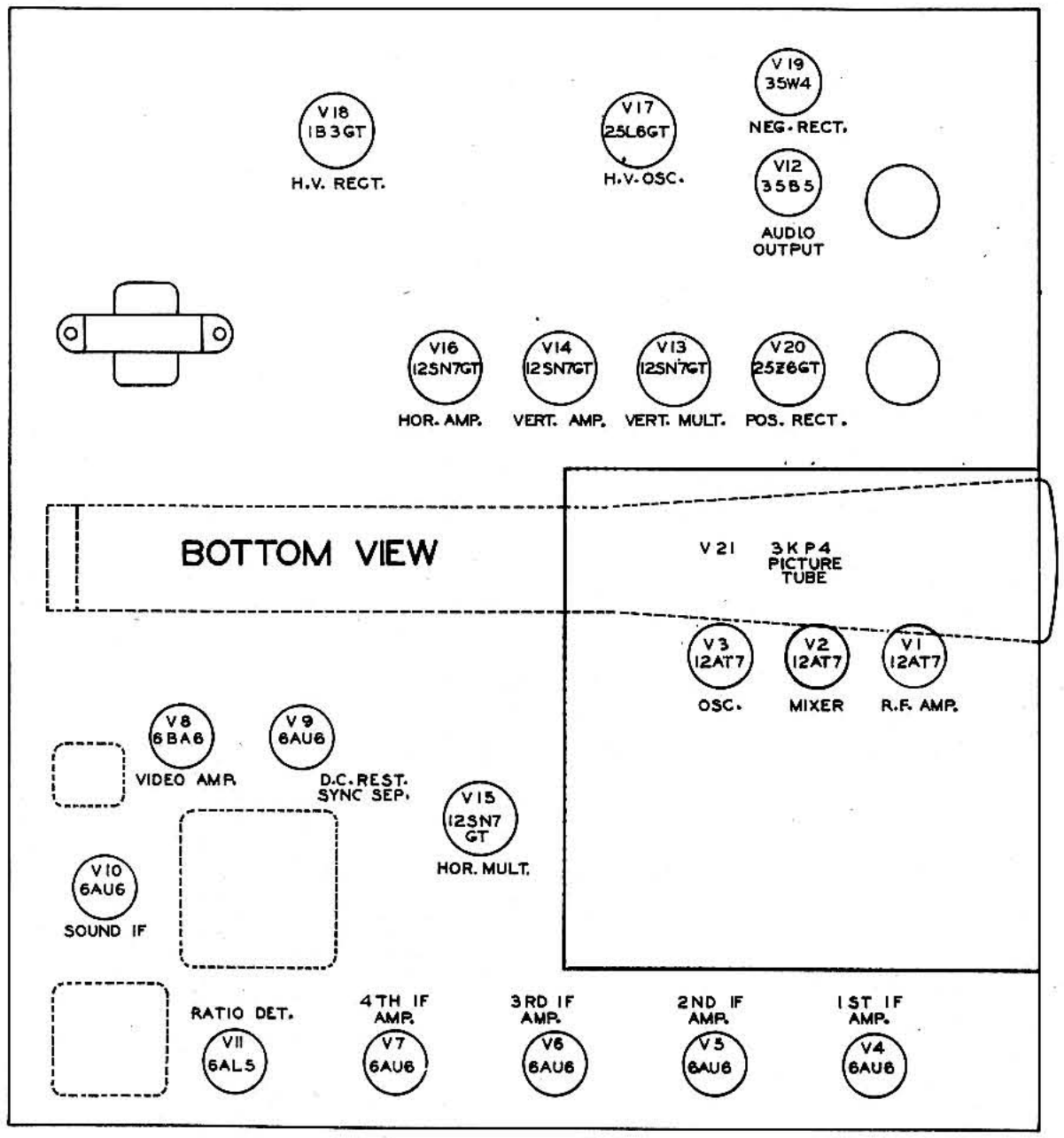
CHASSIS TOP VIEW





CHASSIS BOTTOM VIEW-TRANS., INDUCTOR





TUBE PLACEMENT CHART

PILOT
MODEL TV-37

ALIGNMENT INSTRUCTIONS

VIDEO IF ALIGNMENT

Set contrast control to approximately 3/4 of its rotation toward maximum.
Disable the local oscillator by shorting filament pins 4, 5, and 9 of V3. (Even though this receiver incorporates a series filament string, shorting this filament will not overload the other tubes enough to damage them.)
If the video IF strip is badly misaligned or oscillating, proceed as follows. If only a retouch alignment is required, proceed as outlined in the alignment table. Connect the VTVM to point A and the signal generator to the 4th video IF amplifier grid (Pin 1 of V7). Feed in an unmodulated 21.25MC signal and adjust A6 for minimum. Tune signal generator to 24.8MC and adjust A5 for maximum. Now move the signal generator to the grid of the preceding stage and adjust A4 at 21.6MC for maximum. Continue this procedure of backing up stage by stage and as another circuit is added, align it at its proper frequency. This operation normally removes oscillations due to malalignment. It is recommended after peaking each adjustment, to reduce the signal generator output to zero. The VTVM reading should drop to zero also; if not, this will indicate the stage is oscillating. In some cases of severe oscillation it may be necessary to shunt the grid ahead of the signal generator connection with a 1000MMF capacitor.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.		Couple the signal generator high side to several turns of hook-up wire around the mixer tube. Low side of generator to chassis.	23.5MC	Any	DC Probe to Point (A). Common to chassis.	A1	Adjust for maximum deflection.
2.		"	25.6MC	"	"	A2	" " " "
3.		"	22.0MC	"	"	A3	" " " "
4.		"	21.6MC	"	"	A4	" " " "
5.		"	24.8MC	"	"	A5	" " " "
6.		"	21.25MC	"	"	A6	Adjust for minimum deflection.

OVERALL VIDIO IF RESPONSE CHECK

Connect the syncronized sweep voltage from the signal generator to the horizontal amplifier of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7.		Coupled loop of wire around mixer tube.	25MC (10MC Sweep)	25.75MC 22.0MC 21.25MC	Any	Vert. Amp. to Point (A) Low side to chassis.		Check response pattern and see that markers appear as in Fig. 1. If necessary, slightly retouch A1 thru A5 to properly place markers.

SOUND IF ALIGNMENT

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8.	5000MMF	High side to Point A. Low side to chassis.	4.5MC (Unmod.)	Any	DC Probe to Point (B). Common to chassis.	A7, A8	Adjust for maximum deflection.
9.	5000MMF	"	"	"	DC Probe to Point (C). Common to chassis.	A9	Adjust for zero reading. A positive and negative will be obtained on either side of the correct setting.

OSCILLATOR ALIGNMENT

The RF Amp and mixer circuits are preset at the factory and are very stable and normally will not require alignment in the field.
To align the oscillator circuits connect a .01MFD capacitor from point A to the high side of the volume control. Set the contrast control at 3/4 of its full rotation.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
10.	Direct	Across Antenna Terminals.	80MC (Unmod.)	Low band tuning cap fully closed.		A10	Adjust for zero beat in speaker.
11.	Direct	"	110MC (Unmod.)	Tuning cap fully open.		A11	Adjust for zero beat in speaker.
12.	Direct	"	200MC (Unmod)	High band tuning cap fully closed.		A12	" " " " " "
13.	Direct	"	239MC (Unmod.)	Tuning cap fully open.		A13	" " " " " "

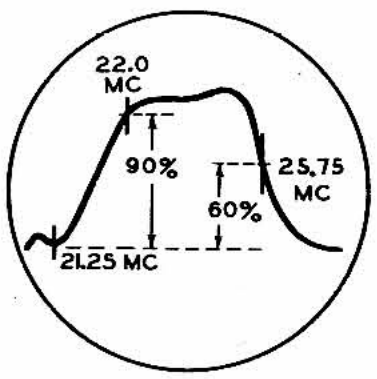
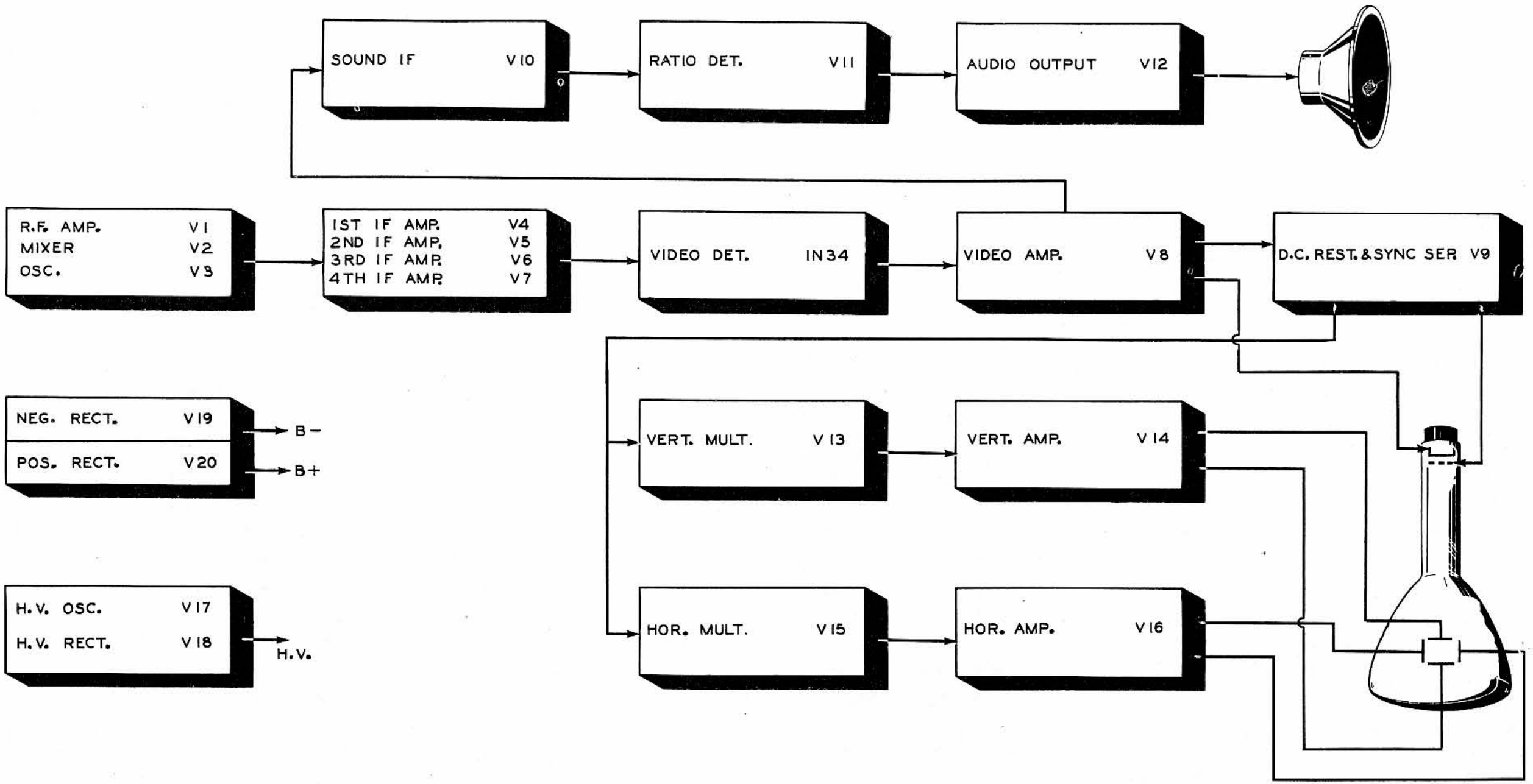


