



VOLUME CONTROL ON-OFF SWITCH BRIGHTNESS CONTROL HI-LO BAND SWITCH TUNING CONTROL CONTRAST CONTROL

**PILOT
 MODEL TV-37**

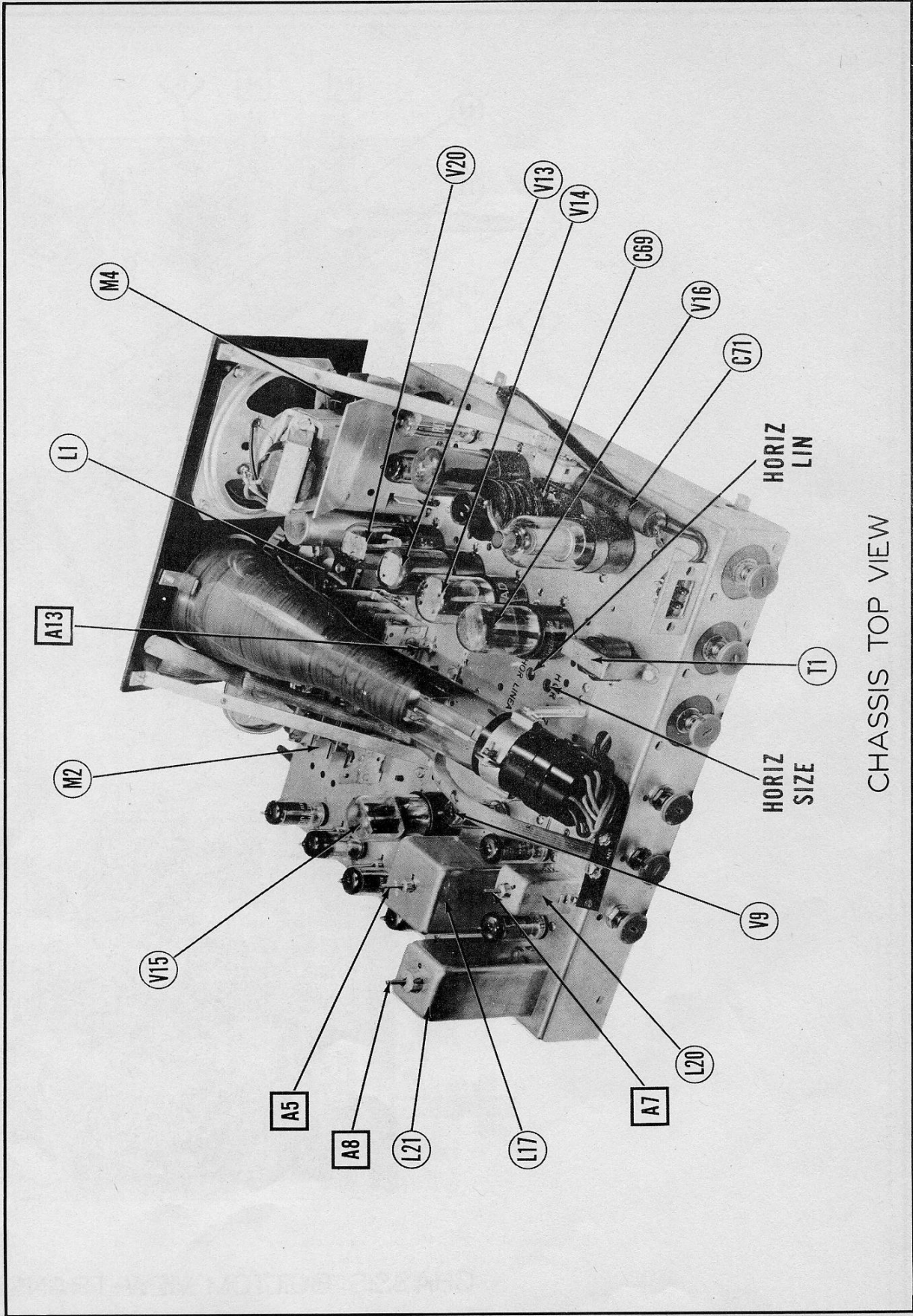
TRADE NAME	Pilot, Model TV-37		
MANUFACTURER	Pilot Radio Corp., 37-06 36th St., Long Island City, New York		
TYPE SET	Television Receiver		
TUBES	Twenty-one		
POWER SUPPLY	105-125 Volts, 60 Cycle AC	RATING	.45 Amps @ 117 Volts
TUNING RANGE	Channels 2 through 13		

INDEX			
	Page		Page
Alignment Instructions	6	Photographs(continued)	
Block Diagram	7	Chassis-Top View	3,10
Disassembly Instructions	16	Resistor Identification	12,17
Linearity Adjustments	16	Trans., Inductor and Alignment Identification	4,9
Parts List and Description	14,15,16	Schematic	2
Photographs		Tube Placement Chart	5
Cabinet-Rear View	13	Voltage and Resistance Measurements	8
Capacitor Identification	11,18		

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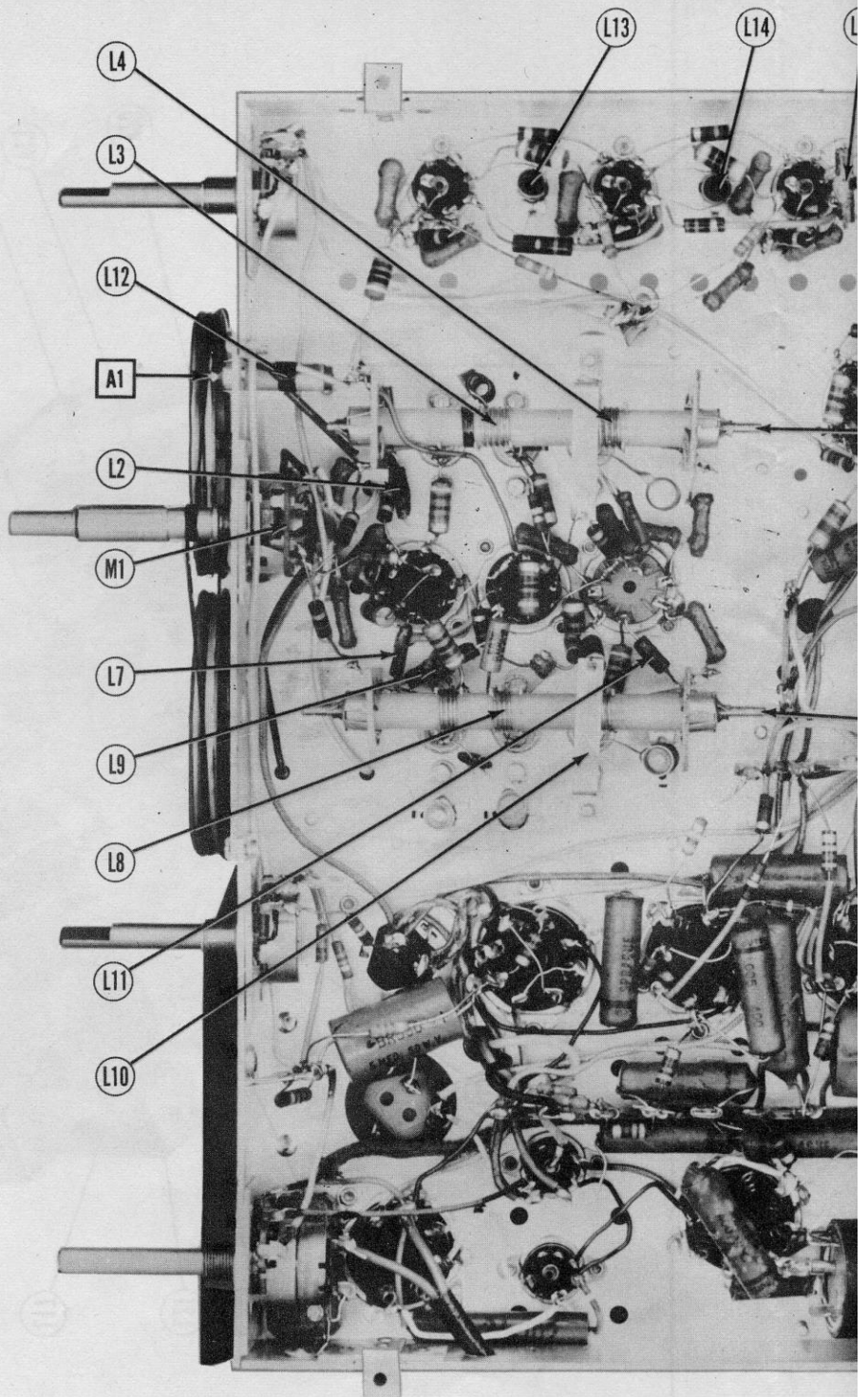
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 DATE 5/49 4910-16 SET #62 FOLDER 16

