

**TELE-TONE
MODEL TV149**

TRADE NAME	Tele-tone Model TV-149	
MANUFACTURER	Tele-tone Radio Co., 540 W 58th St., New York, N.Y.	
TYPE SET	Television Receiver	
TUBES	Twenty-two	
POWER SUPPLY	105-125 Volts, 60 Cycle AC	RATING .96 Amp. @ 117 Volts AC
TUNING RANGE-	Channels 2 through 13	

INDEX

Alignment Instructions	10	Photographs (continued)	
Block Diagram	13	RF Tuner Left Side	7
Parts List and Description	14,15,16	RF Tuner Right Side	6
Photographs		Resistor Identification	12,17
Cabinet Rear View	16	Trans., Inductor & Alignment Identification	4,9
Capacitor Identification	11,18	Schematic	2
Chassis Top View	3	Tube Placement Chart	5
High Voltage Supply	19	Voltage and Resistance Measurements	8

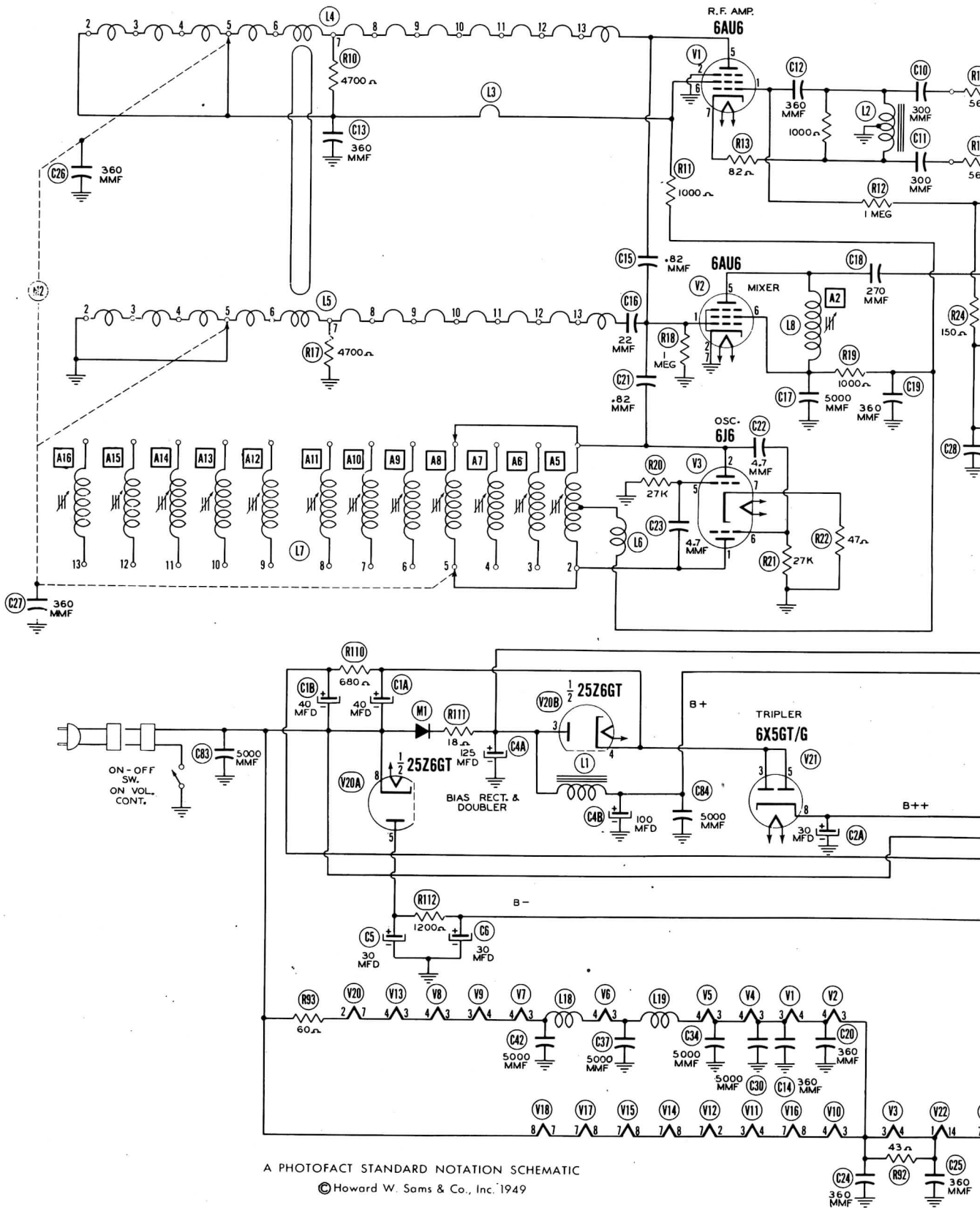
HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

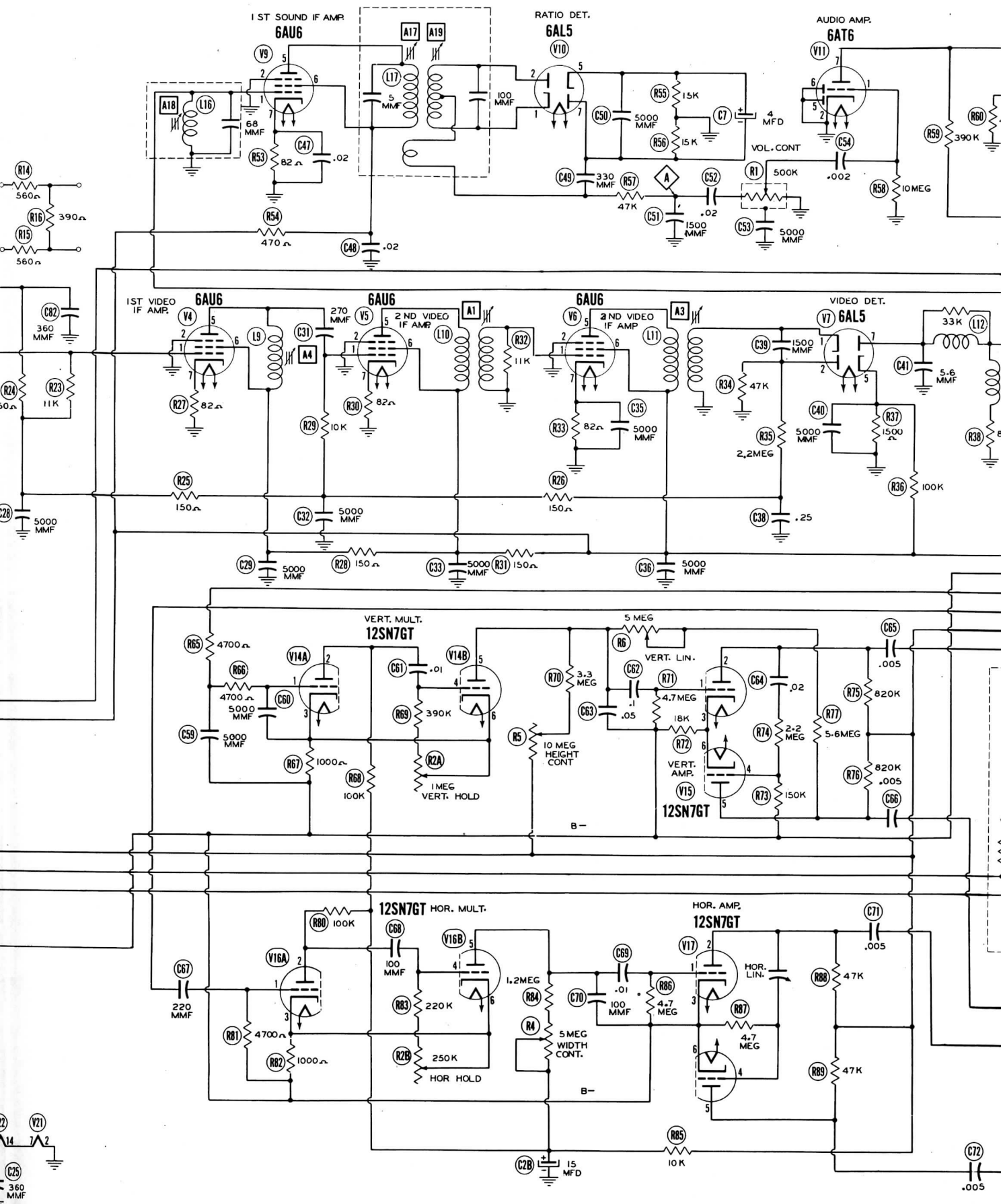
"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."

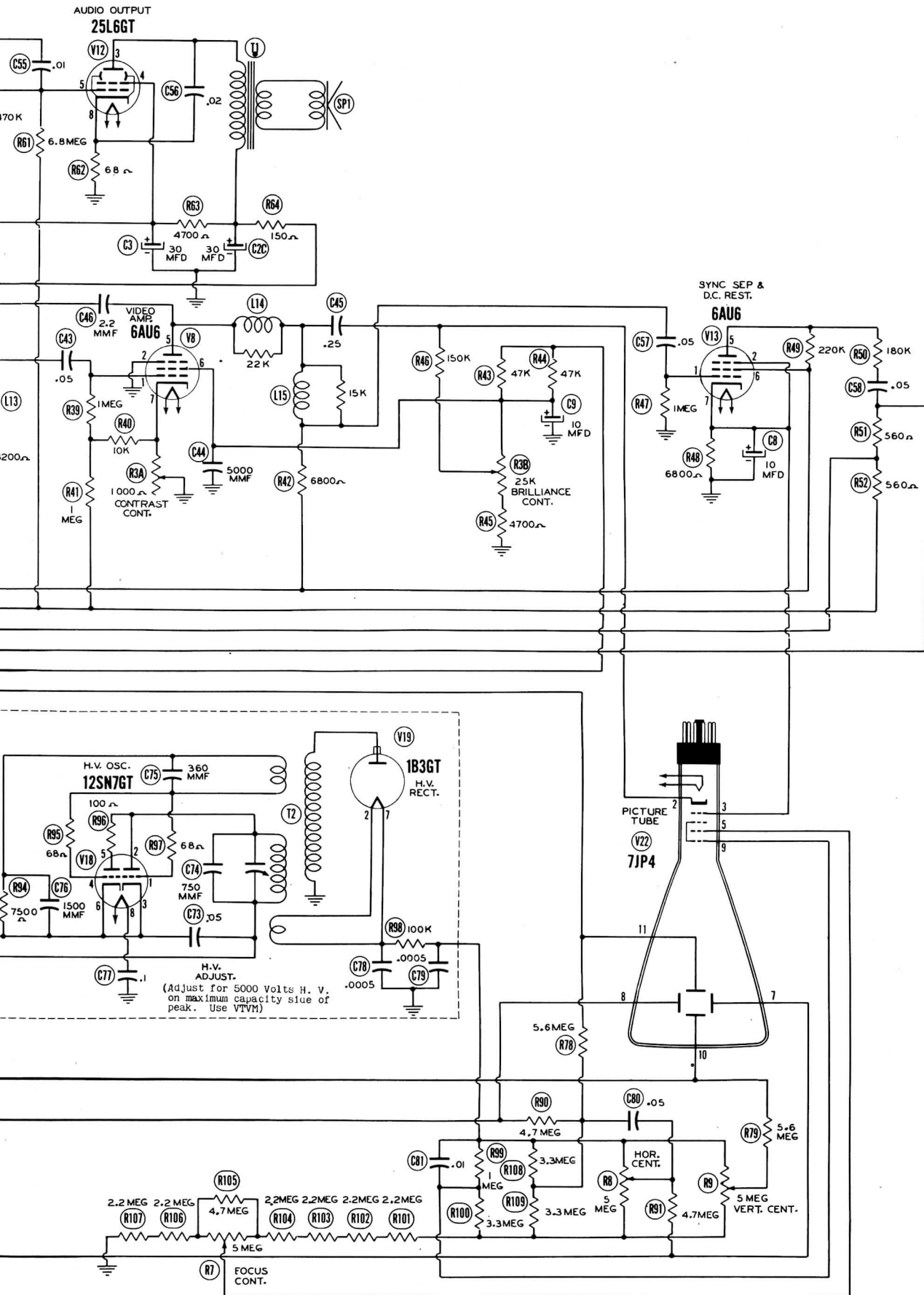
"Reproduction or use, without express permission, of editorial or pictorial con-