FIG. 1



BLOCK DIAGRAM

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	12AT7	112V.DC	-4.3V.DC	0V	20V.AC	20V.AC	112V.DC	-4.3V.DC	0V	13V.AC
V 2	12AT7	112V.DC	0V	2.6V.DC	13V.AC	13V.AC	112V.DC	-2V.DC	0V	6.5V.AC
V 3	12AT7	105V.DC	§5.8V.DC	0V	6.5V.AC	6.5V.AC	105V.DC	§-2.2V.DC	0V	0V
V 4	6AU6	-4.4V.DC	0V	28V.AC	35V.AC	112V.DC	112V.DC	0V		
V 5	6AU6	-4.1V.DC	0V	35V.AC	42V.AC	112V.DC	112V.DC	0V		
V 6	6AU6	-4.3V.DC	0V	43V.AC	50V.AC	112V.DC	112V.DC	0V		
V 7	6AU6	0V	0V	50V.AC	55V.AC	112V.DC	112V.DC	.8V.DC		
V 8	6BA6	-1V.DC	0V	14V.AC	21V.AC	42V.DC	112V.DC	0V		
V 9	6AU6	†1.8V.DC	†13V.DC	28V.AC	35V.AC	†95V.DC	†125V.DC	†13V.DC		
V 10	6AU6	0V	0V	14V.AC	8V.AC	112V.DC	112V.DC	.7V.DC		
V 11	6AL5	.3V.DC	-3V.DC	0V	7V.AC	0V	0V	0V		
V 12	35B5	-10V.DC	0V	75V.AC	108V.AC	105V.DC	113V.DC	-10V. DC		
V 13	12SN7GT	0V	27V.DC	.8V.DC	-4V.DC	2.5V.DC 20V.DC	.8V.DC	80V.AC	93V.AC	
V 14	12SN7GT	† 5.8V.DC	† 120V.DC	† 16V.DC	† .4V.DC	† 225V.DC	† 16V.DC	70V.AC	80V.AC	
V 15	12SN7GT	† 10V.DC	† 55V.DC	† 11V.DC	†4.8V.DC †9V.DC	† 32V.DC	† 11V.DC	36V.AC	50V.AC	
V 16	12SN7GT	† .5V.DC	† 95V.DC	† 9.2 V.DC	† .5V.DC	† 240V.DC	† 9.2V.DC	55V.AC	70V.AC	
V 17	25L6GT	0V	50V.AC	† 125V.DC	† 125V.DC	-5.3V.DC	0V	75V.AC	0V	
V 18	1B3GT									
V 19	35W4	0V	-.2V.DC	75V.AC	108V.AC	-125V.DC	102V.AC	116V.AC		
V 20	25Z6GT	0V	117V.AC	115V.AC	125V.DC	115V.DC	-1V.DC	90V.AC	125V.DC	

PINS		1	2	3	4	5	6	7	8	9	10	11
V21	3KP4	21VAC	†13VDC	†185VDC	*	*	*	*	*	*	0V	28VAC

† Measured from pin 5 of V19
* Do not measure. Cannot make an accurate measurement, due to high impedence of circuit.
§ Taken with vacuum tube voltmeter

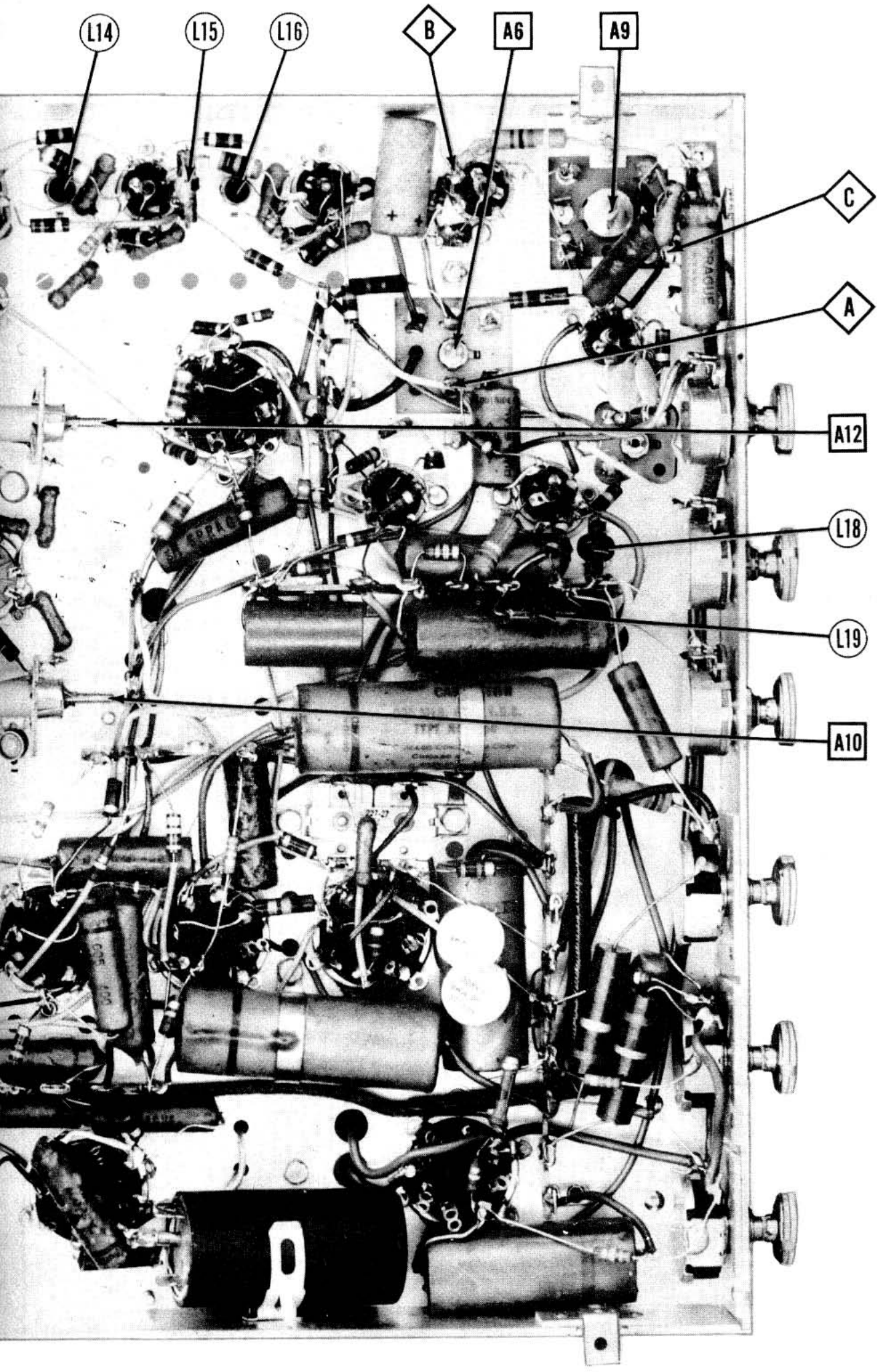
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	12AT7	*220Ω	26KΩ	1Ω	6Ω	6Ω	*200Ω	26KΩ	0Ω	4.5Ω
V 2	12AT7	*220Ω	0Ω	1800Ω	4.5Ω	4.5Ω	*200Ω	100KΩ	0Ω	2.5Ω
V 3	12AT7	*700Ω	4.7KΩ	0Ω	2.5Ω	2.5Ω	*700Ω	10KΩ	0Ω	0Ω
V 4	6AU6	20KΩ	0Ω	8Ω	12Ω	*360Ω	*360Ω	82Ω		
V 5	6AU6	33KΩ	0Ω	15Ω	18Ω	*280Ω	*280Ω	82Ω		
V 6	6AU6	26KΩ	0Ω	20Ω	23Ω	*220Ω	*220Ω	82Ω		
V 7	6AU6	.2Ω	0Ω	26Ω	29Ω	*220Ω	*220Ω	120Ω		
V 8	6BA6	1Meg.	0Ω	6Ω	7Ω	*5.5KΩ	*140Ω	0Ω		
V 9	6AU6	†1Meg.	†22KΩ	8Ω	12Ω	220KΩ	0Ω	†22KΩ		
V 10	6AU6	1.2Ω	0Ω	6Ω	4.8Ω	* 280Ω	* 280Ω	82Ω		
V 11	6AL5	22KΩ	22KΩ	0Ω	2.8Ω	Inf.	0Ω	Inf.		
V 12	35B5	2.8KΩ	.5Ω	33Ω	40Ω	*500Ω	*140Ω	2.8KΩ		
V 13	12SN7GT	9KΩ	*100KΩ	1000Ω	820KΩ 420KΩ	*3Meg. *850KΩ	1000Ω	36Ω	40Ω	
V 14	12SN7GT	†120KΩ	*470KΩ	†10KΩ	†4.7Meg	‡8.2Meg.	†10KΩ	33Ω	36Ω	
V 15	12SN7GT	†4.7KΩ	47KΩ	†1400Ω	†350KΩ †100KΩ	1Meg.	†1400Ω	15Ω	20Ω	
V 16	12SN7GT	†3.5Meg.	*82KΩ	†470Ω	†3.5Meg	*470Ω	†470Ω	30Ω	35Ω	
V 17	25L6GT	Inf.	22Ω	.2Ω	0Ω	†75KΩ	Inf.	32Ω	†0Ω	
V 18	1B3GT	Inf.	Inf.	Inf.	‡200KΩ	Inf.	Inf.	Inf.	Inf.	TOP CAP 300Ω
V 19	35W4	Inf.	Inf.	33Ω	40Ω	33KΩ	40Ω	54Ω		
V 20	25Z6GT	0Ω	42Ω	54Ω	120KΩ	54Ω	300Ω	40Ω	120KΩ	