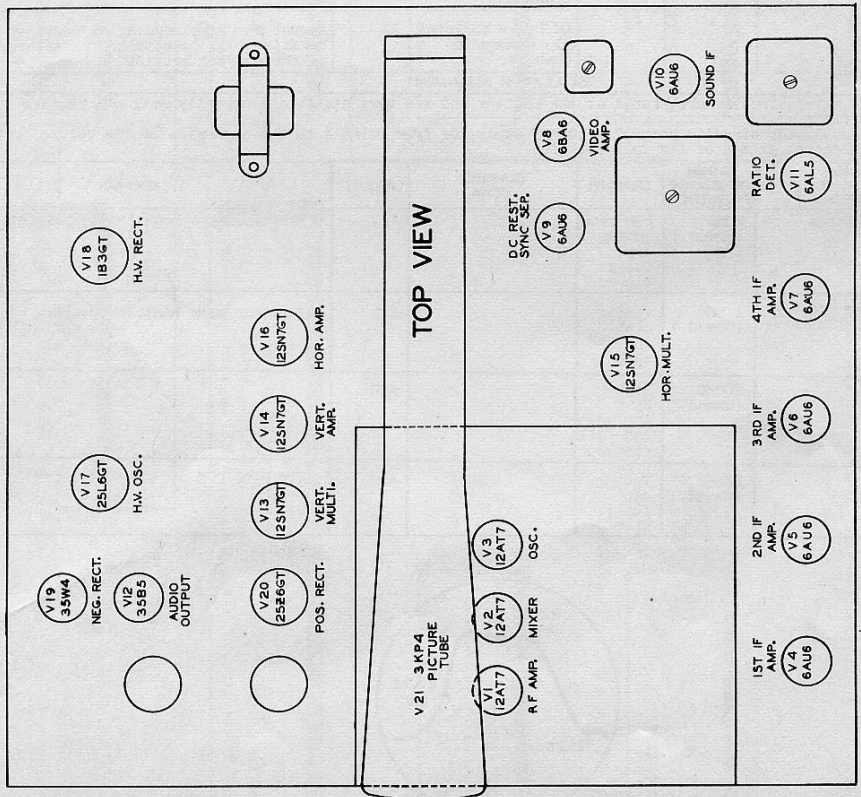
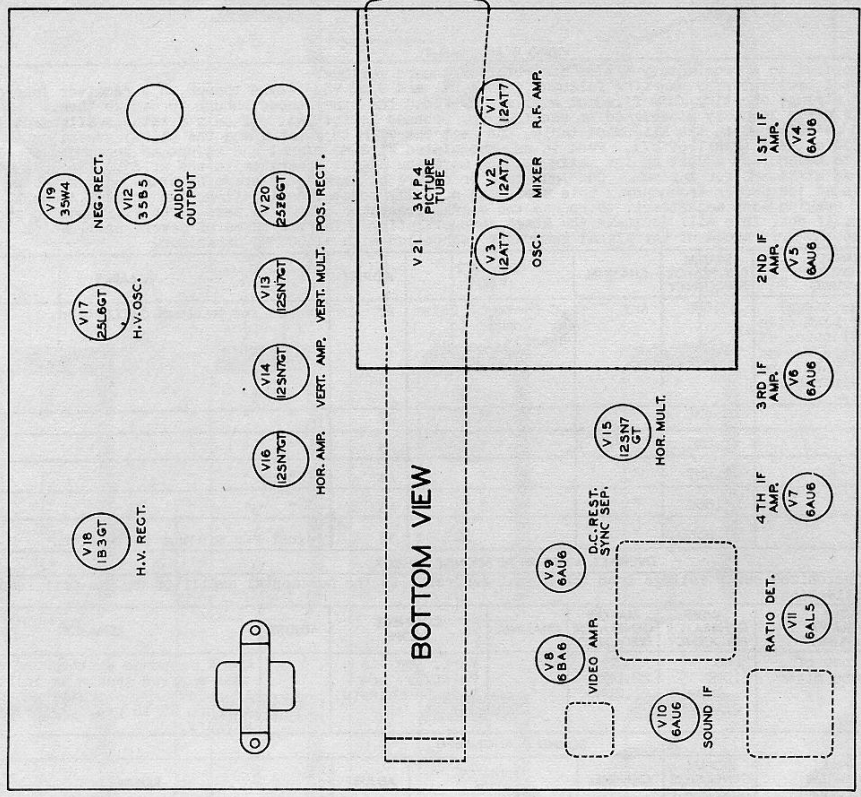


CHASSIS TOP VIEW

PILOT
MODEL TV-37



CHASSIS BOTTOM VIEW-TRANS., INDUCTOR



TUBE PLACEMENT CHART

PILLOT
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 \diamond 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 VIDEO IF RESPONSE CHECK

Connect the synchronized 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 \diamond 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.	High side to Point A. Low side to chassis.	4.5MC (Unmod.)	Any	DC Probe to Point \diamond Common to chassis.	A7, A8	Adjust for maximum deflection.
9.	"	"	"	DC Probe to Point \diamond Common to chassis.	A9	Adjust for zero reading. A positive a.m. 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.	"	110MC (Unmod.)	Tuning cap fully open.		A11	Adjust for zero beat in speaker.
12.	"	200MC (Unmod.)	High band tuning cap fully closed.		A12	" " " " " " "
13.	"	239MC (Unmod.)	Tuning cap fully open.		A13	" " " " " " "

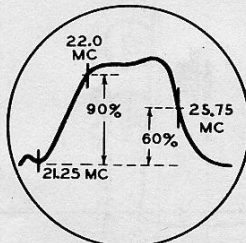
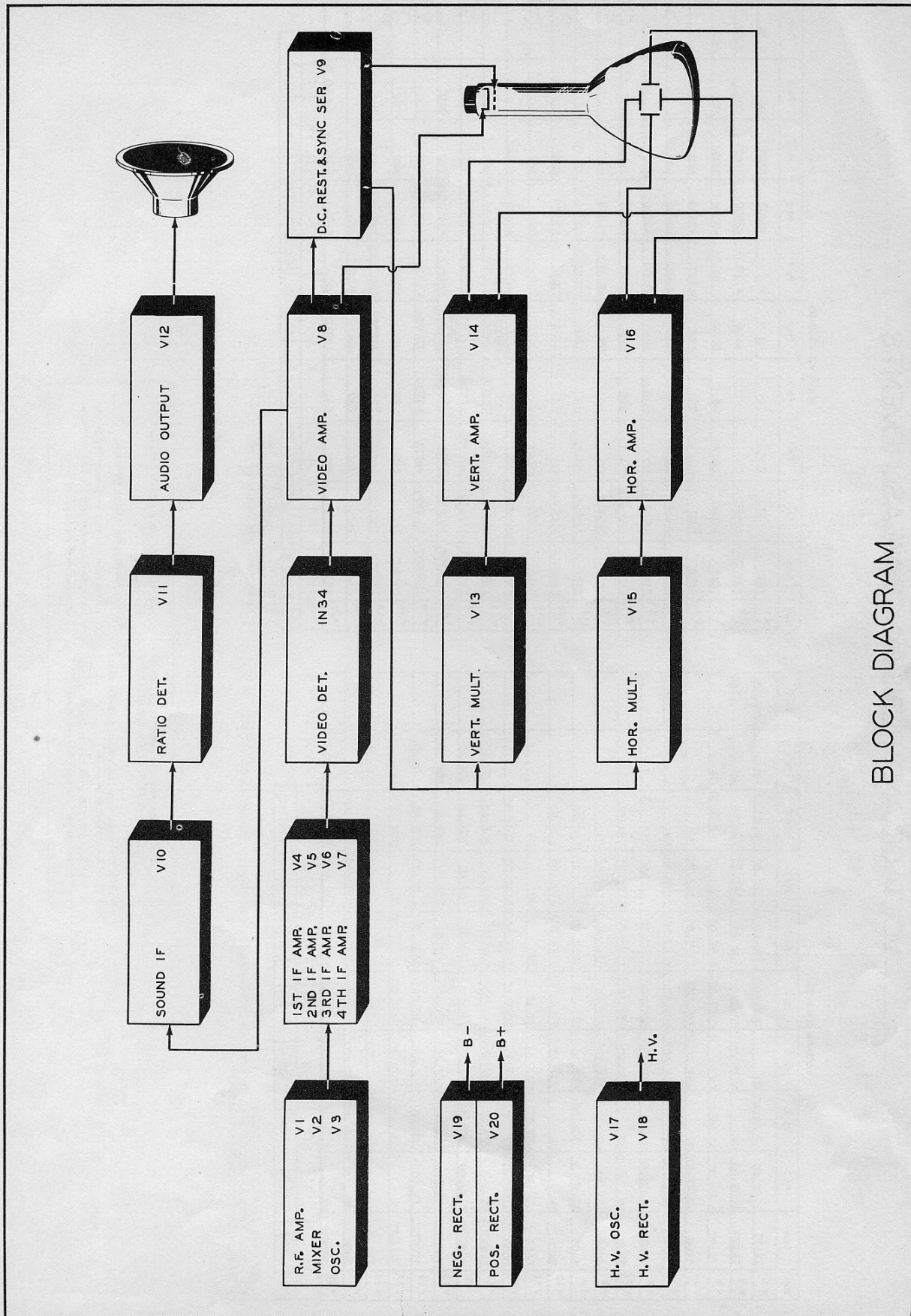


