

VOL. CONT.  
ON-OFF SWITCH FINE TUNING  
CHANNEL SELECTOR CONTRAST CONT.

**MOTOROLA  
MODEL VT71**

MOTOROLA MODEL VT71

TRADE NAME	Motorola, Model VT71	
MANUFACTURER	Motorola, Inc., 4545 Augusta Blvd., Chicago, Ill.	
TYPE SET	Television Receiver	
TUBES	Sixteen	
POWER SUPPLY	115 Volts, 60 Cycle AC	RATING 115 Volts @ .96 Amps.
TUNING RANGE-	Channels 2 through 13	

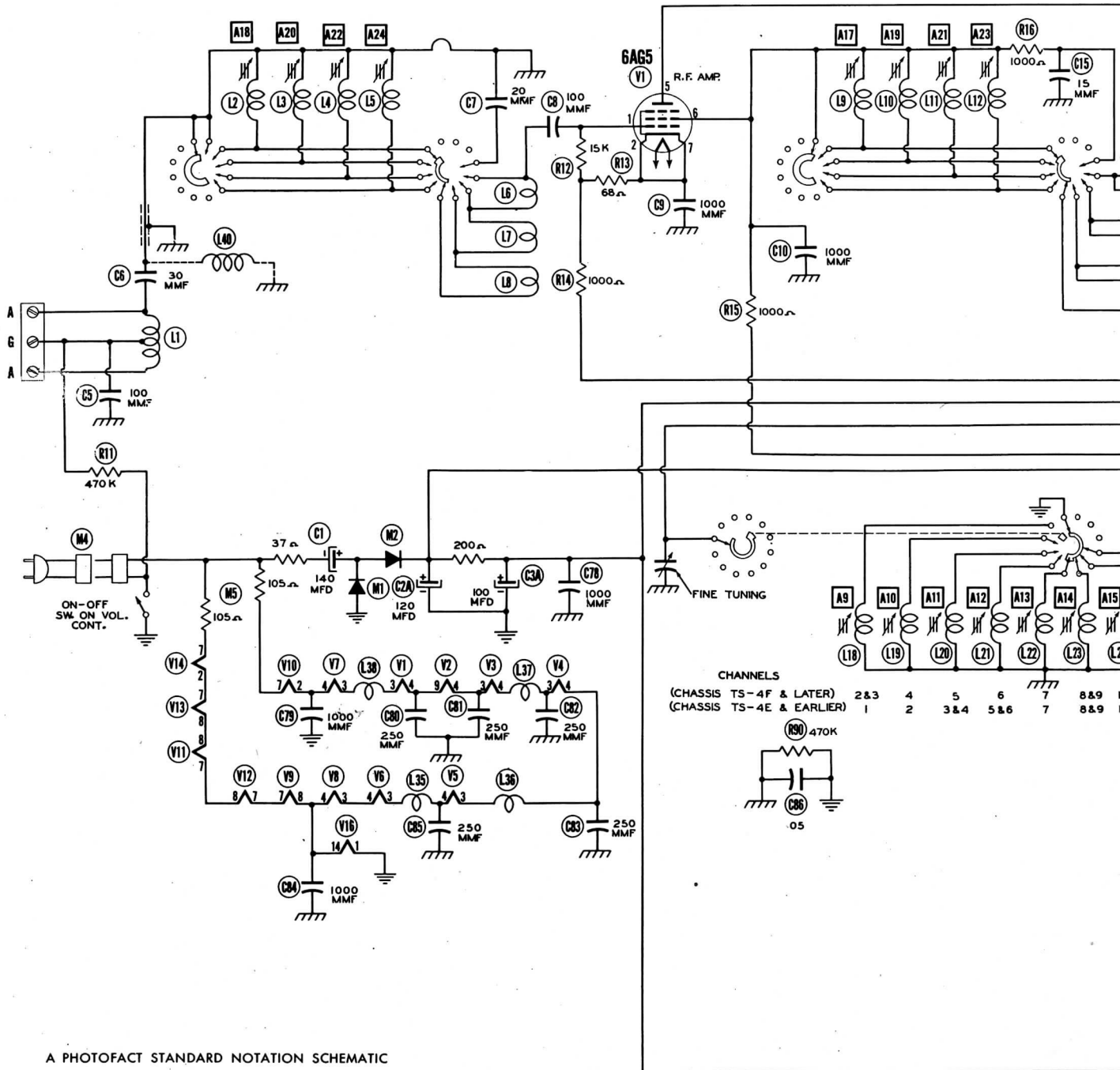
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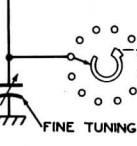
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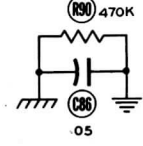
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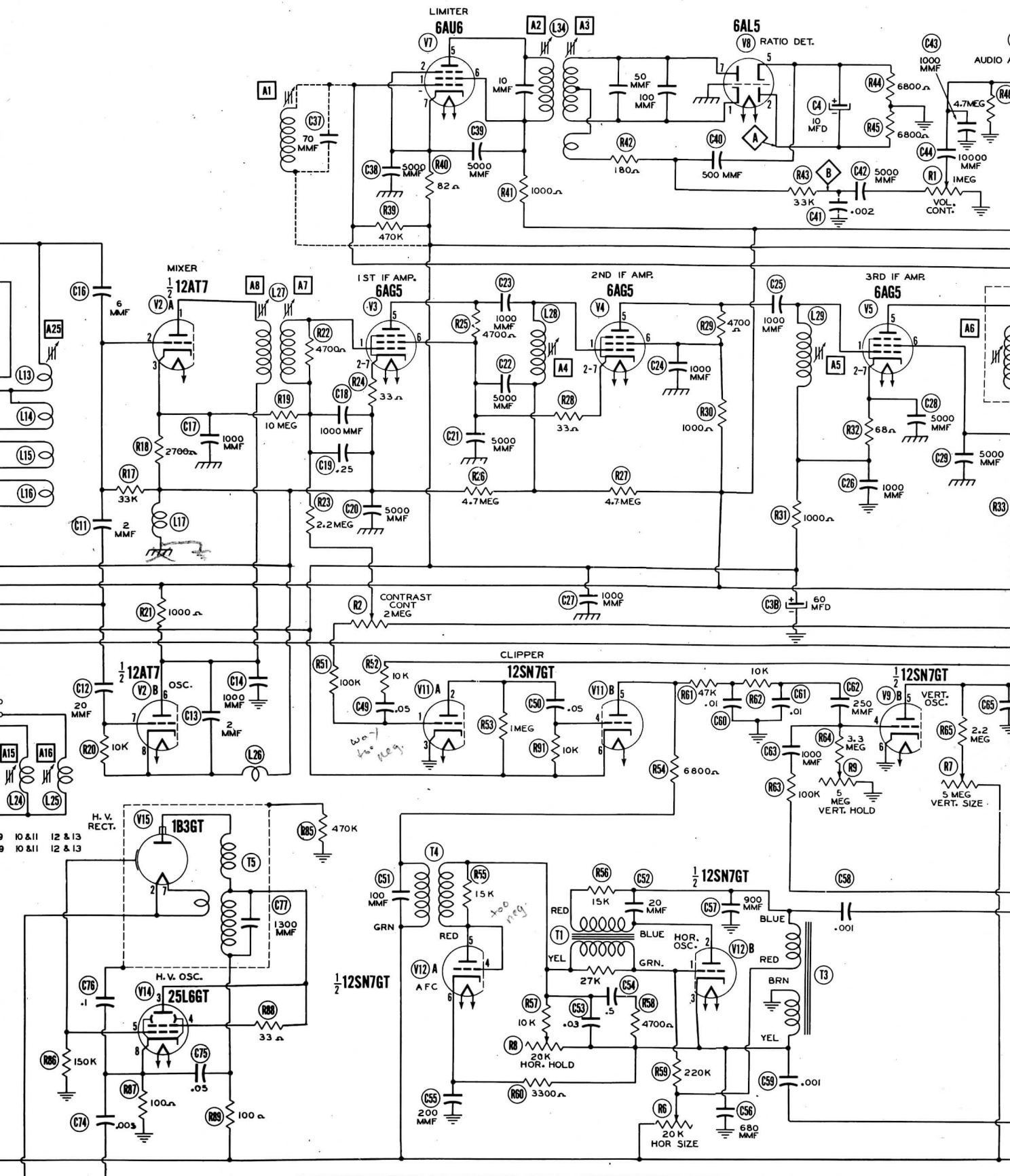
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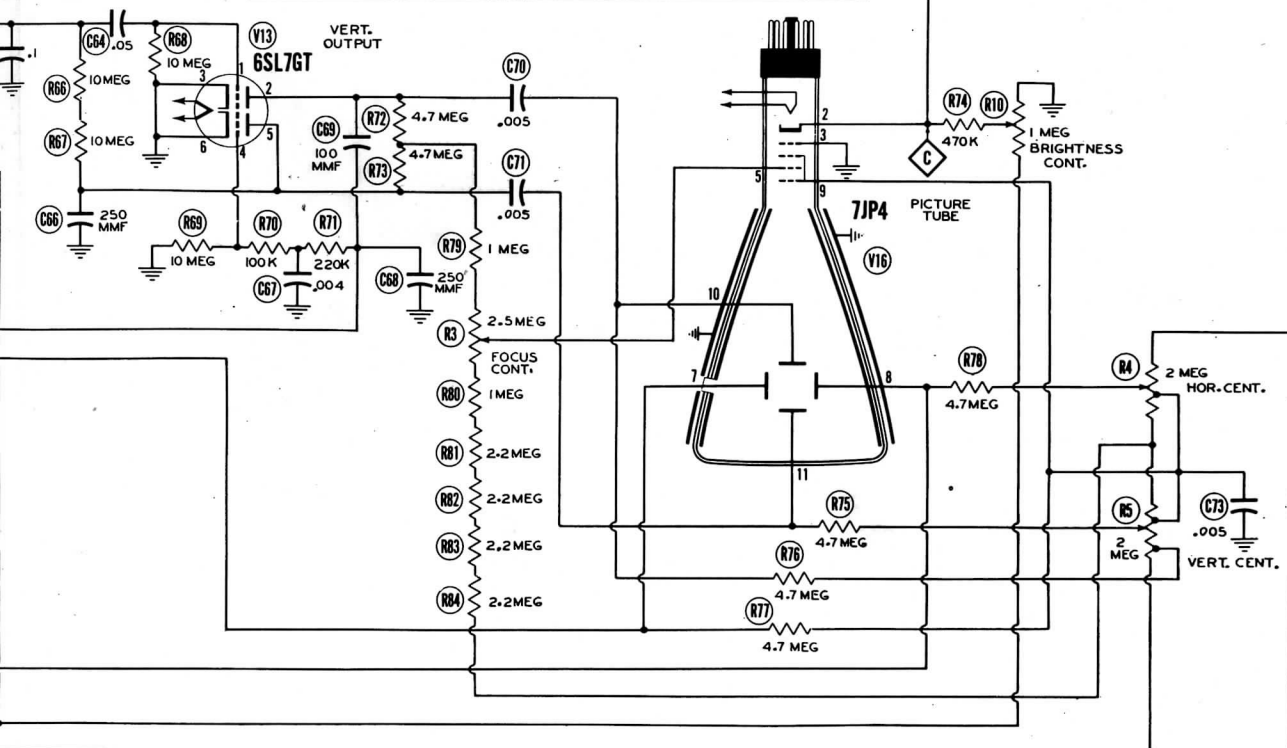
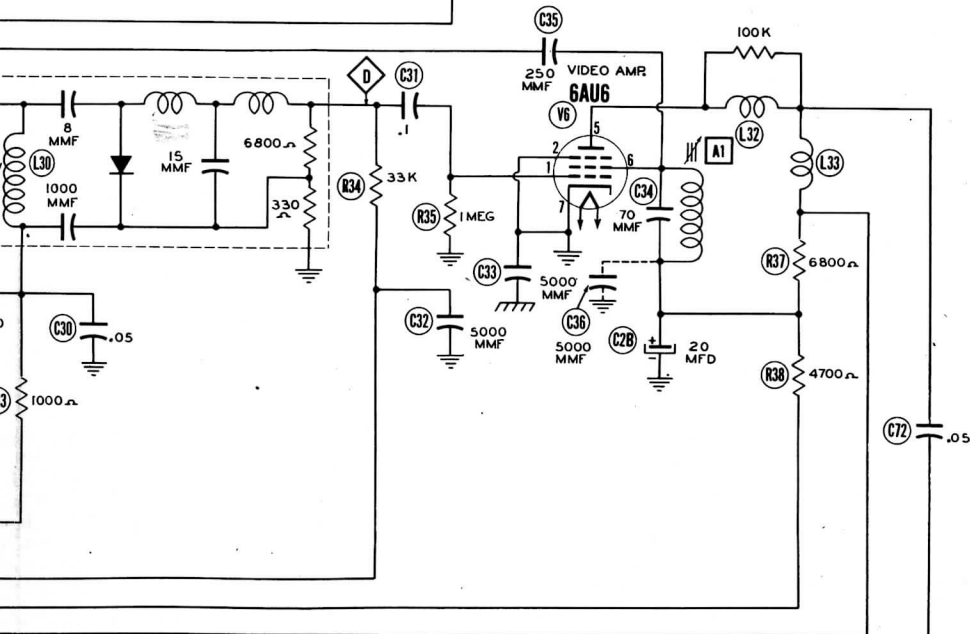
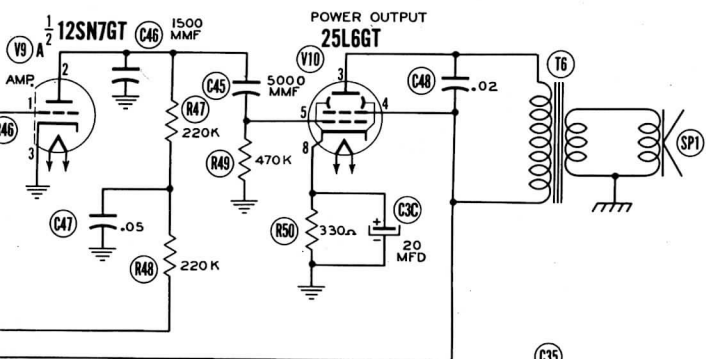


