

U. S. TELEVISION
MODEL T-10823

TRADE NAME U. S. T. Model T-10823
 MANUFACTURER United States Television Mfg. Corp., 3 W. 61st St., New York, New York
 TYPE SET Television Receiver
 TUBES Twenty Five

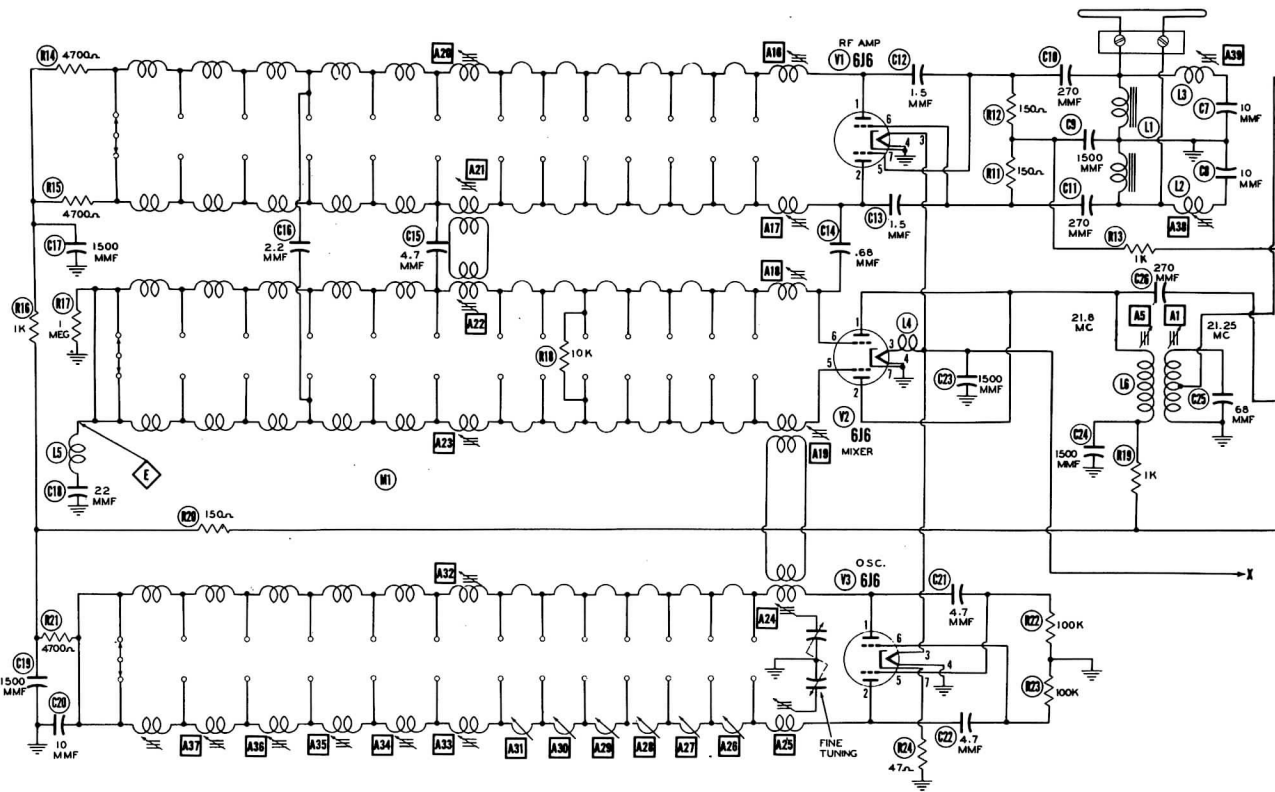
POWER SUPPLY 110-120 Volts AC-60 Cycle RATING 2.6 Amp. at 117 Volts AC
 TUNING RANGE—Channels 2 thru 13

INDEX	
Alignment Instructions	6, 7
Block Diagram	20
Disassembly Instructions	19
Horizontal Oscillator Adjustment	19
Parts List and Description	16, 17, 18
Photographs	
Cabinet-Rear View	19
Capacitor Identification	11, 22
Chassis-Top View	3, 13
High Voltage Supply	13
Photographs (continued)	
RF Tuner (RCA)	10
RF Tuner (Standard Coil)	15
Resistor Identifications	12, 21
Trans., Inductor and Alignment Identification	4, 9
Schematic	2
Schematic (Standard Coil Tuner)	14
Tube Placement Chart	5
Voltage and Resistance Measurements	8

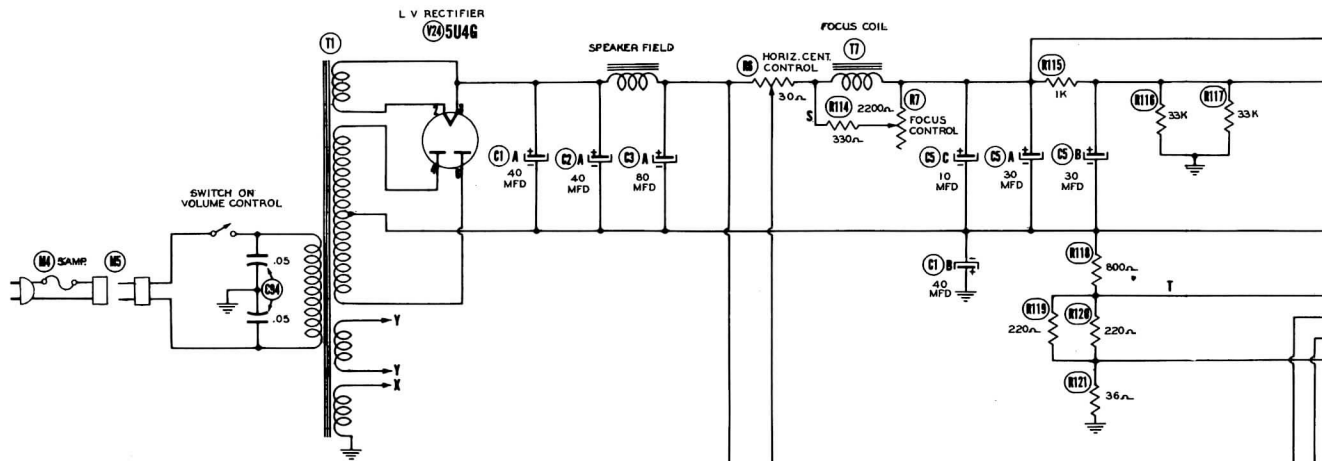
HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana

"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-

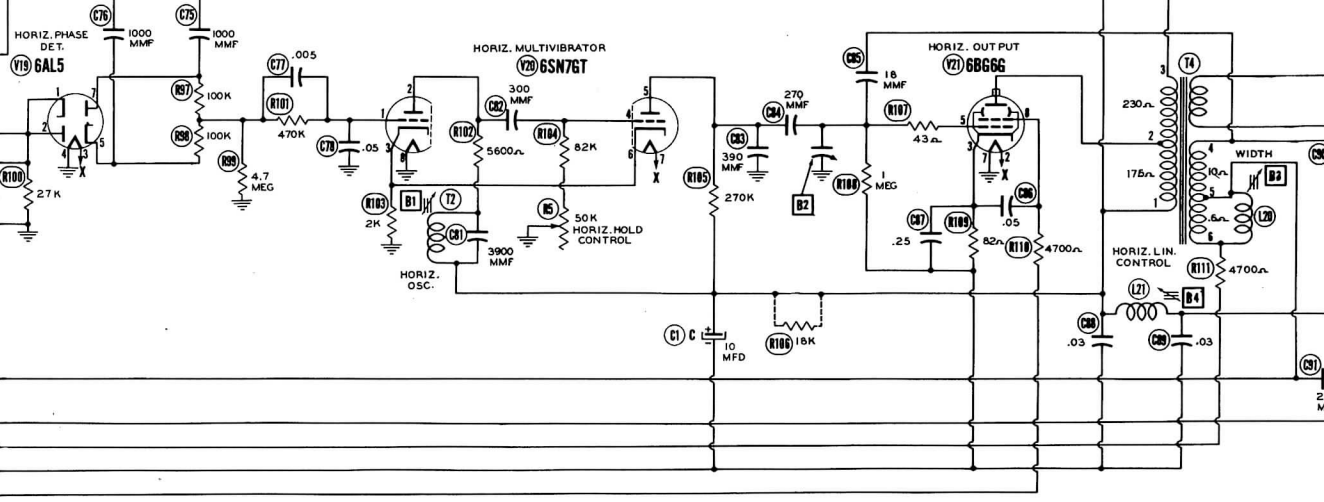
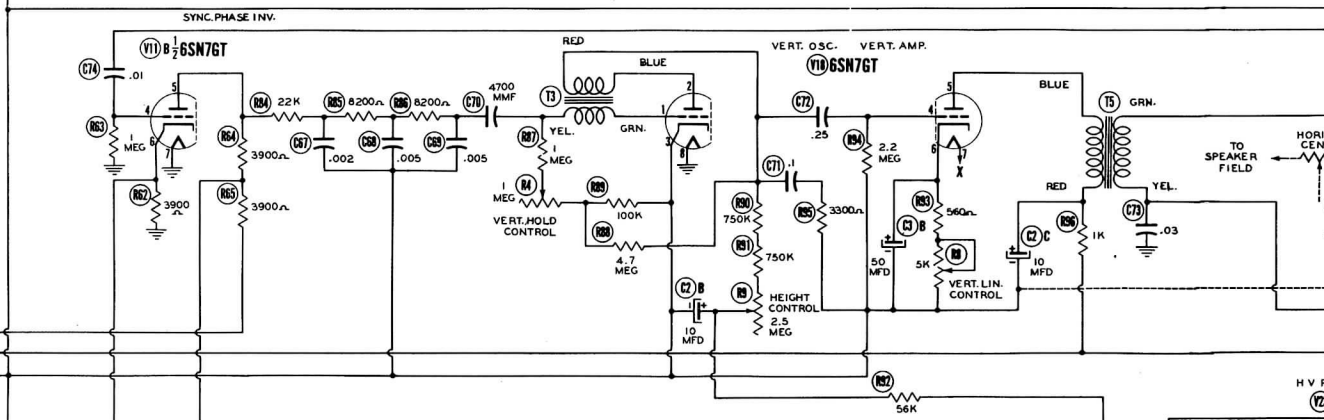
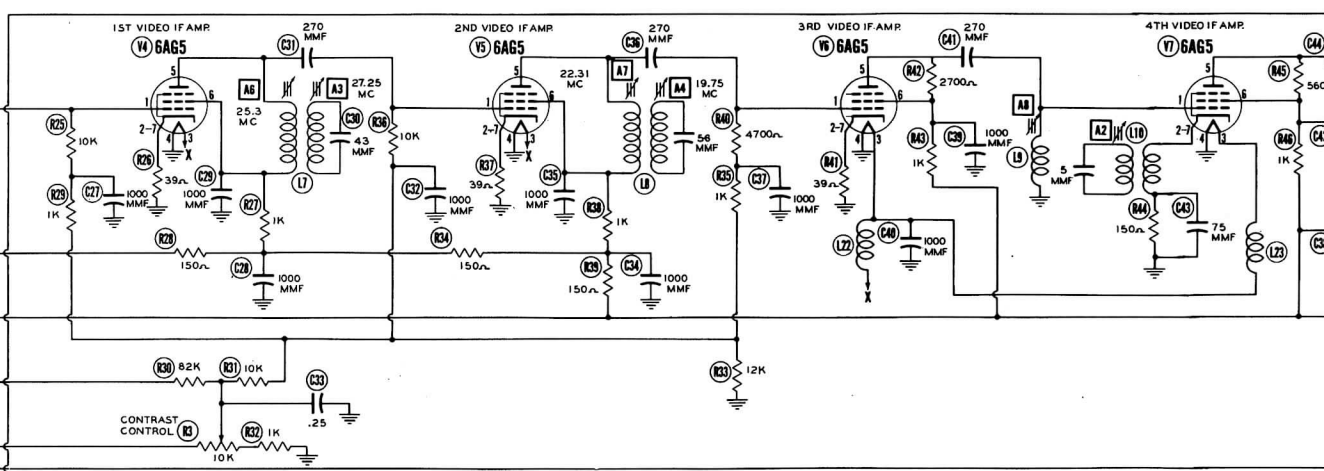
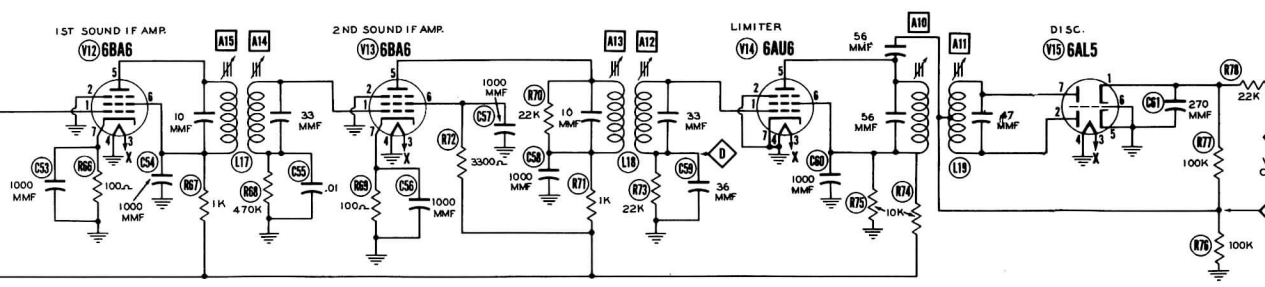
tent, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. Copyright 1950 by Howard W. Sams & Co., Inc., Indianapolis 1, Indiana, U. S. of America. Copyright under International Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc. Printed in U. S. of America