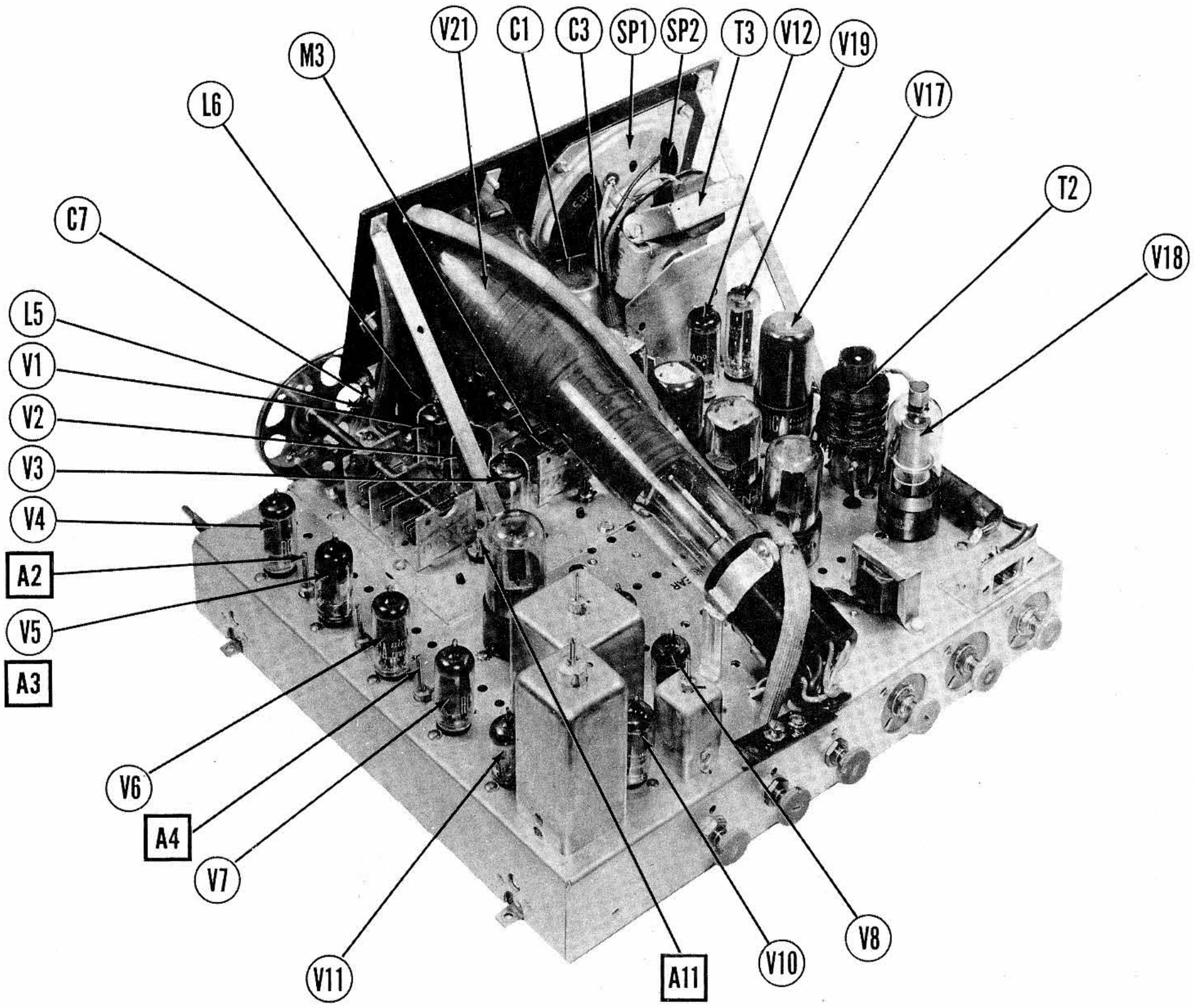
PINS		1	2	3	4	5	6	7	8	9	10	11
V21	3KP4	7Ω	†22KΩ	*250KΩ	‡4 Meg.	‡5.5 Meg.	‡4.4 Meg.	‡200KΩ	‡5.5Meg.	‡4.4 Meg.	Inf.	8Ω

* Measured from pin 8 of V20
‡ Measured from pin 2 of V18, with a VTVM
† Measured from pin 5 of V19

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.