CHANNELS

(CHASSIS TS-4F & LATER)	2 & 3	4	5	6	7	8 & 9	10
(CHASSIS TS-4E & EARLIER)	1	2	3 & 4	5 & 6	7	8 & 9	10

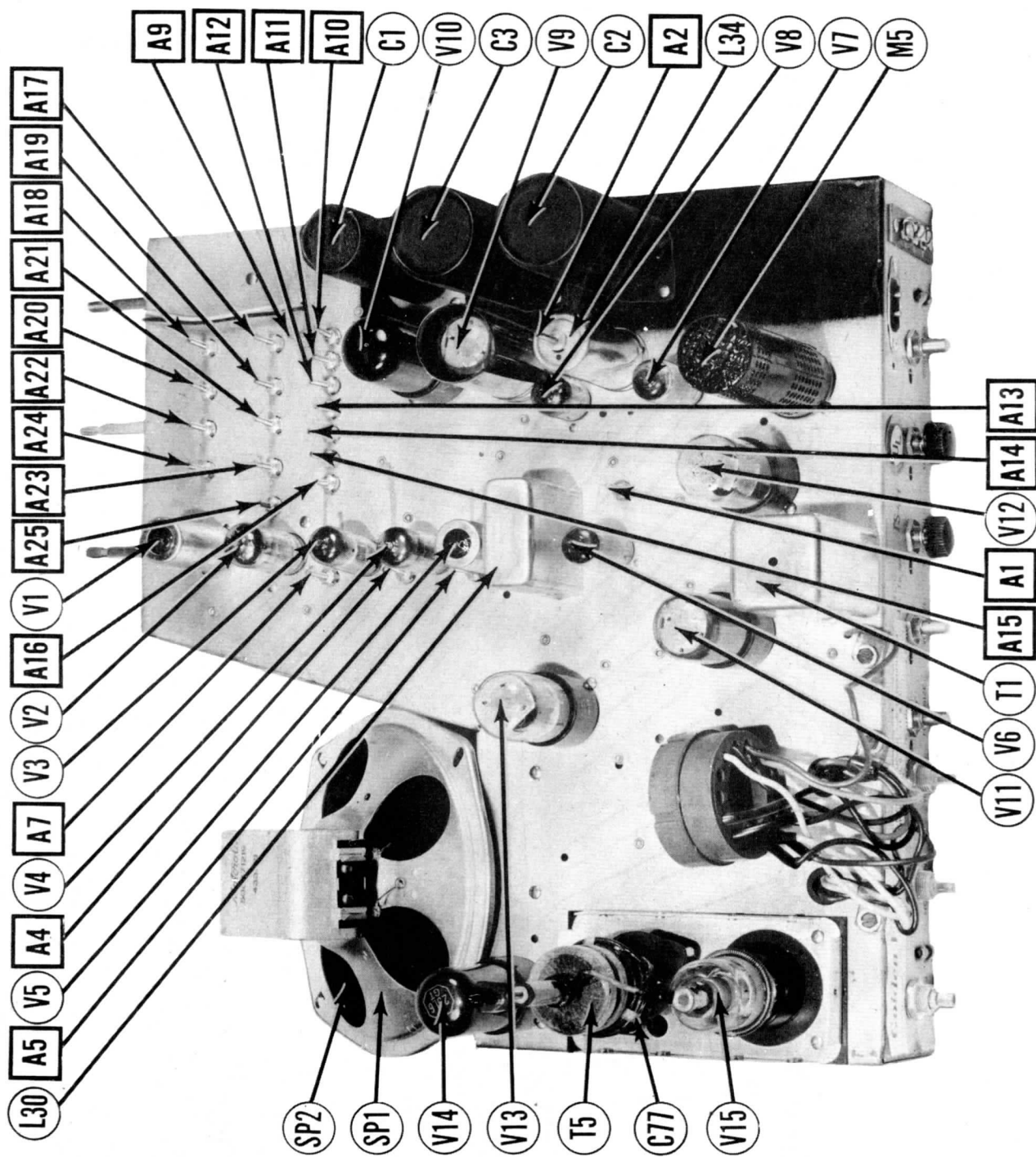




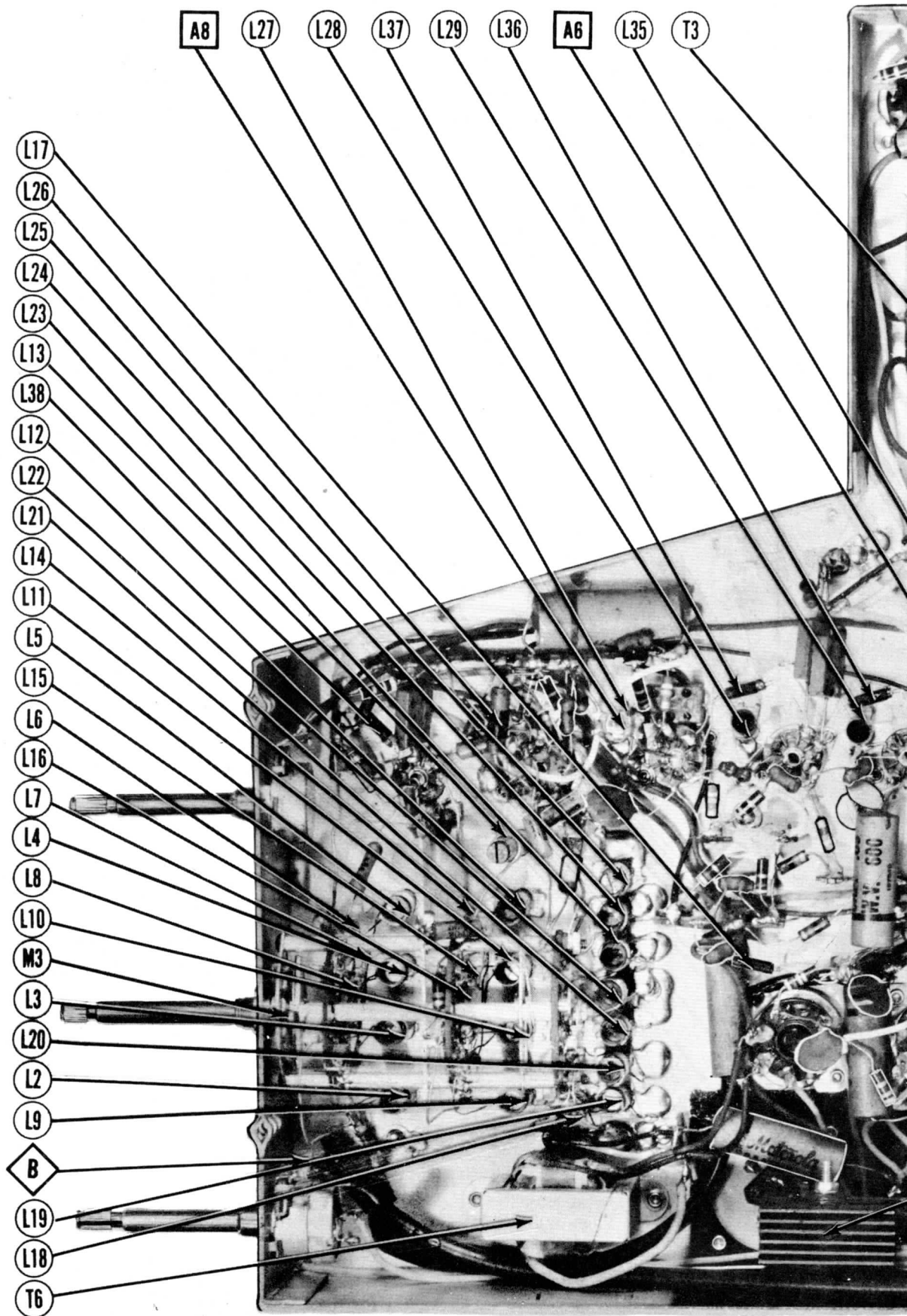


**MOTOROLA  
MODEL VT71**





CHASSIS TOP VIEW





CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

MOTOROLA  
MODEL VT71

TUBES PARTS LIST AND DESCRIPTIONS CAPACITORS

ITEM No.	USE	REPLACEMENT DATA			RMA TYPE	NOTES
		MOTOROLA PART No.	STANDARD REPLACEMENT	CORNEILL DUPLIER PART No.		
V1A	RF Amp.		6AG5	7BD		
V2A	Converter	12AT7	12AT7	9A		
V3	1st IF Amp.	7F8	7F8	8BM		Used in some models.
V4	2nd IF Amp.	6AG5	6AG5	7BD		
V5	3rd IF Amp.	6AG5	6AG5	7BD		
V6	Video Amp.	6AU6	6AU6	7BK		
V7	Limiter	6AU6	6AU6	7BK		
V8	Radio Detector	6AL5	6AL5	6BT		
V9	Audi Amp.	12SN7GT	12SN7GT	8BC		Chassis TS-4B, C, D use 6347 for AF Amp.
V10	Power Out put	2516GT	2516GT	7AC		
V11	Clipper	12SN7GT	12SN7GT	8BD		
V12	AFRC Hor. Osc.	12SN7GT	12SN7GT	8BD		
V13	Vert. Output	6SL7GT	6SL7GT	8BD		
V14	H. V. Rect.	2516GT	2516GT	7AC		
V15	H. V. Rect.	1330T	1330T	7AP4		
V16	Picture Tube	71P4	71P4	14G		