FIG. 1



BLOCK DIAGRAM

PILOT
MODEL TV-37

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	12A7T	112V.DC	-4.3V.DC	OV	20V.AC	112V.DC	112V.DC	-4.3V.DC	OV	13V.AC		
V 2	12A7T	112V.DC	OV	2.8V.DC	13V.AC	112V.DC	112V.DC	-2V.DC	OV	6.5V.AC		
V 3	12A7T	105V.DC	\$5.8V.DC	OV	6.5V.AC	105V.DC	105V.DC	\$-2.2V.DC	OV	OV		
V 4	6AU6	-4.4V.DC	OV	28V.AC	35V.AC	112V.DC	112V.DC	OV				
V 5	6AU6	-4.4V.DC	OV	35V.AC	42V.AC	112V.DC	112V.DC	OV				
V 6	6AU6	-4.3V.DC	OV	45V.AC	50V.AC	112V.DC	112V.DC	OV				
V 7	6AU6	OV	OV	50V.AC	55V.AC	112V.DC	112V.DC	8V.DC				
V 8	6BA6	-1V.DC	OV	14V.AC	21V.AC	42V.DC	112V.DC	OV				
V 9	6AU6	11.8V.DC	113V.DC	28V.AC	35V.AC	105V.DC	112V.DC	113V.DC				
V 10	6AU6	OV	OV	14V.AC	8V.AC	112V.DC	112V.DC	7V.DC				
V 11	6AU5	.3V.DC	-3V.DC	OV	7V.AC	OV	OV	OV				
V 12	35B5	-1.0V.DC	OV	75V.AC	108V.AC	105V.DC	113V.DC	-1.0V.DC				
V 13	12SN7GT	OV	27V.DC	8V.DC	-4V.DC	20V.DC	8V.DC	80V.AC	95V.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	OV	11V.DC	19V.DC	32V.DC	11V.DC	36V.AC	50V.AC			
V 16	12SN7GT	5V.DC	95V.DC	9.2V.DC	5V.DC	240V.DC	9.2V.DC	55V.AC	70V.AC			
V 17	25L6GT	OV	50V.AC	125V.DC	125V.DC	-5.3V.DC	OV	75V.AC	OV			
V 18	1B3GT											
V 19	35M4	OV	-2V.DC	75V.AC	108V.AC	-125V.DC	102V.AC	116V.AC				
V 20	25Z6GT	OV	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	113VDC	1185VDC	*	*	*	*	*	OV	28VAC	

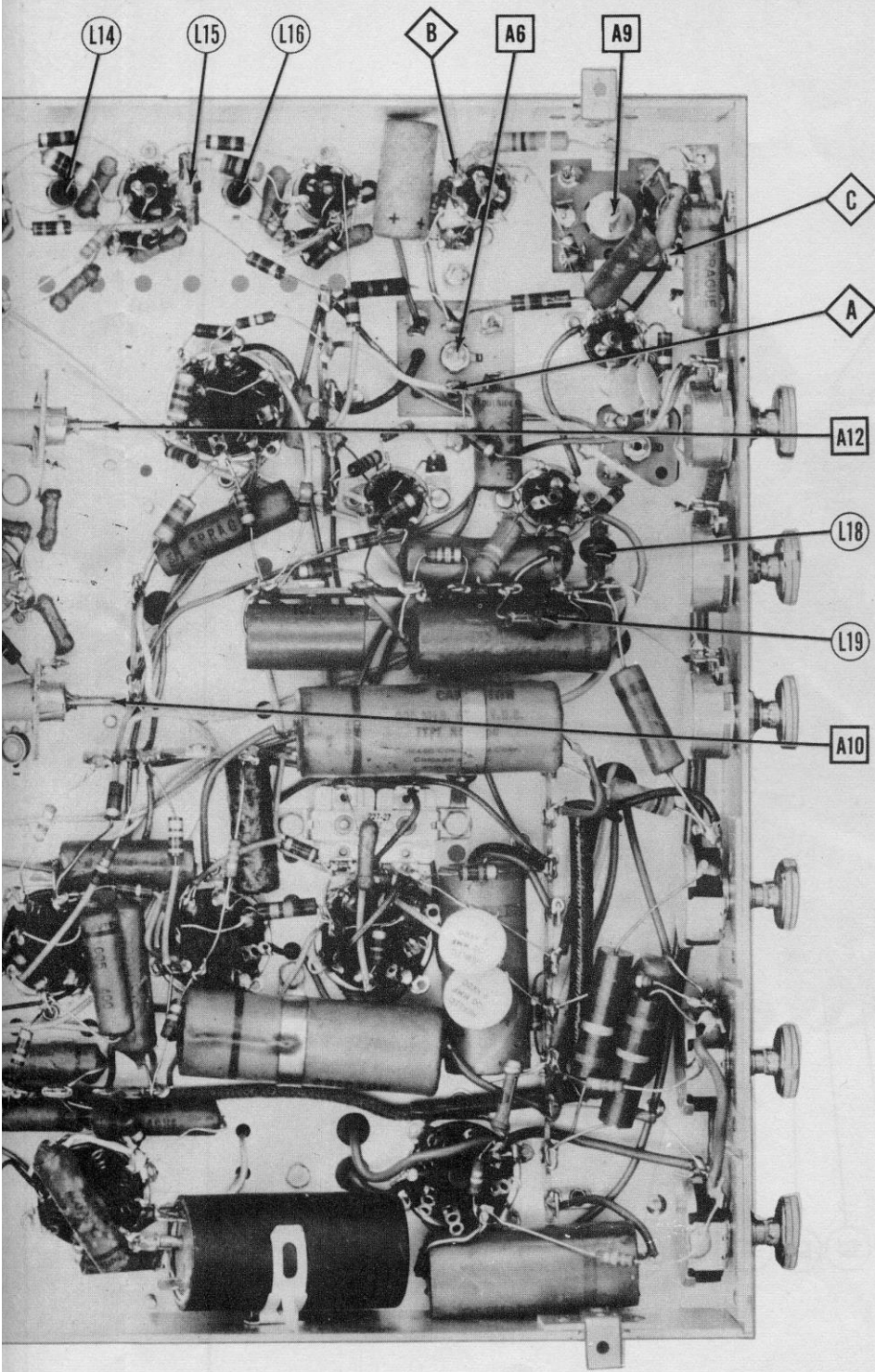
† Measured from pin 5 of V19
 * Do not measure. Cannot make an accurate measurement, due to high impedance of circuit.
 § Taken with vacuum tube voltmeter