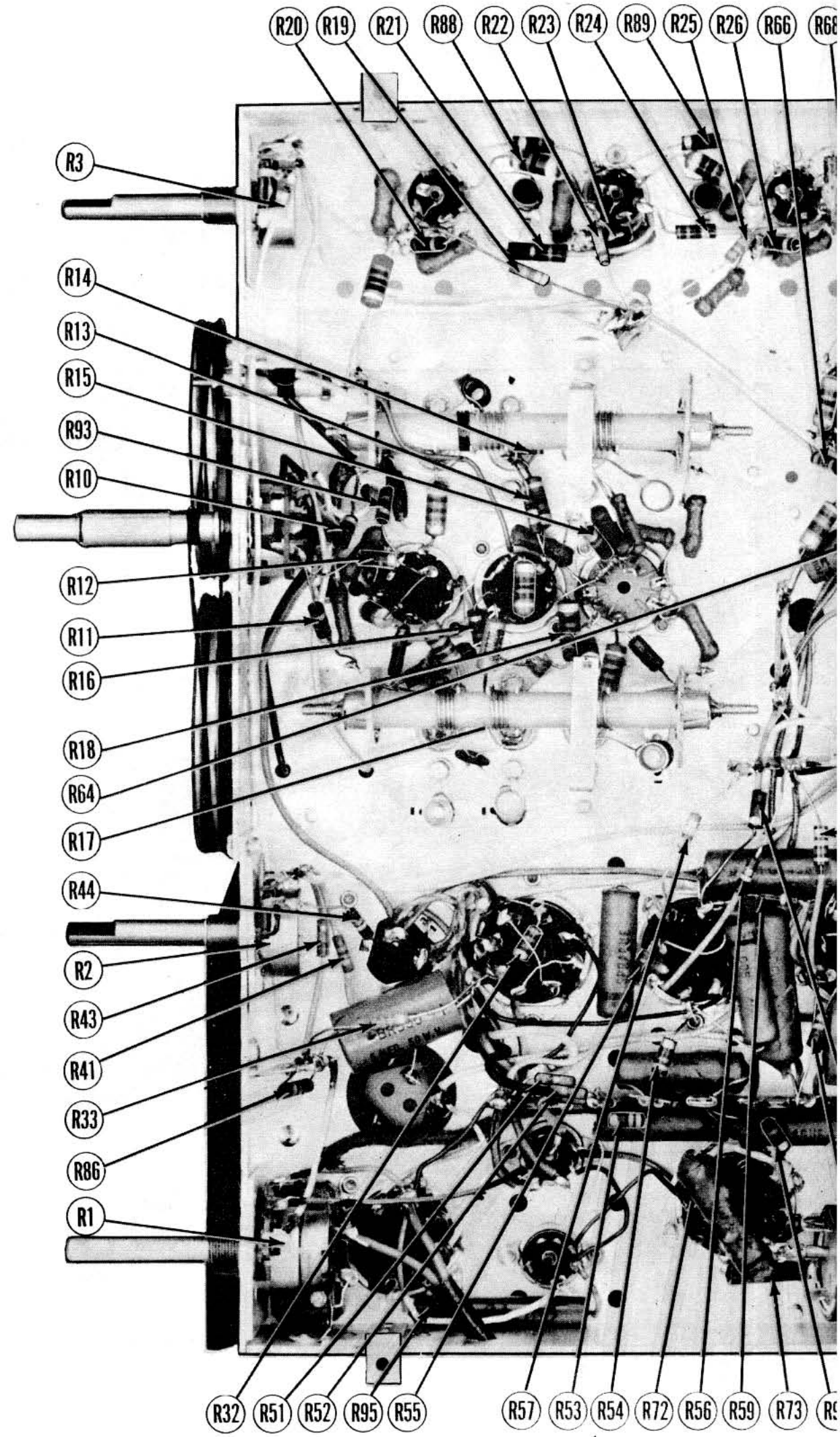


S., INDUCTOR AND ALIGNMENT IDENTIFICATION

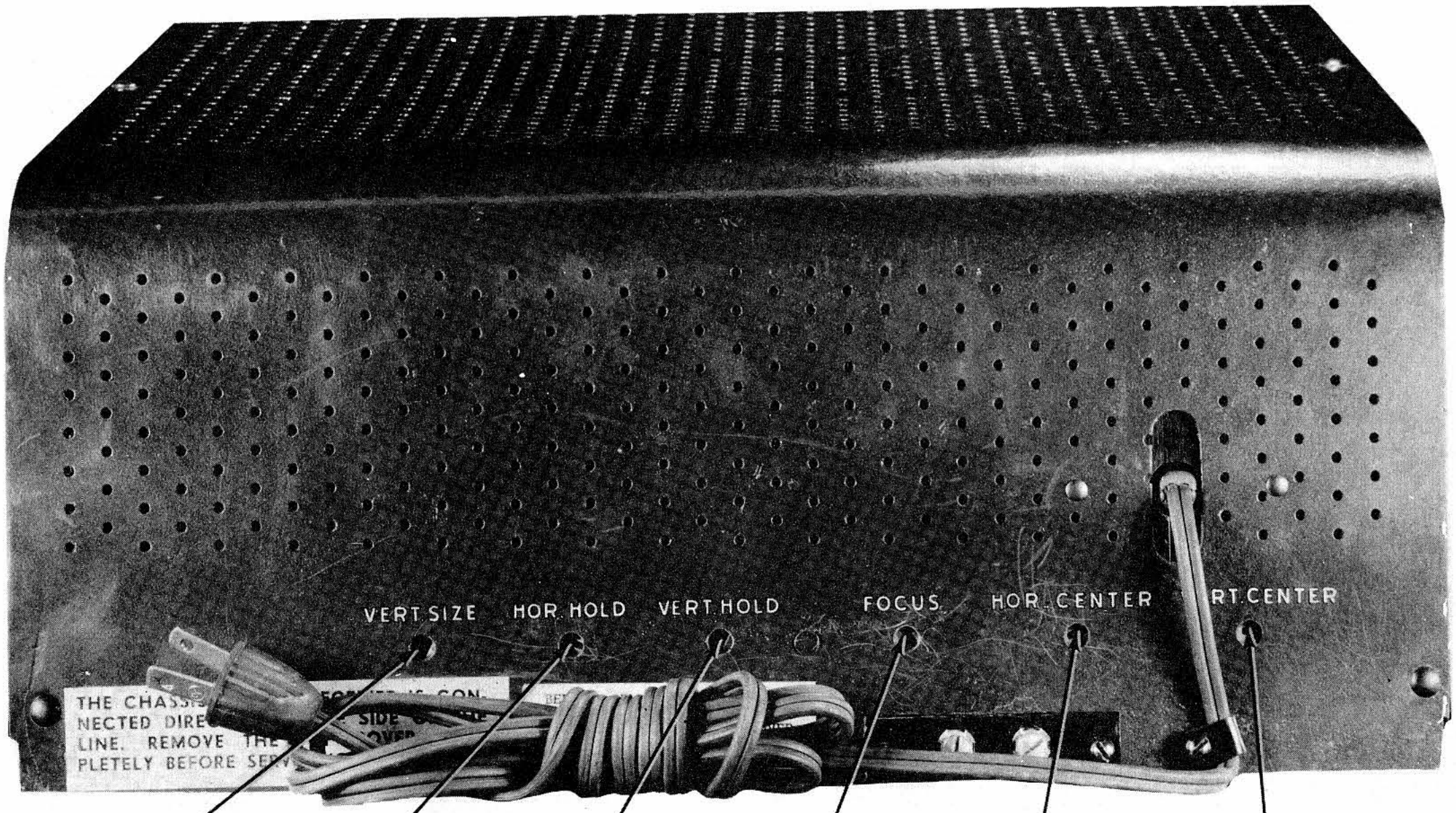


CHASSIS TOP VIEW

VIEW-CAPACITOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RES



CABINET-REAR VIEW

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA: PILOT PART No.	REPLACEMENT DATA: STANDARD REPLACEMENT	RMA BASE TYPE	NOTES
V1	RF Amp.	12AT7	12AT7	9A	
V2	Mixer	12AT7	12AT7	9A	
V3	Oscillator	12AT7	12AT7	9A	
V4	1st IF	6AU6	6AU6	7BK	
V5	2nd IF	6AU6	6AU6	7BK	
V6	3rd IF	6AU6	6AU6	7BK	
V7	4th IF	6AU6	6AU6	7BK	
V8	Video Amp.	6BA6	6BA6	7BK	
V9	DC Rest.-Sync. Sep.	6AU6	6AU6	7BK	
V10	Sound IF	6AU6	6AU6	7BK	
V11	Ratio Det.	6AL5	6AL5	6BT	
V12	Audio Output	35B5	35B5	7BZ	
V13	Vert. Mult.	12SN7GT	12SN7GT	8BD	
V14	Vert. Amp.	12SN7GT	12SN7GT	8BD	
V15	Hor. Mult.	12SN7GT	12SN7GT	8BD	
V16	Hor. Amp.	12SN7GT	12SN7GT	8BD	
V17	HV Oscillator	25L6GT	25L6GT	7AC	
V18	HV Rect.	1B3GT	1B3GT	3C	
V19	Neg. Rect.	35W4	35W4	5BQ	
V20	Pos. Rect.	25Z6GT	25Z6GT	7Q	
V21	Picture Tube	3KP4	3KP4	11M	

CAPACITORS

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

ITEM No.	RATING: CAP.	RATING: VOLT	REPLACEMENT DATA: PILOT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C1A	40	150	24-86		UP4415†				▲ Filter
B	100	150							■ "
C2	80	150	24-84		UP8015			TVL-1	"
C3	40	150	24-85	AF44F	UP4015				"
C4	2	50	24-82	PRS150/4	BR550			TVA-12	Stabilizing Cap.
C5	5	50	24-87	PRS150/4	BR550			TVA-13	Sync. Amp. Cath. Bypass
C6	5	50	24-88	PRS150/4	BR550			TVA-13	Bias Filter
C7	7.5								Fixed Trimmer
C8	.0015					GP2L-0015			RF Plate Decoupling
C9	.0015					GP2L-0015			" " "
C10	500			1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	RF Grid Filter
C11	250			1468-00025	5W5T25	GP2K-250	MO.5-325	1FM-325	RF Coupling
C12	500			1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	" "
C13	.0015					GP2L-0015			RF Fil. Bypass
C14	.0015					GP2L-0015			Mixer Fil. Bypass
C15	500			1468-0005	5W5T5		MO.5-35	1FM-35	RF Coupling
C16	7.5								" "
C17	100					N750L-100			Fixed Padder
C18	.0015					GP2L-0015			Osc. Plate Decoupling
C19	100			1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	Osc. Grid Cap.
C20	5					NP0K-5			Fixed Trimmer
C21	500			1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	Osc. Feedback
C22	20				5W5Q2	NP0K-20	MOS.5-42	MS-42	Osc. Grid Cap.
C23	.0015					GP2L-0015			Osc. Plate Decoupling
C24	100			1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	IF Coupling
C25	50			1468-00005	5W5Q5	GP1K-50	MO.5-45	1FM-45	" "
C26	.0015					GP2L-0015			Osc. Fil. Bypass
C27	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	1st IF Decoupling
C28	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	1st IF Fil. Bypass
C29	50			1468-00005	5W5Q5	GP1K-50	MO.5-45	1FM-45	IF Coupling
C30	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	2nd IF Decoupling
C31	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	2nd IF Fil. Bypass
C32	50			1468-00005	5W5Q5	GP1K-50	MO.5-45	1FM-45	IF Coupling
C33	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	Bias Filter
C34	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	3rd IF Decoupling
C35	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	3rd IF Fil. Bypass
C36	50			1468-00005	5W5Q5	GP1K-50	MO.5-45	1FM-45	IF Coupling
C37	.005			1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	4th IF Cath. Bypass
C38	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	Decoupling
C39	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	4th IF Fil. Bypass
C40	.05	200		P288-05	GT2S5		ST-4-05	TM-15	Video Coupling
C41	.25	400		P488-25	GT4P25		ST-4-25	TC-2	" "
C42	.1	400		P488-1	GT4P1		ST-4-1	TM-1	" "
C43	1.5								S. IF Coupling
C44	.005			1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	S. IF Cath. Bypass
C45	.005			1467-005	1D5D5	GP2M-005	MW.5-25	1FM-25	S. IF Screen Bypass
C46	.001			1468-001	1W5D1	GP2L-001	MW.5-21	1FM-21	Diode Load Cap.
C47	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	De-emphasis
C48	.01	400		P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling
C49	.01	400		P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Output Plate Bypass
C50	.01	400		P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	S. IF Fil. Bypass
C51	.05	400		P488-05	GT4S5		ST-4-05	TM-15	Sync. Coupling
C52	.005	400		P688-005	GT6D5	GP2M-005	ST-4-005	TM-25	Integrator Net.
C53	.005	400		P688-005	GT6D5	GP2M-005	ST-4-005	TM-25	" "
C54	.01	400		P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Vert. Mult. Feedback
C55	.05	400		P488-05	GT4S5		ST-4-05	TM-15	Vert. Discharge
C56	.05	400		P488-05	GT4S5		ST-4-05	TM-15	Vert. Coupling
C57	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	Vert. Feedback *
C58	.0015			1467-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	" " *
C59	.02	600		P688-02	GT6S2		ST-6-02	TM-12	Vert. Coupling
C60	.005	6000		7584-005	DSTH-60D5		STM-60-005	TVM-256	" "
C61	.005	6000		7584-005	DSTH-60D5		STM-60-005	TVM-256	" "
C62	180								Sync. Coupling
C63	100			1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	Hor. Mult. Feedback

CONTROLS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: PILOT PART No.	IRC PART No.	CLAROSTAT PART No.	
R1A	500KΩ	½	36-32	D11-133	M-58-S	Volume co
B	Shaft		Not Req.	A	Not Req.	Attach to
C	Switch		Not Req.	41	SW-A	" "
R2A	250KΩ	½	39-6	D11-130	M-55-S	Brightnes
B	Shaft		Not Req.	A	Not Req.	Attach to
R3A	25KΩ	½	39-4	D11-120	M-40-S	Contrast
B	Shaft		Not Req.	A	Not Req.	Attach to
R4A	5 Meg.	½	39-5	D11-141		Vert. Siz
B	Shaft		Not Req.	E #		Attach to
R5A	250KΩ	½	39-1	D11-130	AM-55-S	Horiz. Ho
B	Shaft		Not Req.	E #	KSS-3#	Attach to
R6A	500KΩ	½	39-3	D11-133	AM-58-S	Vert. Hol
B	Shaft		Not Req.	E #	KSS-3#	Attach to
R7A	2 Meg.	½	39-2		AM-83-S	Focus con
B	Shaft		Not Req.		KSS-3#	Attach to
R8A	2 Meg.	½	39-2		AM-83-S	Horiz. ce
B	Shaft		Not Req.		KSS-3#	Attach to
R9A	2 Meg.	½	39-2		AM-83-S	Vert. cen
B	Shaft		Not Req.		KSS-3#	Attach to

Use original insulating knob.