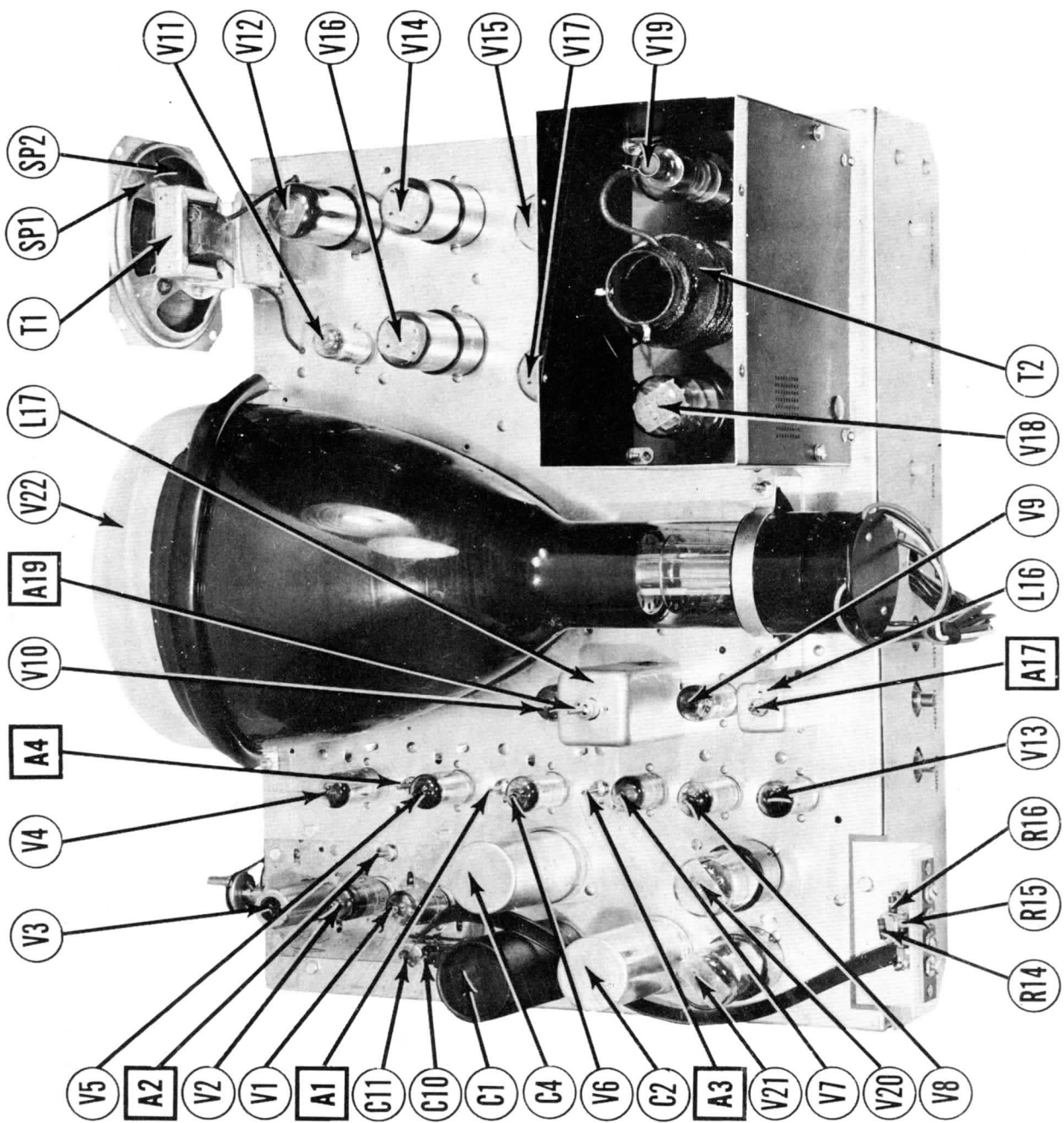
tent, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. Copyright 1949 by Howard W. Sams & Co., Inc., Indianapolis 7, Indiana, U. S. of America. Copyright under International Copyright Union. All rights reserved under Inter-American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