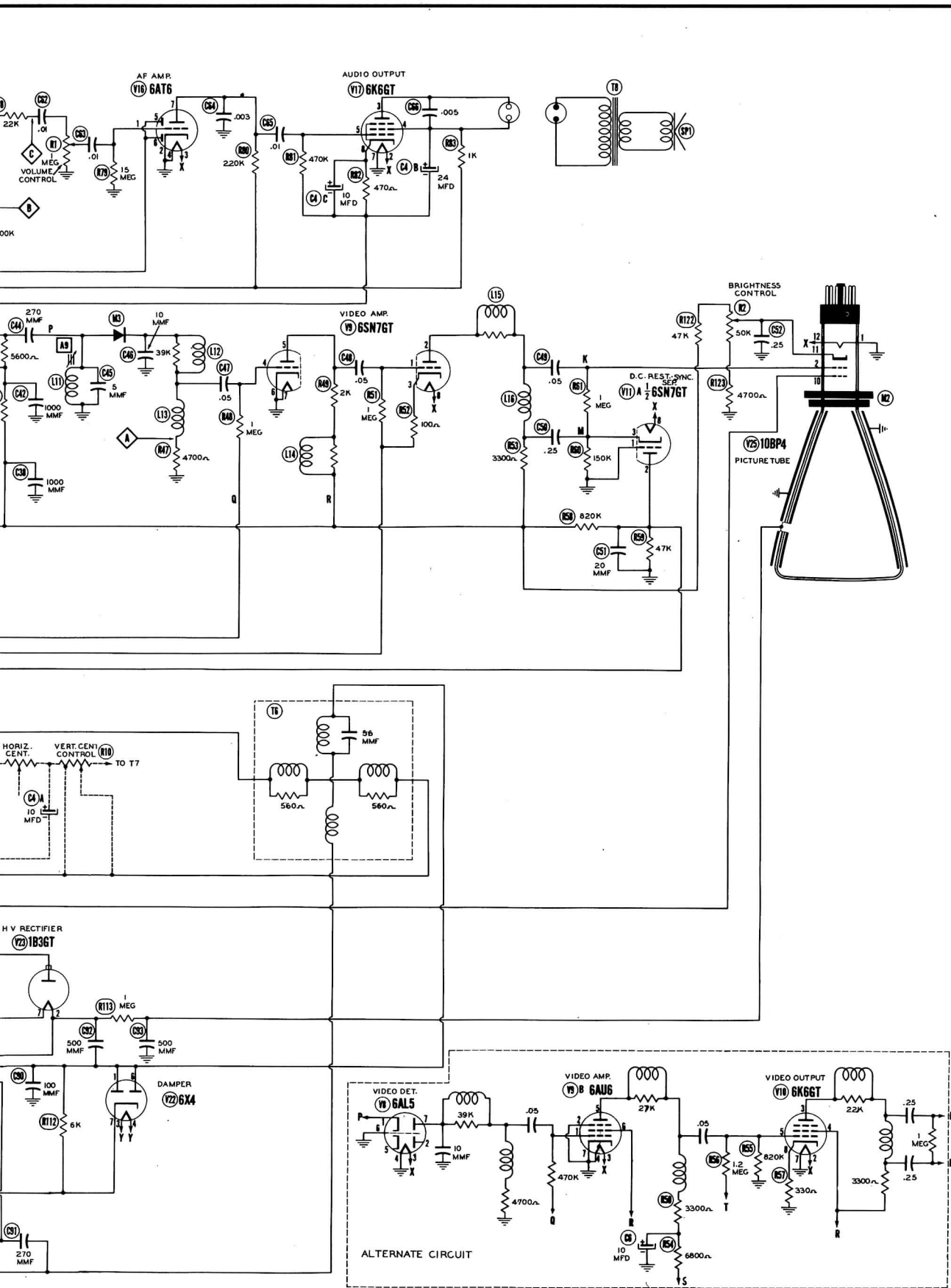


THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE



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

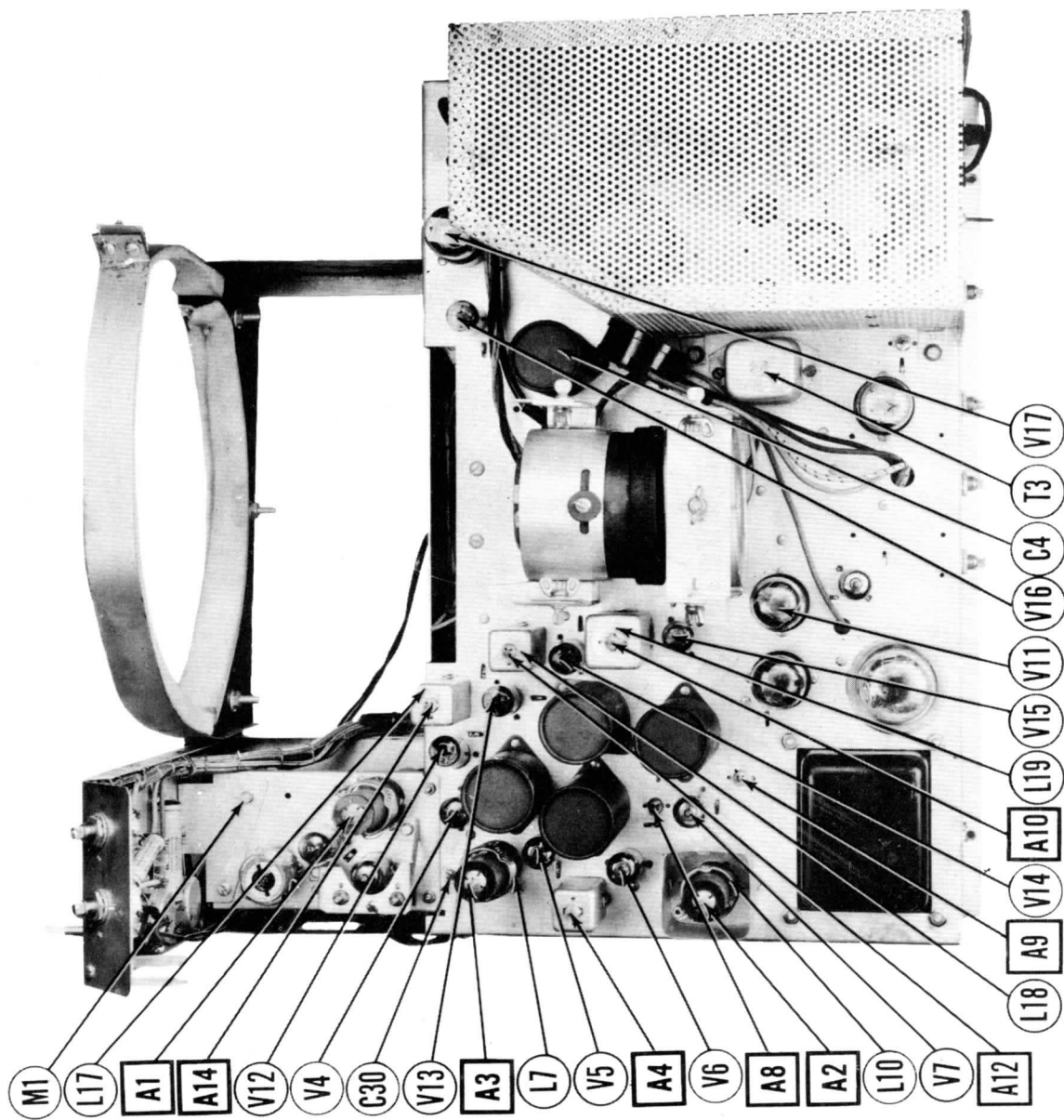




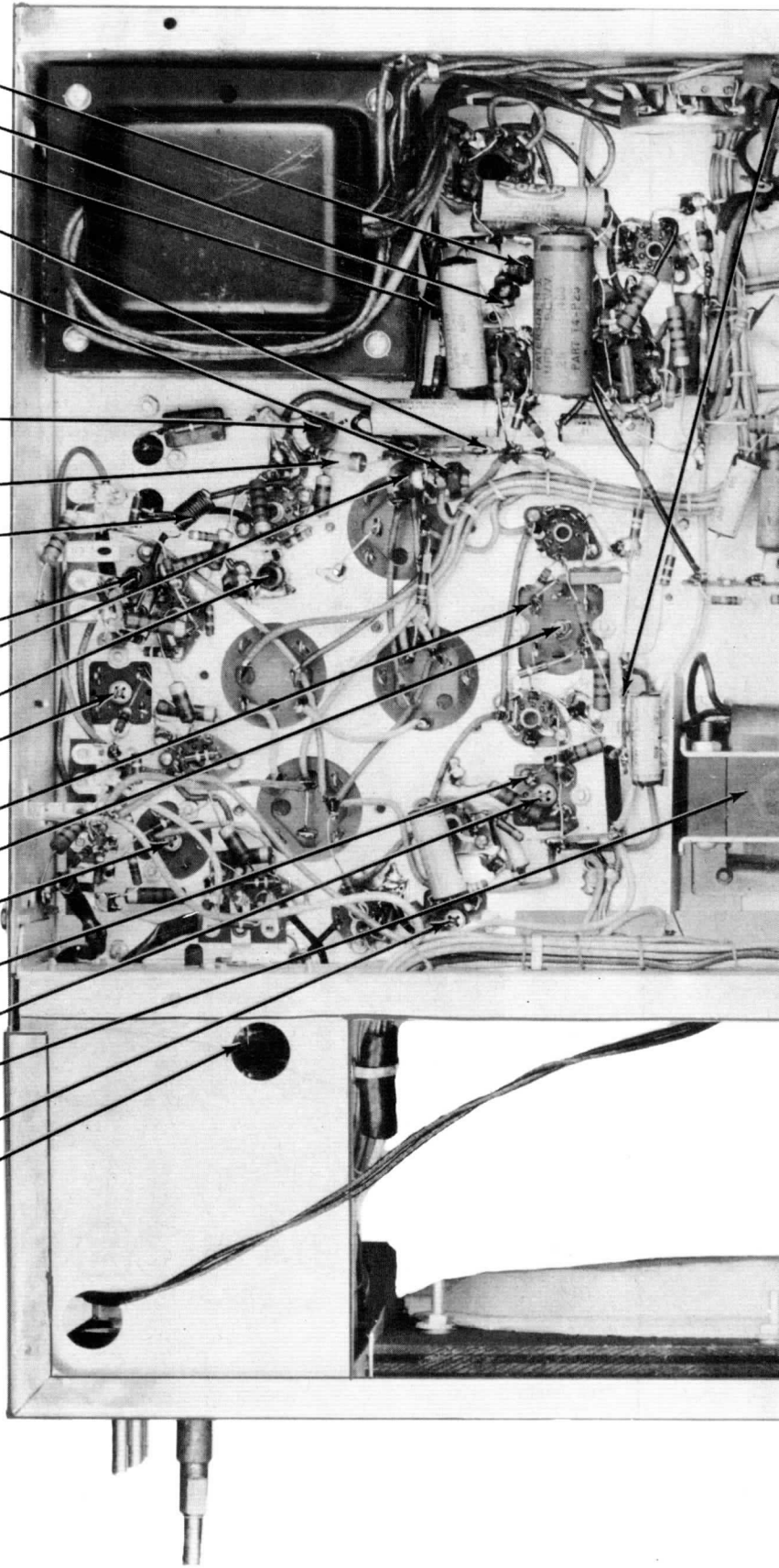
U. S. TELEVISION
MODEL T-10823

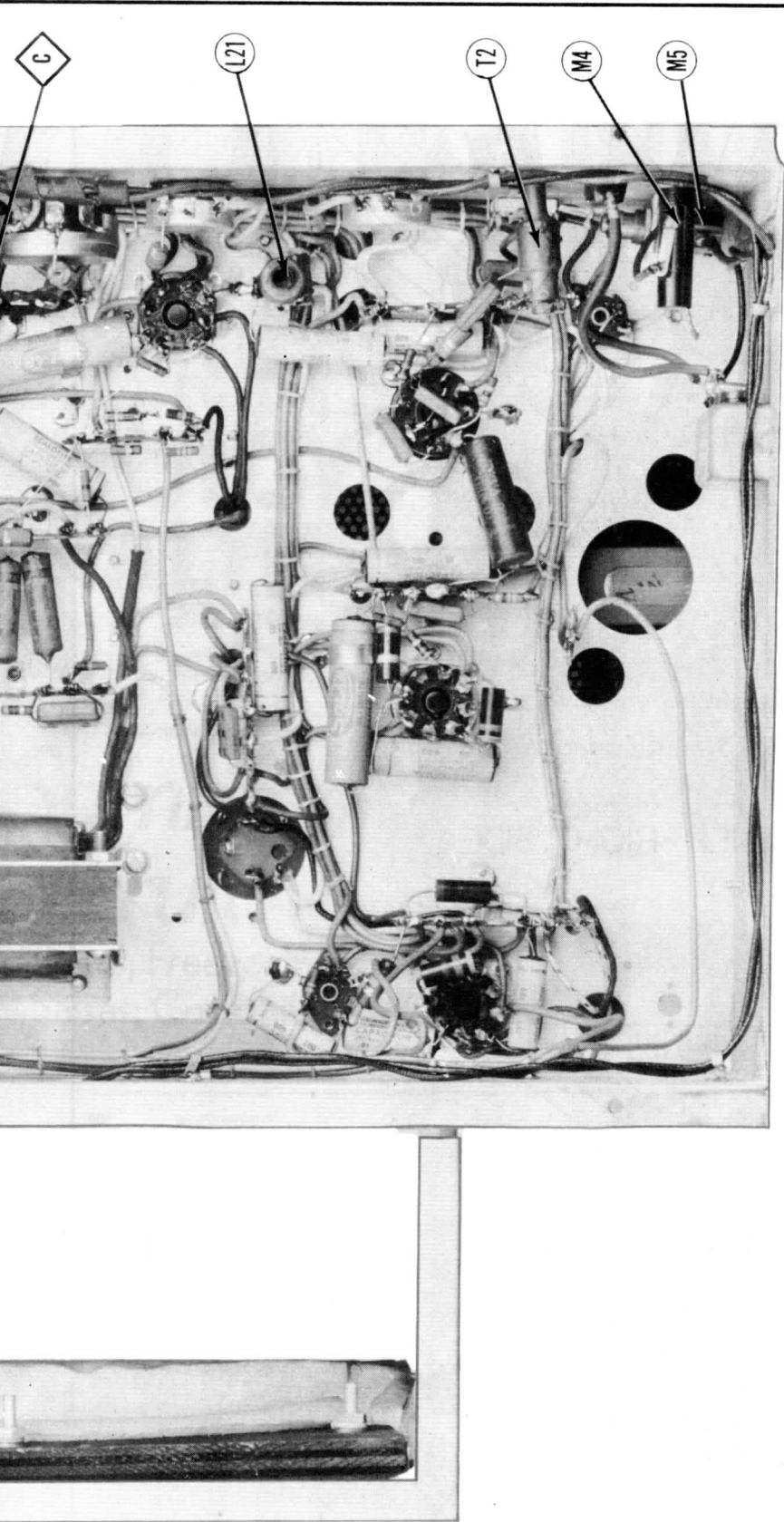
U. S. TELEVISION
MODEL T-10823

MAIN TOP SISSAHD



- A5
- A15
- T5
- A13
- D
- A6
- A11
- B
- A7
- L9
- L12
- L22
- L23
- M3
- L11
- L13
- A
- L14
- L15
- L16

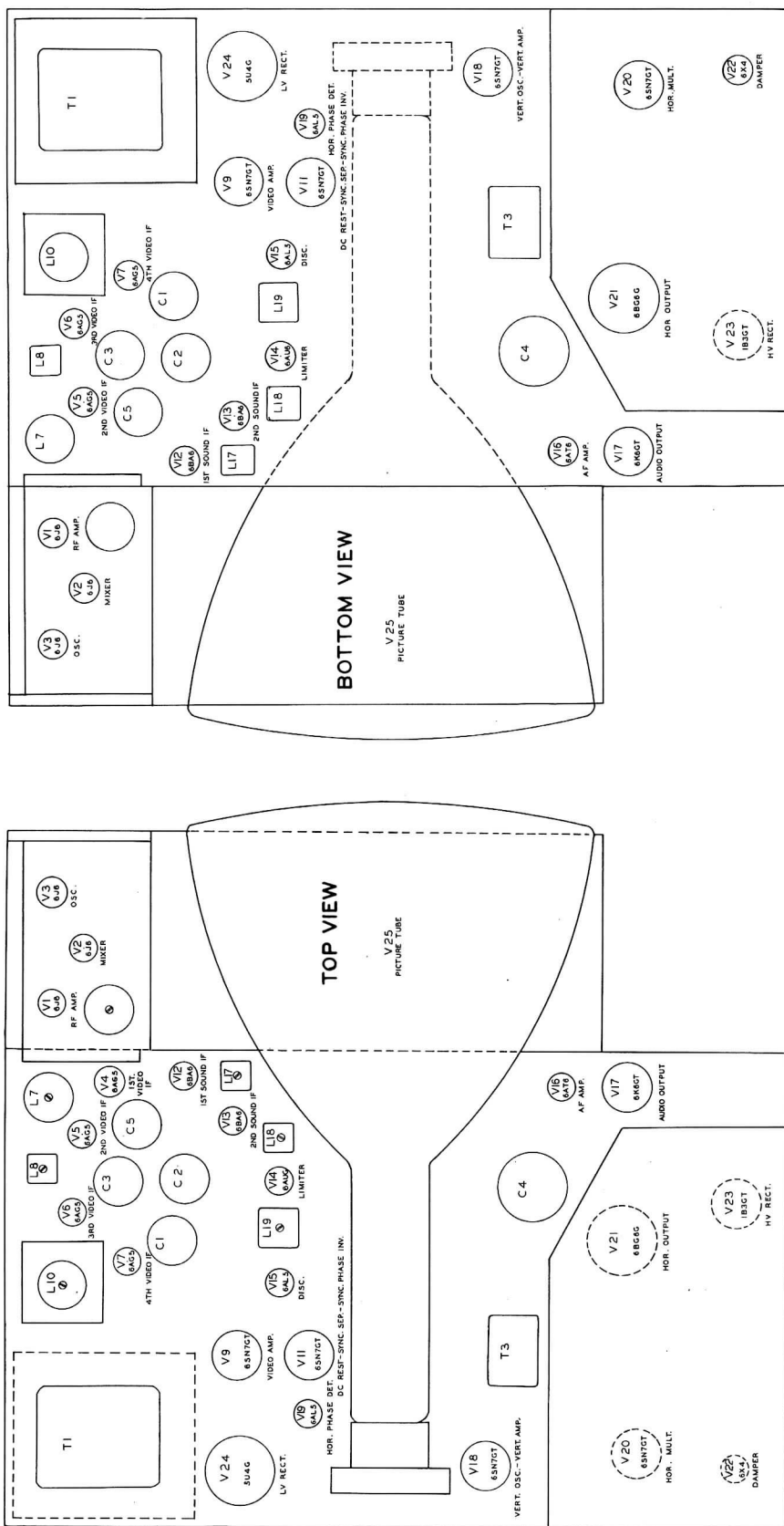




CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

U. S. TELEVISION
MODEL T-10823

TUBE PLACEMENT CHART



ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard may be eliminated by removing the horizontal oscillator tube (V20) from its socket.

VIDEO IF ALIGNMENT

If the set has an RCA Tuner, remove the local oscillator tube (V3) to prevent erroneous indications. If the set has a Standard Coil Tuner, remove the channel 13 segment of the converter section of the tuner turret, and turn the channel switch to channel 13 to disable the local oscillator.

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.	21.25MC (Unmod.)	13	DC Probe to Point A Common to chassis.	A1, A2	Adjust for MINIMUM deflection.
2. Direct	"	27.25MC	"	"	A3	"
3. Direct	"	19.75MC	"	"	A4	"
4. Direct	"	21.8MC	"	"	A5	Adjust for maximum deflection.
5. Direct	"	25.3MC	"	"	A6	"
6. Direct	"	22.3MC	"	"	A7	"
7. Direct	"	25.2MC	"	"	A8	"
8. Direct	"	23.4MC	"	"	A9	"

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
9. Direct	High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	24MC (10MC SWP)	19.75MC 21.25MC 22MC 25.75MC 27.25MC	13	Vert. Amp. to Point A Low side to chassis.		Check for response curve similar to Fig 1. If necessary retouch A1 thru A9 for optimum response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
10. .01MFD	High side to pin 1 (Grid) of 6AU6 (V14). Low side to chassis.	21.25MC (Unmod.)	13	DC Probe thru 1 Meg. to Point B Common to chassis.	A10	Adjust for maximum deflection.
11. .01MFD	"	"	"	DC Probe to Point C Common to chassis.	A11	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
12. .01MFD	High side to pin 1 (Grid) of 6BA6 (V12). Low side to chassis.	"	"	DC Probe to Point D Common to chassis.	A12, A13, A14, A15	Adjust for maximum deflection.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60 ~ modulation and 450KC sweep. Use I20 ~ sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10. .01MFD	High side to pin 1 (Grid) of 6BA6 (V12). Low side to chassis.	21.25MC (1MC SWP)	21.25MC	13	Vert. Amp. to Point D Low side to chassis.	A12, A13, A14, A15	Adjust for maximum amplitude and symmetry as per Fig 2.
11. .01MFD	"	"	"	"	Vert. Amp. to Point E Low side to chassis.	A10, A11	Adjust All so 21.25MC occurs at center of crossover lines as per Fig 3. Adjust A10 for maximum amplitude and straightness of crossover lines. Continue with step 13.

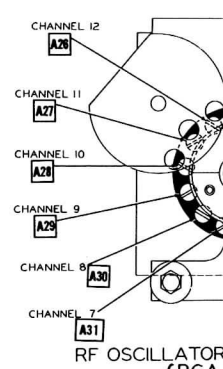
RF AND MIXER ALIGNMENT (RCA TUNER)

Replace the local oscillator tube (V3).

Connect a 1000MMF capacitor from the grid of the first video IF Amp., (V4) to chassis, using the shortest possible leads.

The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13. Two 125Ω carbon res.	Across antenna terminals with 125Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. Amp. thru 10KΩ to Point E Low side to chassis.	A16, A17, A18, A19	Adjust for response curve similar to Fig 4 with markers above 70%.
14. "	"	207MC (10MC SWP)	205.25MC 209.75MC	12	"		Check for response curve similar to Fig 4. If markers are below 70% on any channel make slight adjustment of A16, A17, A18, A19, with channel selector set for that channel. Recheck all high band channels to see that they have not been seriously effected.