RESISTANCE READINGS

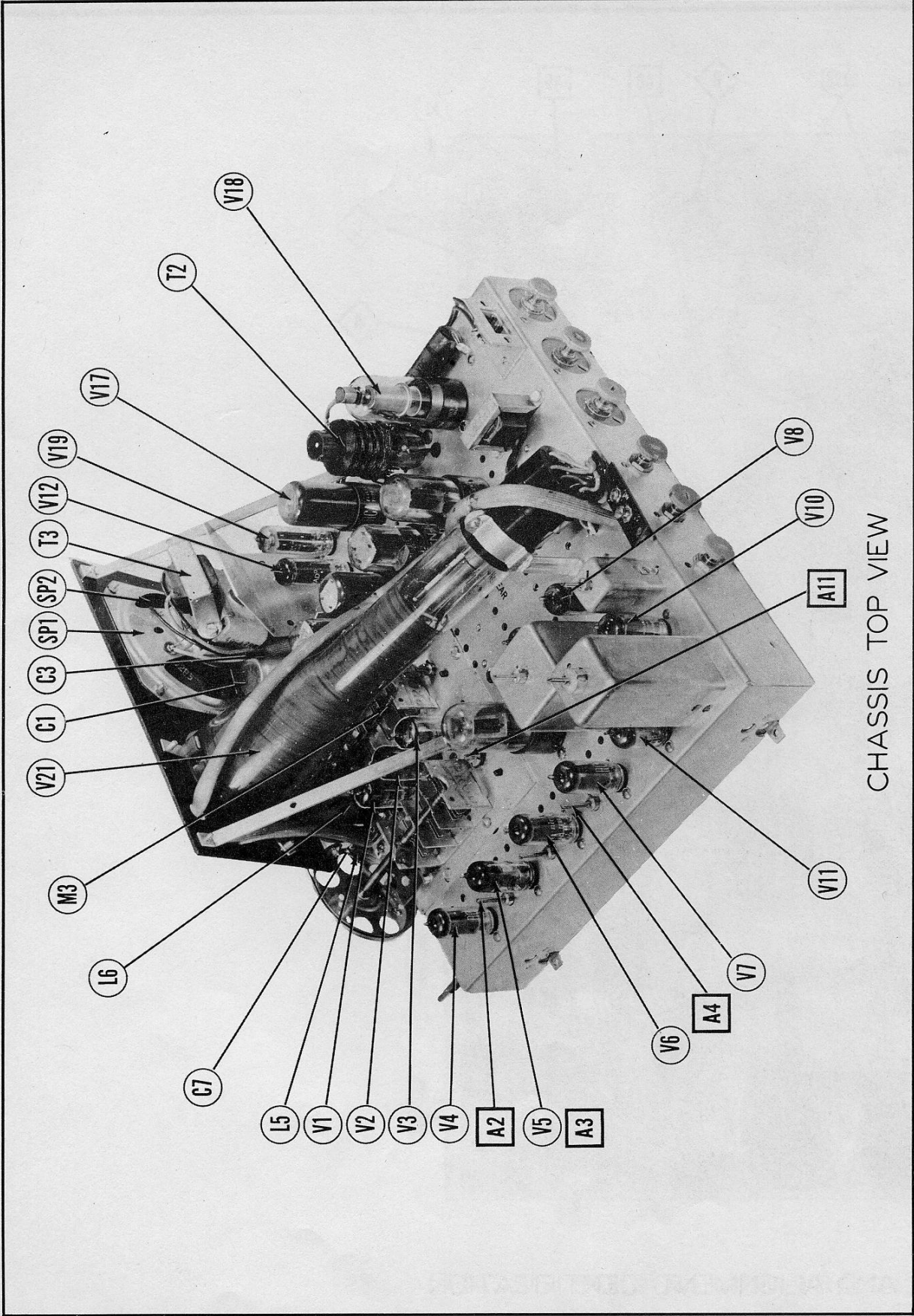
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9		
V 1	12A7T	*220Ω	28KΩ	1Ω	6Ω	6Ω	*200Ω	28KΩ	0Ω	4.5Ω		
V 2	12A7T	*220Ω	0Ω	1800Ω	4.5Ω	4.5Ω	*200Ω	100KΩ	0Ω	2.5Ω		
V 3	12A7T	*700Ω	4.7KΩ	0Ω	2.5Ω	2.5Ω	*700Ω	10KΩ	0Ω	0Ω		
V 4	6AU6	20KΩ	0Ω	8Ω	1Ω	*360Ω	*360Ω	52Ω				
V 5	6AU6	33KΩ	0Ω	15Ω	15Ω	*280Ω	*280Ω	52Ω				
V 6	6AU6	28KΩ	0Ω	20Ω	25Ω	*220Ω	*220Ω	52Ω				
V 7	6AU6	.2Ω	0Ω	25Ω	25Ω	*220Ω	*220Ω	120Ω				
V 8	6BA6	1Meg.	0Ω	6Ω	7Ω	*5.5KΩ	*140Ω	0Ω				
V 9	6AU6	11Meg.	122KΩ	8Ω	12Ω	220KΩ	0Ω	122KΩ				
V 10	6AU6	1.2Ω	0Ω	6Ω	4.8Ω	280Ω	280Ω	52Ω				
V 11	6AU5	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	420KΩ	*850KΩ	1000Ω	36Ω	40Ω			
V 14	12SN7GT	1120KΩ	*470KΩ	110KΩ	14.7Meg.	*8.27Meg.	110KΩ	33Ω	36Ω			
V 15	12SN7GT	14.7KΩ	47KΩ	11400Ω	1100KΩ	118Ω	11400Ω	15Ω	20Ω			
V 16	12SN7GT	13.5Meg.	*82KΩ	1470Ω	13.5Meg.	*470Ω	1470Ω	30Ω	35Ω			
V 17	25L6GT	Inf.	22Ω	.2Ω	0Ω	175KΩ	Inf.	32Ω	10Ω			
V 18	1B3GT	Inf.	Inf.	Inf.	*200KΩ	Inf.	Inf.	Inf.	Inf.	TOP CAP 300Ω		
V 19	35M4	Inf.	Inf.	53Ω	40Ω	33KΩ	40Ω	54Ω				
V 20	25Z6GT	0Ω	42Ω	54Ω	120KΩ	54Ω	500Ω	40Ω	120KΩ			
PINS		1	2	3	4	5	6	7	8	9	10	11
V21	3KP4	7Ω	122KΩ	*250KΩ	†4 Meg.	†45.5 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

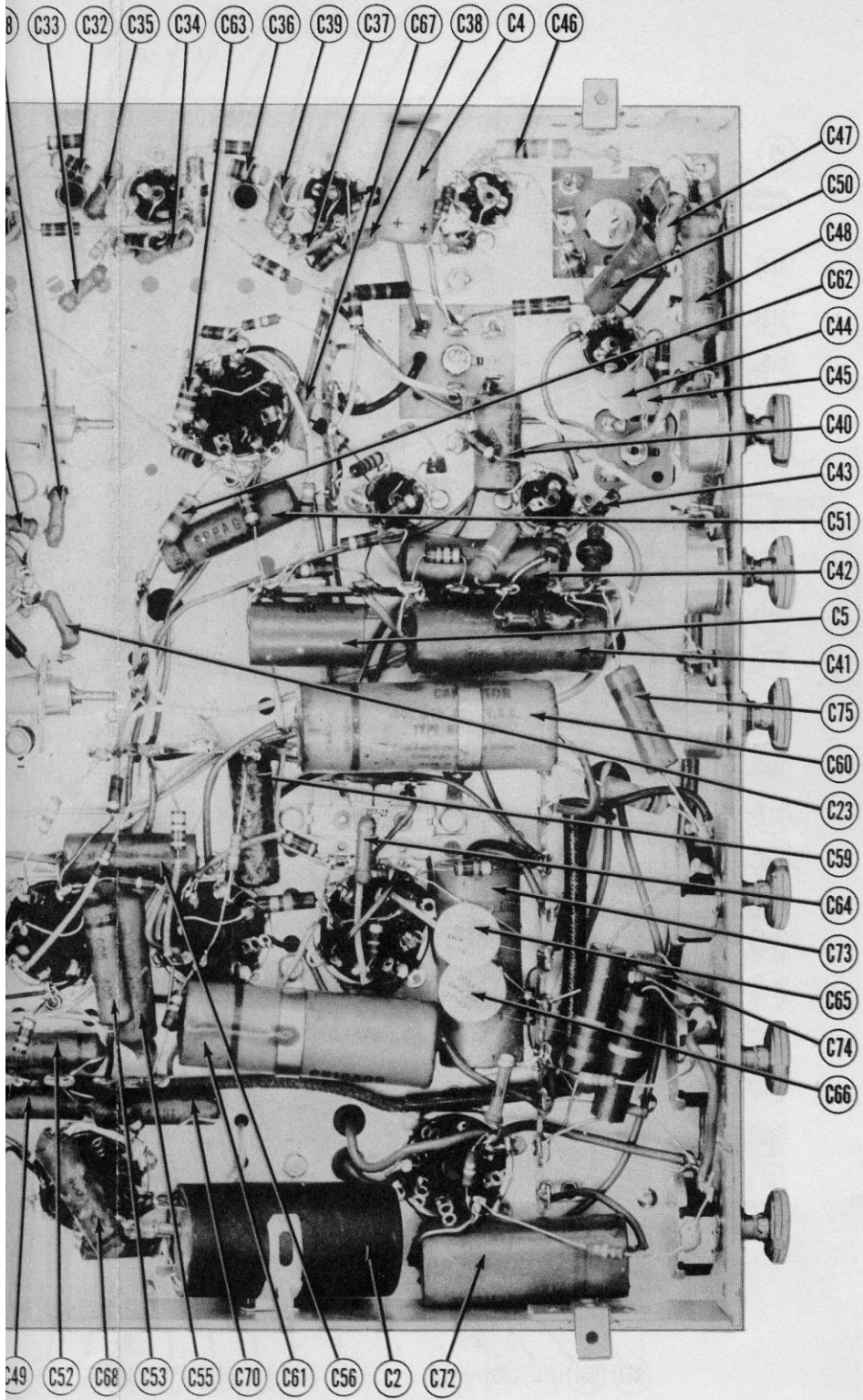
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.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