CAPACITORS

Capacity values given in the rating column are in mfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REPLACEMENT DATA			SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION AND INSTALLATION NOTES
		MOTOROLA PART No.	AEROVOX PART No.	CORNEILL DUPLIER PART No.			
C1	140	23B90135	AF8681*		TVL-44	1	Doublet Cap.-Note 1
C2A	120	23B90134	RF4444*		TVL-46		Filter
C2B	20	300	FR6450/40		TVL-51		"
C3A	100	300					"
C3B	20	25					"
C4	10	50	25A90205	FRS50-10			Output Cathode Bypass
C5	100		21R6631				Stabilizing Cap.
C6	20		21K470329				Ext. Ground Isolation
C7	20		21K470322				Antenna Coupling-Cer.
C8	100		21B77236				Fixed Trimmer
C9	100		21K478410				RF Cath. Bypass
C10	1000		21K478410				See Note 2
C11	2		21K478280				RF Screen Bypass
C12	20		21K478287				See Note 2
C13	2		21K478230				Osc. Coupling
C14	1000		21K478410				Osc. Grid Cap.
C15	15		21K470325				Osc. Feedback
C16	8		21K470324				RF Decoupling
C17	1000		21K478410				Conv. Cath. Bypass
C18	1000		21K478410				Bias Filter-Note 3
C19	25		93471356				1st IF Cath. Byp.
C20	5000	200	21A470789				1st IF Screen Byp.
C21	5000		21A470789				Bias Filter
C22	5000		21K478410				IF Coupling
C23	1000		21K478410				2nd IF Screen Byp.
C24	1000		21K478410				See Note 2
C25	1000		21K478410				See Note 2
C26	1000		21K478410				See Note 2
C27	1000		21K478410				See Note 2
C28	5000		21A470789				3rd IF Cath. Byp.
C29	5000		21A470789				See Note 3
C30	.05		84A71151				See Note 3
C31	.1	100	84A71366				See Note 3
C32	5000		21A470789				See Note 3
C33	5000		21A470789				See Note 3
C34	70		21K470328				See Note 3
C35	250	250	21H6648				See Note 3
C36	5000		21A470789				See Note 3
C37	70		21K470328				See Note 3

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA			INSTALLATION NOTES
		MOTOROLA PART No.	IRC PART No.	CLAROSTAT PART No.	
R1A	1 Meg.	18A90142	D13-137	AN-63-2	Volume
R1B	1 Meg.		E	KSS-3	Attach to R1A per instructions
R1C	Switch	18A90174	41	SM-A	Contrast-See Note 1
R2A	2 Meg.			AN-63-9	Attach to R2A per instructions-See Note 1
R2B	2 Meg.	18A90148		KSS-3	Focus
R3	2.5 Meg.	18A934192			Horiz. Centering-Tapped @ 400K & 1 Meg.-See Note 2
R4	2 Meg.				Vertical Centering
R5	2 Meg.	18A478285		M-83-S	Horizontal Size
R6	20K				Vertical Size
R7A	5 Meg.	18A90144	D11-141		Attach to R7A per instructions
R8	20K				Horizontal Hold-See Note 3
R9A	5 Meg.	18A90145	D11-141		Vertical Hold-See Note 3
R9B	5 Meg.				Attach to R9A per instructions
R10A	1 Meg.	18A90147	D11-137	M-61-S	Attach to R10A per instructions
R10B	1 Meg.			Not Req.	

Note 1-This control is 2000K in chassis TS-4J.  
 Note 2-This control in chassis Models TS-4B & C has a 1 Meg. tap only.  
 Note 3-This control in chassis Models TS-4B & C is a 1 Meg. control.

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA			IDENTIFICATION CODES
		MOTOROLA PART No.	IRC PART No.	CLAROSTAT PART No.	
R11	470K	6R6377			ALL RESISTORS ± 10% TOLERANCE UNLESS OTHERWISE SPEC'D
R12	15K	6R6477	BRS-470K		Y1-V1-V1.
R13	680	6R2035	BRS-10K		External Ground Isolation
R14	1000K	6R6229	BRS-1000		RF Amp. Cathode
R15	1000K	6R6229	BRS-1000		RF Amp. Dropping-See Note 1
R16	1000K	6R6229	BRS-1000		Voltage Dropping-See Note 1
R17	33K	6R6410	BRS-33K		RF Amp. Plate Decoupling
R18	270K	6R6577	BRS-270K		Conv. Cathode
R19	10K	6R6322	BRS-10K		Feedback-See Note 1
R20	100K	6R6322	BRS-100K		Osc. Grid
R21	100K	6R6322	BRS-100K		1st IF Amp. Grid Coil Shunt
R22	4700K	6R6330	BRS-4700		Bias Network-See Note 1
R23	2.2 Meg.	6R6330	BRS-2.2 Meg.		1st IF Amp. Cathode-See Note 2
R24	33K	6R6350	BRS-33K		Bias Network
R25	4.7 Meg.	6R6446	BRS-4.7 Meg.		2nd IF Amp. Cathode-See Note 2
R26	4.7 Meg.	6R6446	BRS-4.7 Meg.		2nd IF Amp. Plate
R27	4.7 Meg.	6R6446	BRS-4.7 Meg.		1st IF Amp. Cathode
R28	33K	6R2036	BRS-33K		1st IF Amp. Cathode
R29	4700K	6R6330	BRS-4700		1st IF Amp. Cathode-See Note 1
R30	1000K	6R6229	BRS-1000		1st IF Amp. Cathode-See Note 1
R31	1000K	6R6229	BRS-1000		1st IF Amp. Cathode-See Note 1
R32	680	6R6229	BRS-1000		1st IF Amp. Cathode-See Note 1
R33	1000K	6R6229	BRS-1000		1st IF Amp. Cathode-See Note 1
R34	1000K	6R6410	BRS-100K		1st IF Amp. Cathode-See Note 1
R35	1 Meg.	6R6046	BRS-1 Meg.		1st IF Amp. Cathode-See Note 1
R36	6800K	6R6390	PR-2-6800		1st IF Amp. Cathode-See Note 1
R37	4700K	6R6577	BRS-4700		1st IF Amp. Cathode-See Note 1
R38	4700K	6R6577	BRS-4700		1st IF Amp. Cathode-See Note 1
R39	4700K	6R6446	BRS-4700		1st IF Amp. Cathode-See Note 1
R40	82K	6R6235	BRS-82K		1st IF Amp. Cathode-See Note 1
R41	1000K	6R6229	BRS-1000		1st IF Amp. Cathode-See Note 1
R42	180K	6R6560	BRS-180K		1st IF Amp. Cathode-See Note 1
R43	33K	6R6410	BRS-33K		1st IF Amp. Cathode-See Note 1
R44	6800K	6R6428	BRS-6800		1st IF Amp. Cathode-See Note 1
R45	6800K	6R6446	BRS-6800		1st IF Amp. Cathode-See Note 1
R46	4700K	6R6446	BRS-4700		1st IF Amp. Cathode-See Note 1
R47	220K	6R6407	BRS-220K		1st IF Amp. Cathode-See Note 1
R48	4700K	6R6407	BRS-4700		1st IF Amp. Cathode-See Note 1
R49	220K	6R6577	BRS-220K		1st IF Amp. Cathode-See Note 1
R50	100K	6R6022	BRS-100K		1st IF Amp. Cathode-See Note 1
R51	100K	6R6031	BRS-100K		1st IF Amp. Cathode-See Note 1
R52	10K	6R6046	BRS-10K		1st IF Amp. Cathode-See Note 1
R53	1 Meg.	6R6046	BRS-1 Meg.		1st IF Amp. Cathode-See Note 1
R54	6800K	6R6477	BRS-6800		1st IF Amp. Cathode-See Note 1
R55	15K	6R6477	BRS-15K		1st IF Amp. Cathode-See Note 1
R56	15K	6R6477	BRS-15K		1st IF Amp. Cathode-See Note 1
R57	10K	6R6430	BRS-10K		1st IF Amp. Cathode-See Note 1
R58	4700K	6R6080	BRS-4700		1st IF Amp. Cathode-See Note 1
R59	220K	6R48138	BRS-2-220K		1st IF Amp. Cathode-See Note 1
R60	3300K	6R6581	BRS-3300		1st IF Amp. Cathode-See Note 1
R61	47K	6R6048	BRS-47K		1st IF Amp. Cathode-See Note 1



C38	5000	21A470789	1467-005	1D5D5	IM-5-25	LFM-25	Limiter Cath. Byp.
C39	5000	21A470789	1467-005	1D5D5	IM-5-25	LFM-25	Limiter Decoupl.
C40	5000	21A6590	1466-0005	5M5T5	NO.5-25	LFM-35	Diode Load-Note 13
C41	.002	5A471157	684-002	1D5D5	IM-5-25	LFM-25	De-amplifier-Note 14
C42	5000	21A470789	1467-005	1D5D5	IM-5-25	LFM-25	Audio Coupling
C43	1000	21K478410	1466-001	1M5D1	IM-5-21	LFM-21	Tone Comp.-Note 6
C44	10000	21K482726	1467-01	1D5S1	IM-3-11	LFM-11	Audio Coupling
C45	5000	21A470789	1467-0015	1D5D5	IM-5-215	LFM-215	Audio Plate Bypass
C46	1500	21A470789	1467-0015	1D5D5	IM-5-215	LFM-215	Audio Plate Bypass
C47	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Audio Plate Decoupl.
C48	.02	84471152	684-02	DF6S2	ST-6-02	TM-12	Output Plate Bypass
C49	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Sync. Coupling
C50	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Sync. Coupling
C51	100	21R6631	1466-0001	5M5T1	NO.5-31	LFM-31	Fixed Trimmer-Note 6
C52	20	21K470322	684-02	DF6S3	ST-6-03	TM-13	Feedback-Note 13
C53	.03	84482194	484-05	DF4P5	NO.5-22	TC-5	Hor. Osc. Grid
C54	.5	84494814	484-05	DF4P5	NO.5-22	TC-5	AFC Coupling
C55	200	21R6629	1466-002	5M5T2	NO.5-22	LFM-32	Fixed Trimmer
C56	900	21R2739					
C57	600	84480255					
C58	.001	84480255					
C59	.001	84480255					
C60	.01	84471153	684-01	DF6S1	ST-6-01	TM-11	Integrating Network
C61	.01	84471153	684-01	DF6S1	ST-6-01	TM-11	Integrating Network
C62	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	Vert. Sync. Coupling
C63	1000	21R6630	1466-001	5M5T3	NO.5-21	LFM-21	Feedback
C64	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Vert. Discharge
C65	.1	84471151	684-01	DF6S1	ST-6-01	TM-11	Linearity Comp.
C66	250	21A481402	1466-0025	5M5T5	NO.5-25	LFM-25	Voltage Divider
C67	.004	84471156	684-004	DF6D4	NO.5-24	LFM-24	Vert. Coupling
C68	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	Vert. Coupling
C69	100	21A47121	1466-0001	5M5T1	NO.5-21	LFM-21	Vert. Coupling
C70	.005	84471151	684-005	DF6D5	NO.5-25	LFM-25	Video Coupling
C71	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Video Coupling
C72	.05	84471151	684-05	DF6S5	ST-6-05	TM-15	Video Coupling
C73	.005	84471348					
C74	.005	84471348					
C75	.005	84471348					
C76	.1	84471355	684-05	DF6S5	ST-6-05	TM-15	RF Bypass-Note 20
C77	1300	21R2739	484-01	DF4P1	ST-2-1	TM-1	Fixed Trimmer-5%
C78	1000	21K478410	1466-001	1M5D1	IM-5-21	LFM-21	Fixed Trimmer-5%
C79	1000	21R6639	1466-001	5M5T9	NO.5-21	LFM-21	RF Bypass-Note 3
C80	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	Flt. Bypass
C81	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	"
C82	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	"
C83	250	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	"
C84	1500	21K478410	1466-001	1M5D1	IM-5-21	LFM-21	"
C85	230	21R6648	1466-0025	5M5T5	NO.5-25	LFM-25	"
C86	105	84471151	684-05	DF6S5	ST-6-05	TM-15	"
C87	20	21K470323	1466-0005	5M5T5	NO.5-35	LFM-35	Line Isolation
C88	500	21R6579	1466-0005	5M5T5	NO.5-35	LFM-35	Fixed Trimmer
C89	500	21R6579	1466-0005	5M5T5	NO.5-35	LFM-35	Fixed Trimmer
C90	500	84471153	684-01	DF6S1	ST-6-01	TM-11	Vert. Sync. Coupling
C91	101	84471153	684-01	DF6S1	ST-6-01	TM-11	Fixed Trimmer
C92	1000	21K478410	1466-001	1M5D1	IM-5-21	LFM-21	Fixed Trimmer
C93	.01	84470524	684-01	DF6S1	ST-6-01	TM-11	Fixed Trimmer-
C94	6	21K470524					Note 15

\*Parallel sections to obtain desired capacity.

Note 1-Chassis TS-4B, C, D, E use 150 MF. @ 250 V.

Note 2-Chassis TS-4B, C use 150 MF.

Note 3-Chassis TS-4B use 1500 MF.

Note 4-Not used in Chassis TS-4B, C.

Note 5-Chassis TS-4B use 1500 MF. TS-4D use 1000 MF.

Note 6-Not used on Chassis TS-4B, C, D.

Note 7-Not used on Chassis TS-4B, C, D, E.