		201MC (10MC SWP)	199.25MC 203.75MC	11			
		195MC (10MC SWP)	193.25MC 197.75MC	10			
		189MC (10MC SWP)	187.25MC 191.75MC	9			
		183MC (10MC SWP)	181.25MC 185.75MC	8			
		177MC (10MC SWP)	175.25MC 179.75MC	7			
15. "	"	85MC (10MC SWP)	83.25MC 87.75MC	6	"	A20, A21, A22, A23	Adjust for response curve similar to Fig 4 with markers above 70%.
16. "	"	79MC (10MC SWP)	77.25MC 81.75MC	5	"		Check for response curve similar to Fig 4. If markers are below 70% on any channel make slight adjustment of A20, A21, A22 and A23 with channel selector set for that channel. Recheck all low band channels to see that they have not been seriously effected.
		69MC (10MC SWP)	67.25MC 71.75MC	4			
		63MC (10MC SWP)	61.25MC 65.75MC	3			
		57MC (10MC SWP)	55.25MC 59.75MC	2			



INSTRUCTIONS

BEFORE ATTEMPTING ALIGNMENT

Remove the antenna lead or tube (V20) from its socket.

Prevent erroneous indications. If the set has a Standard Coil Tuner, set the channel switch to channel 13 to disable the local oscillator.

ADJUST	REMARKS
A1, A2	Adjust for MINIMUM deflection.
A3	"
A4	"
A5	Adjust for maximum deflection.
A6	"
A7	"
A8	"
A9	"

CHECK

Input of the oscilloscope for horizontal deflection.

CONNECT SCOPE	ADJUST	REMARKS
amp. to Point side to chassis.		Check for response curve similar to Fig 1. If necessary retouch A1 thru A9 for optimum response.

SWEEP GENERATOR AND VTVM

ADJUST	REMARKS
A10	Adjust for maximum deflection.
A11	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
A12, A13, A14, A15	Adjust for maximum deflection.

SWEEP GENERATOR AND OSCILLOSCOPE

Input of sawtooth voltage in scope for horizontal deflection.

CONNECT SCOPE	ADJUST	REMARKS
amp. to Point side to chassis.	A12, A13, A14, A15	Adjust for maximum amplitude and symmetry as per Fig 2.
amp. to Point side to chassis.	A10, A11	Adjust A11 so 21.25MC occurs at center of crossover lines as per Fig 3. Adjust A10 for maximum amplitude and straightness of crossover lines. Continue with step 13.

TUNER

Use the shortest possible leads.

Impedance, usually 50 ohms.

CONNECT SCOPE	ADJUST	REMARKS
amp. thru Point side to chassis.	A16, A17, A18, A19	Adjust for response curve similar to Fig 4 with markers above 70%.
		Check for response curve similar to Fig 4. If markers are below 70% on any channel make slight adjustment of A16, A17, A18, A19, with channel selector set for that channel. Recheck all high band channels to see that they have not been seriously effected.
	A20, A21, A22, A23	Adjust for response curve similar to Fig 4 with markers above 70%.
		Check for response curve similar to Fig 4. If markers are below 70% on any channel make slight adjustment of A20, A21, A22 and A23 with channel selector set for that channel. Recheck all low band channels to see that they have not been seriously effected.

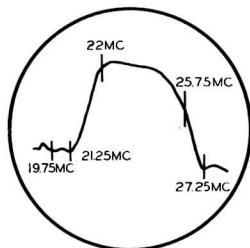


FIG. 1

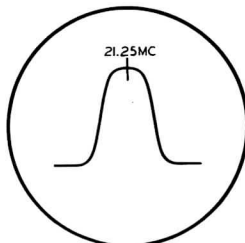


FIG. 2

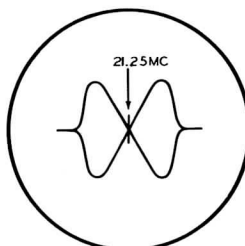


FIG. 3

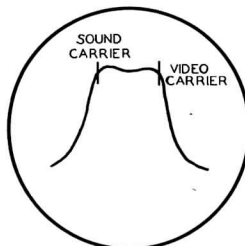
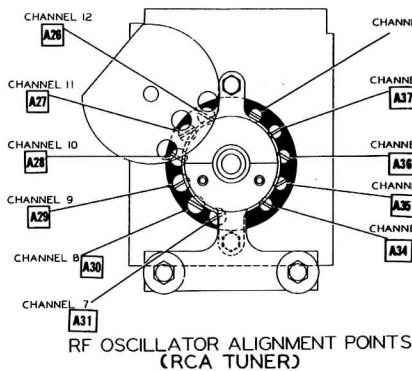


FIG. 4



RF OSCILLATOR ALIGNMENT POINTS (RCA TUNER)

ALIGNMENT

OSCILLATOR

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL
17. Two 125Ω carbon res.	Across antenna terminals with 125Ω in each lead.	215.75MC (Unmod.)	13
18. "	"	209.75MC	12
		203.75MC	11
		197.75MC	10
		191.75MC	9
		185.75MC	8
		179.75MC	7
19. "	"	87.75MC	6
20. "	"	81.75MC	5
		71.75MC	4
		65.75MC	3
		59.75MC	2

WAVE TRAP

Wave traps A38 and A39 are used for specific types of interference. The sweep generator output lead should be terminated with its characteristic impedance. The wave trap is tuned to the channel having the interference set fine tuning control in the picture and sound, keeping the cores at approximately the same position.