DATE 2/49-#494-22 Set #56-Folder #22

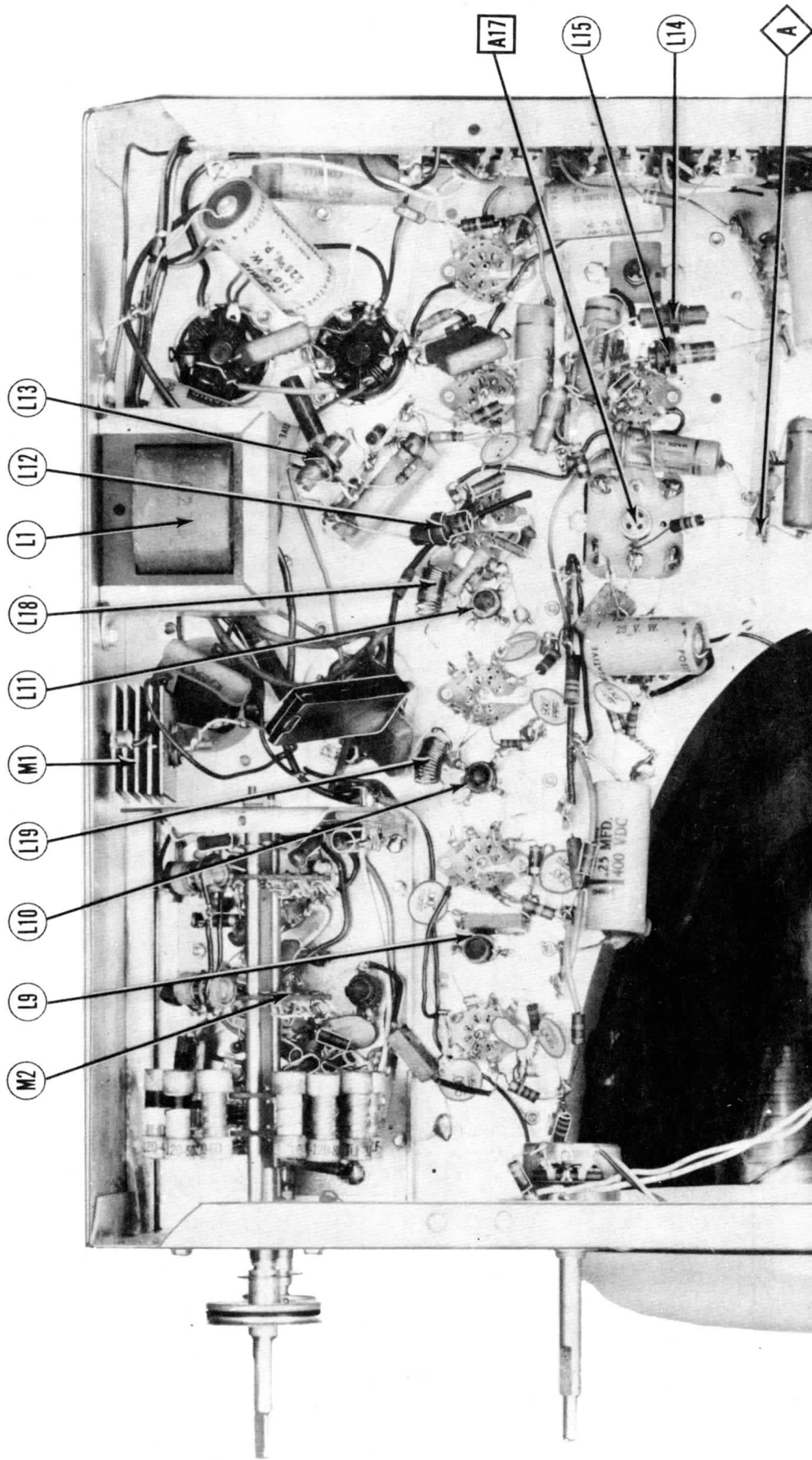


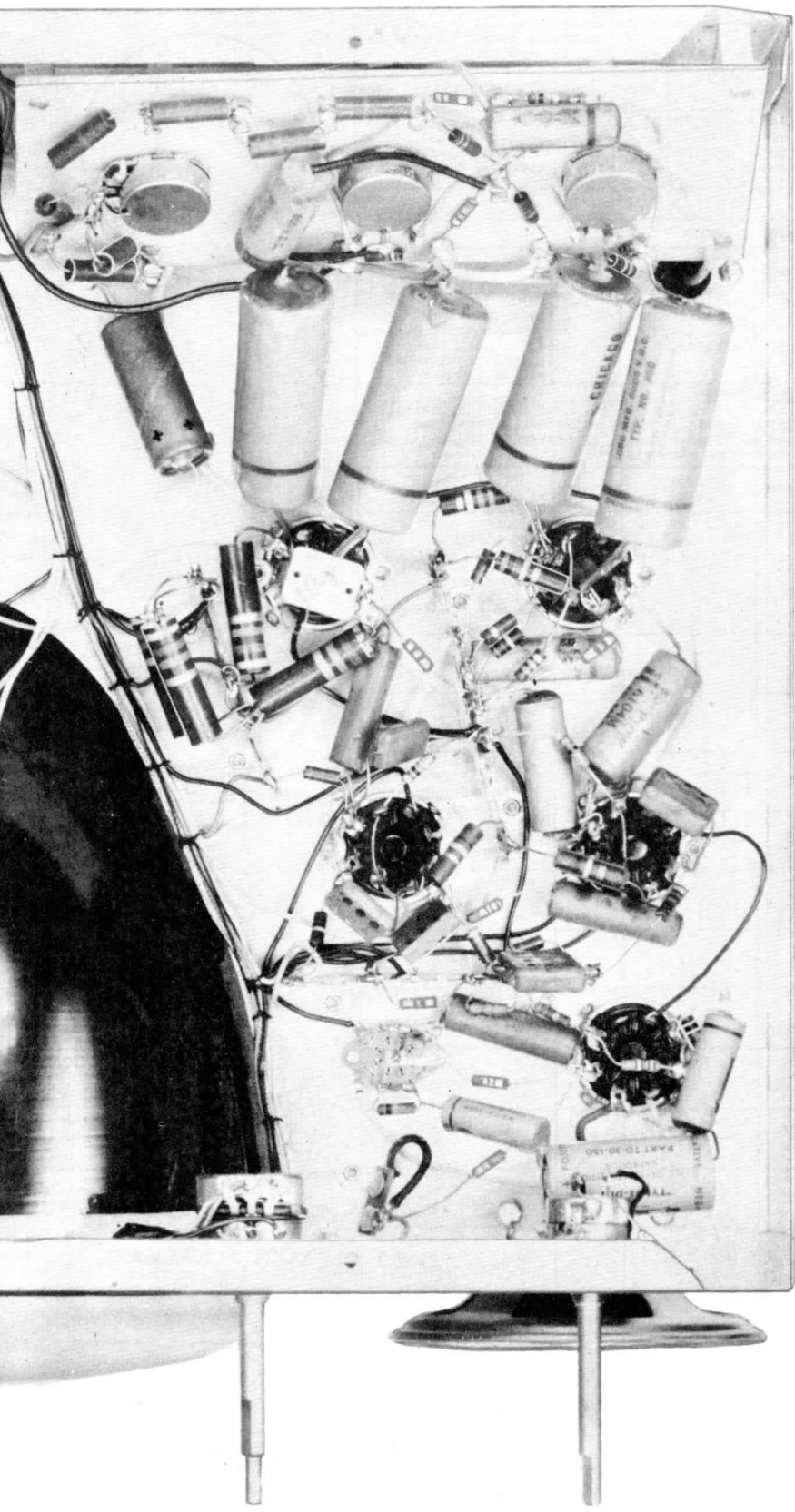






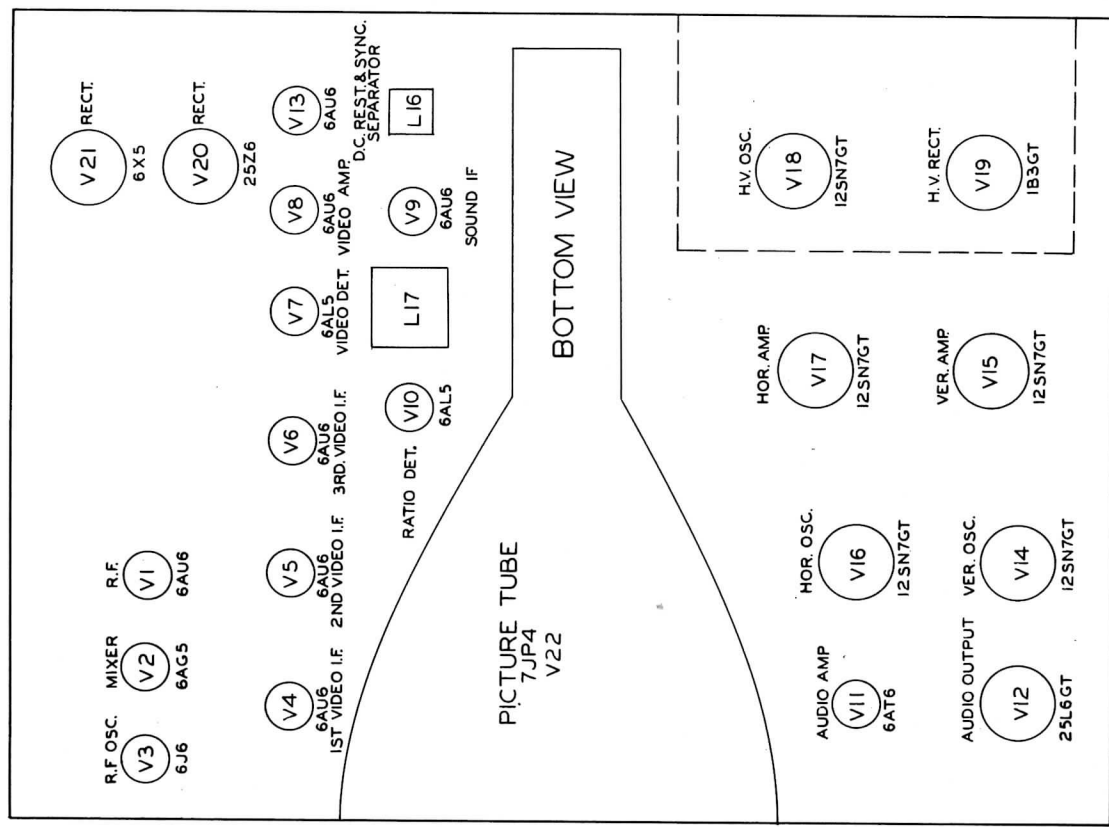
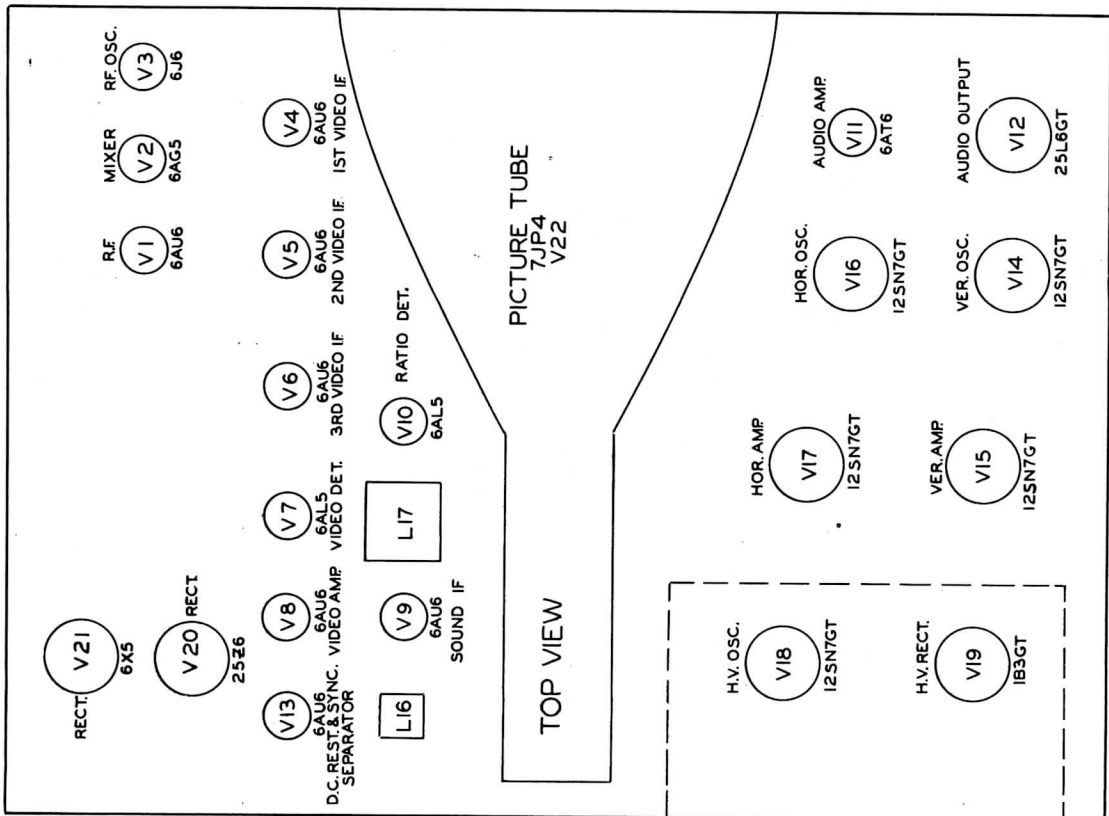
CHASSIS TOP VIEW





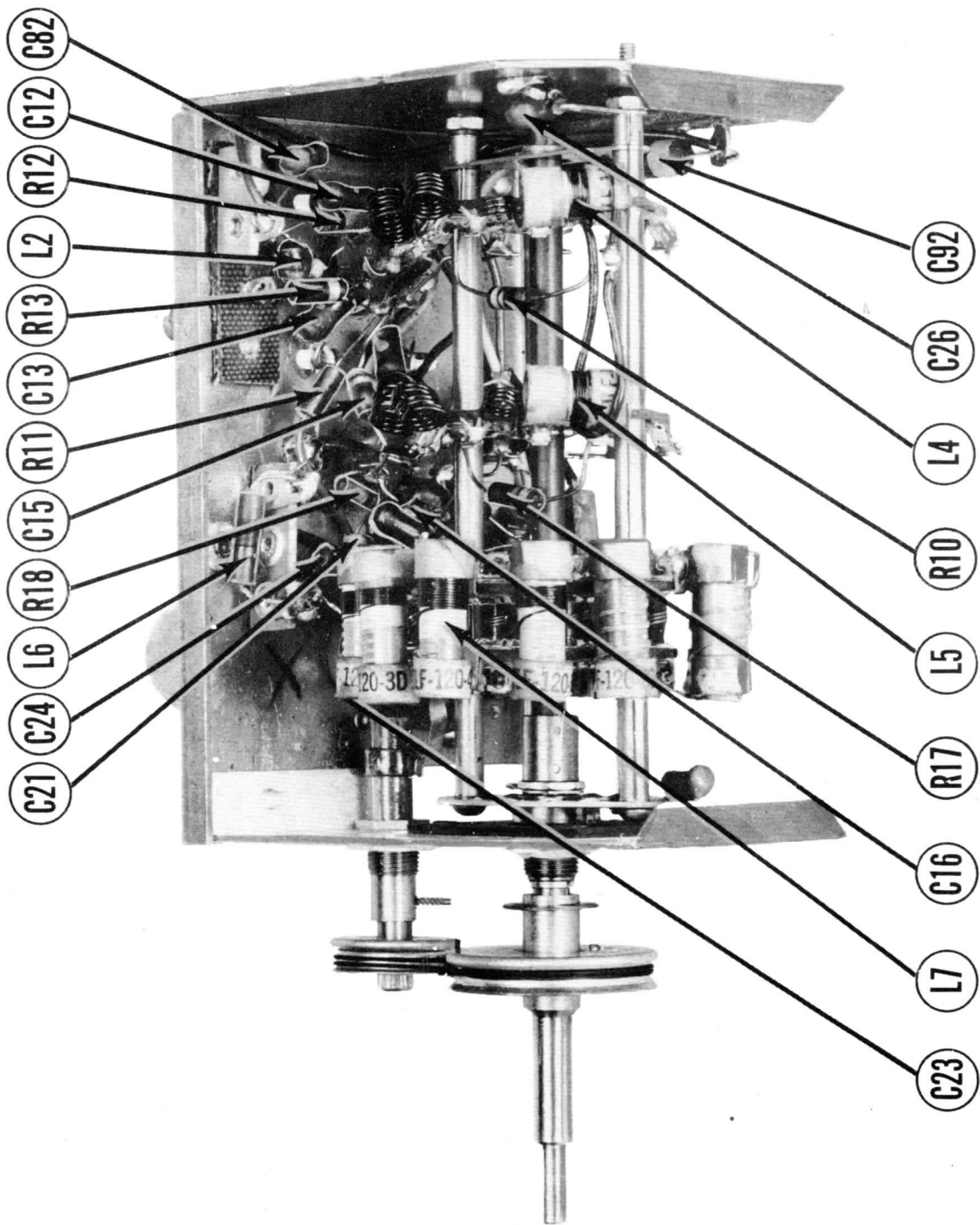
CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