Note 8-Not used on Chassis TS-4B, C, D, E, J.

Note 9-Not used on Chassis TS-4B, C, D, E, J.

Note 10-Chassis TS-4B uses 2 MF. TS-4C, D, E, J use 2.2 MF.

Note 11-Not used on Chassis TS-4E, F, G, H, J.

Note 12-Not used on Chassis TS-4E, F, G, H, J.

Note 13-Chassis TS-4B uses 3000 MF. TS-4E, F, H, G, J none.

Note 14-Chassis TS-4D uses 1000 MF. C only.

Note 15-Used on Chassis TS-4B, C only.

Note 16-Chassis TS-4C uses 1500 MF. TS-4C uses 1000 MF. TS-4E, F, G, H, J use none.

Note 17-Chassis TS-4C uses 1000 MF. TS-4E, F, G, H, J use none.

Note 18-Chassis TS-4E, C use 50 MF.

Note 19-Chassis TS-4E, C use .0005 @ 6000 V.

Note 20-Chassis TS-4E, F use 10 MF @ 350 V.

ITEM No.	RATING		WOTOROLA PART No.	STANCOR PART No.	THORDARSON PART No.	MERT PART No.	NOTES
	DC RESISTANCE PRL. SEC.	DC RES. SEC.					
T1	60Ω	170Ω	24B480209				Horiz. Plock Osc.
T2	260Ω		24B470154				Trans.
T3A			25B484819				Vert. Block Osc. Trans. & Horiz. Sweep Push-Pull Trans.
B	210Ω	60Ω	25B30138 (OT)				AFC Coupling Trans. †
T4	170Ω	SEC.1	24B480209				HI Voltage Trans.
T5	4.5Ω	SEC.1	1X4712124				
		SEC.2					

†Not used in Chassis TS-4B, C & D.

‡This transformer is not used in Chassis TS-4D, E, F, G, H, J.

§This part number includes 1300 MF capacitor (Item C77).

### TRANSFORMER (AUDIO OUTPUT)

REPLACEMENT DATA

ITEM No.	WOTOROLA PART No.	STANCOR PART No.	THORDARSON PART No.	MERT PART No.	NOTES
T1	24B480209				Horiz. Plock Osc.
T2	24B470154				Trans.
T3A	25B484819				Vert. Block Osc. Trans. & Horiz. Sweep Push-Pull Trans.
B	25B30138 (OT)				AFC Coupling Trans. †
T4	24B480209				HI Voltage Trans.
T5	1X4712124				

### TRANSFORMER (SWEEP CIRCUITS)

REPLACEMENT DATA

ITEM No.	WOTOROLA PART No.	STANCOR PART No.	THORDARSON PART No.	MERT PART No.	NOTES
T1	24B480209				Horiz. Plock Osc.
T2	24B470154				Trans.
T3A	25B484819				Vert. Block Osc. Trans. & Horiz. Sweep Push-Pull Trans.
B	25B30138 (OT)				AFC Coupling Trans. †
T4	24B480209				HI Voltage Trans.
T5	1X4712124				

1-Not used in Chassis TS-4D.

2-Chassis TS-4D uses 66Ω in this application.

3-Chassis TS-4D uses 2.2 Meg. in this application. In Chassis TS-4B & C this part is located in the 2nd det. circuit can.

4-Not used in Chassis TS-4B, C, D & E.

5-Used in Chassis TS-4B, C, D & E only.

6-Chassis TS-4B, C, D, E uses 6200Ω in this application.

7-Not used in Chassis TS-4B, C, D, E & J.

8-Chassis TS-4B uses 330Ω in this application.

9-Chassis TS-4B uses 10KΩ in this application.

10-This part is incorporated in this application.

11-Chassis TS-4D uses 1 Meg. for this application.

12-Chassis TS-4E & F use 6500Ω in this application.

13-Chassis TS-4D uses 6.8 Meg. in this application.

14-Chassis TS-4D uses 3.3 Meg. in this application.

15-Chassis TS-4D uses 3.3 Meg. in this application.

16-Chassis TS-4D uses 10 Meg. in this application.

17-Chassis TS-4D uses 15 Meg. in this application.

18-Chassis TS-4B & C uses 2.2 Meg.

19-Chassis TS-4B & C uses 2.2 Meg.

20-Chassis TS-4B & C uses 2.2 Meg.

21-Chassis TS-4B & C uses 2.2 Meg.

22-Chassis TS-4B & C uses 2.2 Meg.

23-Chassis TS-4B & C uses 2.2 Meg.

24-Chassis TS-4B & C uses 2.2 Meg.

25-Chassis TS-4B & C uses 2.2 Meg.

26-Chassis TS-4B & C uses 2.2 Meg.

27-Chassis TS-4B & C uses 2.2 Meg.

28-Chassis TS-4B & C uses 2.2 Meg.

29-Chassis TS-4B & C uses 2.2 Meg.

30-Chassis TS-4B & C uses 2.2 Meg.

31-Chassis TS-4B & C uses 2.2 Meg.

32-Chassis TS-4B & C uses 2.2 Meg.

33-Chassis TS-4B & C uses 2.2 Meg.

34-Chassis TS-4B & C uses 2.2 Meg.

35-Chassis TS-4B & C uses 2.2 Meg.

36-Chassis TS-4B & C uses 2.2 Meg.

37-Chassis TS-4B & C uses 2.2 Meg.

38-Chassis TS-4B & C uses 2.2 Meg.

39-Chassis TS-4B & C uses 2.2 Meg.

40-Chassis TS-4B & C uses 2.2 Meg.

41-Chassis TS-4B & C uses 2.2 Meg.

42-Chassis TS-4B & C uses 2.2 Meg.

43-Chassis TS-4B & C uses 2.2 Meg.

44-Chassis TS-4B & C uses 2.2 Meg.

45-Chassis TS-4B & C uses 2.2 Meg.

46-Chassis TS-4B & C uses 2.2 Meg.

47-Chassis TS-4B & C uses 2.2 Meg.

48-Chassis TS-4B & C uses 2.2 Meg.

49-Chassis TS-4B & C uses 2.2 Meg.

50-Chassis TS-4B & C uses 2.2 Meg.

51-Chassis TS-4B & C uses 2.2 Meg.

52-Chassis TS-4B & C uses 2.2 Meg.

53-Chassis TS-4B & C uses 2.2 Meg.

54-Chassis TS-4B & C uses 2.2 Meg.

55-Chassis TS-4B & C uses 2.2 Meg.

56-Chassis TS-4B & C uses 2.2 Meg.

57-Chassis TS-4B & C uses 2.2 Meg.

58-Chassis TS-4B & C uses 2.2 Meg.

59-Chassis TS-4B & C uses 2.2 Meg.

60-Chassis TS-4B & C uses 2.2 Meg.

61-Chassis TS-4B & C uses 2.2 Meg.

62-Chassis TS-4B & C uses 2.2 Meg.

63-Chassis TS-4B & C uses 2.2 Meg.

64-Chassis TS-4B & C uses 2.2 Meg.

65-Chassis TS-4B & C uses 2.2 Meg.

66-Chassis TS-4B & C uses 2.2 Meg.

67-Chassis TS-4B & C uses 2.2 Meg.

68-Chassis TS-4B & C uses 2.2 Meg.

69-Chassis TS-4B & C uses 2.2 Meg.

70-Chassis TS-4B & C uses 2.2 Meg.

71-Chassis TS-4B & C uses 2.2 Meg.

72-Chassis TS-4B & C uses 2.2 Meg.

73-Chassis TS-4B & C uses 2.2 Meg.

74-Chassis TS-4B & C uses 2.2 Meg.

75-Chassis TS-4B & C uses 2.2 Meg.

76-Chassis TS-4B & C uses 2.2 Meg.

77-Chassis TS-4B & C uses 2.2 Meg.

78-Chassis TS-4B & C uses 2.2 Meg.

79-Chassis TS-4B & C uses 2.2 Meg.

80-Chassis TS-4B & C uses 2.2 Meg.

81-Chassis TS-4B & C uses 2.2 Meg.

82-Chassis TS-4B & C uses 2.2 Meg.

83-Chassis TS-4B & C uses 2.2 Meg.

84-Chassis TS-4B & C uses 2.2 Meg.

85-Chassis TS-4B & C uses 2.2 Meg.

86-Chassis TS-4B & C uses 2.2 Meg.

87-Chassis TS-4B & C uses 2.2 Meg.

88-Chassis TS-4B & C uses 2.2 Meg.

89-Chassis TS-4B & C uses 2.2 Meg.

90-Chassis TS-4B & C uses 2.2 Meg.

91-Chassis TS-4B & C uses 2.2 Meg.

92-Chassis TS-4B & C uses 2.2 Meg.

93-Chassis TS-4B & C uses 2.2 Meg.

94-Chassis TS-4B & C uses 2.2 Meg.

95-Chassis TS-4B & C uses 2.2 Meg.

96-Chassis TS-4B & C uses 2.2 Meg.

97-Chassis TS-4B & C uses 2.2 Meg.

98-Chassis TS-4B & C uses 2.2 Meg.

99-Chassis TS-4B & C uses 2.2 Meg.

100-Chassis TS-4B & C uses 2.2 Meg.

# MOTOROLA MODEL VT71

## PARTS LIST AND DESCRIPTIONS (Continued)

### COILS (RF-IF)

### COILS (CONT.)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI	SEC	MOTOROLA PART No.	MESSNER PART No.	
L14	Ant. Input	.20		244432222		Used in Chassis TS-4D, E, F, G, H & J. Used in Chassis TS-4B & C.
B	Ant. Coil			244471186		
L24	Ant. Coil	.02		24K448872		Used in Chassis TS-4F, G, H and J.
B	"			24B901777		
L36	"	.02		24K478293		Channel 1. Used in Chassis TS-4B, C, D & E. Channel 2. Used in Chassis TS-4B, C, D & E.
B	"			24K90178		
L44	"	.02		24K478294		Channel 3 & 4. Used in Chassis TS-4B, C, D & E. Channel 5 & 6. Used in Chassis TS-4B, C, D & E.
B	"			24K90179		
L50	"	.02		24K478293		Channel 1. Used in Chassis TS-4C, D & E. Channel 2. Used in Chassis TS-4B, C, D & E.
B	"			24K90180		
L6	"	.02		24K478294		Channel 5 & 6. Used in Chassis TS-4B, C, D & E. Channel 10 & 11.
B	"			244471374		
L7	"	.02		244471374		Channel 7.
B	"			24K448873		
L9A	RF Coil	.02		24K50182		Channel 2 & 3. Used in Chassis TS-4F, G, H & J. Channel 1. Used in Chassis TS-4B, C, D & E.
B	"			24K478292		
L10A	"	.02		24K90183		Channel 4. Used in Chassis TS-4B, C, D & E. Channel 2. Used in Chassis TS-4B, C, D & E.
B	"			24K90185		
L11A	"	.02		24K50184		Channel 5. Used in Chassis TS-4F, G, H & J. Channel 3 & 4. Used in Chassis TS-4B, C, D & E.
B	"			24K90183		
L12	"	.02		24K478292		Channel 5 & 6. (TS-4F, G, H & channel 6 only.) Channel 3 & 4.
B	"			24K90185		
L13	"	.02		244471372		Channel 5 & 6.
B	"			244471373		
L15	"	.02		244471373		Channel 12 & 13. Channel 5 & 6.
B	"			244471373		
L16	"	.02		244471373		Channel 7.
B	"			24K90084		
L17	RF Choke	.02		244464974		Channel 2 & 3. Used in Chassis TS-4F, G, H & J.
B	"			24K90187		
L19A	"	.02		24K90083		Channel 1. Used in Chassis TS-4B, C, D & E. Channel 4. Used in Chassis TS-4B, C, D & E.
B	"			24K90189		
L20A	"	.02		24K90189		Channel 2. Used in Chassis TS-4B, C, D & E. Channel 4. Used in Chassis TS-4B, C, D & E.
B	"			24K483004		
L21A	"	.02		24K90189		Channel 5. Used in Chassis TS-4B, C, D & E. Channel 3 & 4. Used in Chassis TS-4B, C, D & E.
B	"			24K90190		
L22A	"	.02		24K90190		Channel 5. Used in Chassis TS-4B, C, D & E. Channel 3 & 4. Used in Chassis TS-4B, C, D & E.
B	"			24K90188		
L23A	"	.02		244471370		Channel 7. Used in Chassis TS-4B, C, D, E, F & G. Channel 8 & 9. Used in Chassis TS-4H and J.
B	"			244471383		
L24A	"	.02		244478282		Channel 3 & 4. Used in Chassis TS-4B, C, D & E. Channel 5 & 6. Used in Chassis TS-4B, C, D & E.
B	"			244478282		
L26	RF Choke	.12	.48	24490193		Channel 10 & 11. Used in Chassis TS-4H & J. Channel 10 & 11. Used in Chassis TS-4B, C, D, E, F & G.
B	"			24B90192		
L27	1st IF	.62		24K470333		Channel 12 & 13. Used in Chassis TS-4B, C, D, E, F & G. Channel 12 & 13. Used in Chassis TS-4C, D, E, F & G.
B	"			24K470333		
L28	2nd IF	.32		24A90197		Channel 12 & 13. Used in Chassis TS-4C, D, E, F & G.
B	"			1X482133		
L30A	2nd Det.	.22		244470314		Chassis TS-4D, E, F, G, H & J. Lees L30B.
B	"			1X470396		
L31	Sound Take-Off	.12		244470159		Chassis TS-4B & C. Lees L30B.
B	"			244470745		
L32A	Peakng	.152		244470745		See Note Wound on 10KΩ resistor. Used in Chassis TS-4F, G, H and J.
B	"			244470745		
L33	"	.62		244470744		Wound on 36KΩ resistor. Used in Chassis TS-4B, C, D & E.
B	"			24B470316		