RF AND MIXER ALIGNMENT

Replace the channel 13 segment of the tuner turret. The sweep generator output lead should be terminated with its characteristic impedance.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY
13. Two 125Ω carbon res.	Across antenna terminals with 125Ω in each lead.	207MC (10MC SWP)	205.25MC 209.75MC
14. "	"	213MC (10MC SWP)	211.25MC 215.75MC
		201MC (10MC SWP)	199.25MC 203.75MC
		195MC (10MC SWP)	193.25MC 197.75MC
		189MC (10MC SWP)	187.25MC 191.75MC
		183MC (10MC SWP)	181.25MC 185.75MC
		177MC (10MC SWP)	175.25MC 179.75MC
		85MC (10MC SWP)	83.25MC 87.75MC
		79MC (10MC SWP)	77.25MC 81.75MC
		69MC (10MC SWP)	67.25MC 71.75MC
		63MC (10MC SWP)	61.25MC 65.75MC
		57MC (10MC SWP)	55.25MC 59.75MC

OSCILLATOR ALIGNMENT

Complete oscillator alignment may not be necessary. If all channels are aligned, it may be possible to correct them in one step using the channel selector switch. The individual oscillator adjustments are reached through a hole accessible through this hole as the channel selector switch is turned.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL
15. Two 125Ω carbon res.	Across antenna terminals with 125Ω in each lead.	215.75MC (Unmod.)	13
		209.75	12
		203.75MC	11
		197.75MC	10
		191.75MC	9
		185.75MC	8
		179.75MC	7
		87.75MC	6
		81.75MC	5
		71.75MC	4
		65.75MC	3
		59.75MC	2

ALIGNMENT INSTRUCTIONS (CONT.)

OSCILLATOR ALIGNMENT (RCA TUNER)

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
17.	Two 125Ω carbon res.	215.75MC (Unmod.)	13	DC Probe to Point Common to chassis.	A24, A25	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep slug pairs at approximately the same relative position.
18.	"	209.75MC	12	"	A26	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
		203.75MC	11		A27	
		197.75MC	10		A28	
		191.75MC	9		A29	
		185.75MC	8		A30	
		179.75MC	7		A31	
19.	"	87.75MC	6	"	A32, A33	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep slug pairs at approximately the same relative position.
20.	"	81.75MC	5	"	A34	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
		71.75MC	4		A35	
		65.75MC	3		A36	
		59.75MC	2		A37	

WAVE TRAP ADJUSTMENT (RCA TUNER)

Wave traps A38 and A39 are used for specific types of interference and their alignment will depend upon the type encountered. With the receiver tuned to the channel having the interference set fine tuning control until interference is at maximum. Adjust A38 and A39 for minimum interference in the picture and sound, keeping the cores at approximately the same relative position. Turn one core 1/2 turn, adjust the other for minimum interference.

RF AND MIXER ALIGNMENT (STD. COIL TUNER)

Replace the channel 13 segment of the tuner turret. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

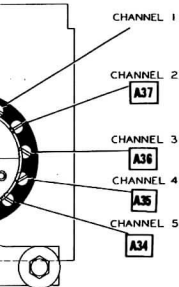
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13.	Two 125Ω carbon res.	207MC (10MC SWP)	205.25MC 209.75MC	12	Vert. Amp. thru 10KΩ to Point Low side to chassis.	A501, A502, A503	Adjust for response curve similar to Fig 4 with markers above 70%.
14.	"	213MC (10MC SWP)	211.25MC 215.75MC	13	"		Check for response curve similar to Fig 4 with markers above 70%. Check for response curve similar to Fig 4. If optimum response is desired for any channel, make slight adjustment of A501, A502, A503 with channel selector set for that channel. Recheck all channels to see that they have not been seriously effected.
		201MC (10MC SWP)	199.25MC 203.75MC	11			
		195MC (10MC SWP)	193.25MC 197.75MC	10			
		189MC (10MC SWP)	187.25MC 191.75MC	9			
		183MC (10MC SWP)	181.25MC 185.75MC	8			
		177MC (10MC SWP)	175.25MC 179.75MC	7			
		85MC (10MC SWP)	83.25MC 87.75MC	6			
		79MC (10MC SWP)	77.25MC 81.75MC	5			
		69MC (10MC SWP)	67.25MC 71.75MC	4			
		63MC (10MC SWP)	61.25MC 65.75MC	3			
		57MC (10MC SWP)	55.25MC 59.75MC	2			

OSCILLATOR ALIGNMENT (STD. COIL TUNER)

Complete oscillator alignment may not be necessary. If all channels seem to be off frequency approximately the same amount, for a majority of the channels, it may be possible to correct them in one step using A504. It should be noted that this is an all channel oscillator circuit adjustment and should not be adjusted for any individual channel. If adjustment of A504 will not bring all channels within the range of the fine tuning control, it will be necessary to use the individual channel oscillator adjustment for each channel that is off frequency.

The individual oscillator adjustments are reached through a hole just to the right of the channel switch shaft. The correct adjustment screw is accessible through this hole as the channel selector switch is turned to each channel.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
15.	Two 125Ω carbon res.	215.75MC (Unmod.)	13	DC Probe to Point Common to chassis.	A505	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
		209.75	12		A506	
		203.75MC	11		A507	
		197.75MC	10		A508	
		191.75MC	9		A509	
		185.75MC	8		A510	
		179.75MC	7		A511	
		87.75MC	6		A512	
		81.75MC	5		A513	
		71.75MC	4		A514	
		65.75MC	3		A515	
		59.75MC	2		A516	



ALIGNMENT POINTS (TUNER)

U. S. TELEVISION
MODEL T-10823

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	70VDC	70VDC	6.3VAC	0V.	-4VDC	0V.	0V.		
V 2	6J6	95VDC	95VDC	6.3VAC	0V.	-1.6VDC	-3.2VDC	0V.		
V 3	6J6	50VDC	50VDC	6.3VAC	0V.	8-3.4VDC	8-3.7VDC	.2VDC		
V 4	6AG5	-1VDC	-4VDC	6.3VAC	0V.	100VDC	100VDC	.4VDC		
V 5	6AG5	-.9VDC	-2VDC	6.3VAC	0V.	105VDC	105VDC	.2VDC		
V 6	6AG5	-1VDC	.3VDC	6.3VAC	0V.	95VDC	110VDC	.3VDC		
V 7	6AG5	0V.	1.5VDC	6.3VAC	0V.	70VDC	110VDC	1.5VDC		
V 8	6AL5									
V 9	6SN7GT	#-1.5VDC	#185VDC	#1.2VDC	-1.8VDC	110VDC	0V.	0V.	6.3VAC	
V 10	6K6GT									
V 11	6SN7GT	0V.	3VDC	13VDC	0V.	105VDC	5.2VDC	0V.	6.3VAC	
V 12	6BA6	0V.	0V.	6.3VAC	0V.	100VDC	100VDC	1.6VDC		
V 13	6BA6	0V.	0V.	6.3VAC	0V.	105VDC	105VDC	1.5VDC		
V 14	6AU6	-.5VDC	0V.	6.3VAC	0V.	50VDC	50VDC	0V.		
V 15	6AL5	0V.	-.1VDC	6.3VAC	0V.	0V.	0V.	-.4VDC		
V 16	6AT6	-.4VDC	0V.	6.3VAC	0V.	-4VDC	0V.	80VDC		
V 17	6K6GT	0V.	6.3VAC	#280VDC	#310VDC	#0V.	#0V.	0V.	#20VDC	
V 18	6SN7GT	#-10VDC	#55VDC	#110VDC	#0V.	#320VDC	#6VDC	#15.5VDC	6.3VAC	0V.
V 19	6AL5	0V.	0V.	6.3VAC	0V.	2VDC	0V.	1.2VDC		
V 20	6SN7GT	-1VDC	225VDC	9.5VDC	-2VDC	130VDC	9.5VDC	6.3VAC	0V.	
V 21	6BG6G	0V.	6.3VAC	#12.5VDC	0V.	#0V.	#350VDC	0V.	#280VDC	TOP. CAP
V 22	6X4	275VDC	0V.	#0V.	#0V.	0V.	275VDC	280VDC		
V 23	1B3GT									
* DO NOT MEASURE										
V 24	5U4G	0V.	300VDC	117VAC	#400VAC	6.3VAC	#400VAC	6.3VAC	300VDC	
V 25	10BP4	0V.	11VDC	253VDC	PIN 10 70VDC	PIN 12 6.3VAC				

§ TAKEN WITH VACUUM TUBE VOLTMETER.

MEASURED FROM PIN 3 OF V1B.

♦ 6.3VAC MEASURED ACROSS FILAMENTS.

• DO NOT MEASURE.

NOTE: CONTRAST CONTROL SET AT MAXIMUM FOR THESE MEASUREMENTS.

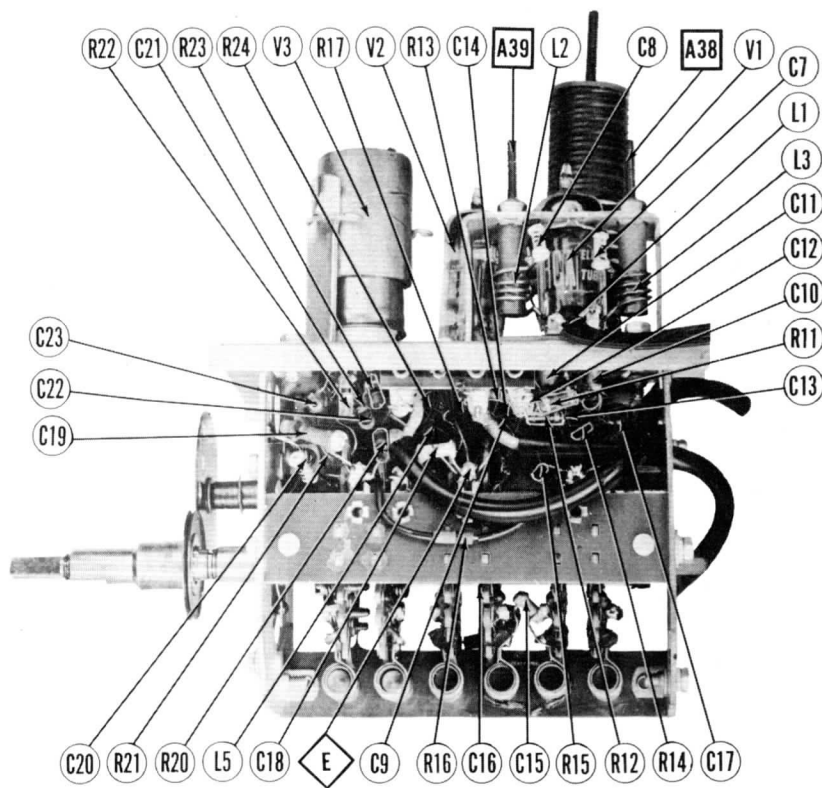
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	†6KΩ	†6KΩ	.1Ω	.0Ω	85KΩ	85KΩ	0Ω		
V 2	6J6	†3KΩ	†3KΩ	.1Ω	.0Ω	1 Meg.	1 Meg.	0Ω		
V 3	6J6	†7KΩ	†7KΩ	.1Ω	.0Ω	100KΩ	100KΩ	47Ω		
V 4	6AG5	†5KΩ	39Ω	.1Ω	.0Ω	†2.5KΩ	†2.5KΩ	39Ω		
V 5	6AG5	15KΩ	39Ω	.1Ω	.0Ω	†2.4KΩ	†2.4KΩ	39Ω		
V 6	6AG5	11KΩ	39Ω	.1Ω	.0Ω	15KΩ	†2.2KΩ	39Ω		
V 7	6AG5	.1Ω	150Ω	.1Ω	.0Ω	†7.6KΩ	†2.2KΩ	150Ω		
V 8	6AL5									
V 9	6SN7GT	1 Meg.	†4.5KΩ	#100 Ω	1 Meg.	†3.3KΩ	0Ω	0Ω	.1Ω	
V 10	6K6GT									
V 11	6SN7GT	0Ω	†800KΩ	150KΩ	1 Meg.	†9KΩ	4KΩ	0Ω	.1Ω	
V 12	6BA6	0Ω	0Ω	.1Ω	.0Ω	†2.5KΩ	†2.5KΩ	100Ω		
V 13	6BA6	470KΩ	0Ω	.1Ω	.0Ω	†2.5KΩ	†4.8KΩ	100Ω		
V 14	6AU6	22KΩ	0Ω	.1Ω	.0Ω	†8KΩ	†8KΩ	0Ω		
V 15	6AL5	200KΩ	100KΩ	.1Ω	.0Ω	0Ω	0Ω	100KΩ		
V 16	6AT6	15 Meg.	0Ω	.1Ω	.0Ω	100KΩ	Inf.	†220KΩ		
V 17	6K6GT	Inf.	.1Ω	†2KΩ	†1.5KΩ	#470KΩ	#0Ω	0Ω	#470Ω	
V 18	6SN7GT	#2 Meg.	†2.4 Meg	#0Ω	#2.2 Meg.	†2KΩ	#5.5KΩ	.1Ω	0Ω	
V 19	6AL5	27KΩ	27KΩ	.1Ω	.0Ω	4.8 Meg.	Inf.	4.8 Meg.		
V 20	6SN7GT	5 Meg.	†12KΩ	2KΩ	130KΩ	†270KΩ	2KΩ	.1Ω	0Ω	
V 21	6BG6G	Inf.	.1Ω	#8Ω	Inf.	1 Meg.	†230Ω	0Ω	†4.7KΩ	TOP CAP
V 22	6X4	†65Ω	Inf.	Inf.	Inf.	Inf.	†65Ω	†6KΩ		
V 23	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP	†8KΩ
V 24	5U4G	Inf.	8KΩ	#0Ω	#26Ω	0Ω	#28Ω	0Ω	8KΩ	
V 25	10BP4	0Ω	1.1Meg.	PIN 10 †230Ω	PIN 11 27KΩ	PIN 12 .1Ω				