**TELE-TONE
MODEL TV149**



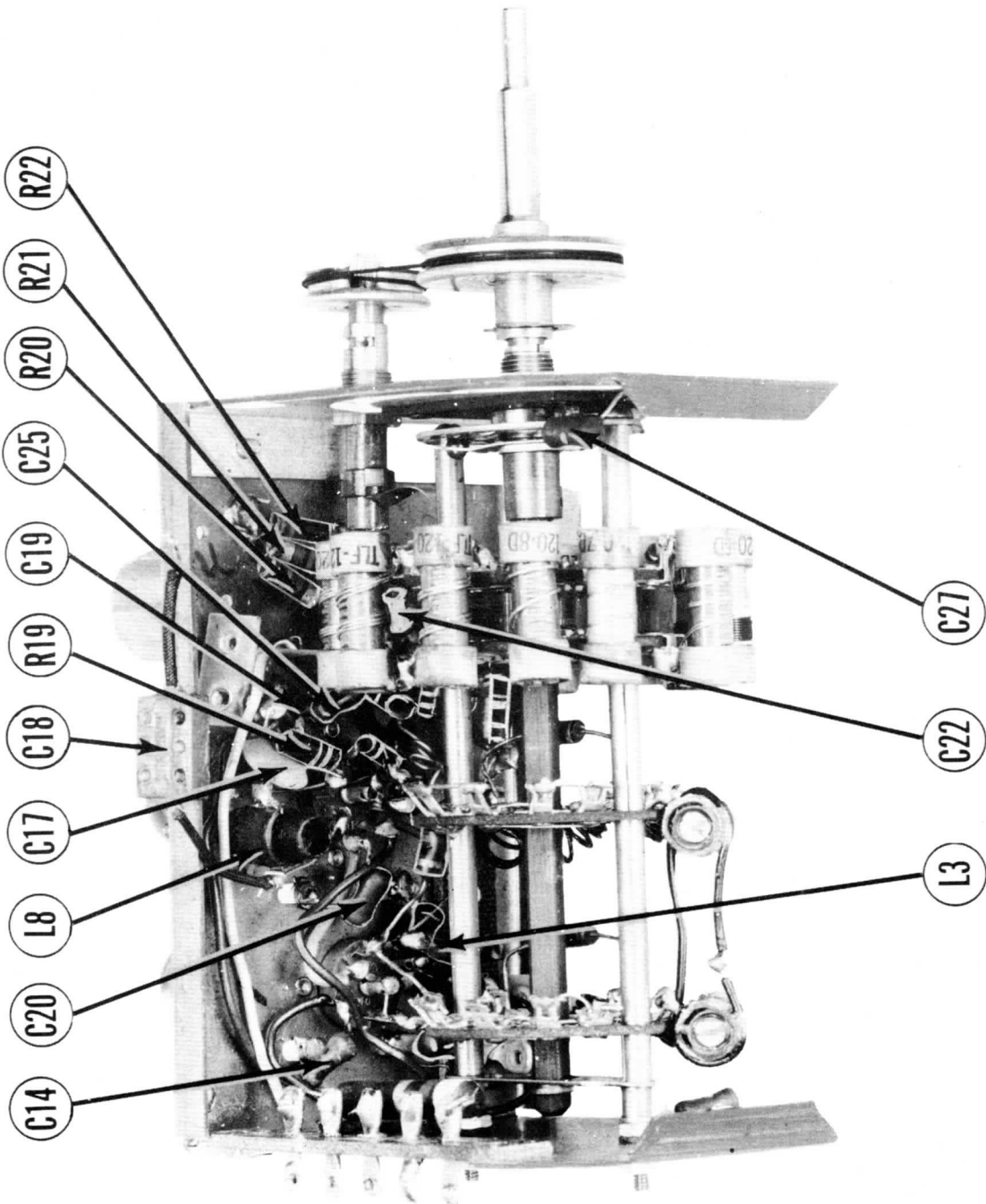
TUBE PLACEMENT CHART

TELE-TONE
MODEL TV149



RF TUNER - RIGHT SIDE

RF TUNER-LEFT SIDE



VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Cap
1	6AU6	- .1VDC	OV.	31VAC	25VAC	117VDC	117VDC	.7VDC		
2	6AG5	-3.2VDC	OV.	19VAC	25VAC	122VDC	122VDC	OV.		
3	6A16	1.25VDC	1.25VDC	19VAC	12VAC	-5.2VDC§	-3.4VDC§	1.6VDC		
4	6AU6	-.2VDC	OV.	31VAC	37VAC	125VDC	125VDC	.7VDC		
5	6AU6	-.2VDC	OV.	37VAC	43VAC	125VDC	125VDC	.7VDC		
6	6AU6	OV.	OV.	43VAC	50VAC	127VDC	127VDC	1VDC		
7	6AL5	OV.	OV.	50VAC	56VAC	1.7VDC	-OV.	-.4VDC		
8	6AU6	-.1VDC	OV.	62VAC	67VAC	80VDC	157VDC	OV.		
9	6AU6	OV.	OV.	62VAC	56VAC	120VDC	120VDC	1.1VDC		
10	6AL5	OV.	OV.	19VAC	25VAC	.4VDC	OV.	-.4VDC		
11	6AT6	-.7VDC	OV.	43VAC	37VAC	OV.	OV.	43VDC		
12	25L6GT	OV.	43VAC	128VDC	126VDC	-3.2VDC	OV.	68VAC	1.8VDC	
13	6AU6	OV.	3.7VDC	67VAC	73VAC	55VDC	125VDC	3.7VDC		
14	12SN7GT	OV.	100VDC*	3.2VDC*	-14VDC	30VDC*	70VDC*	80VAC	68VAC	
15	12SN7GT	-4VDC*	270VDC*	12VDC*	OV.	190VDC*	12VDC*	93VAC	80VAC	
16	12SN7GT	OV.*	105VDC*	3.2VDC*	-5VDC*	20VDC*	80VDC*	27VAC	25VAC	
17	12SN7GT	-17VDC*	290VDC*	OV.*	-4VDC*	270VDC*	OV.*	110VAC	93VAC	
18	12SN7GT	-63VDC†	250VDC†	117VAC	-63VDC†	250VDC†	117VAC	110VAC	117VAC	
19	1B3GT	DO NOT MEASURE								
20	25Z6GT	OV.	98VAC	130VDC	260VDC	-145VDC	OV.	73VAC	117VAC	
21	6X5GT	OV.	OV.	260VDC	OV.	260VDC	OV.	6VAC	400VDC	
22	7JP4	12VAC	50VDC	3.7VDC	Pin 12	Pin 13	Pin 14			
23										

* Measured From Pin 3-V20
 † Measured From Pin 8-V21
 ‡ Do Not Measure.
 § STAKEN WITH VACUUM TUBE VOLTMETER.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Cap
1	6AU6	3.2Meg	0Ω	10Ω	8Ω	1200Ω*	1200Ω*	100Ω		
2	6AG5	1 Meg	0Ω	5Ω	8Ω	1K*	1K*	0Ω		
3	6A16	60Ω*	60Ω*	5Ω	3Ω	27K	27K	47Ω		
4	6AU6	2.2Meg	0Ω	10Ω	13Ω	360Ω*	360Ω*	82Ω		
5	6AU6	2.2Meg	0Ω	13Ω	16Ω	210Ω*	210Ω*	82Ω		
6	6AU6	0Ω	0Ω	16Ω	18Ω	60Ω*	60Ω*	82Ω		
7	6AL5	0Ω	47K	18Ω	20Ω	1.5K	0Ω	8.2K		
8	6AU6	1 Meg	0Ω	23Ω	25Ω	6.8K*	25K†	0Ω		
9	6AU6	1Ω	0Ω	23Ω	20Ω	530Ω*	530Ω*	82Ω		
10	6AL5	INF.	INF.	5Ω	8Ω	15K	0Ω	15K		
11	6AT6	10 Meg	0Ω	18Ω	16Ω	0Ω	0Ω	400K*		
12	25L6GT	0Ω	18Ω	400Ω*	5K*	390K	INF.	30Ω	68Ω	
13	6AU6	1 Meg	6.8K	25Ω	27Ω	220K*	60Ω*	6.8K		
14	12SN7GT	11.2K#	100K†	2.2K#	1.4Meg#	3.3Meg †	2.2K#	35Ω	30Ω	
15	12SN7GT	4.7Meg#	820K†	20K#	150K#	820K†	20K#	35Ω	35Ω	
16	12SN7GT	5K#	110K†	2.2K#	470K#	1.2Meg †	2.2K#	16Ω	8Ω	
17	12SN7GT	5 Meg#	47K†	1.2K#	5 Meg #	47K†	1.2K#	40Ω	38Ω	
18	12SN7GT	7.5K	700Ω§	081†	7.5K	800Ω§	081†	40Ω	42Ω	
19	1B3GT	INF.	INF.	INF.	INF.	INF.	INF.	INF.	680Ω	
20	25Z6GT	INF.	32Ω	22K	180K	400K	INF.	27Ω	42Ω	
21	6X5GT	INF.	0Ω	180KΩ	INF.	180KΩ	INF.	1.5Ω	45K	
22	7JP4	3Ω	155KΩ	6.8K	INF.	4.4 Meg	INF.	21 Meg	21 Meg	
23										

* Measured From Pin 3-V20
 † Measured From Pin 8-V21
 ‡ Measured From Pin 5-V20
 § Measured From Pin 4-V20
 ¶ Measured From Pin 8-V20

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

1. DC voltage measurements are at 20,000 ohms per volt; AC voltages measured at 1000 ohms.
 2. Sockets connections are shown as bottom views.
 3. Measured values are from socket pin to common negative unless otherwise stated.

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To eliminate shock hazard, disable high voltage by unsoldering the lead feeding B+ to high voltage oscillator tube 12SN7 (V18). Use an isolation transformer when available as one side of the line is connected to chassis.

VIDEO IF ALIGNMENT

A tube shield slipped over the mixer tube, but not grounded, makes a practical and convenient method of injecting the signal from the signal generator. The signal generator output is adjusted to give a reading of approximately -1 volt at Pin 7 6AL5 (V7) with AGC line grounded.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1	High side to ungrounded tube shield (See prealignment instructions). Low side to chassis.	34.8MC (No mod.)	Any	DC probe to Pin 7 6AL5 (V7). Common lead to chassis.	A1,A2	Adjust for maximum deflection. Reduce signal gen. output if necessary to hold about -1 volt reading
2	"	36.9MC (No mod.)	"	"	A3,A4	"

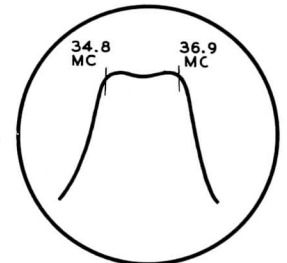


FIG. 1

OVERALL IF RESPONSE CHECK

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
3	High side to ungrounded tube shield (See above). Low side to chassis.	35MC (10MC sweep)	34.8MC & 36.9MC	Any	Vertical amp. to Pin 1 6AU6 (V8). Low side to chassis.		Check response pattern to see that markers appear as per Fig 1. If not, make slight adjustments of A1, A2, A3 and A4.

RF OSCILLATOR ALIGNMENT

The RF Amplifier and mixer lines are pre-set at the factory and due to their stability normally do not require adjustment. Since Channel 2 Oscillator Coils is in parallel with all other osc. coils at their respective channels. Channel 2 must be aligned first. If Channel 2 is readjusted at any time, it will be necessary to realign all the other channels.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4	2 - 150K carbon antenna terminal res. in series with each sig. gen. lead.	57MC (10MC sweep)	55.25MC (Picture) 59.75MC (Sound)	2	Vert. Amp. to Pin 1 6AU6 (V8). Low side to chassis.	A5	Adjust to place picture marker at 50% point on pattern as per Fig. 2. Check sound carrier to see if it appears at proper point as per Fig. 2.
5	"	63MC (10MC sweep)	61.25MC (Picture) 65.75MC (Sound)	3	"	A6	"
6	"	69MC (10MC sweep)	67.25MC (Picture) 71.75MC (Sound)	4	"	A7	"
7	"	79MC (10MC sweep)	77.25MC (Picture) 81.75MC (Sound)	5	"	A8	"
8	"	85MC (10MC sweep)	83.25MC (Picture) 87.75MC (Sound)	6	"	A9	"
9	"	177MC (10MC sweep)	175.25MC (Picture) 179.75MC (Sound)	7	"	A10	"
10	"	183MC (10MC sweep)	181.25MC (Picture) 185.75MC (Sound)	8	"	A11	"
11	"	189MC (10MC sweep)	187.25MC (Picture) 191.75MC (Sound)	9	"	A12	"
12	"	195MC (10MC sweep)	193.25MC (Picture) 197.75MC (Sound)	10	"	A13	"
13	"	201MC (10MC sweep)	199.25MC (Picture) 203.75MC (Sound)	11	"	A14	"
14	"	207MC (10MC sweep)	205.25MC (Picture) 209.75MC (Sound)	12	"	A15	"
15	"	213MC (10MC sweep)	211.25MC (Picture) 215.75MC (Sound)	13	"	A16	"

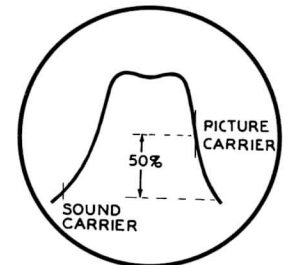
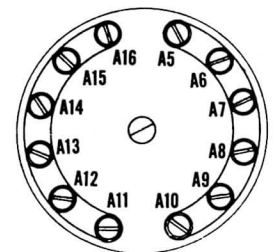