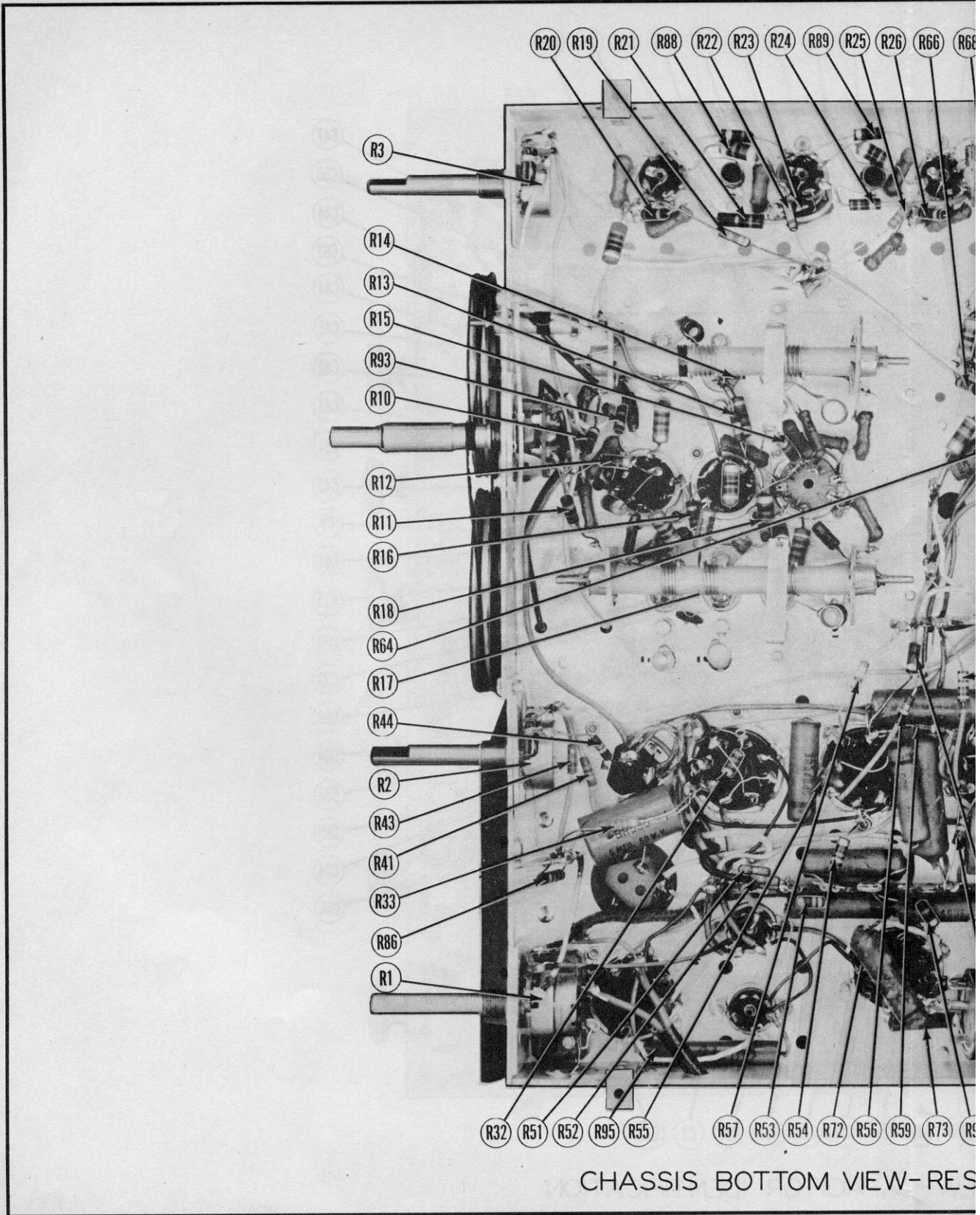


CHASSIS TOP VIEW

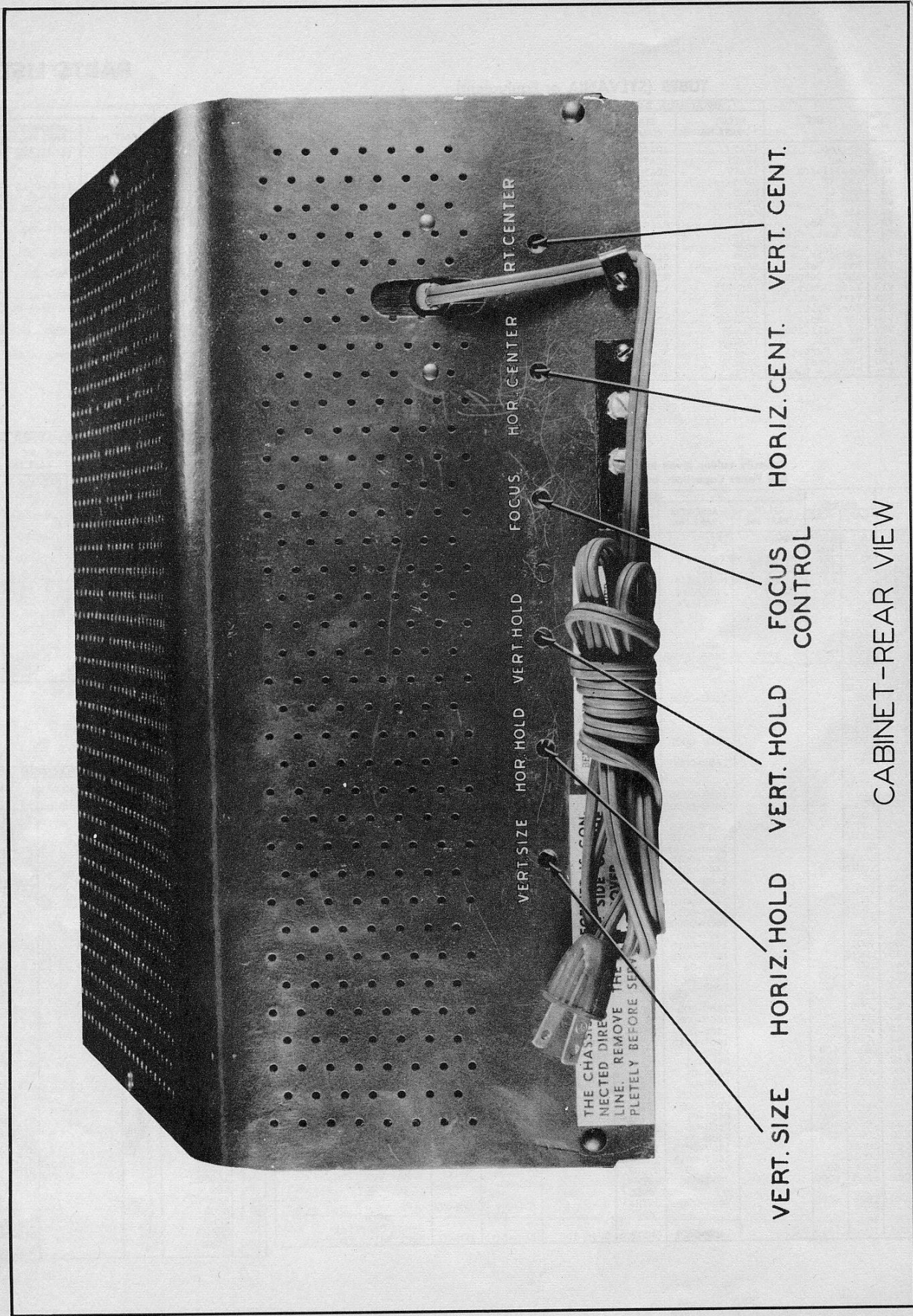


PILOT
MODEL TV-37

VIEW-CAPACITOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RES



VERT. CENTER.

HORIZ. CENT.

FOCUS CONTROL

VERT. HOLD

HORIZ. HOLD

VERT. SIZE

CABINET-REAR VIEW

**PILOT
MODEL TV-37**

PARTS LIST AND DESC

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			RMA BASE TYPE	NOTES
		PILOT PART No.	STANDARD REPLACEMENT			
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		

ITEM No.	RATING		REPLACEMENT DATA				
	CAP.	VOLT	PILOT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	PA
C64	.0015			1467-0015	1W5D15	GP2L-0015	HW
C65	.0015	3000					
C66	.0015	3000					
C67	.0015			1467-0015	1W5D15	GP2L-0015	HW
C68	.02	400		P488-02	GT482		ST
C69	.002	500		1464-002	1R5D2		HW
C70	.01	400		P488-01	GT4S1	GP2-335-01	ST
C71	.001	4000		5084-001	D8TH-40D1		ST
C72	.005	3000		3584-005	D8TH-30D5		ST
C73	.005	3000		3584-005	D8TH-30D5		ST
C74	.05	400		P488-05	GT4S5		ST
C75	.002	1000		P1088-002	GT16D2		ST
C76	.1	400		P488-1	GT4F1		ST

* Not used in all models.
† Parallel sections to obtain desired capacity.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	RESISTANCE	WATTS	PILOT PART No.	IRC PART No.	CLAROSTAT PART No.	
R1A	500KΩ	½	36-32	D11-133	M-58-S	Volume c
B	Shaft		Not Req.	A	Not Req.	Attach t
C	Switch		41	34-4	Not Req.	
R2A	250KΩ	½	39-6	D11-130	M-55-S	Brightne
B	Shaft		Not Req.	A	Not Req.	Attach t
R3A	25KΩ	½	39-4	D11-120	M-40-S	Contrast
B	Shaft		Not Req.	A	Not Req.	Attach t
R4A	5 Meg.	½	39-5	D11-141		Vert. Siz
B	Shaft		Not Req.	E #		Attach t
R5A	250KΩ	½	39-1	D11-130	AM-55-S	Horiz. Hz
B	Shaft		Not Req.	E #	K58-3#	Attach t
R6A	500KΩ	½	39-3	D11-133	AM-58-S	Vert. Hol
B	Shaft		Not Req.	E #	K58-3#	Attach t
R7A	2 Meg.	½	39-2	AM-83-S	AM-83-S	Focus cor
B	Shaft		Not Req.	K58-3#		Attach t
R8A	2 Meg.	½	39-2	AM-83-S	AM-83-S	Horiz. ce
B	Shaft		Not Req.	K58-3#		Attach t
R9A	2 Meg.	½	39-2	AM-83-S	AM-83-S	Vert. cen
B	Shaft		Not Req.	K58-3#		Attach t

Use original insulating knob.