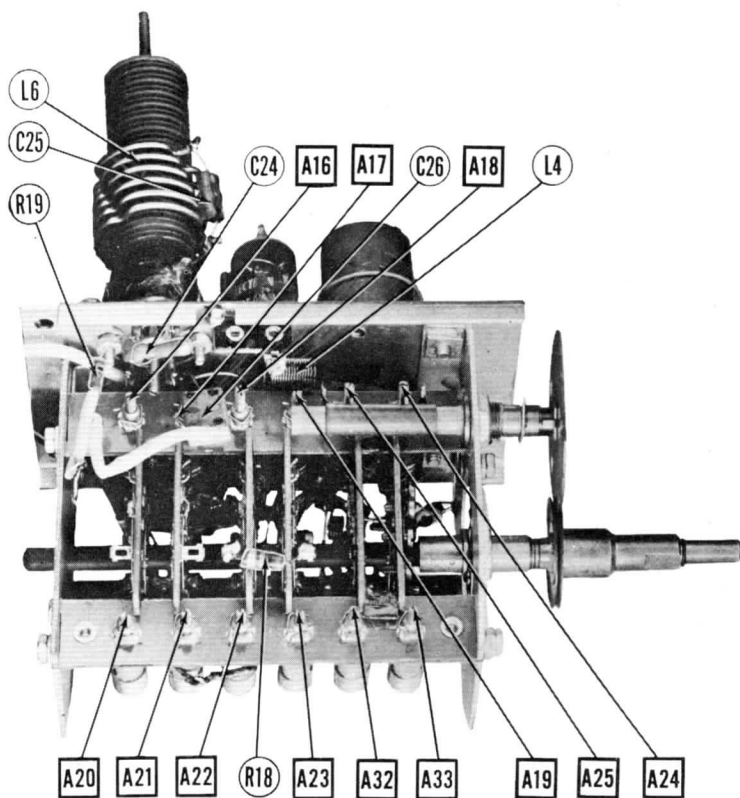
† MEASURED FROM PIN 8 OF V24.

MEASURED FROM PIN 3 OF V1B.

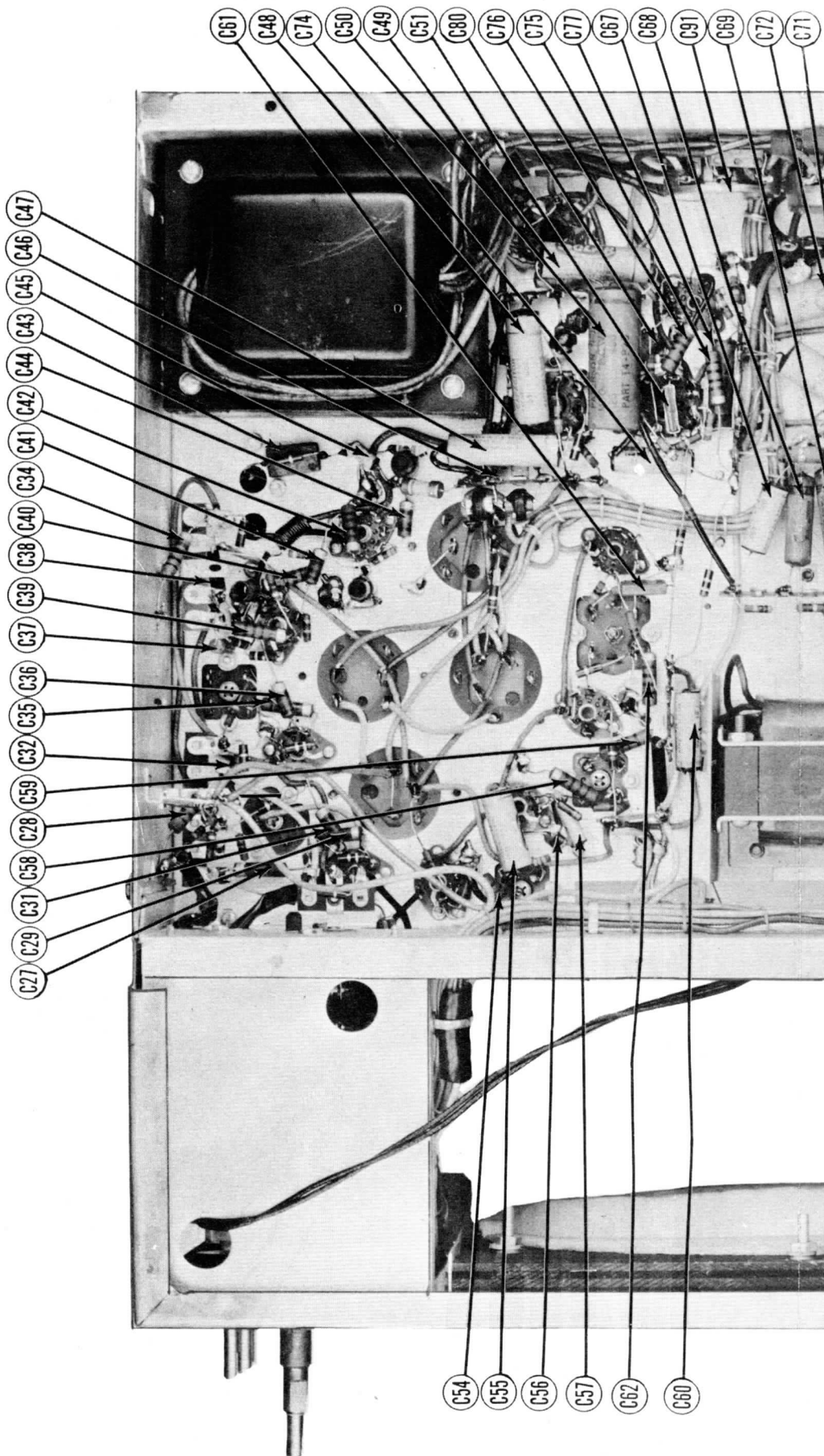
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.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