FIG. 2

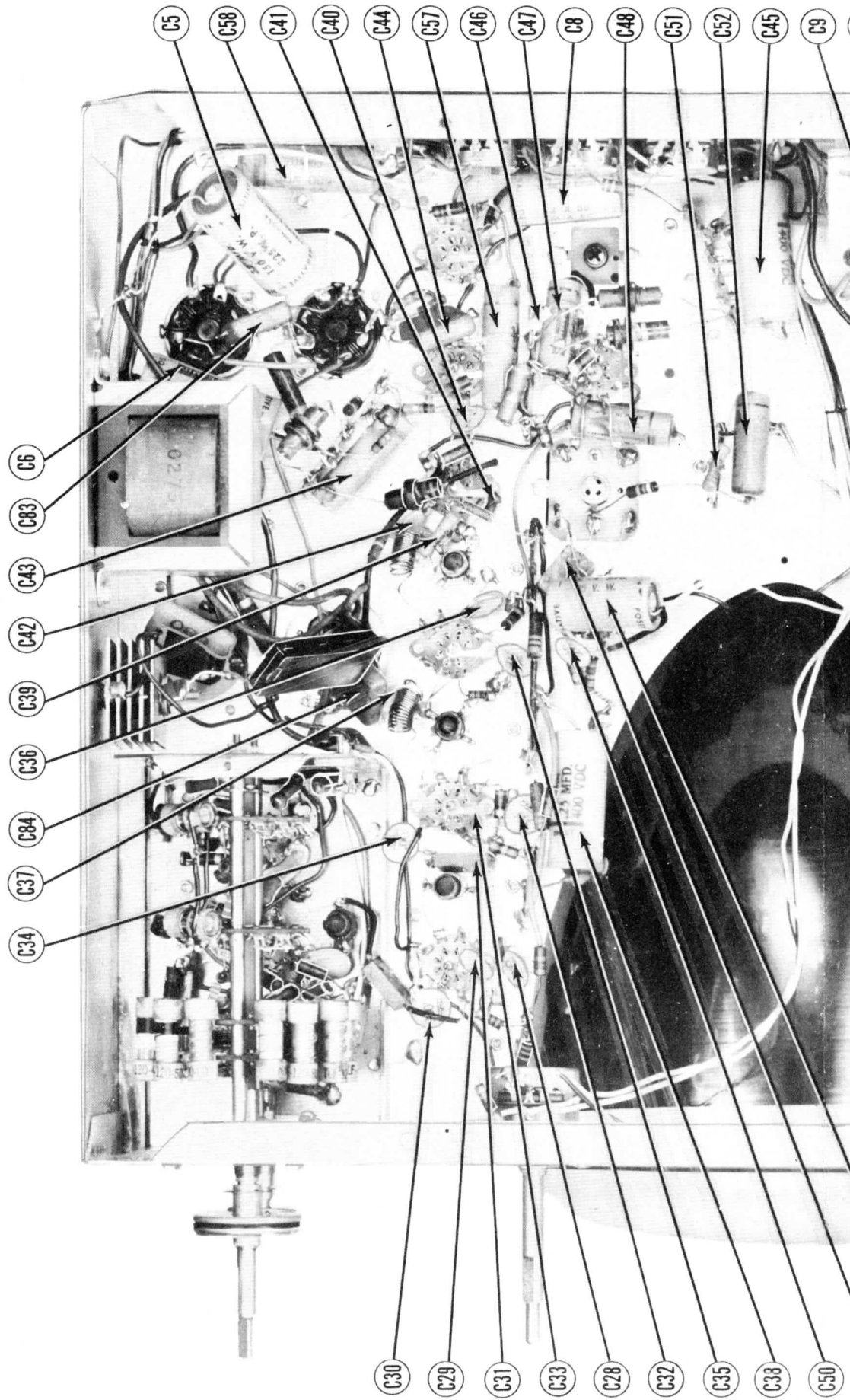


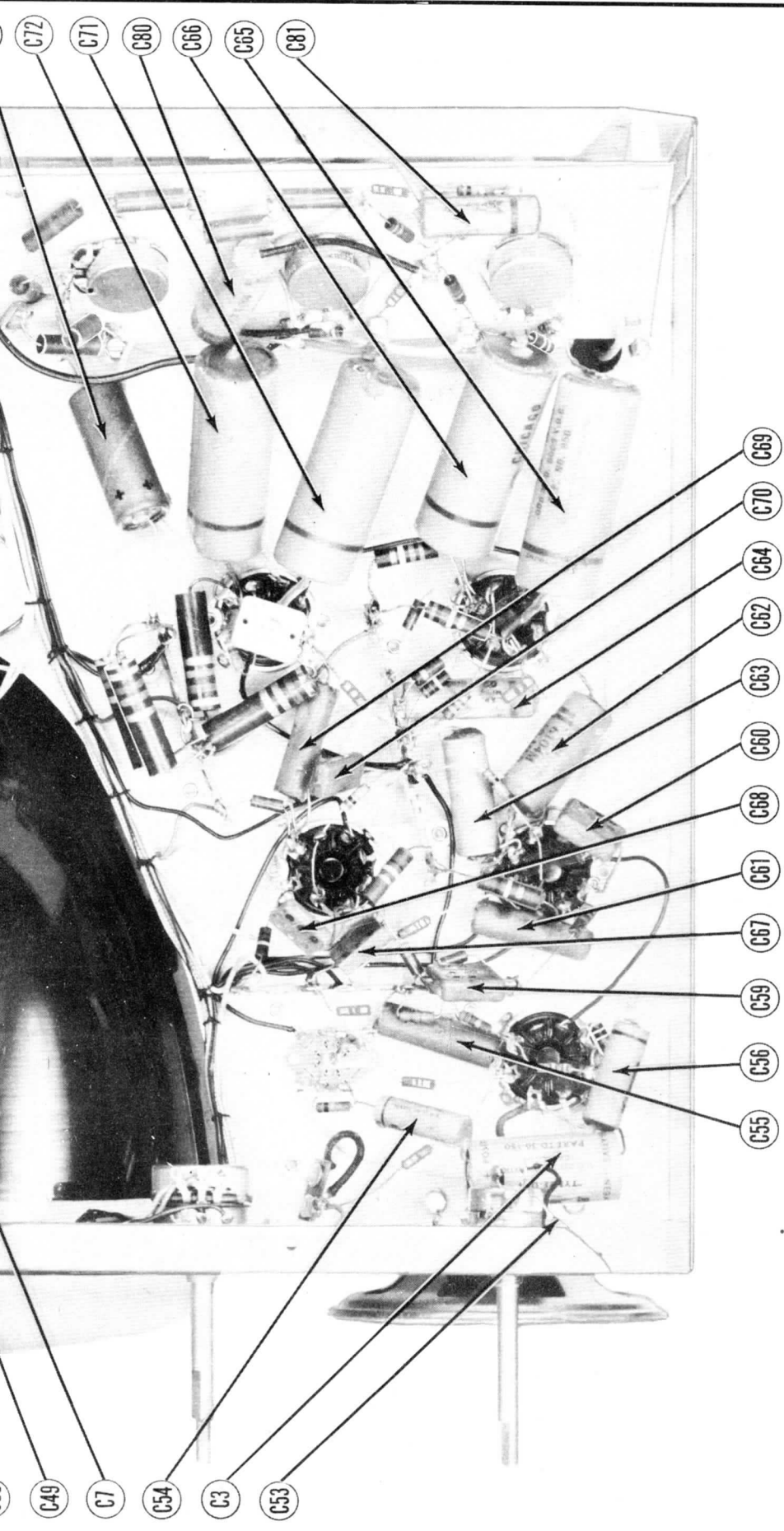
OSC. ALIGNMENT POINTS

SOUND IF ALIGNMENT

When adjusting the 4.5MC trap and the primary of the ratio detector coils (A17 & A18), attenuate signal generator so VTVM reading is held to approximately -3 to -4 volts.

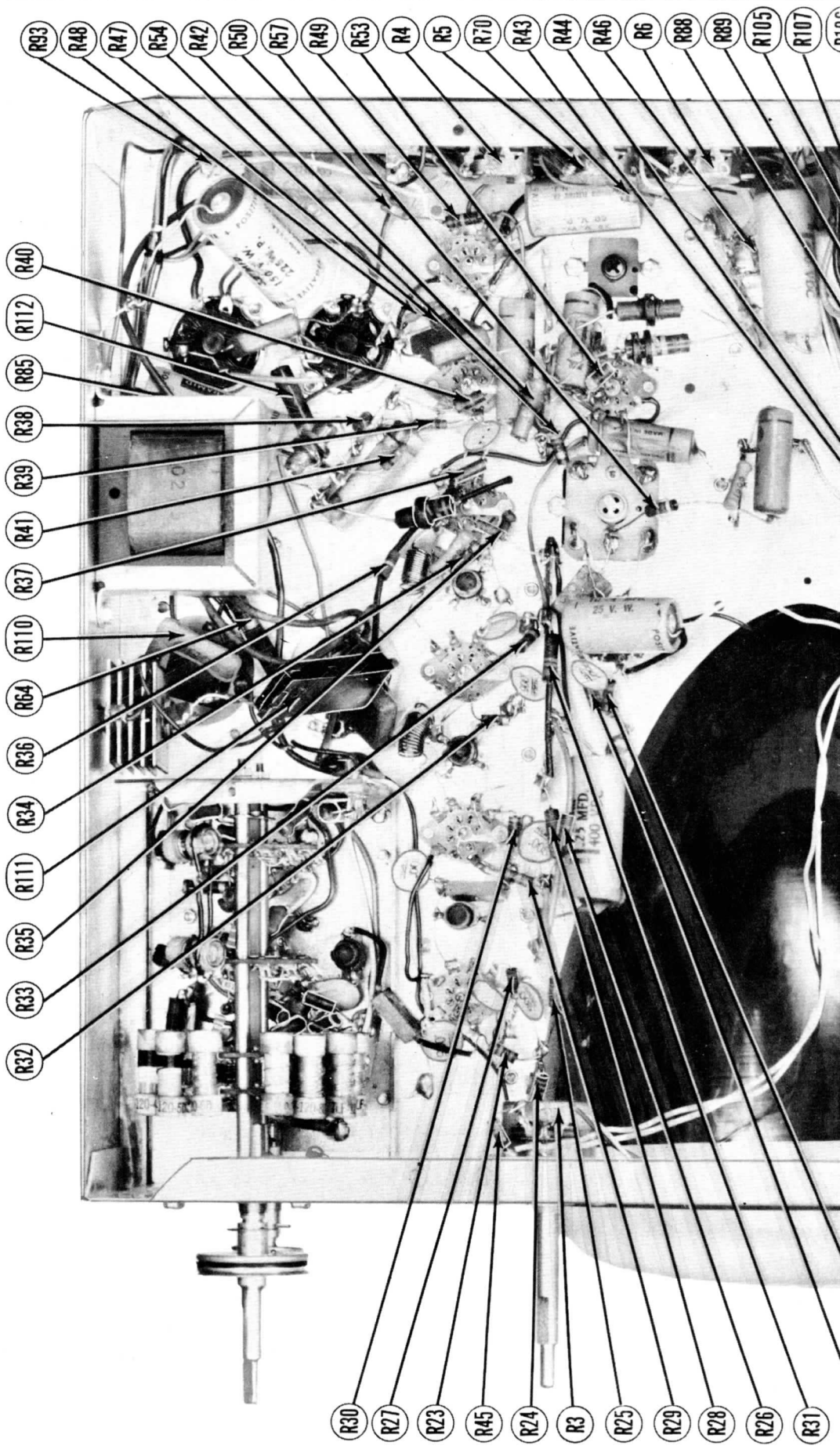
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
16	5000MTF High side to Pin 1 6AU6 (V8). Low side to chassis.	4.5MC (No mod.)	Any	DC probe to Pin 7 6AL5 (V10). Common lead to chassis.	A17, A18	Adjust for maximum deflection.
17	5000MTF	"	"	DC probe to Point Ⓧ. Common lead to chassis	A19	Adjust for zero reading. A positive & negative reading can be obtained on either side of the correct setting.