RESISTORS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: PILOT PART No.	IRC PART No.	ALL RESISTORS
R10	68Ω	½			Blue-Gray-Blk
R11	68Ω	½			Blue-Gray-Blk
R12	10KΩ	½			Br.-Blk.-Or.
R13	100KΩ	½		BTS-100K	Br.-Blk.-Yl.
R14	470Ω	½		BTS-470	Yl.-Vi.-Br.
R15	10KΩ	½			Br.-Blk.-Or.
R16	1800Ω	½		BTS-1800	Br.-Gray-Red
R17	470Ω	½		BTS-470	Yl.-Vi.-Br.
R18	4700Ω	½			Yl.-Vi.-Red
R19	3300Ω	½		BTS-3300	Or.-Or.-Red
R20	82Ω	½			Gray-Red-Blk.
R21	68Ω	½			Blue-Gray-Blk
R22	18KΩ	½		BTS-18K	Br.-Gray-Or.
R23	82Ω	½			Gray-Red-Blk.
R24	68Ω	½			Blue-Gray-Blk
R25	12KΩ	½		BTS-12K	Br.-Red-Or.
R26	82Ω	½			Gray-Red-Blk.
R27	68Ω	½			Blue-Gray-Blk
R28	18KΩ	½		BTS-18K	Br.-Gray-Or.
R29	120Ω	½			Br.-Red-Br.
R30	68Ω	½			Blue-Gray-Blk
R31	1 Meg.	½		BTS-1 Meg.	Br.-Blk.-Grn.
R32	330Ω	½		BTA-330	Or.-Or.-Br.
R33	2700Ω	½		BTS-2700	Red-Vi.-Red
R34	33KΩ	½			Or.-Or.-Or.
R35	5600Ω	½		BTA-5600	Grn.-Blue-Red
R36	1 Meg.	½		BTS-1 Meg.	Br.-Blk.-Grn.
R37	270Ω	½			Red-Vi.-Br.
R38	22KΩ	½		BTS-22K	Red-Red-Or.
R39	180KΩ	½		BTS-180K	Br.-Gray-Yl.
R40	220KΩ	½		BTS-220K	Red-Red-Yl.
R41	18KΩ	½		BTS-18K	Br.-Gray-Or.
R42	180KΩ	½		BTS-180K	Br.-Gray-Yl.
R43	12KΩ	½		BTS-12K	Br.-Red-Or.
R44	100KΩ	½		BTS-100K	Br.-Blk.-Yl.
R45	82Ω	½			Gray-Red-Blk.
R46	68Ω	½			Blue-Gray-Blk
R47	270Ω	½			Red-Vi.-Br.
R48	22KΩ	½		BTS-22K-5%	Red-Red-Or.
R49	22KΩ	½		BTS-22K-5%	Red-Red-Or.
R50	15KΩ	½		BTS-15K	Br.-Grn.-Or.

LIST AND DESCRIPTIONS

REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
VOX No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	
-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	Hor. Coupling " " " "
-0015	1W5D15	GP2L-0015	MW.5-215	1FM-215	Hor. Amp. Fil. Bypass
-02	GT4S2		ST-4-02	TM-12	RF Bypass
-002	1R5D2		MWS.5-22	MB-22	Fixed Trimmer
-01	GT4S1	GP2-335-01	ST-4-01	TM-11	HV Osc. Fil. Bypass
-001	DSTH-40D1		STM-60-001	TVM-216	HV Filter
-005	DSTH-30D5		STM-30-005	TVM-256	HV Filter
-005	DSTH-30D5		STM-30-005	TVM-256	" "
-05	GT4S5		ST-4-05	TM-15	Hor. Cent. Cont. Byp.
-002	GT16D2		STM-16-002	MB-22	Focus Cont. Bypass
-1	GT4P1		ST-4-1	TM-1	Line Filter

in desired capacity.

CONTROLS

EMENT DATA		
IRC ART No.	CLAROSTAT PART No.	INSTALLATION NOTES
-133	M-58-S	Volume control
	Not Req.	Attach to R1A Per Instructions
	SW-A	" " " "
-130	M-55-S	Brightness control
	Not Req.	Attach to R2A Per Instructions
-120	M-40-S	Contrast control
	Not Req.	Attach to R3A Per Instructions
-141		Vert. Size control
		Attach to R4A Per Instructions
-130	AM-55-S	Horiz. Hold control
	KSS-3#	Attach to R5A Per Instructions
-133	AM-58-S	Vert. Hold control
	KSS-3#	Attach to R6A Per Instructions
	AM-83-S	Focus control
	KSS-3#	Attach to R7A Per Instructions
	AM-83-S	Horiz. centering control
	KSS-3#	Attach to R8A Per Instructions
	AM-83-S	Vert. centering control
	KSS-3#	Attach to R9A Per Instructions

ob.

RESISTORS

MENT DATA		
IRC PART No.	IDENTIFICATION CODES ALL RESISTORS ARE ± 10% UNLESS OTHERWISE STATED.	
	Blue-Gray-Blk. Decoupling	
	Blue-Gray-Blk. "	
	Br.-Blk.-Or. Bias Network	
BTS-100K	Br.-Blk.-Yl. Mixer Grid	
BTS-470	Yl.-Vi.-Br. Osc. Decoupling	
	Br.-Blk.-Or. Osc. Grid	
BTS-1800	Br.-Gray-Red Mixer Cathode	
BTS-470	Yl.-Vi.-Br. Osc. Decoupling	
	Yl.-Vi.-Red Osc. Grid	
BTS-3300	Or.-Or.-Red 1st IF Grid	
	Gray-Red-Blk. 1st IF Cathode	
	Blue-Gray-Blk. 1st IF Decoupling	5%
BTS-18K	Br.-Gray-Or. 2nd IF Grid	
	Gray-Red-Blk. 2nd IF Cathode	
	Blue-Gray-Blk. 2nd IF Decoupling	
BTS-12K	Br.-Red-Or. 3rd IF Grid	
	Gray-Red-Blk. 3rd IF Cathode	
	Blue-Gray-Blk. 3rd IF Decoupling	
BTS-18K	Br.-Gray-Or. 4th IF Grid	
	Br.-Red-Br. 4th IF Cathode	
	Blue-Gray-Blk. 4th IF Decoupling	5%
BTS-1 Meg.	Br.-Blk.-Grn. Video Amp. Grid	
BTA-330	Or.-Or.-Br. Voltage Divider	
BTS-2700	Red-Vi.-Red " "	
	Or.-Or.-Or. Peaking Coil Shunt	
BTA-5600	Grn.-Blue-Red Video Amp. Plate	
BTS-1 Meg.	Br.-Blk.-Grn. Sync. Sep. Grid	
	Red-Vi.-Br. DC Restorer Cathode	
BTS-22K	Red-Red-Or. " " "	
BTS-180K	Br.-Gray-Yl. Phase Correction	
BTS-220K	Red-Red-Yl. Sync. Sep. Plate	
BTS-18K	Br.-Gray-Or. Voltage Divider	
BTS-180K	Br.-Gray-Yl. Picture Tube Cathode	
BTS-12K	Br.-Red-Or. Voltage Divider	
BTS-100K	Br.-Blk.-Yl. " "	
	Gray-Red-Blk. Sound IF Cathode	See Note 1
	Blue-Gray-Blk. Sound IF Decoupling	5%
	Red-Vi.-Br. Balancing	
BTS-22K-5%	Red-Red-Or. Ratio Det. Diode Load	5%
BTS-22K-5%	Red-Red-Or. Ratio Det. Diode Load	5%
BTS-15K	Br.-Grn.-Or. De-emphasis	