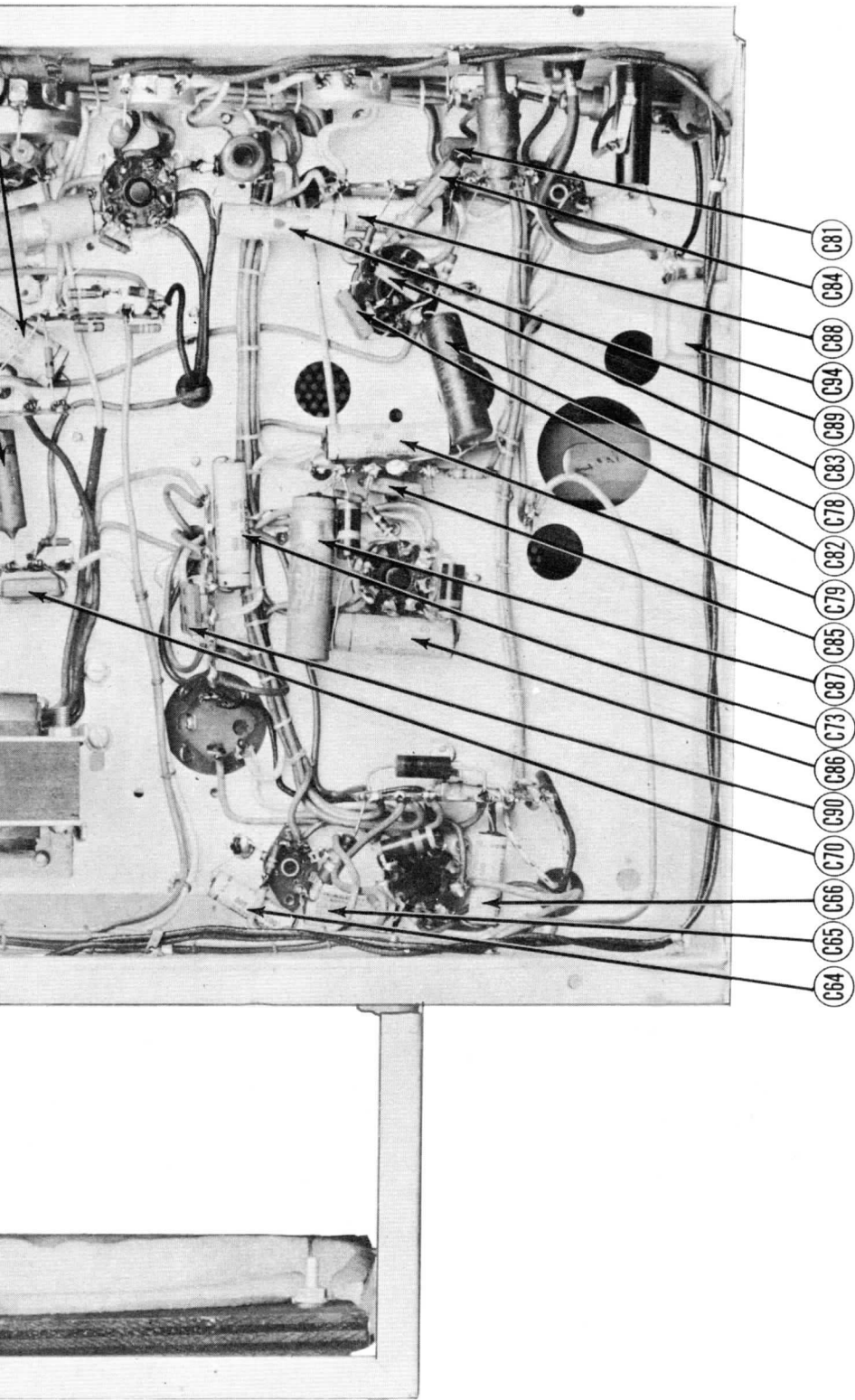


RF TUNER-RIGHT SIDE



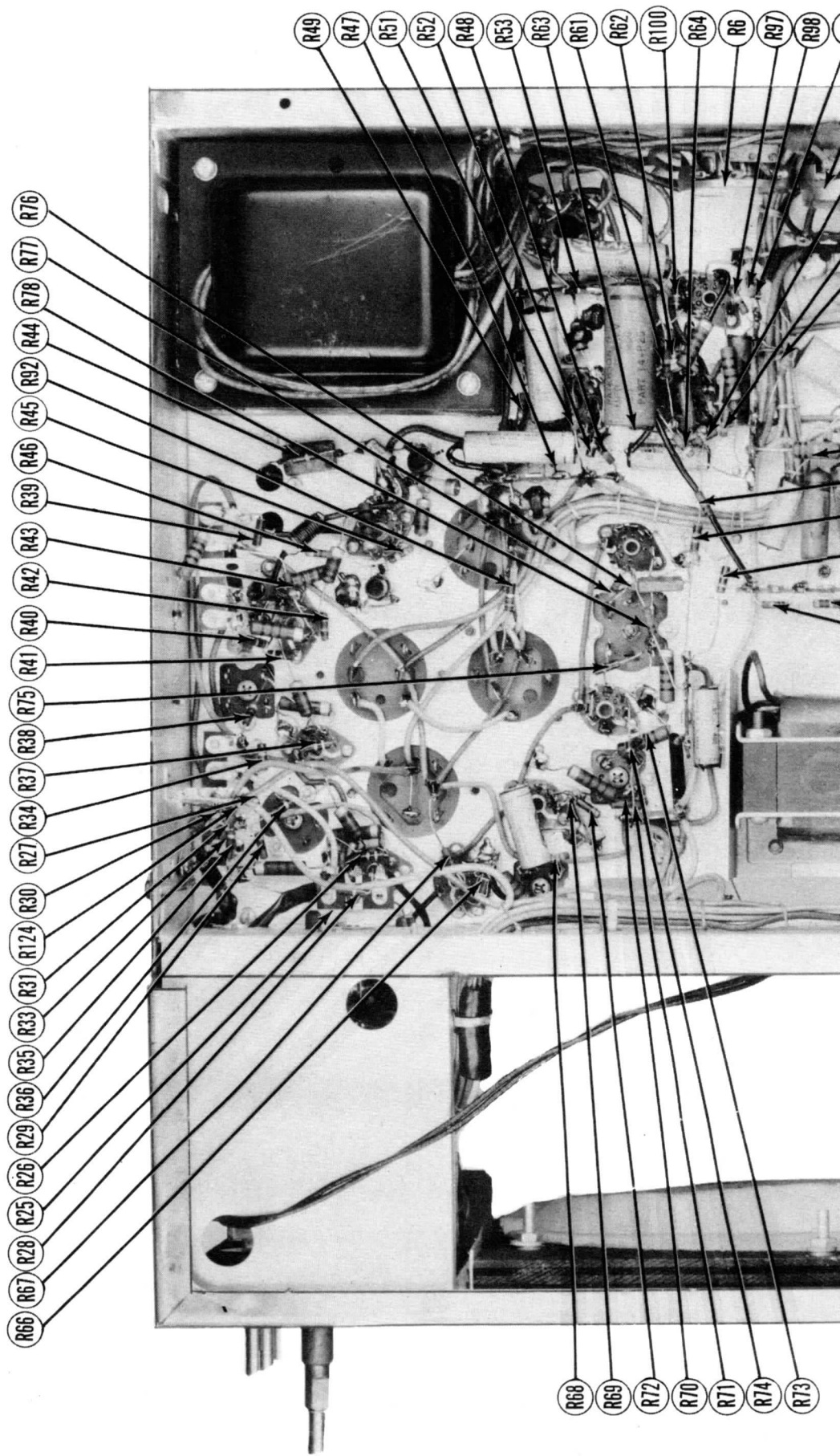
RF TUNER-LEFT SIDE

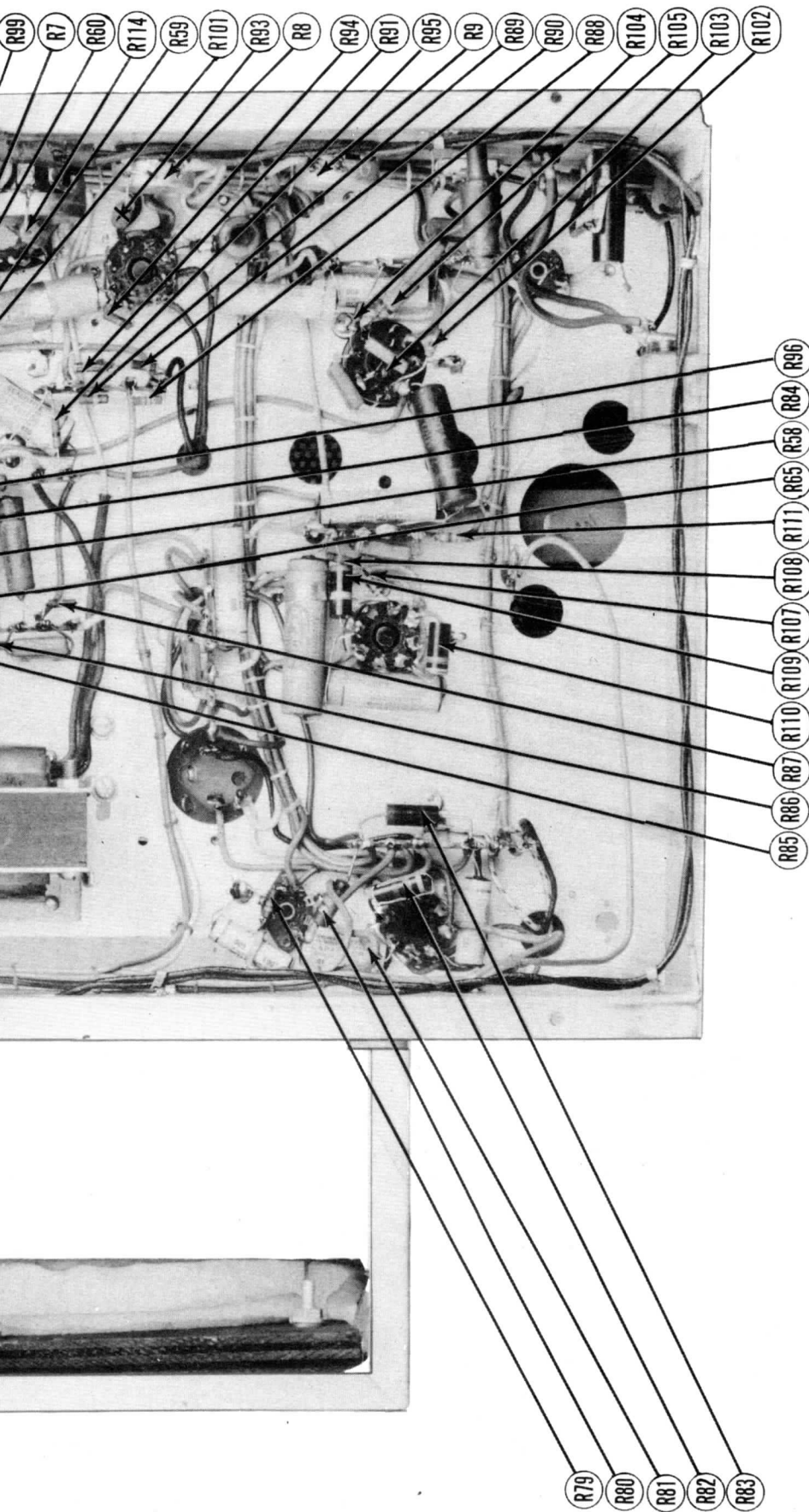




CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

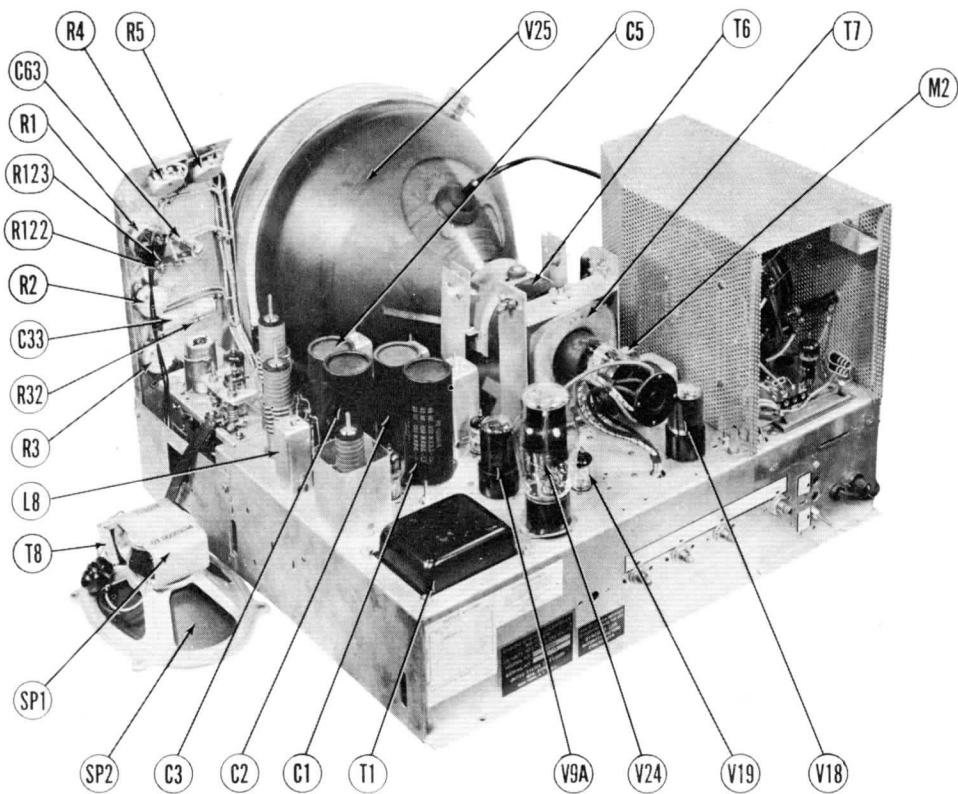
U. S. TELEVISION
MODEL T-10823



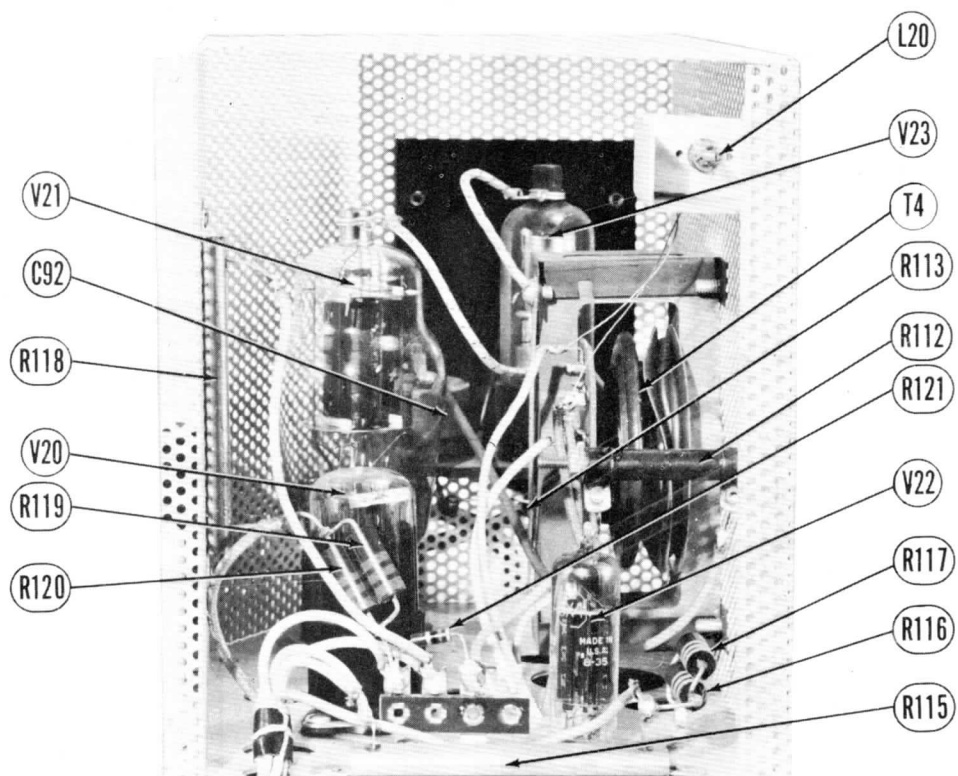


CHASSIS BOTTOM VIEW - RESISTOR IDENTIFICATION

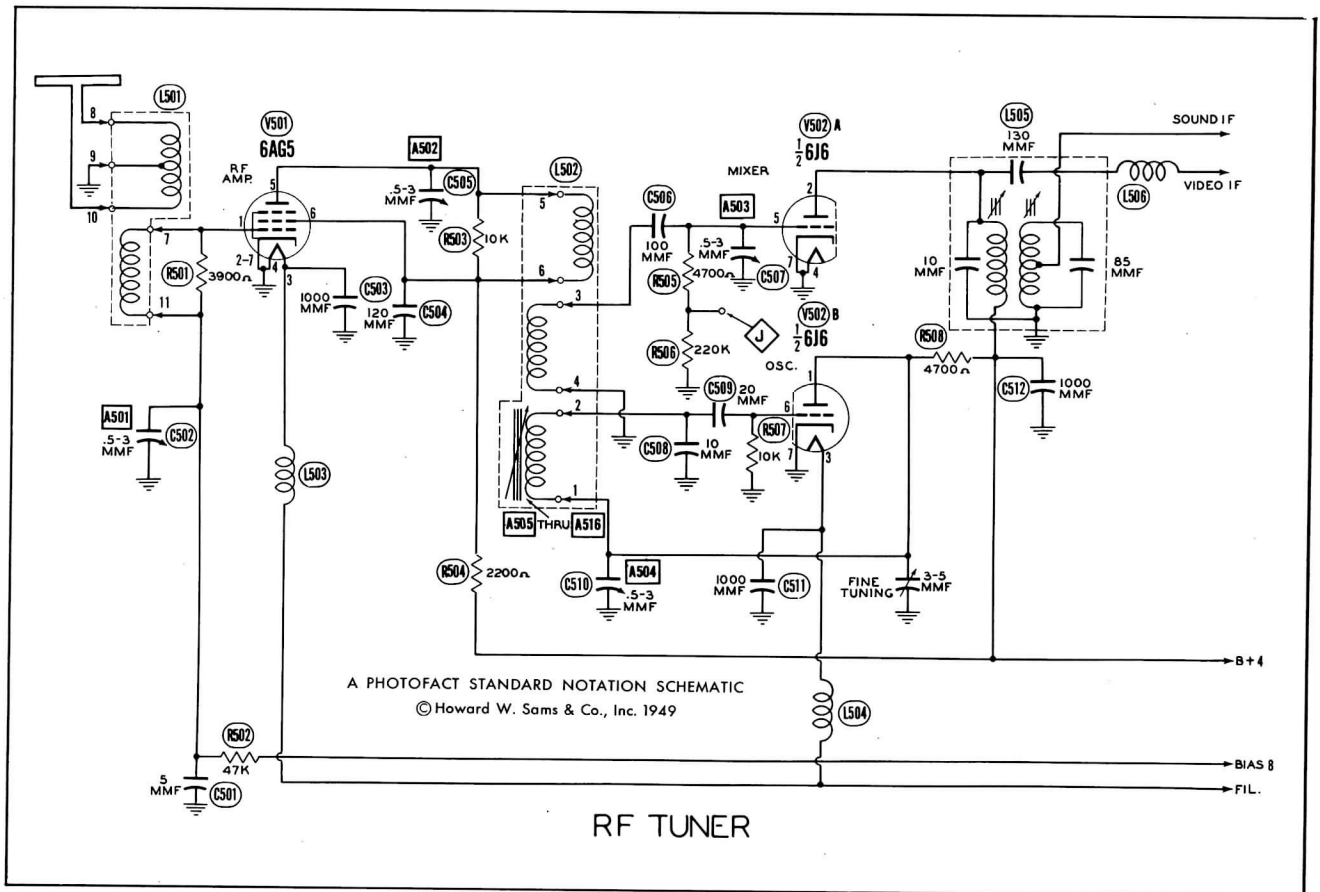
U. S. TELEVISION
MODEL T-10823



CHASSIS-TOP VIEW



HIGH VOLTAGE SUPPLY



PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA	
		STANDARD REPLACEMENT	RMA BASE TYPE
V501	RF Amp.	6AG5	7BD
V502	Mixer-Osc.	6J6	7BF