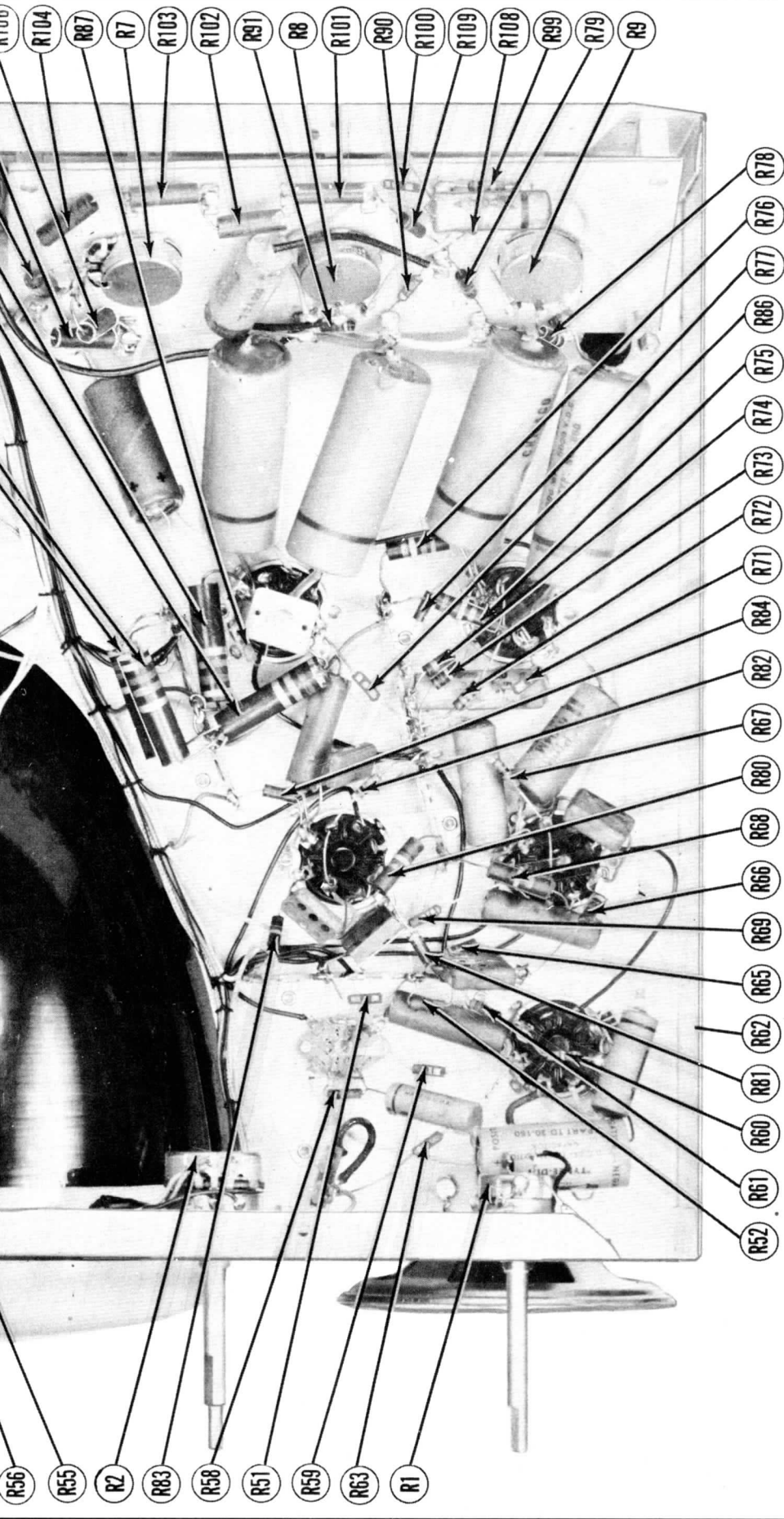


CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

**TELE-TONE
MODEL TV149**

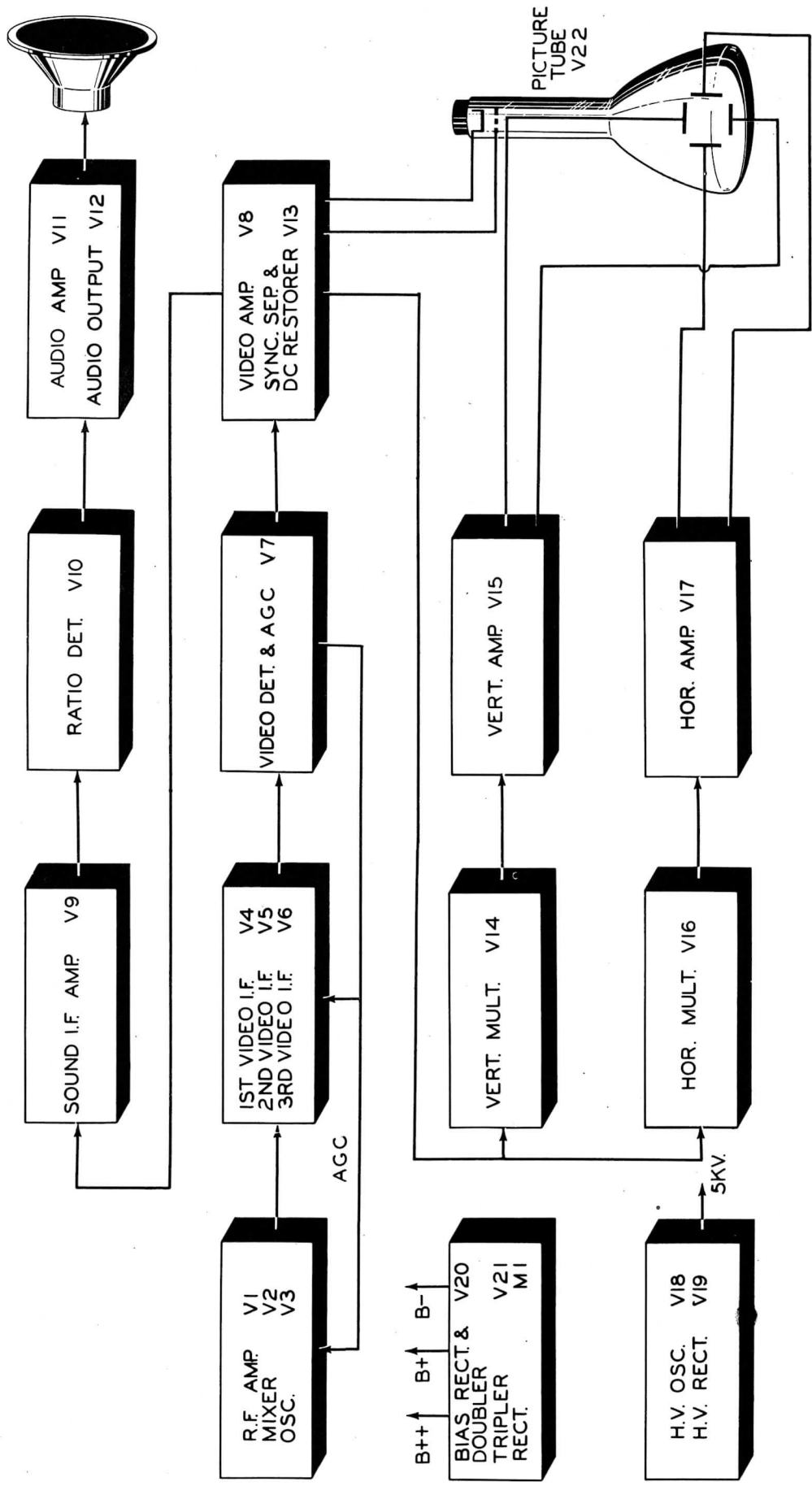


- R30
- R27
- R23
- R45
- R24
- R3
- R25
- R29
- R28
- R26
- R31
- R32
- R33
- R35
- R111
- R34
- R36
- R64
- R110
- R37
- R41
- R39
- R38
- R85
- R112
- R40
- R93
- R48
- R47
- R54
- R42
- R50
- R57
- R49
- R53
- R4
- R5
- R70
- R43
- R44
- R46
- R6
- R88
- R89
- R105
- R107
- R100



CHASSIS BOTTOM VIEW - RESISTOR IDENTIFICATION

TELE-TONE
MODEL TV149



BLOCK DIAGRAM

PARTS LIST A

CAPACITORS

TUBES

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		TELE-TONE PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6AU6	6AU6	7BK	
V2	Mixer	6AG5	6AG5	7BD	
V3	Oscillator	6J6	6J6	7BF	
V4	1st Video IF	6AU6	6AU6	7BK	
V5	2nd Video IF	6AU6	6AU6	7BK	
V6	3rd Video IF	6AU6	6AU6	7BK	
V7	Video Detector	6AL5	6AL5	6BT	
V8	Video Amp.	6AU6	6AU6	7BK	
V9	Sound IF	6AU6	6AU6	7BK	
V10	Ratio Detector	6AL5	6AL5	6BT	
V11	Audio Amp.	6AT6	6AT6	7BT	
V12	Audio Output	25L6GT	25L6GT	7AC	
V13	Sync. Sep. & DC Res.				
V14	Vertical Multiv.	6AU6	6AU6	7BK	
V15	Vertical Amp.	12SN7GT	12SN7GT	8BD	
V16	Horizontal Mult.	12SN7GT	12SN7GT	8BD	
V17	Horizontal Amp.	12SN7GT	12SN7GT	8BD	
V18	H. V. Osc.	12SN7GT	12SN7GT	8BD	
V19	H. V. Rectifier	1B3GT	1B3GT	3C	
V20	Bias Rectifier & Doubler				
V21	Tripper	25Z6GT	25Z6GT	7Q	
V22	Picture Tube	6X5GT/G	6X5GT/G	6S	
		7JP4	7JP4		

C58	.05	600	TCP-503-10	P688-05	GT
C59	5000	300	TCC-502-SP	1467-005	1D5
C60	5000	300	TCC-502-SP	1467-005	1D5
C61	.01	600	TCP-103-10	P688-01	GT
C62	.1	600	TCP-104-10	P688-1	GT
C63	.05	600	TCP-503-10	P688-05	GT
C64	.02	600	TCP-203-10	P688-02	GT
C65	.005	6000	TCP-502-6K	7584-005	DST
C66	.005	6000	TCP-502-6K	7584-005	DST
C67	220	500	TCM-221-4		
C68	100	500	TCM-101-11	1468-0001	5W
C69	.01	600	TCP-103-10	P688-01	GT
C70	100	500	TCM-101-11	1468-0001	5W
C71	.005	6000	TCP-502-6K	7584-005	DST
C72	.005	6000	TCP-502-6K	7584-005	DST
C73	.05	600	TCP-503-10	P688-05	GT
C74	.750	500	TCM-751-8	1468-00075	
C75	360	500	TCM-361-6	1469-00035	
C76	1500		TCC-152-7	1467-0015	1W
C77	.1	600	TCP-104-10	P688-1	GT
C78	.0005	6000	TCC-501-10K	7584-0005	DST
C79	.0005	6000	TCC-501-10K	7584-0005	DST
C80	.05	600	TCP-503-10	P688-05	GT
C81	.01	400	TCP-103-10	P488-01	GT
C82	360		TCC-501-10	1468-00035	5W
C83	5000	300	TCC-502-SP	1467-005	1D5
C84	5000	300	TCC-502-SP	1467-005	1D5

Note 1-Some models use 500 M μ F. In this application.
 Note 2-Some models use 1.5 M μ F. In this application.
 Note 3-Not used in all models.
 Note 4-Some models use 5 M μ F. In this application.
 Note 5-Some models use 5000 M μ F. In this application.

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	INSTALLATION NOTES
	CAP.	VOLT	TELE-TONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	SOLAR PART No.		
C1A	40	350	TCE-101D		UP4445		TVL-64	▲ Doubler
B	40	350						▲ Filter
C2A	30	450	TCE-102D				TVL-54	▲ C Switch
B	15	450						▲ " "
C	30	150						▲ " "
C3	30	150	TCE-103D	PRS150/30	BR3015	M-30-150	UT-301	▲ " "
C4A	125	150	TCE-100D					▲ " "
B	100	150						▲ " "
C5	30	150	TCE-103D	PRS150/30	BR3015	M-30-150	UT-301	▲ " "
C6	30	150	TCE-103D	PRS150/30	BR3015	M-30-150	TVA-18	▲ " "
C7	4	25	TCE-105D	PR415	BR415	M-4-450	TVA-13	▲ " "
C8	10	25	TCE-104D	PR825/10	BR102A	M-10-25	TVL-5	▲ " "
C9	10	250	TCE-106D	PR825/12	BR1225	M-10-350	UT-122	▲ " "
C10	300		TCC-501-10					▲ " "
C11	300		TCC-501-10					▲ " "
C12	360		TCC-501-10					▲ " "
C13	360		TCC-501-10					▲ " "
C14	360		TCC-501-10					▲ " "
C15	.82		TCC-082SP					▲ " "
C16	22		TCC-22-12					▲ " "
C17	5000		TCC-502-SP					▲ " "
C18	270	500	TCC-271-13					▲ " "
C19	360		TCC-501-10					▲ " "
C20	360		TCC-501-10					▲ " "
C21	.82		TCC-1.5-11					▲ " "
C22	4.7		TCC-4.7-11					▲ " "
C23	4.7		TCC-4.7-11					▲ " "
C24	360		TCC-501-10					▲ " "
C25	360		TCC-501-10					▲ " "
C26	360		TCC-501-10					▲ " "
C27	360		TCC-501-10					▲ " "
C28	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ AGC Filter
C29	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 1st V. Decoupling
C30	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 1st V. Fil. Byp.
C31	270	500	TCM-271-13	1468-00025	5W5T25	MO.5-325	1FM-325	▲ IF Coupling
C32	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ AGC Filter
C33	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 2nd V. Decoupling
C34	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 2nd V. Fil. Byp.
C35	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 3rd V. Cath. Bypass
C36	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 3rd V. Decoupling
C37	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ 3rd V. Fil. Bypass
C38	.25	400	TCP-254-4	P488-25	GT4P25	ST-4-25	TC-2	▲ AGC Filter
C39	1500		TCC-152-11	1467-0015	1W5D15	MW.5-215	1FM-215	▲ IF Coupling
C40	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ DAGC Diode Filter
C41	5.6		TCC-5-11	1469-000005	5R5V5	MOS.5-55	MS-55	▲ Diode Filter-Note 4
C42	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ Det. Fil. Bypass
C43	.05	400	TCP-503-4	P488-05	GT4S5	ST-4-05	TM-15	▲ Video Coupling
C44	.000	300	TCC-502-11	1467-005	1D5D5	MW.5-25	1FM-25	▲ V. Amp. Screen Byp.
C45	.25	400	TCP-254-4	P488-25	GT4P25	ST-4-25	TC-2	▲ Video Coupling
C46	2.2	400	TCC-2.2-11					▲ Sound IF Coupling
C47	.02	400	TCP-203-4	P488-02	GT4S2	ST-4-02	TM-12	▲ 1st S. IF Cath. Byp.
C48	.02	400	TCP-203-4	P488-02	GT4S2	ST-4-02	TM-12	▲ 1st S. IF Cath. Byp.
C49	330	500	TCM-331-5	1469-00035	5W5T3	MO.5-33	1FM-335	▲ Diode Load Cap.
C50	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ RF Bypass
C51	1500		TCC-152-11	1467-0015	1W5D15	MW.5-215	1FM-215	▲ De-emphasis
C52	.02	400	TCP-203-4	P488-02	GT4S2	ST-4-02	TM-12	▲ Audio Coupling
C53	5000		TCC-502-SP	1467-005	1D5D5	MW.5-25	1FM-25	▲ V. Cont. Iso.
C54	.002	600	TCP-202-4	P688-002	GT6D2	ST-6-002	TM-22	▲ Audio Coupling
C55	.01	600	TCP-103-10	P688-01	GT6S1	ST-6-01	TM-11	▲ Audio Coupling
C56	.02	400	TCP-203-4	P488-02	GT4S2	ST-4-02	TM-12	▲ Output Plate Bypass
C57	.05	400	TCP-503-4	P488-05	GT4S5	ST-4-05	TM-15	▲ Video Coupling

ITEM No.	RATING		REPLACEMENT DATA		
	RESISTANCE	WATTS	TELE-TONE PART No.	IRC PART No.	CLAROTON PART No.
R1A	500K Ω	±	TVC-100D	D13-133	M-60-
B	Shaft		Not Req.	A	Not R
C	Switch			41	SW-A
R2A	1 Meg.	±	TVC-102D		
B	250K Ω	±			
R3A	1000 Ω	±	TVC-101D		
B	25K Ω	±			
R4A	5 Meg.	±	TVC-103D	D11-141	
B	Shaft		Not Req.	A	
R5A	10 Meg.	±	TVC-104D	D11-143	
B	Shaft		Not Req.		
R6A	5 Meg.	±	TVC-103D	D11-141	
B	Shaft		Not Req.	A	
R7	5 Meg.	±	TVC-105D		
R8	5 Meg.	±	TVC-105D		
R9	5 Meg.	±	TVC-105D		

Note-Some models use 2.5 Meg. Ω control and the focus control.