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES	
	RESISTANCE	WATTS	PILOT PART No.	IRC PART No.		
R51	680Ω	½		BTS-680-5%	Blue-Gray-Br.	Voltage Divider 5%
R52	680Ω	½		BTS-680-5%	Blue-Gray-Br.	" " 5%
R53	4700Ω	½		BTS-4700	Yl.-Vi.-Red	Integrator
R54	4700Ω	½		BTS-4700	Yl.-Vi.-Red	"
R55	1000Ω	½		BTS-1000	Br.-Blk.-Red	Vert. Multi. Cathode
R56	100KΩ	½		BTS-100K	Br.-Blk.-Yl.	Vert. Multi. Plate
R57	470KΩ	½		BTS-470K	Yl.-Vi.-Yl.	Vert. Multi. Grid
R58	1 Meg.	½		BTS-1 Meg.	Br.-Blk.-Grn.	Vert. Multi. Plate
R59A	1.2 Meg.	½		BTS-1.2 Meg.	Br.-Red-Grn.	Feedback Network See Note 2
B	5.6 Meg.	½		BTS-5.6 Meg.	Grn.-Blue-Grn.	" " See Note 3
R60	2.2 Meg.	½		BTS-2.2 Meg.	Red-Red-Grn.	Voltage Divider
R61	120KΩ	½		BTS-120K	Br.-Red-Yl.	Vert. Amp. Grid
R62	10KΩ	½		BTS-10K	Br.-Blk.-Or.	Vert. Amp. Cathode
R63	470KΩ	½		BTS-470K	Yl.-Vi.-Yl.	Vert. Amp. Plate
R64	4700Ω	½		BTS-4700	Yl.-Vi.-Red	Horiz. Multi. Grid
R65	1000Ω	½		BTS-1000	Br.-Blk.-Red	Horiz. Multi. Cathode
R66	47KΩ	½		BTS-47K	Yl.-Vi.-Or.	Horiz. Multi. Plate
R67	100KΩ	½		BTS-100K	Br.-Blk.-Yl.	Horiz. Multi. Grid
R68	1 Meg.	½		BTS-1 Meg.	Br.-Blk.-Grn.	Horiz. Multi. Plate
R69	3.9 Meg.	½		BTS-3.9 Meg.	Or.-White-Grn.	Horiz. Amp. Grid
R70	82KΩ	½		BTS-82K	Gray-Red-Or.	Horiz. Amp. Plate
R71	3.9 Meg.	½		BTS-3.9 Meg.	Or.-White-Grn.	Horiz. Amp. Grid
R72	82KΩ	½		BTS-82K	Gray-Red-Or.	HV Osc. Grid
R73	39KΩ	½		BTS-39K	Or.-White-Or.	HV Osc. Feedback
R74	220KΩ	½		BTS-220K	Red-Red-Yl.	Voltage Divider
R75	220KΩ	½		BTS-220K	Red-Red-Yl.	" "
R76	2.7 Meg.	2			Red-Vi.-Grn.	" "
R77	2.7 Meg.	2			Red-Vi.-Grn.	" "
R78	1 Meg.	1		BTA-1 Meg.	Br.-Blk.-Grn.	" "
R79	2.2 Meg.	½		BTS-2.2 Meg.	Red-Red-Grn.	" "
R80	2.2 Meg.	½		BTS-2.2 Meg.	Red-Red-Grn.	" "
R81	3.9 Meg.	½		BTS-3.9 Meg.	Or.-White-Grn.	Vert. Deflection Load
R82	4.7 Meg.	½		BTS-4.7 Meg.	Yl.-Vi.-Grn.	" " "
R83	3.9 Meg.	½		BTS-3.9 Meg.	Or.-White-Grn.	Horiz. Deflection Load
R84	4.7 Meg.	½		BTS-4.7 Meg.	Yl.-Vi.-Grn.	" " "
R85	10Ω	½			Br.-Blk.-Blk.	Surge Limiter See Note 4
R86	33KΩ	½		BTS-33K	Or.-Or.-Or.	Voltage Divider
R87	3Ω	½			Blk.-Or.-Blk.	Filament Dropping
R88	3Ω	½			Blk.-Or.-Blk.	" "
R89	3Ω	½			Blk.-Or.-Blk.	Filament Dropping
R90	3Ω	½			Blk.-Or.-Blk.	" "
R91	3Ω	½			Blk.-Or.-Blk.	" "
R92	3Ω	½			Blk.-Or.-Blk.	" "
R93	3Ω	½			Blk.-Or.-Blk.	" "
R94	3Ω	½			Blk.-Or.-Blk.	" "
R95	33Ω	4		AB-35		" "
R96	4.7 Meg	½		BTS-4.7 Meg.	Yl.-Vi.-Grn.	Vert. Output Grid

Note 1. Some models use 120Ω resistor in this application.
Note 2. Used in early production.
Note 3. Used in later production.
Note 4. Not used in all models.

COILS (RF-IF)

ITEM No.	USE	DC RES. PRI.	DC RES. SEC.	REPLACEMENT DATA PILOT PART No.	REPLACEMENT DATA MEISSNER PART No.	NOTES
L1	Ant. Coil Low Band	0Ω	0Ω			
L2	RF Choke	1Ω		75-33		
L3	RF Plate Coil Low Band	0Ω	0Ω			
L4	Osc. Coil Low Band	0Ω	0Ω			
L5	Ant. Coil High Band	0Ω	0Ω			
L6	RF Choke	1Ω		75-33		
L7	RF Choke	1Ω		75-33		
L8	RF Plate Coil High Band	0Ω	0Ω			
L9	RF Choke	1.5Ω		75-22		
L10	Osc. Coil High Band	0Ω	0Ω			
L11	RF Choke	2Ω		75-28		
L12	1st Video IF	.2Ω		273-127		
L13	2nd Video IF	.2Ω		273-127		
L14	3rd Video IF	.2Ω		273-126		
L15	RF Choke	1.5Ω		75-22		
L16	4th Video IF	.2Ω		273-126		
L17	Video Det. Coil Assy.			279-37		
L18	Peaking	6Ω		75-24		Inductance-240 Microhenries
L19	Peaking	8Ω		75-23		Inductance-390 Microhenries
L20	Sound IF	5Ω		279-40		
L21	Ratio Det.	9Ω	1Ω	279-39		

PILOT MODEL TV-37

PARTS LIST AND DESCRIPTIONS (Continued)

SPEAKER

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	PILOT PART No.	JENSEN PART No.	QUAM PART No.	
SP1	150Ω	3.1Ω			*	* Supplied on request. Give field resistance and direct current.
	CONE DIA.	V. C. DIA.				
SP2	3 7/8"	9/16"				

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		PILOT PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.					
T1	330Ω						Hor. Amp. Plate Choke

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	PILOT PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.
T2	.22Ω	280Ω	0Ω					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		PILOT PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.	PRI.	SEC.					
T3	4600Ω	3.1Ω	360Ω	.5Ω		A-3877	RO-8	A-2930	

MISCELLANEOUS

ITEM No.	PART NAME	PILOT PART No.	NOTES
M1	Band Switch	100-66	
M2	Tuning Gang		
M3	Tuning Gang		
M4	Ballast Tube		

WIDTH AND HORIZONTAL LINEARITY ADJUSTMENTS

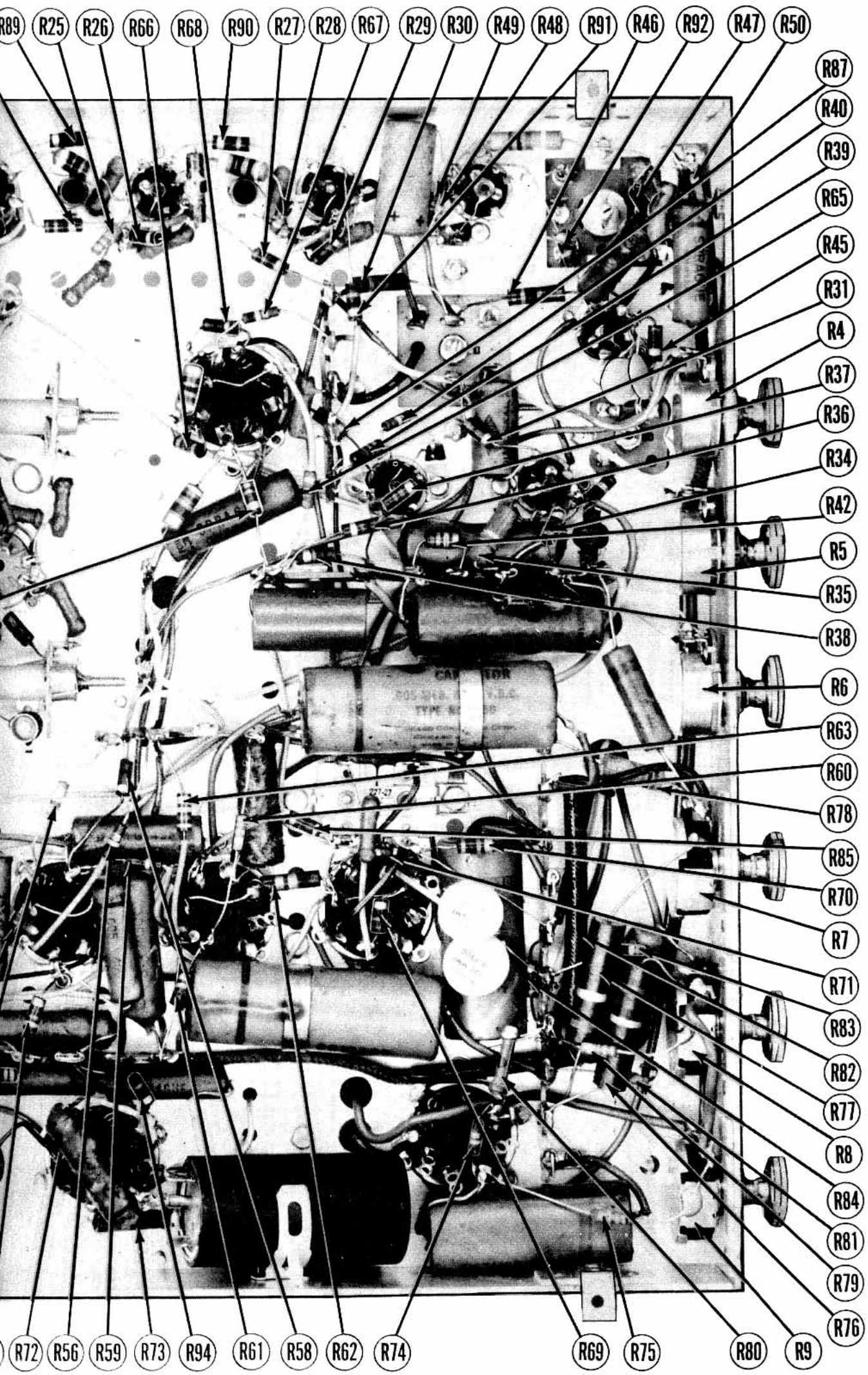
Turn horizontal linearity trimmer B1 counter-clockwise as far as possible without crowding left side of the picture. Then adjust B2 (width control) until picture just fills the mask horizontally.