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	PILOT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	
C1A	40	150	24-86		UP44151				▲ Filter
B	100	150			UP8015			TVL-1	"
C2	80	150	24-84	AF44F	UP4015				"
C3	40	150	24-85						"
C4	2	50	24-82	PR8150/4	BR550			TVA-12	Stabilizing Cap.
C5	5	50	24-87	PR8150/4	BR550			TVA-13	Sync. Amp. Cath. Bypass
C6	5	50	24-88	PR8150/4	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								Fixed Padder
C17	100					N750L-100			Osc. Plate Decoupling
C18	.0015					GP2L-0015			Osc. Grid Cap.
C19	100			1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	Fixed Trimmer
C20	5					NP0K-5			Osc. Feedback
C21	500			1468-0005	5W5T5	GP2K-500	MO.5-35	1FM-35	Osc. Grid Cap.
C22	20					5W5Q2	MO.5-42	M5-42	Osc. Plate Decoupling
C23	.0015					GP2L-0015			IF Coupling
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	HW.5-215	1FM-215	1st IF Decoupling
C28	.0015			1467-0015	1W5D15	GP2L-0015	HW.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	HW.5-215	1FM-215	2nd IF Decoupling
C31	.0015			1467-0015	1W5D15	GP2L-0015	HW.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	HW.5-215	1FM-215	Bias Filter
C34	.0015			1467-0015	1W5D15	GP2L-0015	HW.5-215	1FM-215	3rd IF Decoupling
C35	.0015			1467-0015	1W5D15	GP2L-0015	HW.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	HW.5-25	1FM-25	4th IF Cath. Bypass
C38	.0015			1467-0015	1W5D15	GP2L-0015	HW.5-215	1FM-215	Decoupling
C39	.0015			1467-0015	1W5D15	GP2L-0015	HW.5-215	1FM-215	4th IF Fil. Bypass
C40	.05	200		P289-05	GT285	ST-4-05	TM-15		Video Coupling
C41	.25	400		P488-25	GT4F25	ST-4-25	TC-2		"
C42	.1	400		P488-1	GT4F1	ST-4-1	TM-1		"
C43	1.5								S. IF Coupling
C44	.005			1467-005	1D5D5	GP2M-005	HW.5-25	1FM-25	S. IF Cath. Bypass
C45	.005			1467-005	1D5D5	GP2M-005	HW.5-25	1FM-25	S. IF Screen Bypass
C46	.001			1468-001	1W5D1	GP2L-001	HW.5-21	1FM-21	Diode Load Cap.
C47	.0015			1467-0015	1W5D15	GP2L-0015	HW.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	HW.5-215	1FM-215	Vert. Feedback *
C58	.0015			1467-0015	1W5D15	GP2L-0015	HW.5-215	1FM-215	Vert. Feedback *
C59	.02	600		P688-02	GT6S2	ST-6-02	TM-12		Vert. Coupling
C60	.005	6000		7584-005	D8TH-60D5	STM-60-	TVM-256		"
C61	.005	6000		7584-005	D8TH-60D5	STM-60-	TVM-256		"
C62	180								Sync. Coupling
C63	100			1468-0001	5W5T1	GP1K-100	MO.5-31	1FM-31	Hor. Mult. Feedback

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		ALL RESISTORS
	RESISTANCE	WATTS	PILOT PART No.	IRC PART No.	
R10	68Ω	½			Blue-Gray-Blk
R11	68Ω	½			Blue-Gray-Blk
R12	10KΩ	½			Br.-Blk.-Or.
R13	100KΩ	½			Br.-Blk.-Yl.
R14	470Ω	½		BTS-100K	Yl.-Vl.-Br.
R15	10KΩ	½		BTS-470	Br.-Blk.-Or.
R16	1800Ω	½		BTS-1800	Br.-Gray-Red
R17	470Ω	½		BTS-470	Yl.-Vl.-Br.
R18	4700Ω	½			Yl.-Vl.-Red
R19	3300Ω	½			Or.-Or.-Red
R20	82Ω	½		BTS-3300	Blue-Gray-Blk
R21	68Ω	½			Blue-Gray-Blk
R22	18KΩ	½			Br.-Gray-Or.
R23	82Ω	½		BTS-18K	Blue-Gray-Blk
R24	68Ω	½			Blue-Gray-Blk
R25	12KΩ	½			Blue-Gray-Blk
R26	82Ω	½		BTS-12K	Br.-Red-Or.
R27	68Ω	½			Gray-Red-Blk
R28	18KΩ	½			Blue-Gray-Blk
R29	120Ω	½			Br.-Gray-Or.
R30	68Ω	½			Br.-Red-Br.
R31	1 Meg.	½		BTS-1 Meg.	Blue-Gray-Blk
R32	330Ω	½		BTA-330	Br.-Blk.-Grn.
R33	2700Ω	½			Or.-Or.-Br.
R34	33KΩ	½		BTS-2700	Red-Vl.-Red
R35	500Ω	½			Or.-Or.-Br.
R36	1 Meg.	½		BTA-5600	Grn.-Blue-Red
R37	270Ω	½		BTS-1 Meg.	Br.-Blk.-Grn.
R38	22KΩ	½			Red-Vl.-Br.
R39	180KΩ	½		BTS-22K	Red-Red-Or.
R40	220KΩ	½			Br.-Gray-Yl.
R41	15KΩ	½		BTS-18K	Red-Red-Yl.
R42	100KΩ	½		BTS-15K	Br.-Gray-Or.
R43	12KΩ	½		BTS-10K	Br.-Gray-Yl.
R44	100KΩ	½			Br.-Red-Or.
R45	82Ω	½			Br.-Blk.-Yl.
R46	68Ω	½			Gray-Red-Blk
R47	270Ω	½			Blue-Gray-Blk
R48	22KΩ	½			Red-Vl.-br.
R49	22KΩ	½		BTS-22K-5%	Red-Red-Or.
R50	15KΩ	½		BTS-22K-5%	Red-Red-Or.

LIST AND DESCRIPTIONS

RESISTORS

REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
WOX 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
002	GT452		ST-4-02	TM-12	RF Bypass
001	1R5D2		MWS.5-22	MB-22	Fixed Trimmer
001	GT451	GP2-335-01	ST-4-01	TM-11	HV Osc. Fil. Bypass
001	D5TH-40D1		STM-60-001	TVM-216	HV Filter
005	D5TH-30D5		STM-30-005	TVM-256	HV Filter
005	D5TH-30D5		STM-30-005	TVM-256	"
05	GT455		ST-4-05	TM-15	Hor. Cent. Cont. Byp.
002	GT16D2		STM-16-002	MB-22	Focus Cont. Bypass
1	GT4F1		ST-4-1	TM-1	Line Filter

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

In desired capacity.

CONTROLS

REPLACEMENT DATA			INSTALLATION NOTES
IRC PART No.	CLAROSTAT PART No.		
-135	M-58-S	Volume control	Attach to R1A Per Instructions
	Not Req.	SW-A	
-130	M-55-S	Brightness control	Attach to R2A Per Instructions
	Not Req.	M-40-S	
-120	M-40-S	Contrast control	Attach to R3A Per Instructions
	Not Req.		
-141	M-40-S	Vert. Size control	Attach to R4A Per Instructions
-130	AM-55-S	Horiz. Hold control	Attach to R5A Per Instructions
	KSS-3#		
-133	AM-58-S	Vert. Hold control	Attach to R6A Per Instructions
	KSS-3#		
	AM-83-S	Focus control	Attach to R7A Per Instructions
	KSS-3#		
	AM-83-S	Horiz. centering control	Attach to R8A Per Instructions
	KSS-3#		
	AM-83-S	Vert. centering control	Attach to R9A Per Instructions
	KSS-3#		

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.