ITEM No.	RATING		REPLACEMENT DATA	
	RESISTANCE	WATTS	TELE-TONE PART No.	IRC PART No.
R10	4700 Ω	±	TRC-472-3	
R11	1000 Ω	±	TRC-102-1	
R12	1 Meg.	±	TRC-105-1	
R13	82 Ω	±	TRC-820-2	BTS-1 Meg.
R14	560 Ω	±	TRC-561-1	
R15	560 Ω	±	TRC-561-1	
R16	390 Ω	±	TRC-391-1	
R17	4700 Ω	±	TRC-472-1	
R18	1 Meg.	±	TRC-105-1	BTS-1 Meg.
R19	1000 Ω	±	TRC-102-1	BTS-1000
R20	27K Ω	±	TRC-273-2	
R21	27K Ω	±	TRC-273-2	
R22	47 Ω	±	TRC-470-1	
R23	11K Ω	±	TRC-113-3	
R24	150 Ω	±	TRC-151-1	
R25	150 Ω	±	TRC-151-1	
R26	150 Ω	±	TRC-151-1	
R27	82 Ω	±	TRC-820-3	
R28	150 Ω	±	TRW-151-1	BW-1-150
R29	10K Ω	±	TRW-103-3	
R30	82 Ω	±	TRW-820-2	
R31	150 Ω	±	TRW-151-1	BW-1-150
R32	11K Ω	±	TRW-153-3	
R33	82 Ω	±	TRW-820-2	
R34	47K Ω	±	TRW-473-1	BTS-47K
R35	2.2 Meg.	±	TRW-225-3	BTS-2.2Meg. ±5%
R36	100K Ω	±	TRW-104-1	BTS-100K
R37	1500 Ω	±	TRW-152-1	BTS-1500
R38	8200 Ω	±	TRW-822-3	BTS-8200 ±5%
R39	1 Meg.	±	TRW-105-3	BTS-1 Meg. ±5%
R40	10K Ω	±	TRW-103-1	BTS-10K
R41	1 Meg.	±	TRW-105-3	BTS-1Meg. ±5%
R42	6800 Ω	±	TRW-682-8	BTA-6800 ±5%
R43	47K Ω	±	TRW-473-8	BT-2-47K
R44	47K Ω	±	TRW-473-8	BT-2-47K
R45	4700 Ω	±	TRC-472-1	BTS-4700
R46	150K Ω	±	TRC-154-1	BTS-150K
R47	1 Meg.	±	TRC-105-3	BTS-1 Meg. ±5%
R48	6800 Ω	±	TRC-682-1	BTS-6800
R49	220K Ω	±	TRC-224-2	BTS-220K
R50	180K Ω	±	TRC-184-1	BTS-180K
R51	560 Ω	±	TRC-561-2	BTS-560
R52	560 Ω	±	TRC-561-2	BTS-560
R53	82 Ω	±	TRC-820-2	
R54	470 Ω	±	TRC-471-3	BTS-470 ±5%

DESCRIPTIONS

(CONT.)

ST-6-05	TM-15	Sync. Coupling
MW.5-25	1FM-25	Integrator
MW.5-25	1FM-25	
ST-6-01	TM-11	Vert. Mult. Feedback
ST-6-1	TM-11	Vert. Coupling
ST-6-05	TM-15	Vert. Discharge
ST-6-02	TM-12	Vert. Coupling
	TVM-256	"
	TVM-256	"
		Differentiator
MO.5-31	1FM-31	Hor. Mult. Feedback
ST-6-01	TM-11	Hor. Coupling
MO.5-31	1FM-31	Hor. Discharge
	TVM-256	Hor. Coupling
	TVM-256	"
ST-6-05	TM-15	H. V. Osc. Plate Decoupl. Fixed Trimmer
MW.5-215	1FM-215	H.V. Osc. Grid Cap.-Cer.
ST-6-1	TM-1	H.V. Osc. Fil. Bypass
	TVM-351	H.V. Filter
	TVM-351	H.V. Filter
ST-6-05	TM-15	Hor. Centering Byp.
ST-4-01	TM-11	ACC Anode Filter-Note 3
MO.5-34	1FM-335	ACC Filter
MW.5-25	1FM-25	Line Filter
MW.5-25	1FM-25	RF Bypass-Note 3

LS

INSTALLATION NOTES

Volume Control
 Attach to R1A per instructions

Vertical Hold Control } Dual
 Horizontal Hold Control }
 Contrast Control } Dual
 Brilliance " }

Width Control
 Attach to R4A per instructions.

Height Control
 Attach to R5A per instructions

Vertical Linearity Control
 Attach to R6A per instructions

Focus Control-See Note
 Horizontal Centering Control
 Vertical Centering Control

the 4.7 Meg. Ω shunt resistor across

RESISTORS (CONT.)

R55	15K Ω	↓	TRC-153-3	BTS-15K $\pm 5\%$	Br.-Grn.-Or.	Ratio Detector Diode Load	$\pm 5\%$
R56	15K Ω	↓	TRC-153-3	BTS-15K $\pm 5\%$	Br.-Grn.-Or.		$\pm 5\%$
R57	47K Ω	↓	TRC-473-1	BTS-47K	Yl.-Vi.-Or.	De-emphasis	
R58	10 Meg.	↓	TRC-106-1	BTS-10 Meg.	Br.-Blk.-Blue	Audio Grid	
R59	390K Ω	↓	TRC-394-2	BTS-390K	Or.-White-Yl.	Audio Plate	$\pm 10\%$
R60	470K Ω	↓	TRC-474-2	BTS-470K	Yl.-Vi.-Yl.	Output Grid	$\pm 10\%$
R61	6.8 Meg.	↓	TRC-685-2	BTS-6.8 Meg.	Blue-Gray-Grn.	Bias Network	$\pm 10\%$
R62	68 Ω	↓	TRC-680-1	BW-4-68	Blue-Gray-Blk.	Output Cathode	
R63	4700 Ω	↓	TRC-472-1	BTS-4700	Yl.-Vi.-Red	Filter	
R64	150 Ω	↓		BW-1-150	Br.-Grn.-Br.		$\pm 10\%$
R65	4700 Ω	↓	TRC-472-1	BTS-4700	Yl.-Vi.-Red	Integrator	
R66	4700 Ω	↓	TRC-472-1	BTS-4700	Yl.-Vi.-Red		
R67	1000 Ω	↓	TRC-102-1	BTS-1000	Br.-Blk.-Red	Vertical Osc. Cathode	
R68	100K Ω	↓	TRC-104-4	ETA-100K $\pm 5\%$	Br.-Blk.-Yl.	Vertical Osc. Plate	$\pm 5\%$
R69	390K Ω	↓	TRC-394-2	BTS-390K	Or.-White-Yl.	Vertical Osc. Grid	$\pm 10\%$
R70	3.3 Meg.	↓	TRC-335-1	BTS-3.3 Meg.	Or.-Or.-Grn.	Vertical Osc. Plate	
R71	4.7 Meg.	↓	TRC-475-1	BTS-4.7 Meg.	Yl.-Vi.-Grn.	Vertical Amp. Grid	
R72	18K Ω	↓	TRC-183-2	BTS-18K	Br.-Gray-Or.	Vertical Amp. Cathode	$\pm 10\%$
R73	150K Ω	↓	TRC-154-1	BTS-150K	Br.-Grn.-Yl.	Vertical Amp. Grid	
R74	2.2 Meg.	↓	TRC-225-3	BTS-2.2 Meg.	Red-Red-Grn.	Voltage Divider	$\pm 5\%$
R75	820K Ω	↓	TRC-824-5	BTA-820K $\pm 5\%$	Gray-Red-Yl.	Vertical Amp. Plate	$\pm 5\%$
R76	820K Ω	↓	TRC-824-5	BTA-820K $\pm 5\%$	Gray-Red-Yl.		$\pm 5\%$
R77	5.6 Meg.	↓	TRC-565-1	BTS-5.6 Meg.	Grn.-Blue-Grn.	Feedback Network	
R78	5.6 Meg.	↓	TRC-565-2	BTS-5.6 Meg.	Grn.-Blue-Grn.	Vertical Deflection Load	$\pm 10\%$
R79	5.6 Meg.	↓	TRC-565-2	BTS-5.6 Meg.	Grn.-Blue-Grn.		$\pm 10\%$
R80	100K Ω	↓	TRC-104-4	BTA-100K $\pm 5\%$	Br.-Blk.-Yl.	Horizontal Oscillator Plate	$\pm 5\%$
R81	4700 Ω	↓	TRC-472-1	BTS-4700	Yl.-Vi.-Red	Horizontal Oscillator Grid	
R82	1000 Ω	↓	TRC-102-1	BTS-1000	Br.-Blk.-Red	Horizontal Oscillator Cathode	
R83	220K Ω	↓	TRC-224-1	BTS-220K	Red-Red-Yl.	Horizontal Oscillator Grid	
R84	1.2 Meg.	↓	TRC-125-1	BTS-1.2 Meg.	Br.-Red-Grn.	Horizontal Oscillator Plate	
R85	10K Ω	↓	TRC-103-1	BTS-10K	Br.-Blk.-Or.	Filter	
R86	4.7 Meg.	↓	TRC-475-1	BTS-4.7 Meg.	Yl.-Vi.-Grn.	Horizontal Output Grid	
R87	4.7 Meg.	↓	TRC-475-1	BTS-4.7 Meg.	Yl.-Vi.-Grn.		
R88	47K Ω	↓	TRC-473-8	BT-2-47K	Yl.-Vi.-Or.	Horizontal Output Plate	$\pm 10\%$
R89	47K Ω	↓	TRC-473-8	BT-2-47K	Yl.-Vi.-Or.		$\pm 10\%$
R90	4.7 Meg.	↓	TRC-475-1	BTS-4.7 Meg.	Yl.-Vi.-Grn.	Horizontal Deflection Load	
R91	4.7 Meg.	↓	TRC-475-1	BTS-4.7 Meg.	Yl.-Vi.-Grn.		
R92	43 Ω	↓	TRW-430-5		Yl.-Or.-Blk.	Oscillator Filament Shunt	$\pm 10\%$
R93	60 Ω	↓	TRW-600-14		Vi.-Grn.-Red	Filament Dropping	$\pm 10\%$
R94	7500 Ω	↓	TRC-752-3		Blue-Gray-Blk.	H. V. Osc. Grid	$\pm 5\%$
R95	68 Ω	↓	TRC-680-2		Br.-Blk.-Br.	Parasitic Suppressor	$\pm 10\%$
R96	100 Ω	↓	TRC-101-2		Blue-Gray-Blk.	"	$\pm 10\%$
R97	68 Ω	↓	TRC-680-2		Br.-Blk.-Br.	"	$\pm 10\%$
R98	100K Ω	↓	TRC-104-4	BTA-100K	Br.-Blk.-Yl.	H. V. Filter	$\pm 10\%$
R99	1 Meg.	↓	TRC-105-3	BTS-1 Meg. $\pm 5\%$	Br.-Blk.-Grn.	Voltage Divider	$\pm 5\%$
R100	3.3 Meg.	↓	TRC-335-2	BTS-3.3 Meg.	Or.-Or.-Grn.	"	$\pm 10\%$
R101	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	"	
R102	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	"	
R103	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	"	
R104	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	"	
R105	4.7 Meg.	↓	TRC-475-4		Yl.-Vi.-Grn.	Focus Control Shunt-See Note	
R106	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	Voltage Divider	
R107	2.2 Meg.	↓	TRC-225-4		Red-Red-Grn.	"	
R108	3.3 Meg.	↓	TRC-335-2	BTS-3.3 Meg.	Or.-Or.-Grn.	"	$\pm 10\%$
R109	3.3 Meg.	↓	TRC-335-2	BTS-3.3 Meg.	Or.-Or.-Grn.	"	$\pm 10\%$
R110	680 Ω	↓	TRW-681-5	BW-2-680		Filter	$\pm 10\%$
R111	18 Ω	↓	TRW-180-10			Surge Limiter	$\pm 10\%$
R112	1200	↓	TRW-122-4	BW-1-1200	Br.-Red-Red	Filter	$\pm 10\%$

Note-Not used in all models.