ITEM No.	USE	RATING	REPLACEMENT DATA		NOTES
			MOTOROLA PART No.	JENSEN PART No.	
L35	RF Fil. Chk	.12	24A90064		Used in Chassis TS-4B & C only.
B	"		24A90064		
L36	"	.12	24A90064		Used in Chassis TS-4B & C only.
B	"		24A90064		
L37	"	.12	24A90064		Used in Chassis TS-4B & C only.
B	"		24A90064		
L38	"	.12	24A90064		Used in Chassis TS-4B & C only.
B	"		24A90064		
L39	RF Choke	.12	24A901242		Used in Chassis TS-4B & C only.
B	"		24A901242		
L40	Ant. Input Filter		24A90194		Used in Chassis TS-4F, G & H this coil is located in the screen circuit of the video amp. On all other chassis it is connected in the grid circuit of the sound IF limiter.

ITEM No.	RATING	REPLACEMENT DATA		NOTES
		MOTOROLA PART No.	JENSEN PART No.	
SP1	FIELD RES. V. C IMP.	50B471219	SP-109	Alternative Speaker
SP1	PPI	50B471219	Mod. Pe-M	
SP2	CONE DIA. V. C DIA.	50B471222		

ITEM No.	RATING	REPLACEMENT DATA		NOTES
		MOTOROLA PART No.	JENSEN PART No.	
M1	110 MA.	448B470395		Station Selector used in Chassis TS-4B, C, D, E, F & G. Station Selector used in Chassis TS-4B, C, D, E, F & G
M2	110 MA.	4471350		

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
B	Plug, Line Cord	1X471877	
M4	Ballast Tube	25K471322	Station Selector used in Chassis TS-4B, C, D, E, F & G
B	Core, Iron and Screw	174470303	
M5	Escutchion	46A470302	Bottom of L27, used in all chassis.
B	Core, Iron, Copper & Screw	46A70023	
	Core, Iron and Screw	46A70023	L13 used in all chassis. Ant., RF and Osc. Coils. antenna, RF and Osc. Coils
	Socket and Leads Assy.	1X478281	
	Escutchion	13K4485496	Picture Tube Channel Indicator. Paper for Brown Cabinets. Used in Chassis TS-4F, G and H. Channel Indicator. Paper for Blonde Cabinets. Used in Chassis TS-4F, G & H.
	"	13B484875	
	IN34 Crystal Cabinet	48A90173	Video Detector Blonde for VT71B (Chassis TS-4B, C, D & E). Brown Mahogany for VT71B (Chassis TS-4B, C, D & E). Red Mahogany for VT71B (Chassis TS-4B, C, D & E).
	"	16K471438	
	"	16K478257	Blonde for VT71A (Chassis TS-4B, C, D & E). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J). Blonde for VT71B-A (Chassis TS-4F, G, H & J).
	"	16K478258	
	"	16K471286	Blonde for VT71B-A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	16K489079	
	"	16K489080	Blonde for VT71B-A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	16K489081	
	"	16K489078	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K471545	
	"	36K471324	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K478251	
	"	36K478252	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K478252	
	"	36K478201	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K478202	
	"	36K478201	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K478202	
	"	36K485449	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K485450	
	"	36K485448	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36K485447	
	"	36K485447	Blonde for VT71A (Chassis TS-4F, G, H & J). Brown Mahogany for VT71B-A (Chassis TS-4F, G, H & J).
	"	36A4848545	

# ALIGNMENT INSTRUCTIONS

## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

When performing alignment with receiver out of cabinet, it is necessary to connect a jumper across terminals 1 & 14 of the cathode ray tube socket to complete the heater circuit. It is recommended that the high voltage be disabled during alignment to eliminate the shock hazard. This may be done by removing the 25L6 Hi Voltage Oscillator and substituting a 75Ω 10 watt resistor across Pins 2 & 7 to maintain continuity in the filament string. The high voltage may also be disabled by disconnecting and taping the B++ lead supplying the plate and screen grid of the 25L6 Hi Voltage Oscillator. Reconnect this lead after alignment is completed.

NEVER GROUND THE RECEIVER DURING TESTING OPERATIONS OR INSTALLATION UNLESS ISOLATION TRANSFORMER IS USED. However, a grounded coaxial line may be connected to the antenna terminal marked "G".

### AUDIO TAKE-OFF & RATIO DETECTOR ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1	1000MFD High side to Pin 1 6AU6 (V6). Low side to B-.	4.5MC (No Mod.)	Any	DC probe in series with 10KΩ to Point $\diamond$ . Common lead to B-.	A1, A2	Adjust for maximum deflection.
2	1000MFD	"	"	DC probe in series with 10KΩ to Point $\diamond$ . Common lead to B-.	A3	Adjust for zero reading. A positive or negative reading on either side designates correct setting.

### IF AMPLIFIER ALIGNMENT

If difficulty is experienced in observing marker, a 1000 MFD capacitor should be connected across the oscilloscope input terminals.

If distorted or unstable pattern is obtained during IF Alignment, it may be necessary to stop the oscillator by connecting a 1000 MFD capacitor from the grid (Pin 7) of V2 to B-.

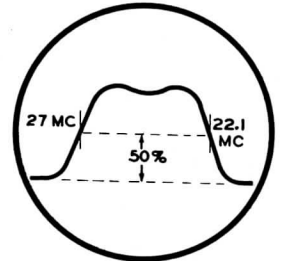


FIG. 1

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
3	Direct High side to Pin 1 6AG5 (V3). Low side to B-.	25MC (12MC sweep)	25MC	Any	Vertical amp. to Point $\diamond$ . Low side to B-.	A4	Adjust for maximum amplitude at marker.
4	"	"	23MC	"	"	A5	"
5	"	"	27MC	"	"	A6	Adjust A6 to place 27MC marker 50% up the high freq. side of the response pattern. (See Fig. 1)
6	"	"	22.1MC	"	"	A5	Adjust A5 until 22.1 MC marker is 50% up the low freq. side of the response pattern. (See Fig. 1)
7	"	"	22.1MC & 27MC	"	"	A4	Adjust A4 for flat top or symmetrical curve. If necessary, repeat Steps 3, 4, 5, 6 & 7 to obtain desired pattern as per Fig. 1.

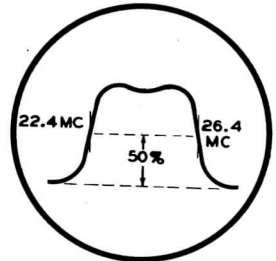


FIG. 2

### 1ST IF TRANSFORMER ALIGNMENT

The primary of L27 affects the low frequency side of the waveform and the secondary affects the high frequency side. The adjustments A7 & A8 should be done simultaneously. The object is to obtain as flat and wide a response curve as possible with as much gain as possible. The 50% markers give a visual means of determining the band width. The contrast control should be set at 80% rotation toward maximum gain while adjusting this transformer. It should be noted that Figures 1 & 2 are similar, the main difference being that the sides of the pattern are steeper in Figure 2.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
8	Direct High side to Pin 2 12AT7 (V2). Low side to bottom end of R17.	25MC (12MC Sweep)	22.4MC & 26.4MC	Any	Vertical amp. to Point $\diamond$ . Low side to B-.	A7, A8	Adjust A7 & A8 until markers are 50% up their respective sides of the pattern per Fig. 2.

### OSCILLATOR ALIGNMENT

Reconnect oscillator if disabled during IF Alignment. Output of signal generator and vertical amplifier of scope should be at maximum gain. Synchronize scope to 60  $\mu$  or a harmonic thereof. If receiver has fine tuning control, pre-set this control at mid-capacity.

On Chassis T94B, C, D & E disregard "A" adjustment points. Refer to line drawing showing antenna, RF and oscillator alignment points for these chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST (TS-4E G H&J ONLY)	REMARKS
9	Direct High side to Pin 1 6AG5 (V1). Low side to junction of R14 & C27.	81.45MC (No Mod.) 87.45MC	2 or 3	Vertical amp. to Pin 3 12AT7 (V2). Low side to B-.	A9	Adjust for zero beat. This is indicated by sharply defined trace that appears between two wide traces as coil is tuned through resonance.
10	"	93.45MC	4	"	A10	"
11	"	103.45MC	5	"	A11	"
12	"	109.45MC	6	"	A12	"
13	"	152.35MC	7	"	A13	"
14	"	158.35MC 164.35MC	8 or 9	"	A14	"
15	"	170.35MC 176.35MC	10 or 11	"	A15	"
16	"	182.35MC 188.35MC	12 or 13	"	A16	"

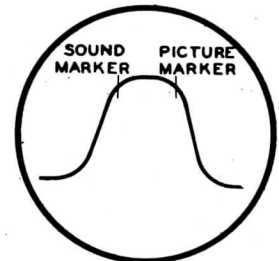


FIG. 3

# ALIGNMENT INSTRUCTIONS (CONT.)

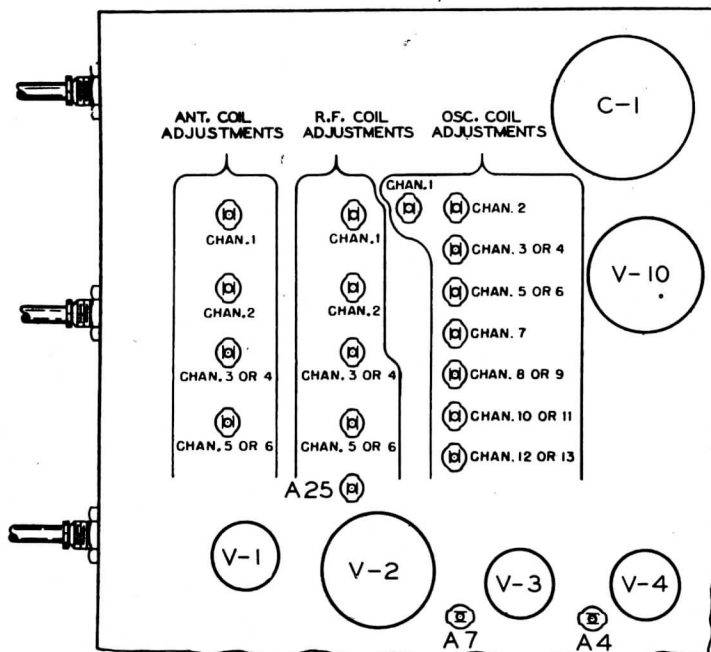
## ANTENNA & RF COIL ALIGNMENT

Disconnect L26 from cathode of oscillator tube (Pin 8-12AT7 V2). Note that the antenna coils are tuned first for the picture carrier frequency and then the RF coils are adjusted second for the sound carrier frequency.  
On chassis TS-4B, C, D & E disregard "A" adjustment points. Refer to line drawing showing antenna, RF and oscillator alignment points for these chassis.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST (TS-4F, G, H, J ONLY)	REMARKS
17A Direct	High side to bottom "A" on antenna terminal strip. Low side to "G"	57MC (10MC sweep)	55.25MC & 56.75MC	2	Across R18. (Converter cathode resistor)	A18, A17	Adjust for maximum amplitude & symmetry and for placement of markers as per Fig. 3
17B Direct	"	63MC (10MC sweep)	61.25MC & 65.75MC	3	"	A18, A17	"
18 Direct	"	69MC (10MC sweep)	67.25MC & 71.75MC	4	"	A20, A19	"
Channels 5 & 6 are aligned with AM Signal Generator instead of sweep generator.							
19 Direct	High side to bottom "A" on antenna terminal strip. Low side to "G"	Not Used	77.25MC (400 ~ 30% Mod.) 81.75MC (400 ~ 30% Mod.)	5	Across R18. (Converter cathode resistor)	A22, A21	Adjust for maximum amplitude.
20 Direct	"	"	83.25MC (400 ~ 30% Mod.) 87.75MC (400 ~ 30% Mod.)	6	"	A24, A23	"
21	There are no antenna coil adjustments for Channels 7 through 13. The RF Coils for these channels are adjusted as follows, using AM Signal Generator and Oscilloscope connected as above. A. If Channels 3 & 6 have been set up adjust A25 for Channels 8, 10 & 12 to maximum response at 195MC in Channel 10. B. If Channels 2, 4 & 5 have been set up adjust A25 for Channels 7, 9, 11 & 13 to maximum response at 189MC in Channel 9.						