RESISTORS

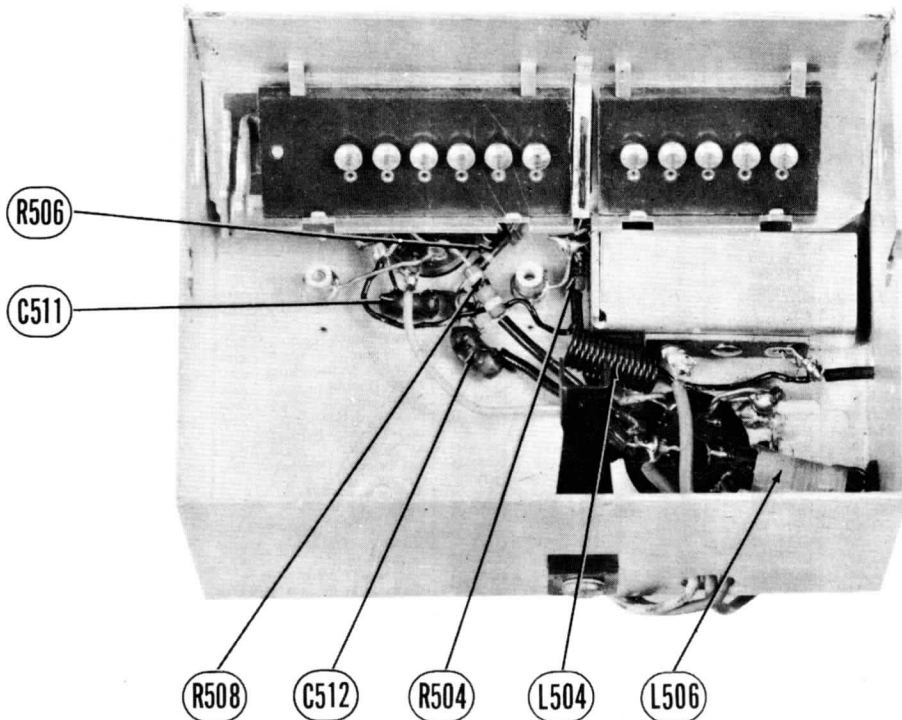
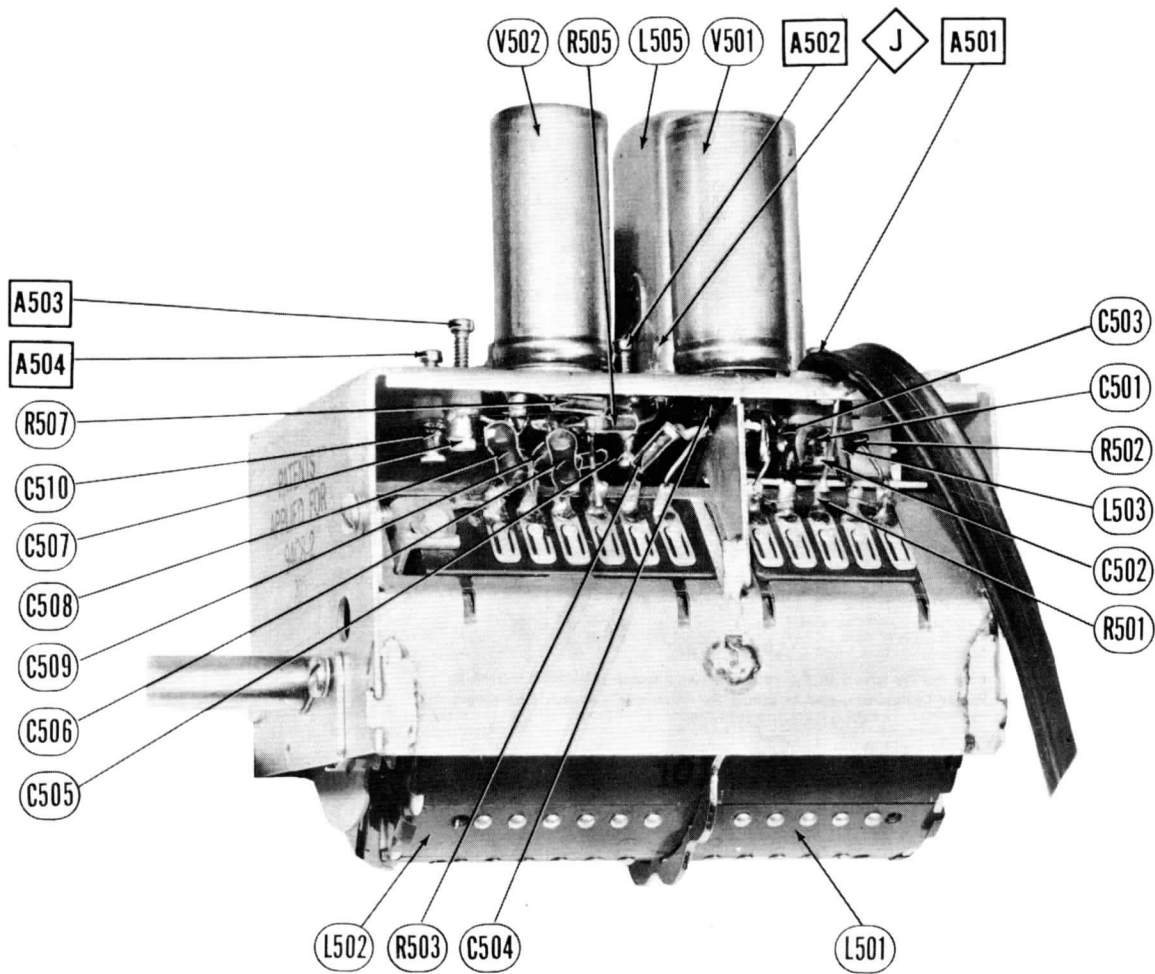
ITEM No.	RATING		IDENTIFICATION
	RESISTANCE	WATTS	
R501	3900Ω	1/4	RF Grid Shunt
R502	47KΩ	1/4	RF Grid
R503	10KΩ	1/4	RF Plate Shunt
R504	2200Ω	1/4	RF Decoupling
R505	4700Ω	1/4	Mixer Grid
R506	220KΩ	1/4	Mixer Grid
R507	10KΩ	1/4	Osc. Grid
R508	4700Ω	1/4	Osc. Plate

CAPACITORS

ITEM No.	RATING		IDENTIFICATION
	CAP.	VOLT	
C501	5		Fixed Trimmer
C502	.5-3		RF Trimmer
C503	1000		Filament Bypass
C504	120		RF Decoupling
C505	.5-3		RF Trimmer
C506	100		RF Coupling
C507	.5-3		RF Trimmer
C508	10		Osc. Feedback
C509	20		Osc. Grid Cap.
C510	.5-3		Osc. Trimmer
C511	1000		Filament Bypass
C512	1000		RF Bypass

COILS

ITEM No.	USE	DC RES.		
		PRI.	SEC.	
L501	Ant. Coil	0Ω	0Ω	Replace in matched pairs only. Each coil is identified with channel number.
L502	Mixer & Osc	0Ω	0Ω	
L503	Fil. Choke	0Ω		
L504	Fil. Choke	0Ω		
L505	IF Trans.	0Ω	.2Ω	
L506	RF Coil	.2Ω		



DESCRIPTIONS

RS (CONT.)

ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
NPOK-20	MS-42	DC Restorer Plate Bypass
	TC-2	Picture Tube Cathode Bypass
GP2L-001	IFM-21	1st Sound IF Cathode Bypass *
GP2L-001	IFM-21	1st Sound IF Decoupling
GP-2-335-01	TM-11	2nd Sound IF Grid Filter
GP2L-001	IFM-21	2nd Sound IF Cathode Bypass
GP2L-001	IFM-21	2nd Sound IF Screen Bypass
GP2L-001	IFM-21	2nd Sound IF Plate Decoupling
GPIK-39	IFM-44	Limiter Grid Filter
GP2L-001	IFM-21	Limiter Decoupling
GP2K-270	IFM-325	RF Bypass
GP2-335-01	TM-11	Audio Coupling
GP2-335-01	TM-11	Audio Coupling
GP2M-003	TM-23	De - emphasis
GP2-335-01	TM-11	Audio Coupling
GP2M-005	TM-25	Output Plate Bypass
GP2M-002	TM-22	Integrator Network
GP2M-005	TM-25	Integrator Network
GP2M-005	TM-25	Integrator Network
GP2M-005	IFM-25	Vertical Oscillator Grid Cap.
	TM-1	Vertical Discharge
	TC-2	Vertical Sweep Coupling
	TM-13	Isolation
GP2-335-01	TM-11	Sync Coupling
GP2L-001	IFM-21	Horiz. Sync Coupling
GP2L-001	IFM-21	Horiz. Sync Coupling
GP2M-005	TM-25	AFC Filter
	TM-15	AFC Filter
	TM-15	Horiz. Feedback
GP2-335-01	TM-11	AFC Filter
		Fixed Trimmer
GP2K-300	MS-33	Horiz. Multivibrator Feedback
GP2K-390	IFM-34	Horiz. Discharge
GP2K-270	IFM-325	Hor. Sweep Coupling
		Hor. Feedback
	TM-15	Hor. Output Screen Bypass
	TC-2	Hor. Output Cath. Bypass
	TM-13	Damper Filter
	TM-13	Damper Filter
GPIK-100	IFM-31	Fixed Trimmer *
GP2K-270	IFM-325	Hor. Cent. Cont. Bypass
410-500		HV Filter
410-500		HV Filter *
	TM-15	Line Filter
	TM-15	Line Filter

ROLS

INSTALLATION NOTES
Volume control
Attach to RIA per instructions
Brightness control
Contrast control
Vert. hold control
Horiz. hold control
Horiz. centering control, Wire Wound
Focus control, Wire Wound
Vert. linearity control
Height control
Vert. centering control, tapped at 15Ω See Note 1

TORS

IDENTIFICATION CODES
RF Grid
RF Grid
Bias Network
RF Plate
RF Plate
RF Plate Decoupling
Mixer Grid
Mixer Grid Shunt
Mixer Plate Decoupling
Decoupling
Osc. Plate
Osc. Grid
Osc. Grid
Osc. Cathode
1st Video IF Grid
1st Video IF Cathode
1st Video IF Decoupling
Decoupling
Bias Network
Bias Network
Bias Network
Voltage Divider
Voltage Divider
Decoupling

ALL RESISTORS ARE ± 20% UNLESS OTHERWISE STATED.

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	UST PART No.	IRC PART No.	
R35	1000Ω	10%		BTS-1000	Bias Network
R36	10KΩ	10%			2nd Video IF Grid
R37	39Ω	10%			2nd Video IF Cathode
R38	1000Ω	10%		BTS-1000	2nd Video IF Decoupling
R39	150Ω	10%			Decoupling
R40	4700Ω	10%			3rd Video IF Grid
R41	39Ω	10%			3rd Video IF Cathode
R42	2700Ω	10%		BTS-2700	3rd Video IF Plate
R43	1000Ω	10%		BTS-1000	3rd Video IF Decoupling
R44	150Ω	10%			4th Video IF Cathode
R45	5600Ω	10%		BTS-5600	4th Video IF Plate
R46	1000Ω	10%		BTS-1000	4th Video IF Decoupling
R47	4700Ω	10%		BTS-4700	Video Det. Load
R48	1 Meg.			BTS-1 Meg.	Video Amp. Grid
R49	2000Ω	5%			Video Amp. Plate
R50	3300Ω			BTS-3300	Video Amp. Plate See Note 2
R51	1 Meg.			BTS-1 Meg.	Video Amp. Grid
R52	100Ω	10%		BW- $\frac{1}{2}$ -100	Video Amp. Cathode
R53	3300Ω	5%		BTA-3300-5%	Video Amp. Plate
R54	6800Ω			BTA-6800	Low Pass Filter See Note 2
R55	820KΩ			BTS-820K	Video Output Grid See Note 2
R56	1.2 Meg.			BTS-1.2 Meg.	Bias Network See Note 2
R57	330Ω			BW- $\frac{1}{2}$ -330	Video Output Cathode See Note 2
R58	820KΩ			BTS-820K	Voltage Divider
R59	47KΩ			BTS-47K	DC Rest. Load
R60	150KΩ			BTS-150K	DC Rest. Load
R61	1 Meg.			BTS-1 Meg.	Picture Tube Grid
R62	3900Ω			BTS-3900	Sync. Phase Inv. Cathode
R63	1 Meg.			BTS-1 Meg.	Sync. Phase Inv. Grid
R64	3900Ω			BTS-3900	Sync. Phase Inv. Plate
R65	3900Ω	10%		BTS-3900	Sync. Phase Inv. Plate
R66	100Ω				1st Sound IF Cathode
R67	1000Ω			BTS-1000	1st Sound IF Decoupling
R68	470KΩ			BTS-470K	2nd Sound IF Grid
R69	100Ω				2nd Sound IF Cathode
R70	22KΩ			BTS-22K	2nd Sound IF Transformer Shunt
R71	1000Ω			BTS-1000	2nd Sound IF Plate Decoupling
R72	3300Ω			BTS-3300	2nd Sound IF Screen
R73	22KΩ			BTS-22K	Limiter Grid
R74	10KΩ	10%			Limiter Decoupling
R75	10KΩ	10%		BTS-10K	Voltage Divider
R76	100KΩ			BTS-100K	Disc. Diode Load
R77	100KΩ			BTS-100K	Disc. Diode Load
R78	22KΩ			BTS-22K	De-emphasis
R79	15 Meg.			BTS-15 Meg.	AF Grid
R80	220KΩ	10%		BTA-220K	AF Plate
R81	470KΩ			BTS-470K	Output Grid
R82	470Ω			BT-2-470	Obtput Cathode
R83	1000Ω			BW-2-1000	Filter
R84	22KΩ			BTS-22K	Integrator
R85	8200Ω	10%		BTS-8200	Integrator
R86	8200Ω	10%		BTS-8200	Integrator
R87	1 Meg.			BTS-1 Meg.	Vert. Osc. Grid
R88	4.7 Meg.			BTS-4.7 Meg.	Voltage Divider
R89	100KΩ			BTS-100K	Voltage Divider
R90	750KΩ	5%			Vert. Osc. Plate
R91	750KΩ	5%			Vert. Osc. Plate
R92	56KΩ			BTS-56K	Filter
R93	560Ω	10%		BTA-560	Vert. Amp. Cathode
R94	2.2 Meg.			BTS-2.2 Meg.	Vert. Amp. Grid
R95	3300Ω			BTS-3300	Vert. Peaking
R96	1000Ω	10%		BTA-1000	Vert. Amp. Decoupling
R97	100KΩ			BTS-100K	Horiz. Phase Det. Load
R98	100KΩ			BTS-100K	Horiz. Phase Det. Load
R99	4.7 Meg.			BTS-4.7 Meg.	Horiz. Phase Det. Load
R100	27KΩ	10%		BTS-27K	Feedback Network
R101	470KΩ			BTS-470K	Horiz. AFC Filter Network
R102	5600Ω	10%		BTS-5600	Horiz. Osc. Plate
R103	2000Ω	5%			Horiz. Osc. Cathode See Note 3
R104	82KΩ			BTS-82K	Horiz. Osc. Grid
R105	270KΩ	10%		BTA-270K	Horiz. Osc. Plate
R106	18KΩ			BTA-18K	Filter See Note 2
R107	43Ω	10%			Parasitic Supp.
R108	1 Meg.			BTS-1 Meg.	Horiz. Output Grid
R109	82Ω	10%		BW-2-82	Horiz. Output Cathode
R110	4700Ω			BW-2-4700	Horiz. Output Screen
R111	4700Ω	10%		BTS-4700	Feedback
R112	6000Ω	10%		AB-6000	Damper Filter Wire Wound
R113	1 Meg.	10%			HV Filter
R114	330Ω			BW-2-330	Focus Coil Shunt See Note 4
R115	1000Ω	10%		DG-1000	Filter Wire Wound
R116	33KΩ			BT-2-33K	Bleeder
R117	33KΩ			BT-2-33K	Bleeder
R118	800Ω	10%		DG-800	Bias Network Wire Wound
R119	220Ω			BW-2-220	Bias Network
R120	220Ω			BW-2-220	Bias Network
R121	36Ω	10%			Bias Network See Note 5
R122	47KΩ			BTS-47K	Voltage Divider
R123	4700Ω			BTS-4700	Voltage Di vider
R124	6.8 Meg.			BTS-6.8 Meg.	Voltage Divider