RS

IDENTIFICATION CODES

RESISTORS ARE 20% TOL. UNLESS OTHERWISE SPECIFIED

V1.-Red	RF Shunt	$\pm 5\%$
Blk.-Red	RF Decoupling	
Blk.-Grn.	RF Grid	
-Red-Blk.	RF Cathode	$\pm 10\%$
-Blue-Br.	Attenuator Network	
-Blue-Br.	"	
White-Br.	"	
V1.-Red	Mixer Coil Shunt	$\pm 5\%$
Blk.-Grn.	Mixer Grid	
Blk.-Red	Mixer Decoupling	
V1.-Or.	Osc. Grid	$\pm 10\%$
V1.-Or.	"	$\pm 10\%$
V1.-Blk.	Osc. Cathode	
Br.-Or.	1st Video IF Grid	$\pm 5\%$
Grn.-Br.	AGC Network	
Grn.-Br.	"	
Grn.-Br.	"	
-Red-Blk.	1st Video IF Cathode	$\pm 5\%$
Grn.-Br.	1st Video IF Decoupling	
Blk.-Or.	2nd Video IF Grid	$\pm 5\%$
-Red-Blk.	2nd Video IF Cathode	$\pm 10\%$
Grn.-Br.	2nd Video IF Decoupling	
Br.-Or.	3rd Video IF Grid	$\pm 5\%$
-Red-Blk.	3rd Video IF Cathode	$\pm 10\%$
V1.-Or.	AGC Diode Load	
Red-Grn.	AGC Network	$\pm 5\%$
Blk.-Yl.	Voltage Divider Network	
Grn.-Red	"	
-Red-Red	Video Detector Load	$\pm 5\%$
Blk.-Grn.	Video Amp. Grid	$\pm 5\%$
Blk.-Or.	Bias Network	
Blk.-Grn.	"	$\pm 5\%$
-Gray-Red	Video Amp. Plate	$\pm 5\%$
V1.-Or.	Filter	$\pm 10\%$
V1.-Or.	"	$\pm 10\%$
V1.-Red	Bleeder	
Grn.-Br.	Picture Tube Cathode	
Blk.-Grn.	Sync. Separator Grid	$\pm 5\%$
-Gray-Red	Sync. Separator Cathode	
Red-Yl.	Sync. Separator Plate	$\pm 10\%$
Gray-Yl.	Phase Correction	
-Blue-Br.	Bias Voltage Divider	$\pm 10\%$
-Blue-Br.	"	$\pm 10\%$
-Red-Blk.	Sound IF Cathode	$\pm 10\%$
V1.-Br.	Sound IF Decoupling	$\pm 5\%$

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING			REPLACEMENT DATA			INSTALLATION NOTES		
	IMPEDANCE	DC RES.	DC RES.	TELE-TONE PART No.	STANCOR PART No.	THORDARSON PART No.		MERIT PART No.	
T1	2.6K Ω	3.3 Ω	250 Ω	.6 Ω		A-3330*	T22S45*	A-2928*	*Bend mounting tabs down, file out slots and mount on original bracket.

TRANSFORMER (HIGH VOLT. OSC.)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	TELE-TONE PART No.	STANCOR PART No.	THORDARSON PART No.	MERIT PART No.
T2	38 Ω	1.5 Ω	38 Ω	0 Ω	TLF-137D			

SPEAKER

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	TELE-TONE PART No.	JENSEN PART No.	QUAM PART No.	
SP1	PM	3.3 Ω	TSP-46-B	ST-113	4A1 #	#Fabricate new mounting bracket Remount output transformer
SP2	4"	V. C. DIA.				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 μ)	TELE-TONE PART No.	STANCOR PART No.	THORDARSON PART No.	MERIT PART No.	
L1	.074A	61 Ω	2.6 Henries	TTR-100-D	C-2304		C-2974	

TELE-TONE MODEL TV149

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

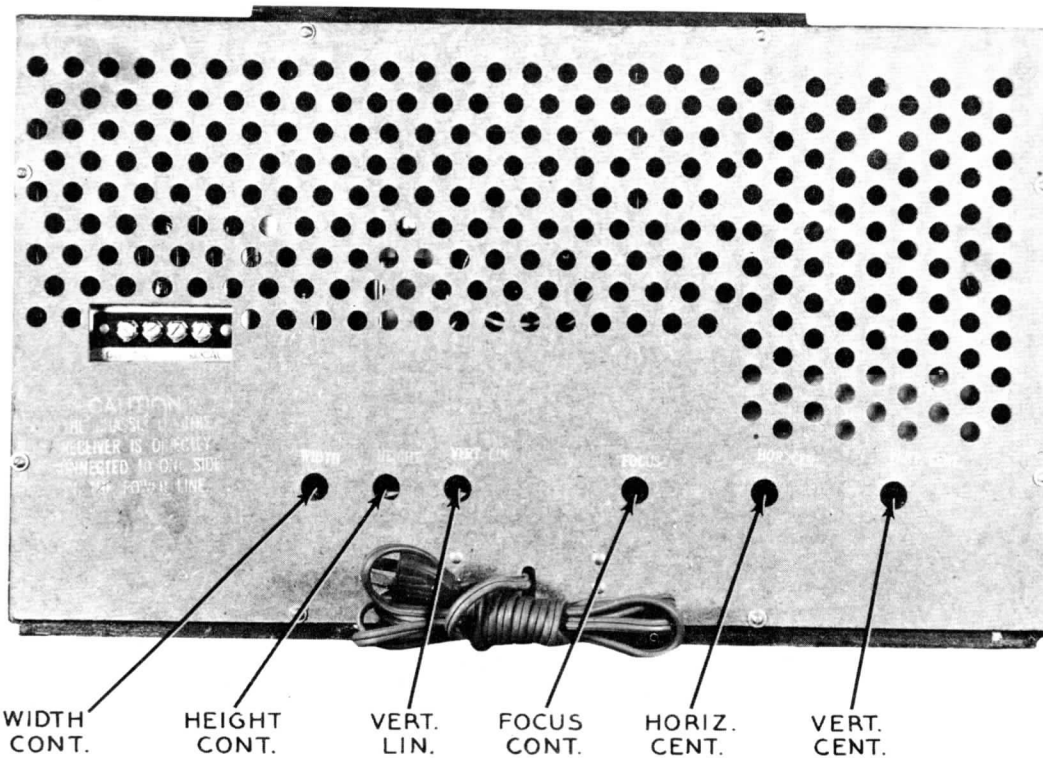
ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	TELE-TONE PART No.	MEISSNER PART No.	
L2	Ant. Input Coil	.2Ω	CT	TLF-139-D		
L3	RF Strap Inductor	0Ω		TLF-138-D		
L4	RF End Ind.	0Ω		TLF-143-D		
L5	" " "	0Ω		TLF-143-D		
L6	RF Plate Choke	0Ω		TLF-140-D		
L7A	Osc. Coils	0Ω		TLF-120-1D		Channel 2
B	" "	0Ω		TLF-120-2D		Channel 3
C	" "	0Ω		TLF-120-3D		Channel 4
D	" "	0Ω		TLF-120-4D		Channel 5
E	" "	0Ω		TLF-120-5D		Channel 6
F	" "	0Ω		TLF-120-6D		Channel 7
G	" "	0Ω		TLF-120-7D		Channel 8
H	" "	0Ω		TLF-120-8D		Channel 9
I	" "	0Ω		TLF-120-9D		Channel 10
J	" "	0Ω		TLF-120-10D		Channel 11
K	" "	0Ω		TLF-120-10D		Channel 12
L	" "	0Ω		TLF-120-10D		Channel 13
L8	IF Coil	0Ω		TLF-116-D		
L9	1st Video IF	.2Ω		TLF-117-D		
L10	2nd " "	.2Ω	.2Ω	TLF-118-D		
L11	3rd " "	.2Ω	.2Ω	TLF-119-D		
L12	Peaking Coil	6.5Ω		TLF-133-D		Wound on 33KΩ resistor
L13	" "	15Ω		TLF-134-D		
L14	" "	6Ω		TLF-135-D		Wound on 22KΩ resistor
L15	" "	15Ω		TLF-136-D		" 15KΩ
L16	Sound IF Trap	1.5Ω		TLF-114-D		
L17	Ratio Det.	4Ω	.3Ω	TLF-142-D		
L18	Fl. Choke	0Ω		TLF-144-D		
L19	" "	0Ω		TLF-144-D		

SELENIUM RECTIFIER

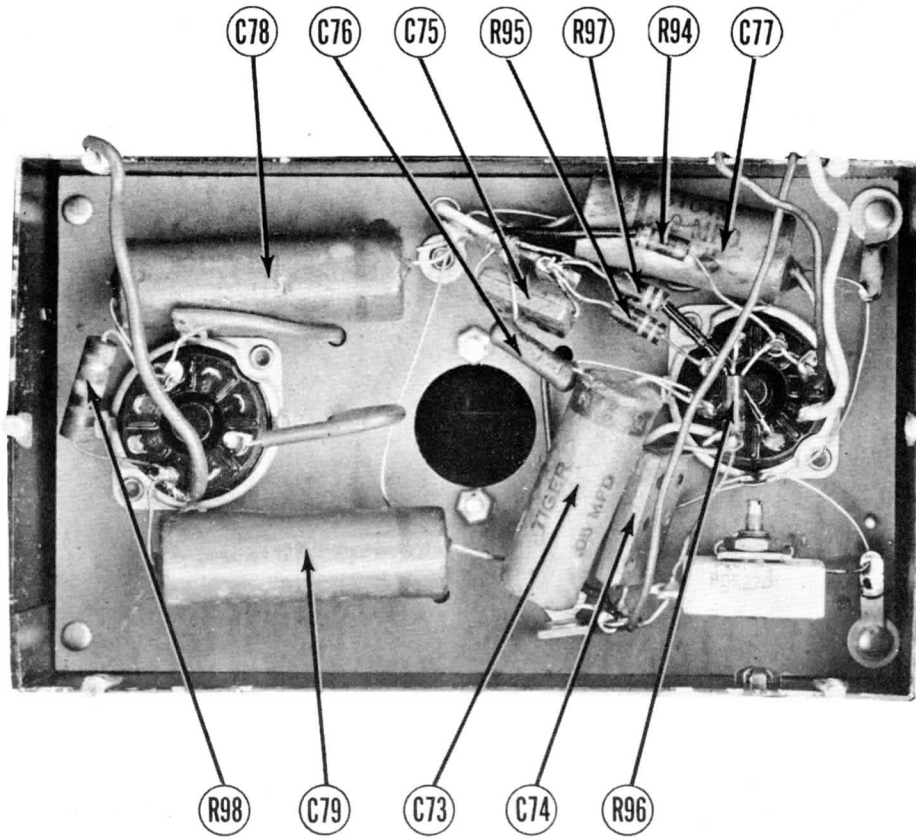
ITEM No.	RATING	REPLACEMENT DATA		NOTES
	CURRENT	TELE-TONE PART No.		
M1	.160 A.	TSR-100		

MISCELLANEOUS

ITEM No.	PART NAME	TELE-TONE PART No.	NOTES
M2	Band Switch	TSW-102D	
	Knob	TKN-100	Outside
	"	TKN-101	Inside
	"	TKN-102D	Tuner
	"	TKN-103	Volume Control
	"	TKN-104D	Tuner, Outside
	Safety Glass	TGL-100D	Picture Tube
	Escutcheon	TMS-121D	
	Bracket	THS-274D	Antenna
	Plug	TPL-150	Interlock
	Cabinet	TCB-100D	



CABINET-REAR VIEW



HIGH VOLTAGE SUPPLY -BOTTOM VIEW