HEIGHT AND VERTICAL LINEARITY ADJUSTMENTS

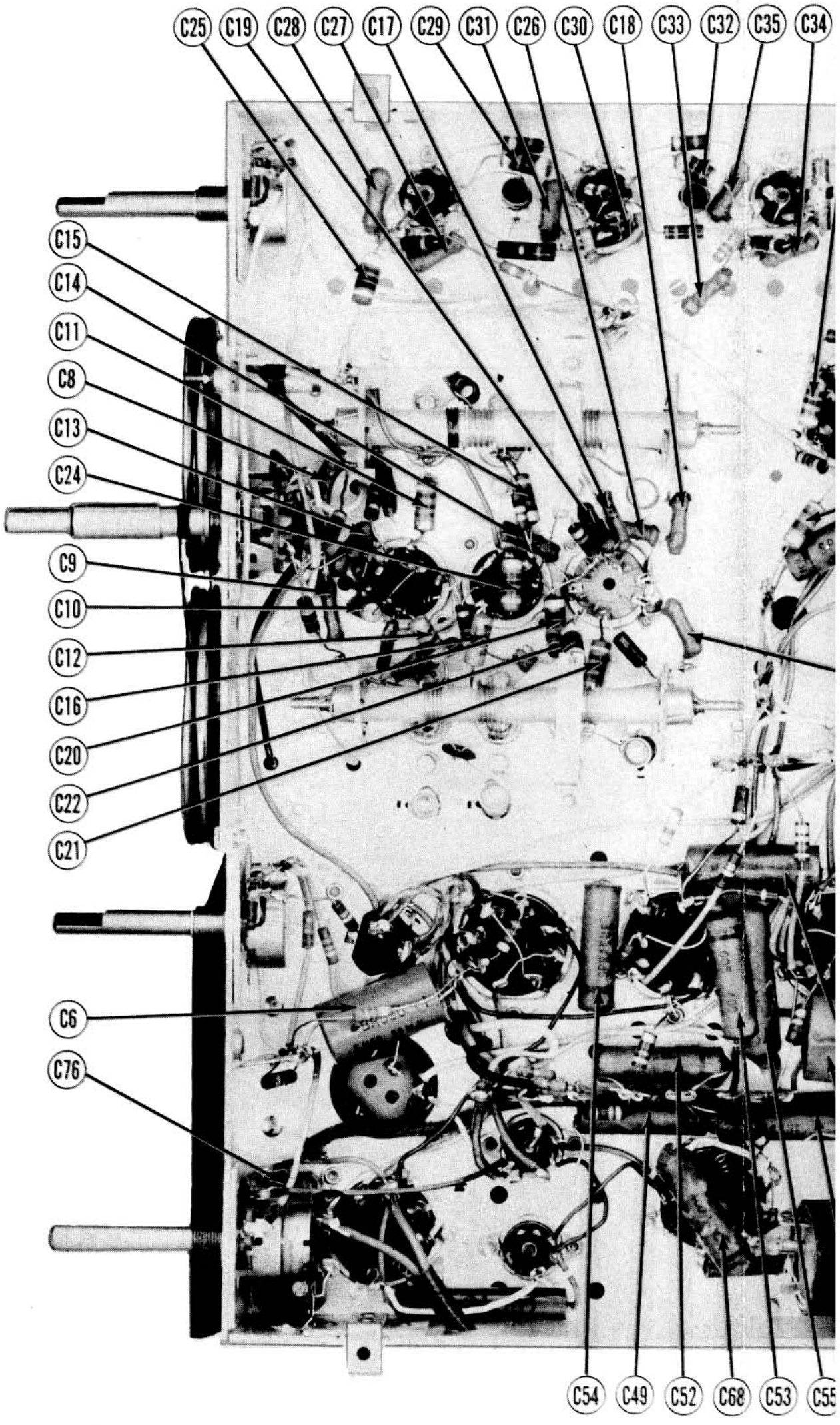
Adjust the height control until the picture fills the mask vertically. If the vertical linearity is not satisfactory exchange the 1.2 megohm resistor (R59A) connected between the plate circuit of the first vertical amplifier and the "negative going" supply for a larger or smaller valued resistor, until the linearity is improved. This is done on early production models. Later production models employ a different methode of feedback to improve vertical linearity.

DISASSEMBLY INSTRUCTIONS

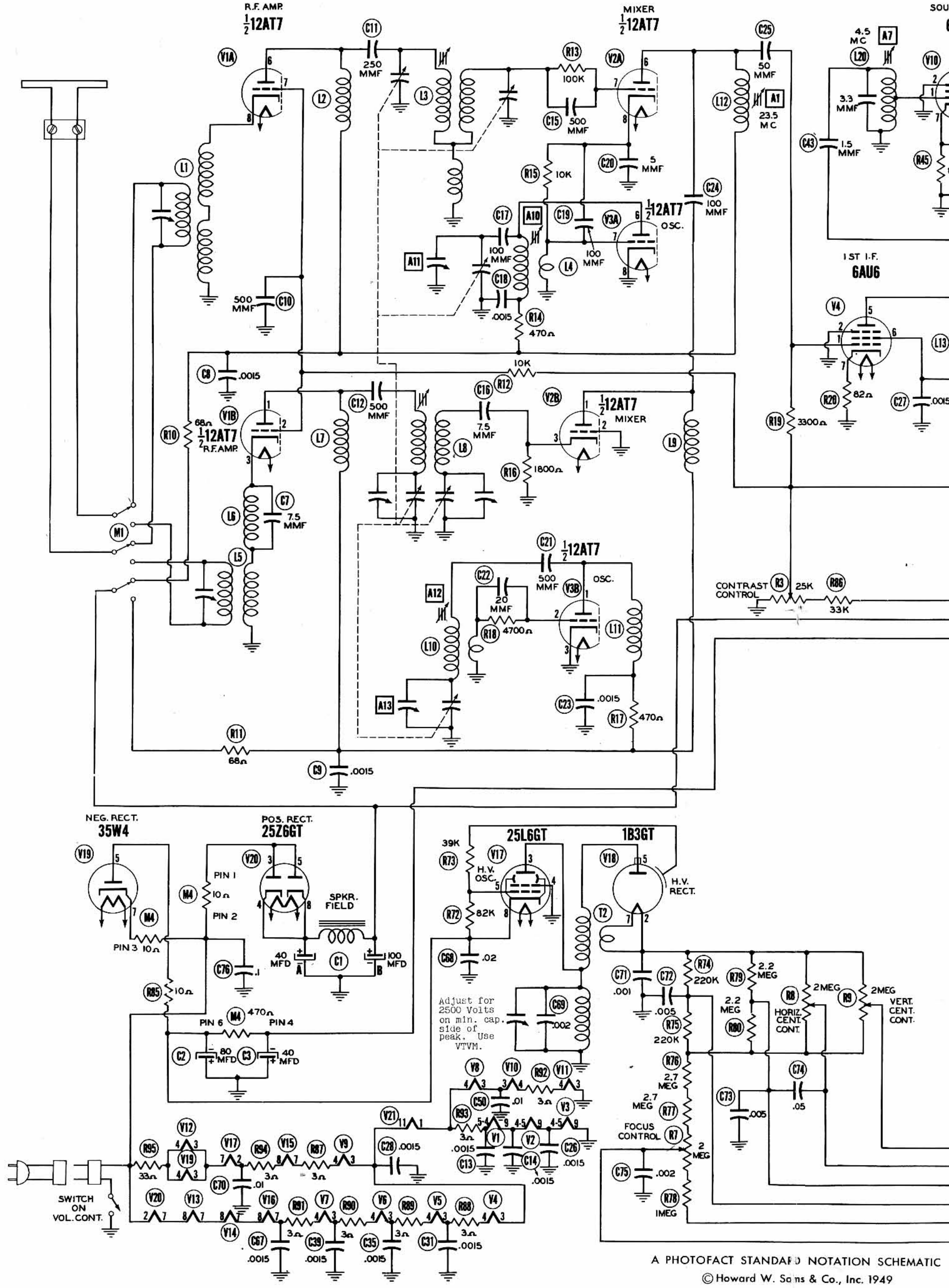
1. Remove four push-on type and one set screw type control knobs.
2. Remove four wood screws holding bottom chassis plate to cabinet.
3. Pull power cord interlock back to disengage it.
4. Lift cabinet up off chassis.
5. Remove four wood screws holding chassis to bottom plate.
6. Remove two wood screws holding antenna strip. Remove chassis.



M VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW-CAPAC



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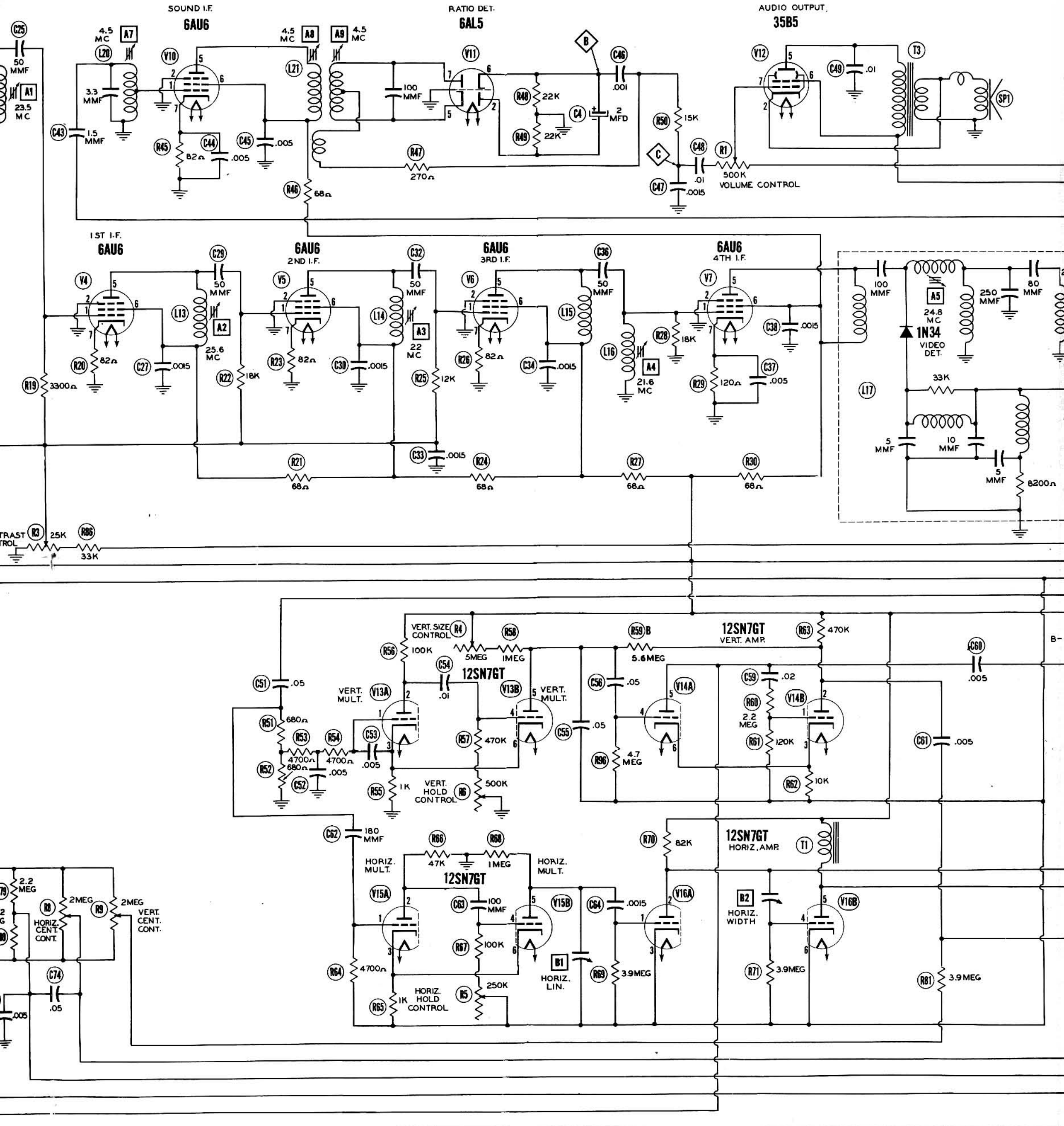