## ALTERNATE ANTENNA & RF COIL ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

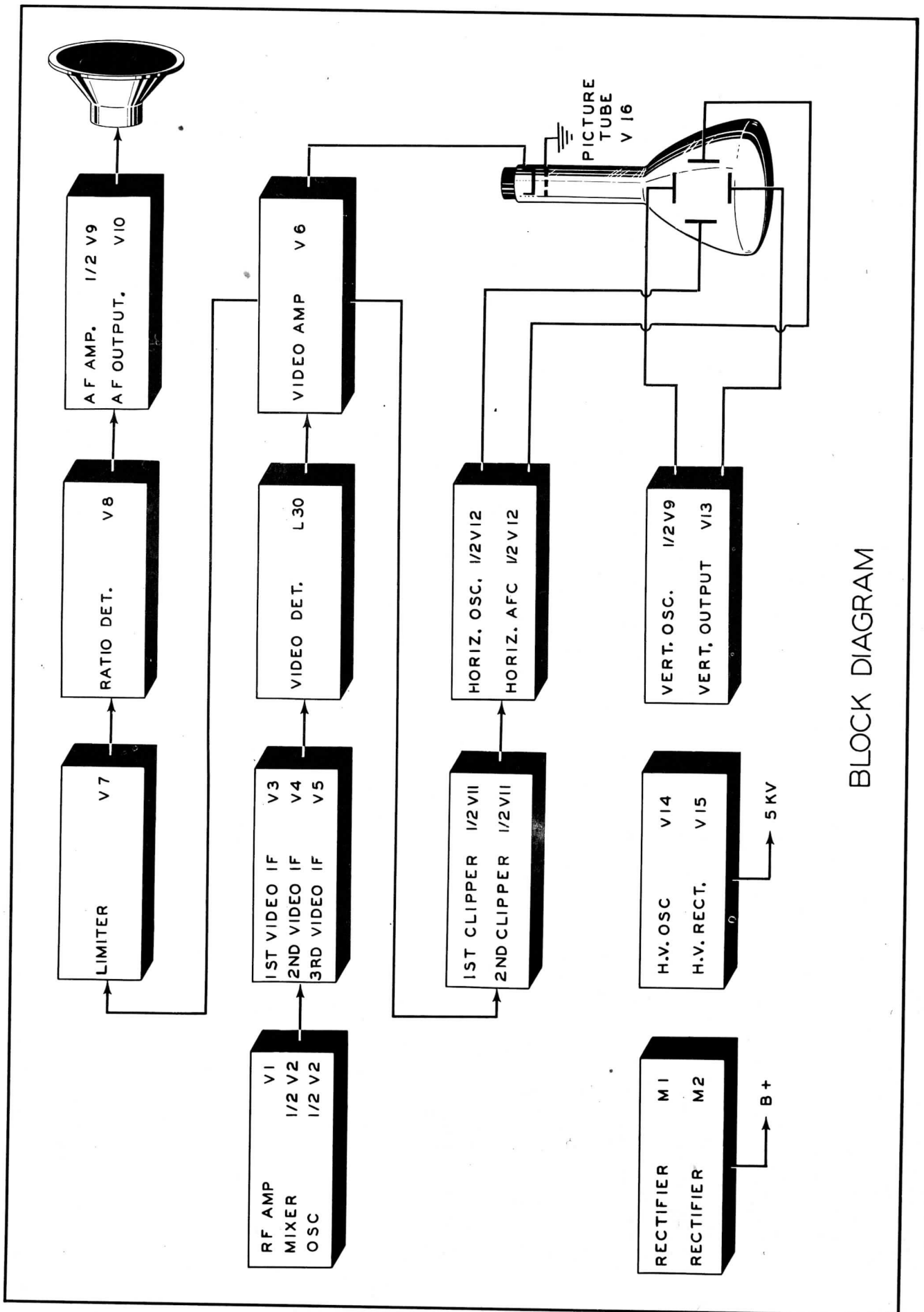
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
17A Direct	High side to lower "A" terminal on ant. terminal strip. Low side to "G"	55.25MC (No Mod.) & 59.75MC (No Mod.)	2	DC probe to Point $\Phi$ . Common lead to B-	A18 A17	Adjust for maximum deflection.
B Direct	"	61.25MC (No Mod.) & 65.75MC (No Mod.)	3	"	A18 A17	"
18 Direct	"	67.25MC (No Mod.) & 71.75MC (No Mod.)	4	"	A20 A19	"
19 Direct	"	77.25MC (No Mod.) & 81.75MC (No Mod.)	5	"	A22 A21	"
20 Direct	"	83.25MC (No Mod.) & 87.75MC (No Mod.)	6	"	A24 A23	"
For Channels 7 through 13 follow same procedure as outline in Step 21. Instead of a scope being used as an output indicator a VTVM connected as above may be used.						



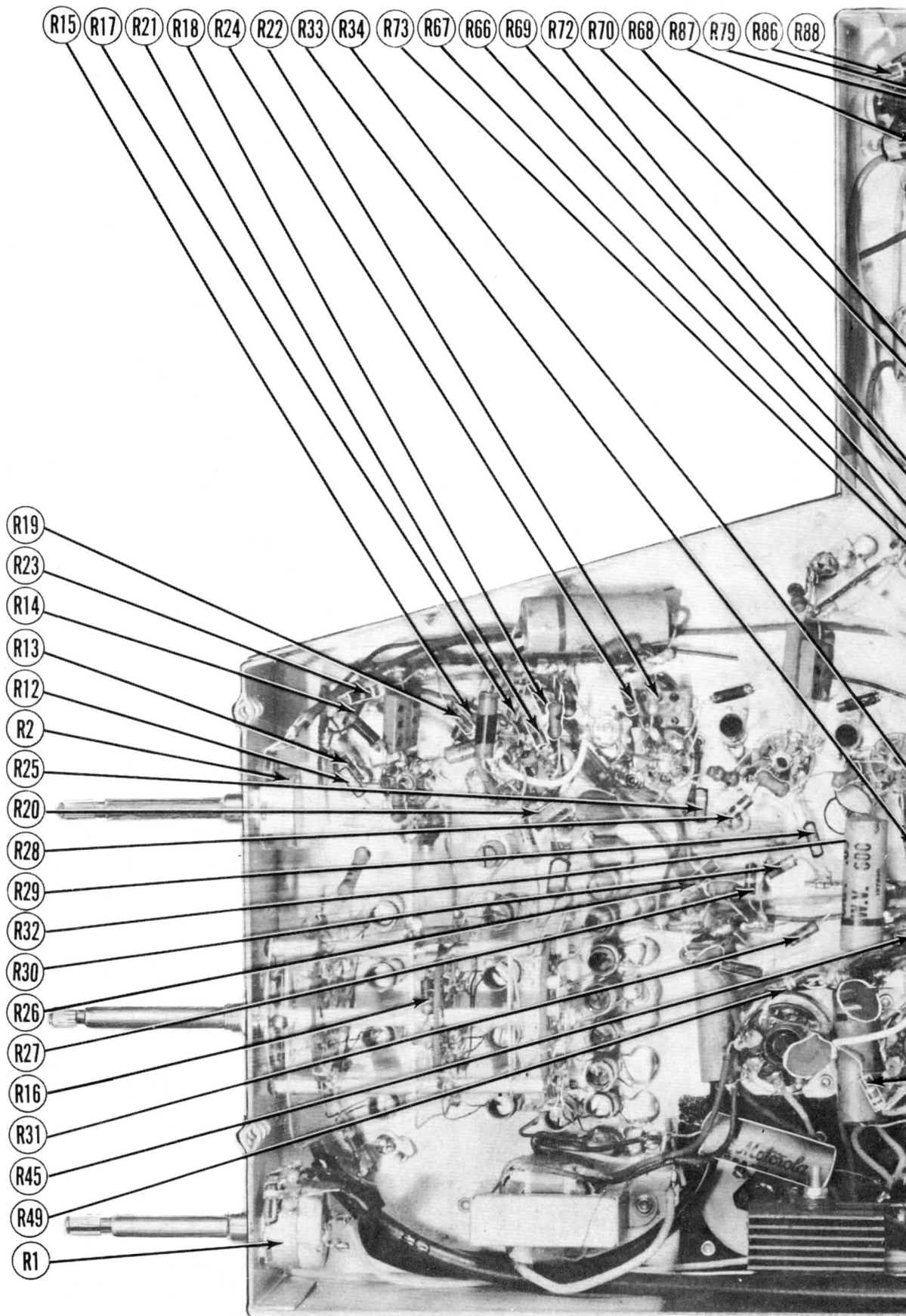
ANT., RF. & OSC. COIL ADJUSTMENTS FOR CHASSIS TS-4B,C,D&E