PILOT MODEL TV-37

RESISTORS

REPLACEMENT DATA		IDENTIFICATION CODES
IRC PART No.		
	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.-Vl.-Br.	Osc. Decoupling
	Br.-Blk.-Or.	Osc. Grid
BTS-1800	Br.-Gray-Red	Mixer Cathode
BTS-470	Yl.-Vl.-Br.	Osc. Decoupling
	Yl.-Vl.-Red	Osc. Grid
BTS-3300	Or.-Or.-Red	1st IF Grid
	Gray-Red-Blk.	1st IF Cathode
BTS-18K	Blue-Gray-Blk.	1st IF Decoupling
	Br.-Gray-Or.	2nd IF Grid
	Gray-Red-Blk.	2nd IF Cathode
BTS-12K	Blue-Gray-Blk.	2nd IF Decoupling
	Br.-Red-Or.	3rd IF Grid
	Gray-Red-Blk.	3rd IF Cathode
BTS-18K	Blue-Gray-Blk.	3rd IF Decoupling
	Br.-Gray-Or.	4th IF Grid
	Br.-Red-Br.	4th IF Cathode
	Blue-Gray-Blk.	4th IF Decoupling
BTS-1 Meg.	Br.-Blk.-Grn.	Video Amp. Grid
BTA-5600	Or.-Or.-Br.	Voltage Divider
BTS-1 Meg.	Red-Vl.-Red	"
	Or.-Or.-Or.	Peaking Coil Shunt
	Grn.-Blue-Red	Video Amp. Plate
	Br.-Blk.-Grn.	Sync. Sep. Grid
	Red-Vl.-Br.	DC Restorer Cathode
	Red-Red-Or.	"
BTS-22K	Br.-Gray-Yl.	Phase Correction
BTS-190K	Red-Red-Yl.	Sync. Sep. Plate
BTS-220K	Br.-Gray-Or.	Voltage Divider
BTS-19K	Br.-Gray-Or.	"
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
	Blue-Gray-Blk.	Sound IF Decoupling
BTS-22K-5%	Red-Vl.-Br.	Balancing
BTS-22K-5%	Red-Red-Or.	Ratio Det. Diode Load
BTS-22K-5%	Red-Red-Or.	Ratio Det. Diode Load
BTS-15K	Br.-Grn.-Or.	De-emphasis

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	PILOT PART No.	MEISSNER PART No.	
L1	Ant. Coil	0Ω	0Ω			
L2	Low Band 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 Inductance-390 Microhenries
L19	Peaking	8Ω		75-23		
L20	Sound IF	5Ω		279-40		
L21	Ratio Det.	9Ω	1Ω	279-39		

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.
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	R0-8	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

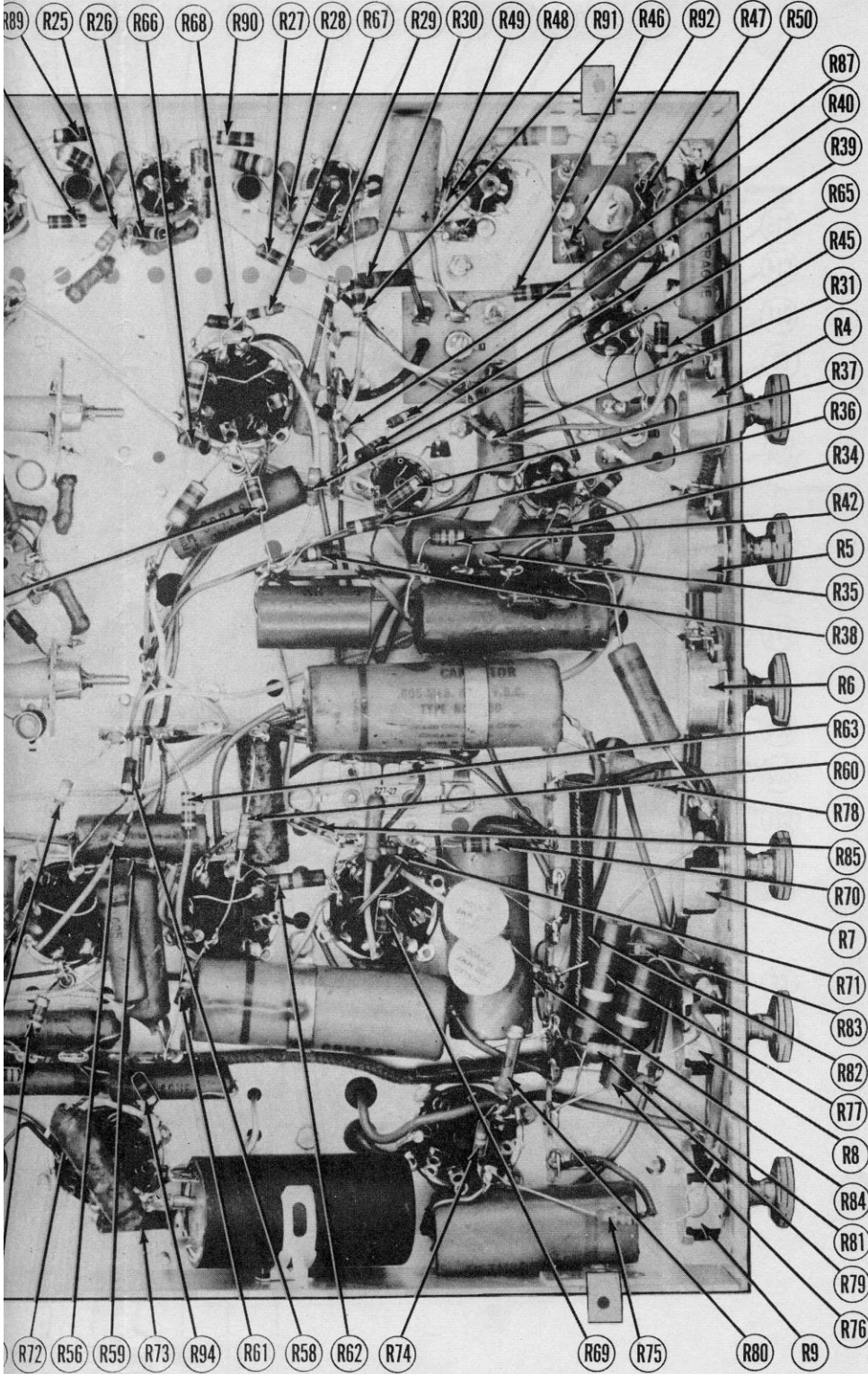
Turn horizontal linearity trimmer B1 counter-clockwise as far as possible without crowding left side of the picture. Then adjust B2 (width control) until picture just fills the mask horizontally.

HEIGHT AND VERTICAL LINEARITY ADJUSTMENTS

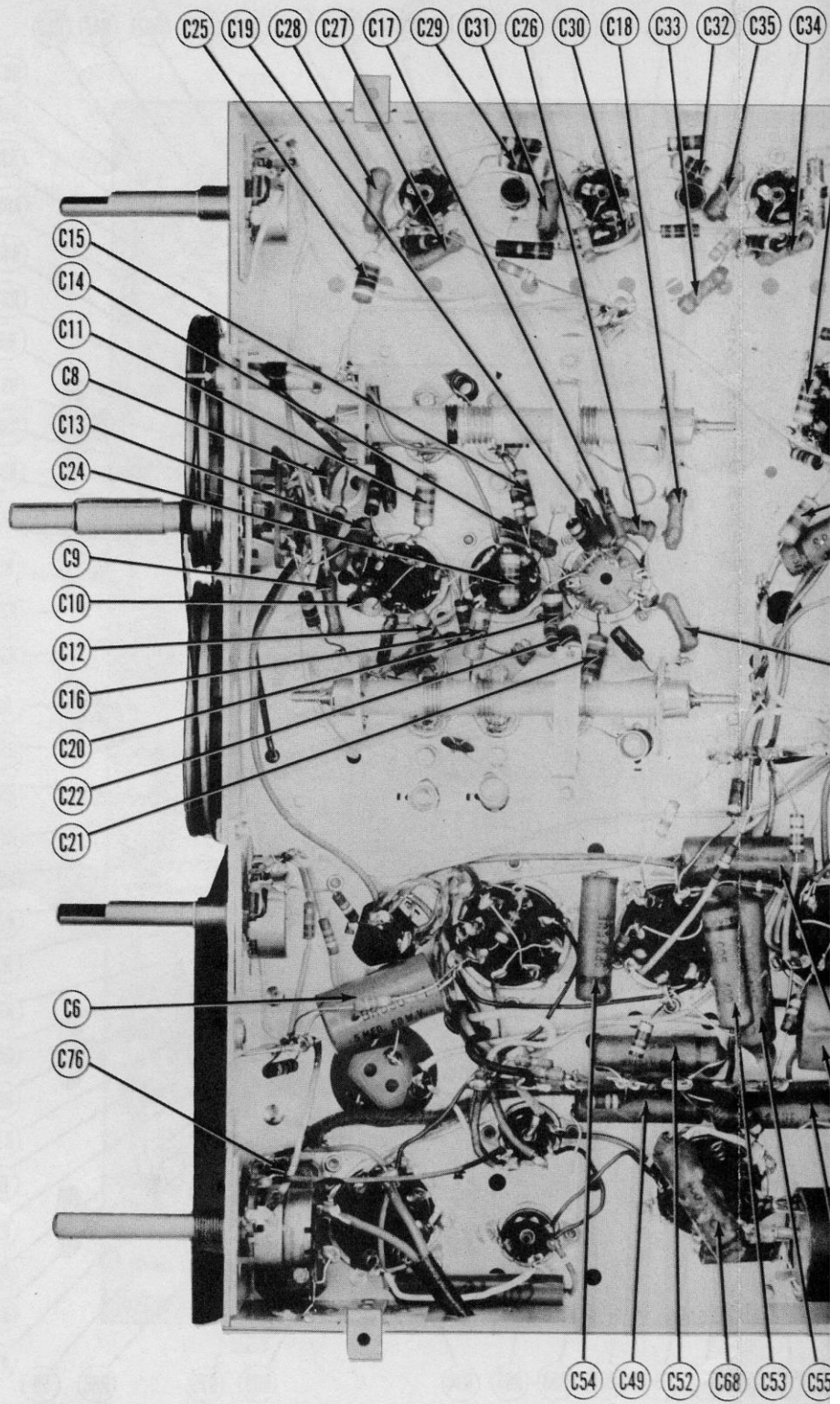
Adjust the height control until the picture fills the mask vertically. If the vertical linearity is not satisfactory exchange the 1.2 megohm resistor (R59A) connected between the plate circuit of the first vertical amplifier and the "negative going" supply for a larger or smaller valued resistor, until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