Note 2. Not used in all models.
 Note 3. Some models use 1800Ω, resistor in this application.
 Note 4. Some models use 1200Ω, 2 watt resistor in this application.
 Note 5. Some models use 18Ω resistor in this application.

**U. S. TELEVISION
 MODEL T-10823**

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	U. S. T. PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	117VAC at 2.6A	830VCT .310ADC	5VAC at 3A	6.3VAC 8.5A 6.3VAC at .6A	PL-65047			

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		U. S. T. PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.					
T2	53Ω						Hor. Osc. Control Coil Vert. Block Osc. Trans. Hor. Output Trans.
T3	172Ω	1540Ω	AB-42346-1	A-8121	A-4000	TBO-1	
T4	405Ω	SEC. 1	AC-65043	A-8117		TFB-1	
	Tap at 175Ω	10.6Ω Tap at .6Ω					
		SEC. 2					
		0Ω					
		6.9Ω					
T5	575Ω		AB-45014-1	A-8115	A-3035	TSO-1	Vert. Output Trans. Hor. Deflection Coil Vert. Deflection Coil Focus Coil
T6A	14Ω		A-44301	DY-1			
B	63Ω						
T7	250Ω		PB-44802	FC-10			

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		U. S. T. PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T8	6.4KΩ	3.8Ω	670Ω	.5Ω	Part of PC-63000-10	A-8114	A-2931	RO-13	

SPEAKER

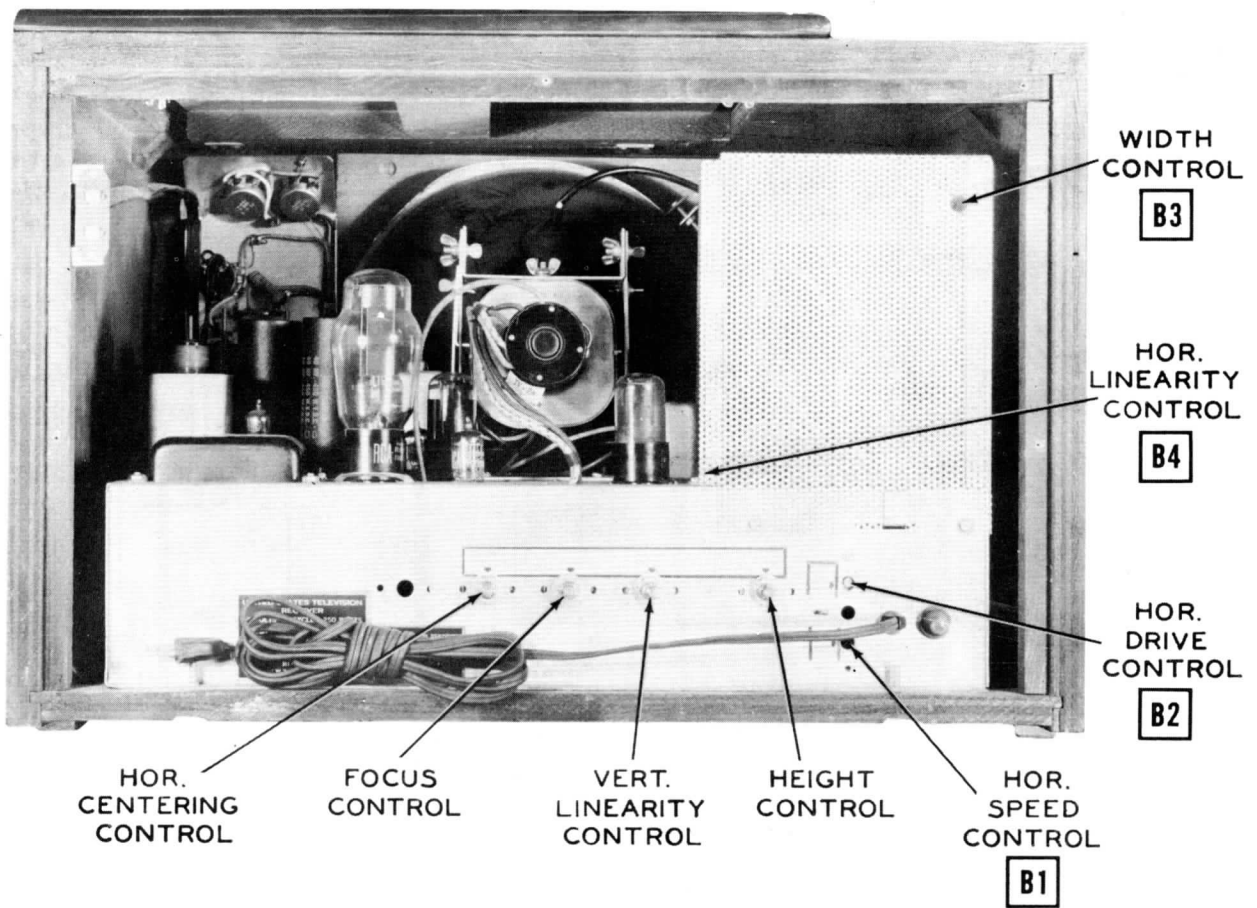
ITEM No.	RATINGS		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	U. S. T. PART No.	JENSEN PART No.	QUAM PART No.	
SP1	65Ω	3.8Ω	PC-63000-10		57E †	† Supplied on order. Give field resistance and current.
SP2	4 3/4" x 7"	3/4"				

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	U. S. T. PART No.	MEISSNER PART No.	
L1	Ant. Input	0Ω				Part of tuner. Part of tuner. Part of tuner. Part of tuner. Part of tuner. Part of tuner. 180 microhenries. Wound on 39KΩ resistor.
L2	Interference Trap	0Ω				
L3	Interference Trap	0Ω				
L4	Fil. Choke	0Ω				
L5	Mixer Grid Trap	0Ω				
L6	1st Video IF & Sound Trap	.2Ω	0Ω			
L7	2nd Video IF	.1Ω		AB-42342		
L8	3rd Video IF	.1Ω		AB-42343		
L9	4th Video IF	.1Ω		AB-42344		
L10	Sound Trap	0Ω				
L11	5th Video IF	.1Ω		AB-42344		
L12	Peaking	6.5Ω		AB-42277-6		
L13	Peaking	7.5Ω				
L14	Peaking	7.5Ω				
L15	Peaking	5Ω				
L16	Peaking	4.5Ω				
L17	1st Sound IF	.1Ω	.1Ω	AB-42340		
L18	2nd Sound IF	.1Ω	.1Ω	AB-42340		
L19	Disc. Trans.	.1Ω	0Ω	AB-42341		
L20	Width Cont.	.2Ω				
L21	Hor. Linearity	36Ω				
L22	Fil. Choke	0Ω				
L23	Fil. Choke	0Ω				

MISCELLANEOUS

ITEM No.	PART NAME	U. S. T. PART No.	NOTES
M1A	RF Tuner	PA-4409	Video Det. 5A. 250V Interlock Hor. Drive (25-280MMF)
B	RF Tuner	PA-4224	
M2	Ion Trap		
M3	Crystal	PA-10-1N34	
M4	Fuse	PA-8004	
M5	Switch Trimmer		



CABINET-REAR VIEW

U. S. TELEVISION
MODEL T-10823

HORIZONTAL FREQUENCY AND LINEARITY ADJUSTMENTS

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

Adjust the fine tuning control for best sound, and set the vertical hold control to synchronize the picture vertically.

Set the horizontal hold control to the mid-position of its range.

Adjust the horizontal speed adjustment (B1) until the picture synchronizes horizontally.

Turn the horizontal drive trimmer (B2) clockwise as far as possible without crowding the left side of the picture.

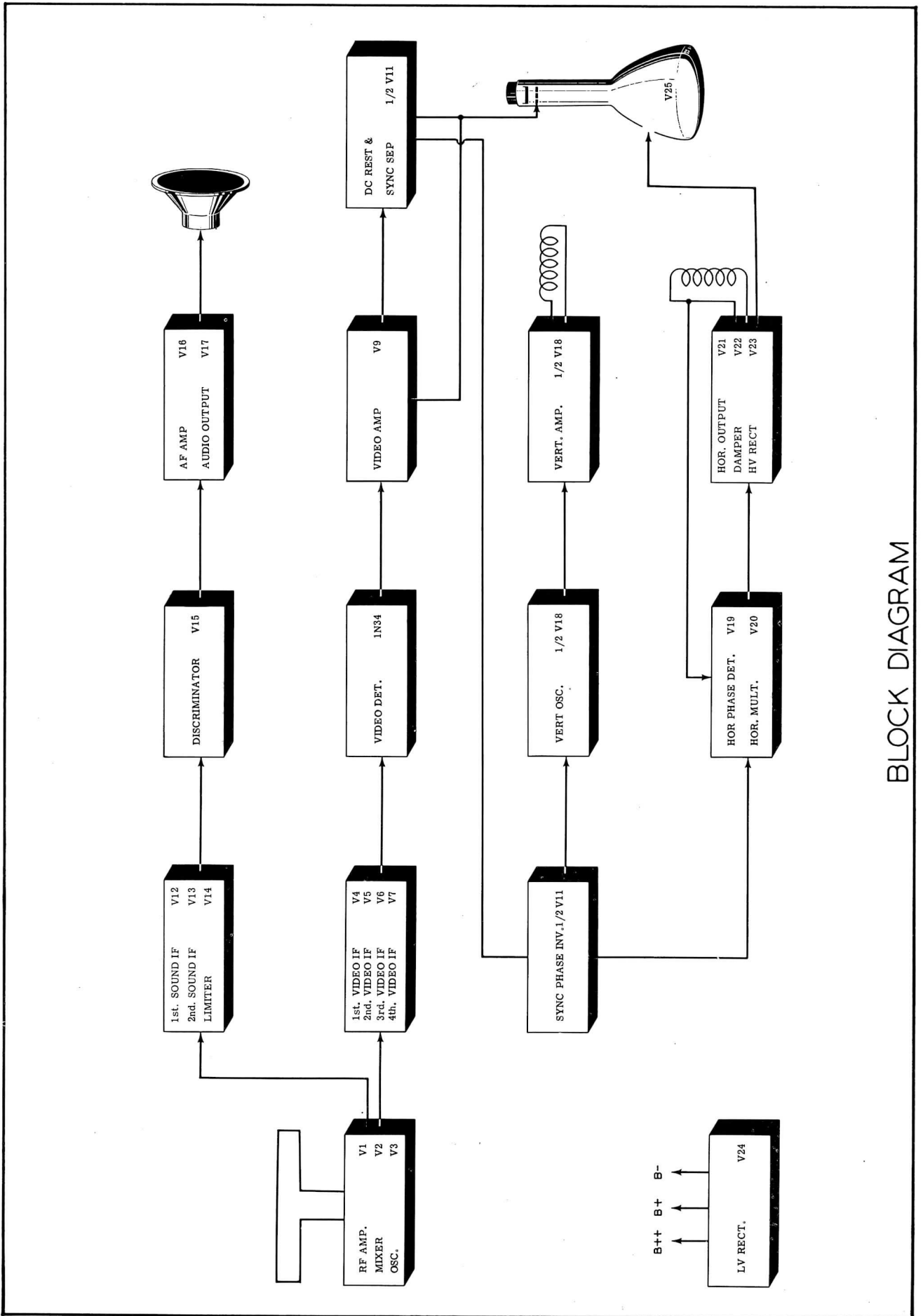
Adjust the width slug (B3) until the picture fills the mask horizontally.

Adjust the horizontal linearity slug (B4) until picture is symmetrical from left to right.

Adjustments B2, B3 and B4 are interacting and should be repeated for optimum results.

DISASSEMBLY INSTRUCTIONS

1. Loosen five allen head set screws and remove control knobs.
2. Remove five screws holding rear cover. Remove cover.
3. Remove two screws holding antenna terminal strip.
4. Remove speaker plug.
5. Remove four screws holding TV chassis. Remove chassis.
6. Remove four screws holding speaker. Remove speaker.



BLOCK DIAGRAM