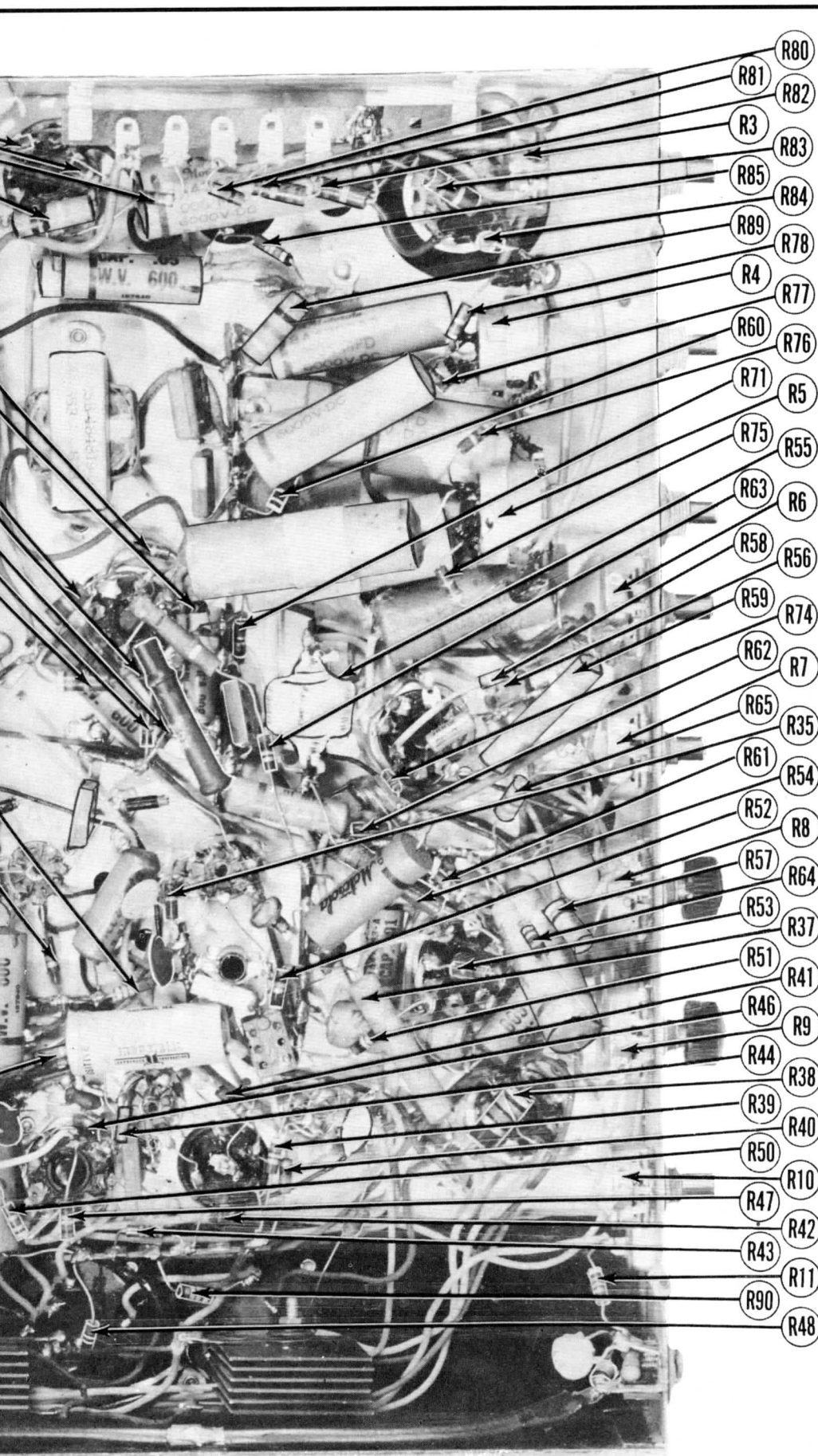
MOTOROLA  
MODEL VT71





BLOCK DIAGRAM

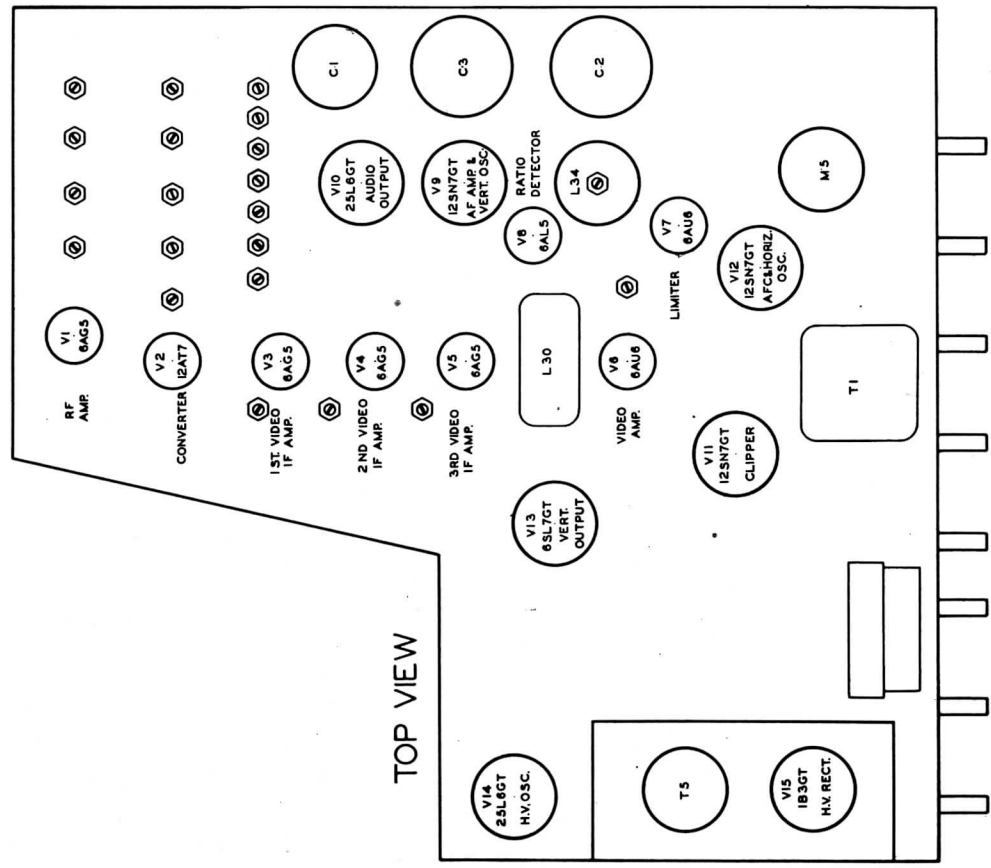
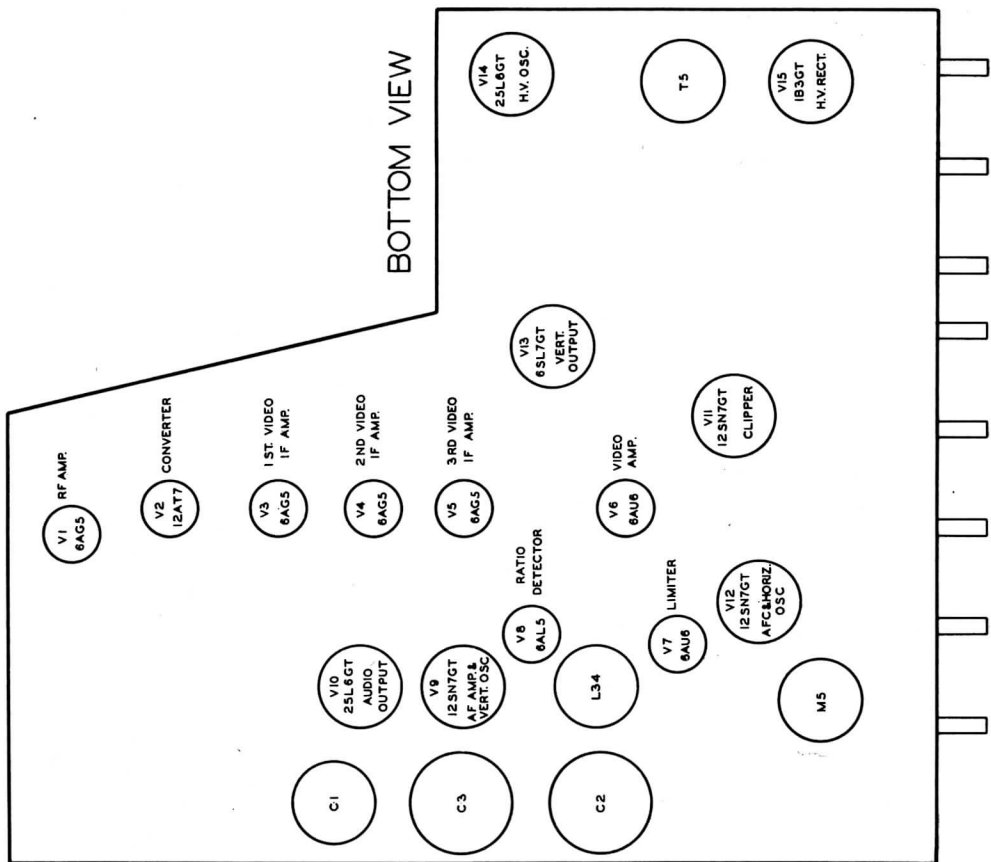




- R80
- R81
- R82
- R3
- R83
- R85
- R84
- R89
- R78
- R4
- R77
- R60
- R76
- R71
- R5
- R75
- R55
- R63
- R6
- R58
- R56
- R59
- R74
- R62
- R7
- R65
- R35
- R61
- R54
- R52
- R8
- R57
- R64
- R53
- R37
- R51
- R41
- R46
- R9
- R44
- R38
- R39
- R40
- R50
- R10
- R47
- R42
- R43
- R11
- R90
- R48

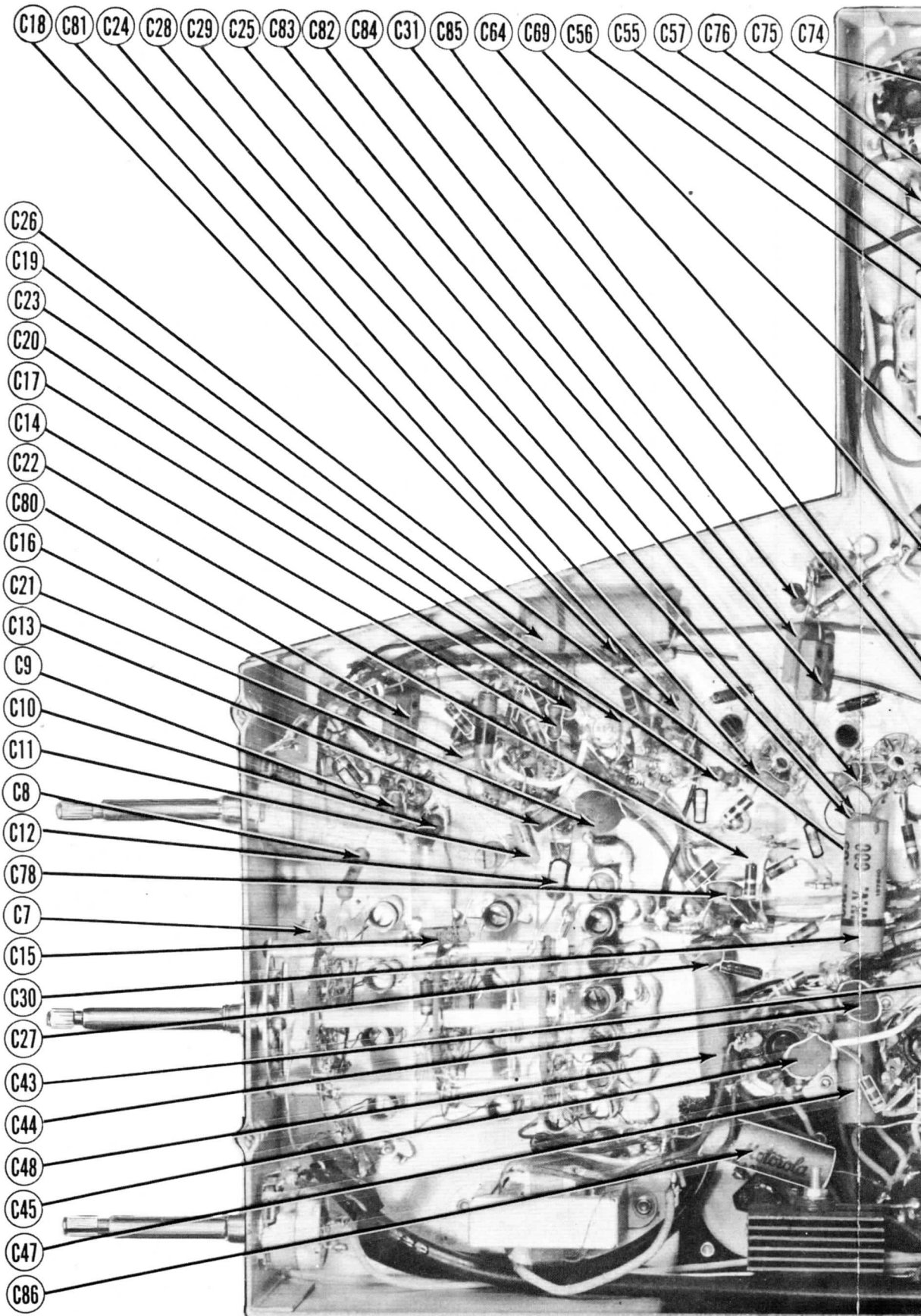
CHASSIS BOTTOM VIEW - RESISTOR IDENTIFICATION