DISASSEMBLY INSTRUCTIONS

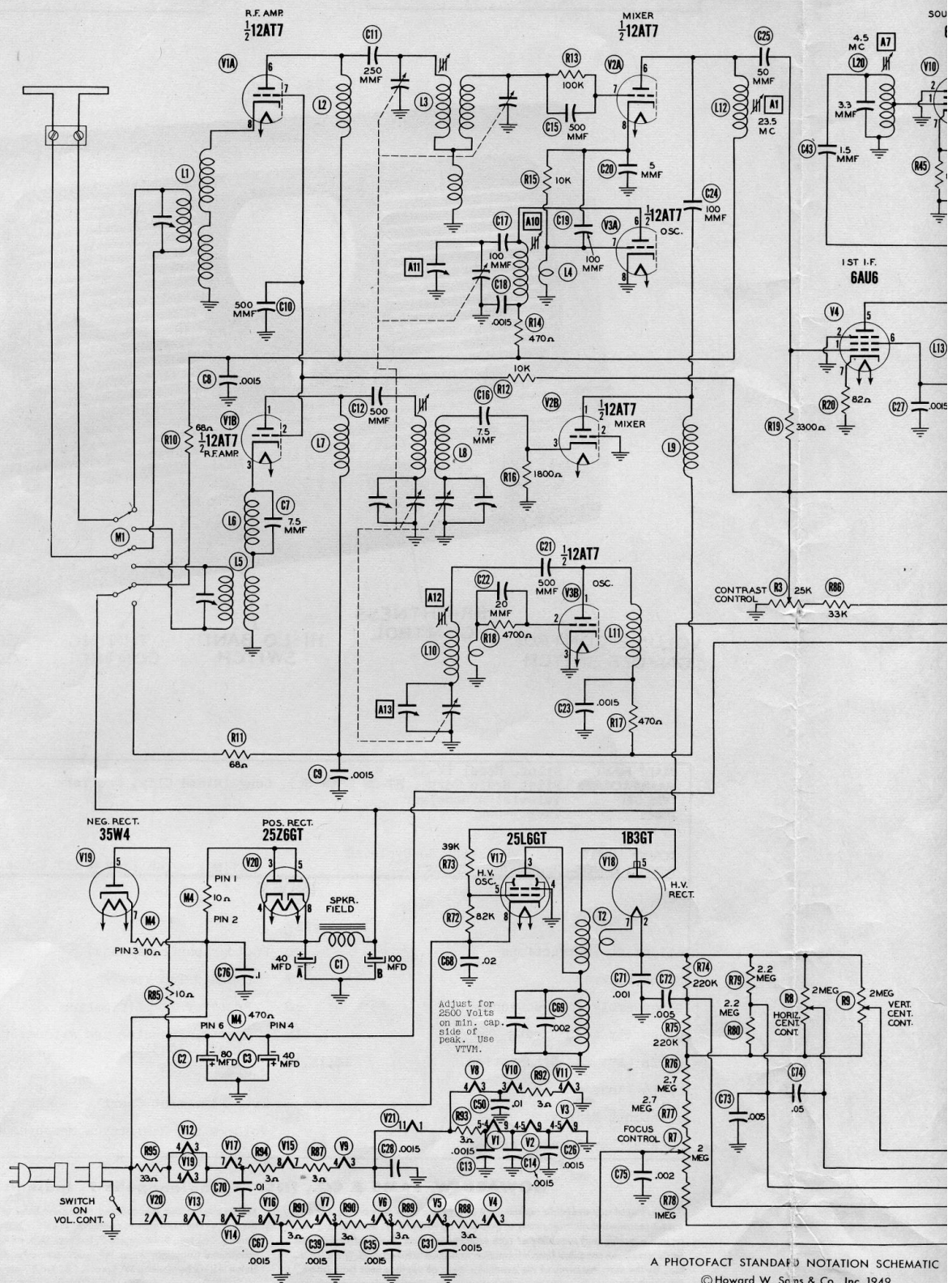
1. Remove four push-on type and one set screw type control knobs.
2. Remove four wood screws holding bottom chassis plate to cabinet.
3. Pull power cord interlock back to disengage it.
4. Lift cabinet up off chassis.
5. Remove four wood screws holding chassis to bottom plate.
6. Remove two wood screws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



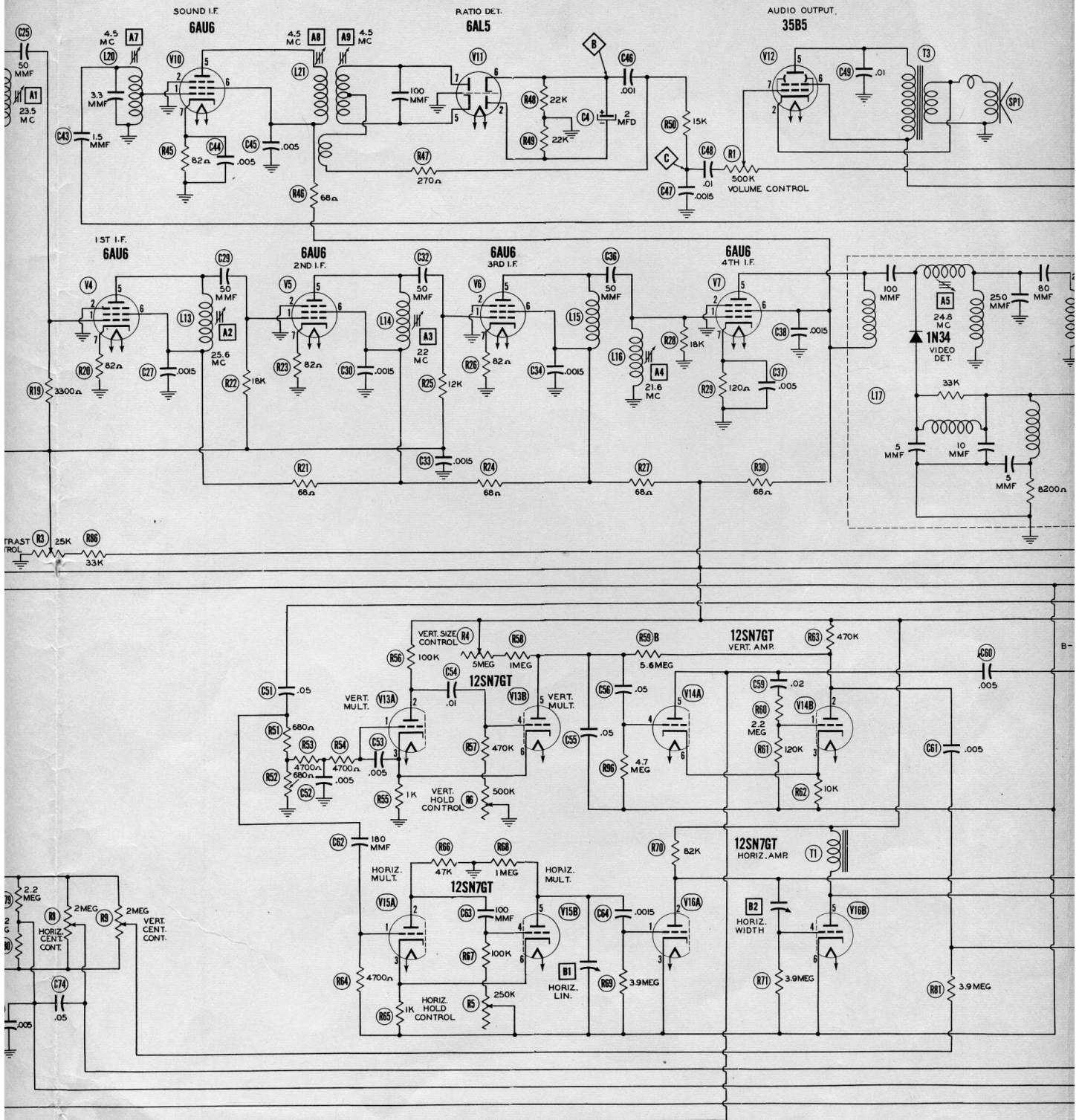
FRONT VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW-CAPAC



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