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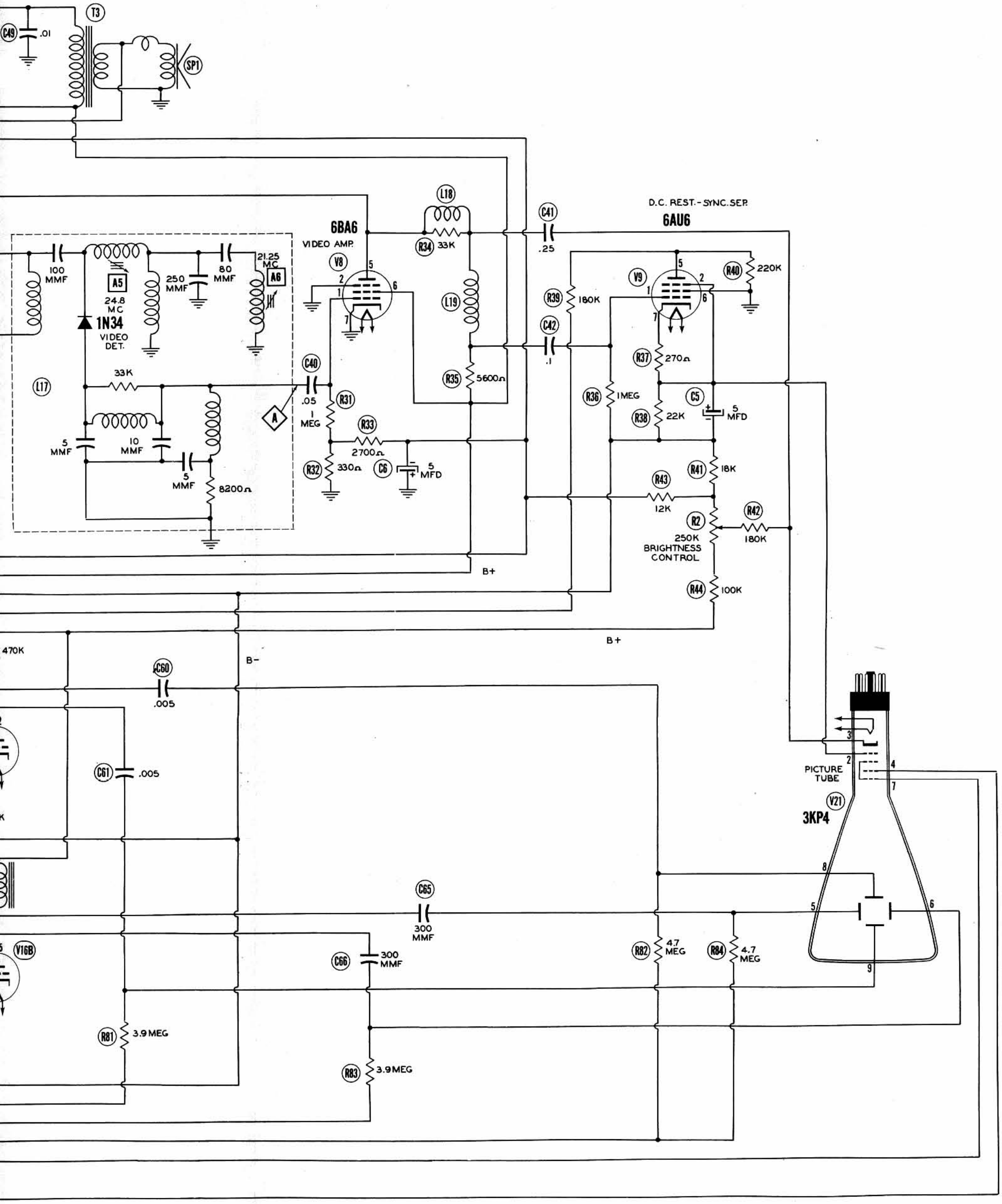
T3
C49 .01
SP1
L18
6BA6
VIDEO AMP.
V8
R34 33K
C41 .25
D.C. REST.-SYNC.SEP.
6AU6
V9
R40 220K
R39 180K
C42 .1
R37 270Ω
R36 1MEG
R38 22K
C5 5 MFD
R41 18K
R43 12K
R2 250K BRIGHTNESS CONTROL
R42 180K
R44 100K
L19
R35 5600Ω
C40 .05
R31 1 MEG
R33 2700Ω
R32 330Ω
C6 5 MFD
A
L17
100 MMF
A5
24.8 MC
1N34 VIDEO DET.
250 MMF
80 MMF
21.25 MC
A6
33K
5 MMF
10 MMF
5 MMF
8200Ω
B+
B+
B-
470K
C60 .005
C61 .005
V16B
C65 300 MMF
C66 300 MMF
R81 3.9 MEG
R83 3.9 MEG
R82 4.7 MEG
R84 4.7 MEG
PICTURE TUBE
V21
3KP4
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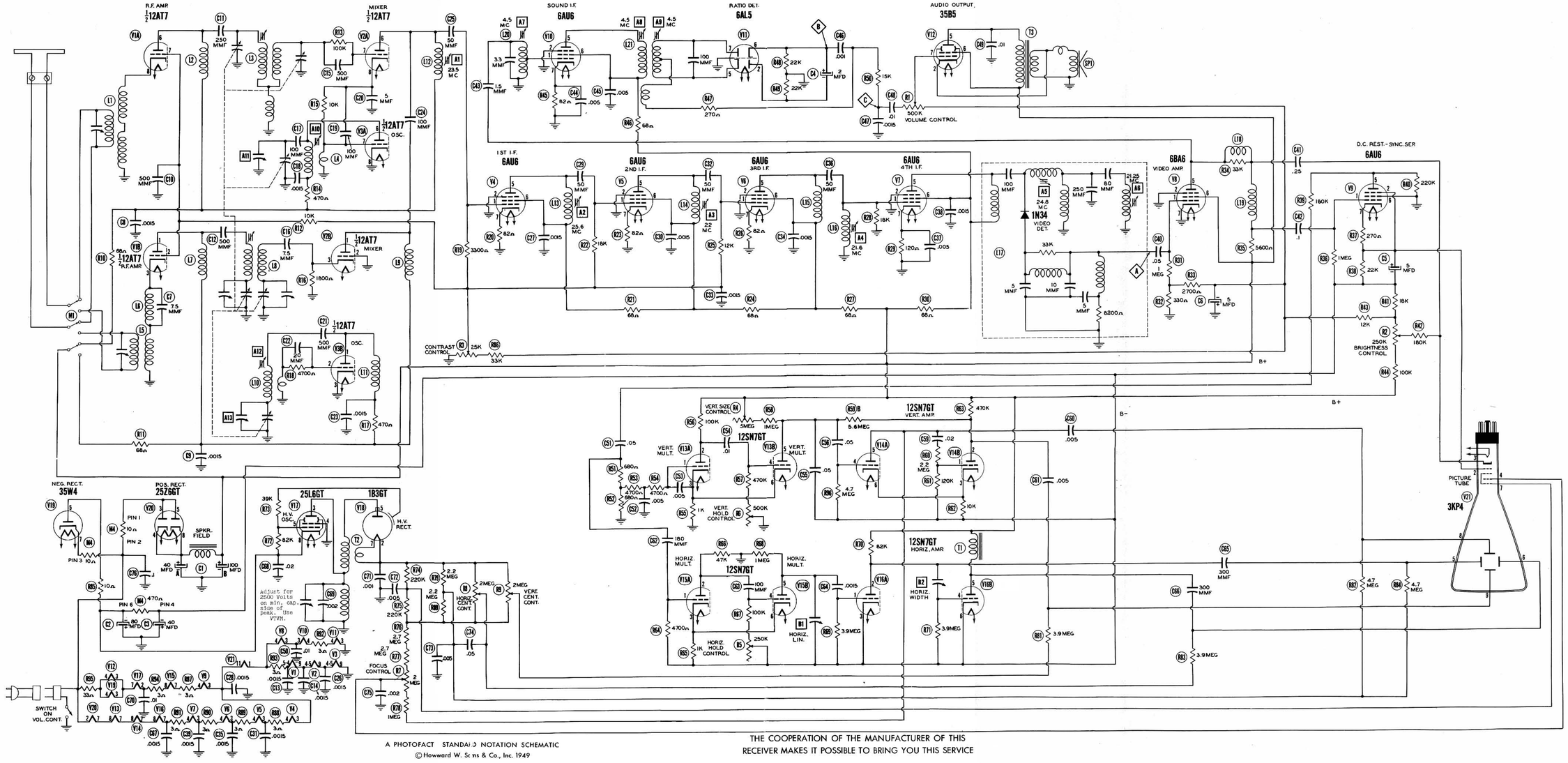

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