MOTOROLA  
MODEL VT71

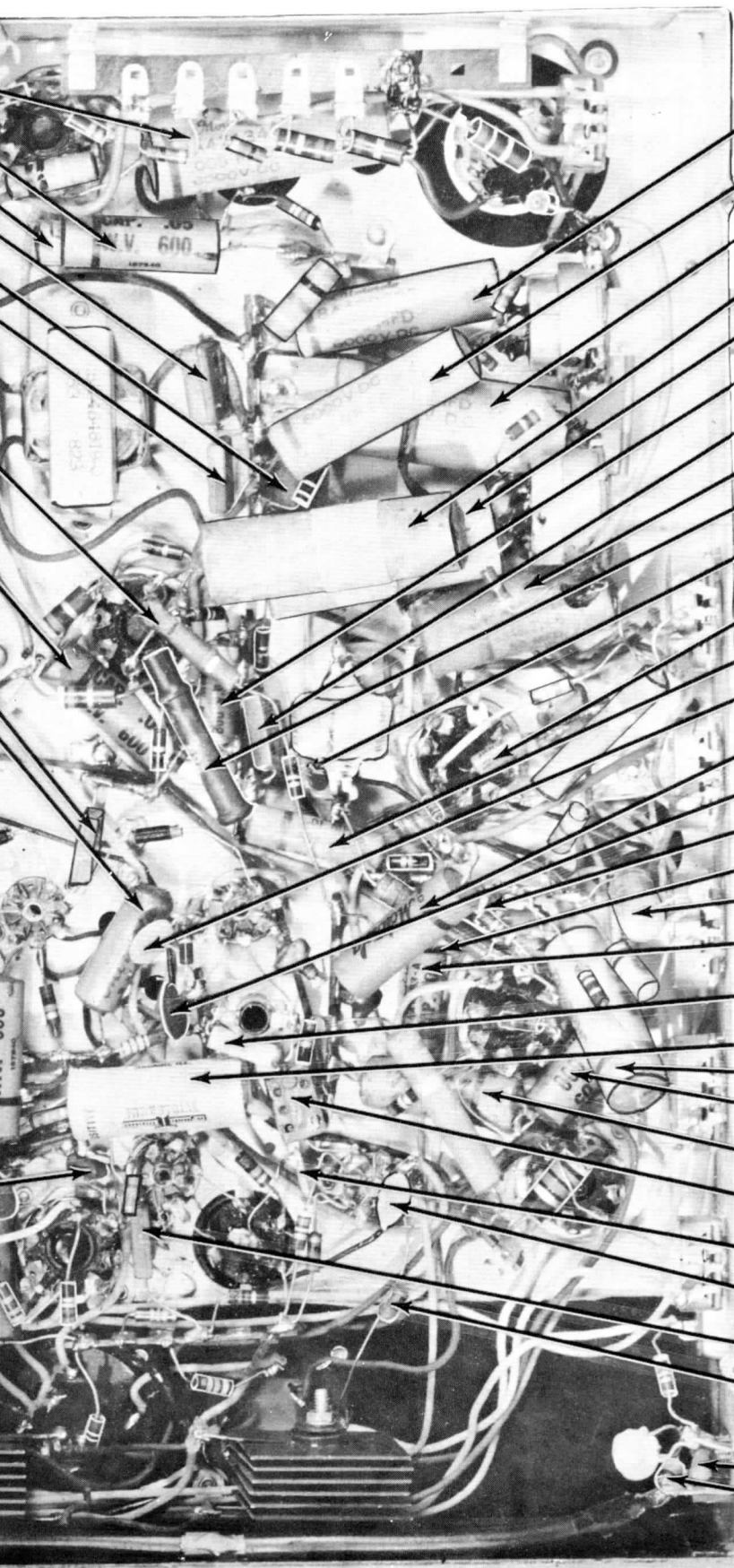


TUBE PLACEMENT CHART

**MOTOROLA  
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- C58
- C59
- C73
- C70
- C71
- C67
- C68
- C54
- C66
- C51
- C52
- C61
- C33
- C72
- C32
- C62
- C63
- C53
- C60
- C34
- C4
- C65
- C50
- C49
- C35
- C38
- C39
- C40
- C79
- C5
- C6

CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

**MOTOROLA  
MODEL VT71**

# 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	6AG5	125VDC	125VDC	50VAC	44VAC	215VDC	215VDC	125VDC	-	-	
V 2	12AT7	210VDC	OV.	4VDC	39VAC	220VDC	220VDC	-3.2VDC	OV.	44VAC	
V 3	6AG5	-0.6VDC	.1VDC	39VAC	32VAC	70VDC	110VDC	.1VDC	-	-	
V 4	6AG5	35VDC	110VDC	32VAC	25VAC	180VDC	215VDC	110VDC	-	-	
V 5	6AG5	125VDC	125VDC	25VAC	19VAC	200VDC	200VDC	125VDC	-	-	
V 6	6AU6	-0.4VDC	OV.	19VAC	12VAC	90VDC	165VDC	OV.	-	-	
V 7	6AU6	95VDC	115VDC	50VAC	55VAC	220VDC	220VDC	115VDC	-	-	
V 8	6AL5	.1VDC	-0.1VDC	12VAC	7VAC	7VDC	OV.	-0.1VDC	-	-	
V 9	12SN7GT	-0.5VDC	19VDC	OV.	-0.7VDC	7VDC	OV.	20VAC	7VAC	-	
V 10	25L6GT	OV.	54VAC	110VDC	120VDC	OV.	OV.	30VAC	10VDC	-	
V 11	12SN7GT	-1VDC	21VDC	OV.	117VDC	189VDC	120VDC	34VAC	49VAC	-	
V 12	12SN7GT	16.5VDC	125VDC	1.5VDC	1.5VDC	-26.5VDC	2.5VDC	20VAC	34VAC	-	
V 13	6SL7GT	-2.2VDC	1	OV.	-0.8VDC	270VDC	OV.	58VAC	49VAC	-	
V 14	25L6GT	OV.	53VAC	230VDC	250VDC	OV.	OV.	80VAC	3.2VDC	-	
V 15	1B3GT	DO NOT MEASURE.									
PINS 1 2 3 4 5 6 7 8 9 10 11 12 13 14											
V 16	7JP4	OV.	60VDC	210VDC	OV.	-	-	-	-	-	7VAC

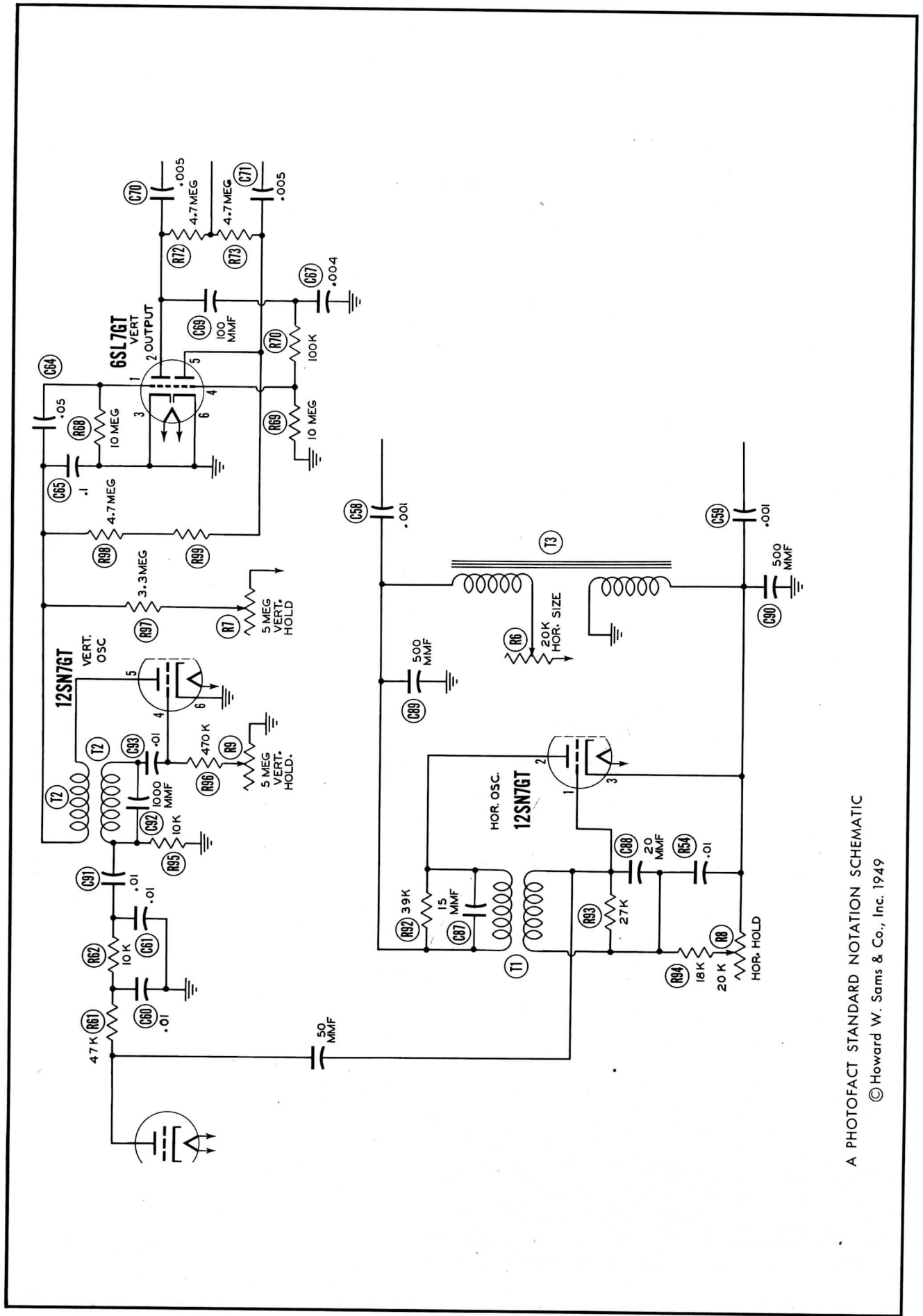
DO NOT MEASURE. CAN NOT TAKE ACCURATE MEASUREMENT DUE TO HIGH IMPEDANCE OF CIRCUIT.  
 \*STAKEN WITH VACUUM TUBE VOLTMETER.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6AG5	16KΩ**	1000Ω**	26Ω	23Ω	1200Ω*	1200Ω*	1000Ω**	-	-
V 2	12AT7	1200Ω*	33KΩ	2.7KΩ	22Ω	22Ω	1200Ω*	10KΩ	.5Ω	23Ω
V 3	6AG5	3 Meg.	33Ω	22Ω	18Ω	INF.*	INF.*	33Ω	-	-
V 4	6AG5	2.5 Meg.	INF.	18Ω	14Ω	6KΩ*	1200Ω*	INF.	-	-
V 5	6AG5	1000Ω**	1000Ω**	14Ω	10Ω	1200Ω*	1200Ω*	1000Ω**	-	-
V 6	6AU6	1 Meg.	Ω	10Ω	5Ω	12KΩ*	4.8KΩ*	Ω	-	-
V 7	6AU6	470KΩ**	52Ω**	27Ω	30Ω	1200Ω*	1200Ω*	82Ω**	-	-
V 8	6AL5	6.8KΩ	6.8KΩ	5Ω	2Ω	1 Meg.	470KΩ	1 Meg.	-	-
V 9	12SN7GT	4.7 Meg.	440KΩ*	Ω	8.5 Meg.	7.2 Meg.*	Ω	11Ω	2Ω	-
V 10	25L6GT	INF.	30Ω	230Ω**	Ω**	470KΩ	INF.	40Ω	330Ω	-
V 11	12SN7GT	2 Meg.	1 Meg.**	Ω	10KΩ**	7KΩ*	Ω**	2Ω	2.5Ω	-
V 12	12SN7GT	10KΩ	17KΩ*	210Ω	150KΩ*	150KΩ*	3.3KΩ	11Ω	20Ω	-
V 13	6SL7GT	10 Meg.	INF.	Ω	10 Meg.	INF.	Ω	27Ω	25Ω	-
V 14	25L6GT	INF.	27Ω	300Ω*	335Ω*	150KΩ	Ω	36Ω	100Ω	-
V 15	1B3GT	INF.	INF.	INF.	INF.	INF.	INF.	INF.	INF.	TOP CAP 1200Ω*
PINS 1 2 3 4 5 6 7 8 9 10 11 12 13 14										
V 16	7JP4	460KΩ*	Ω	INF.	INF.	INF.	INF.	INF.	INF.	INF.

\*MEASURED FROM JUNCTION OF M2 AND PIN 4 OF M5.  
 \*\*MEASURED FROM POSITIVE TERMINAL OF C-3B.

- |  |  |
|--|--|
| <p>1 - DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1000 ohms.</p> <p>2 - Socket connections are shown as bottom views.</p> <p>3 - Measured values are from socket pin to common negative unless otherwise stated.</p> | <p>4 - Line voltage maintained at 117 volts for voltage readings.</p> <p>5 - Front panels controls set at maximum.</p> <p>6 - Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.</p> |
|--|--|



A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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# DISASSEMBLY INSTRUCTIONS

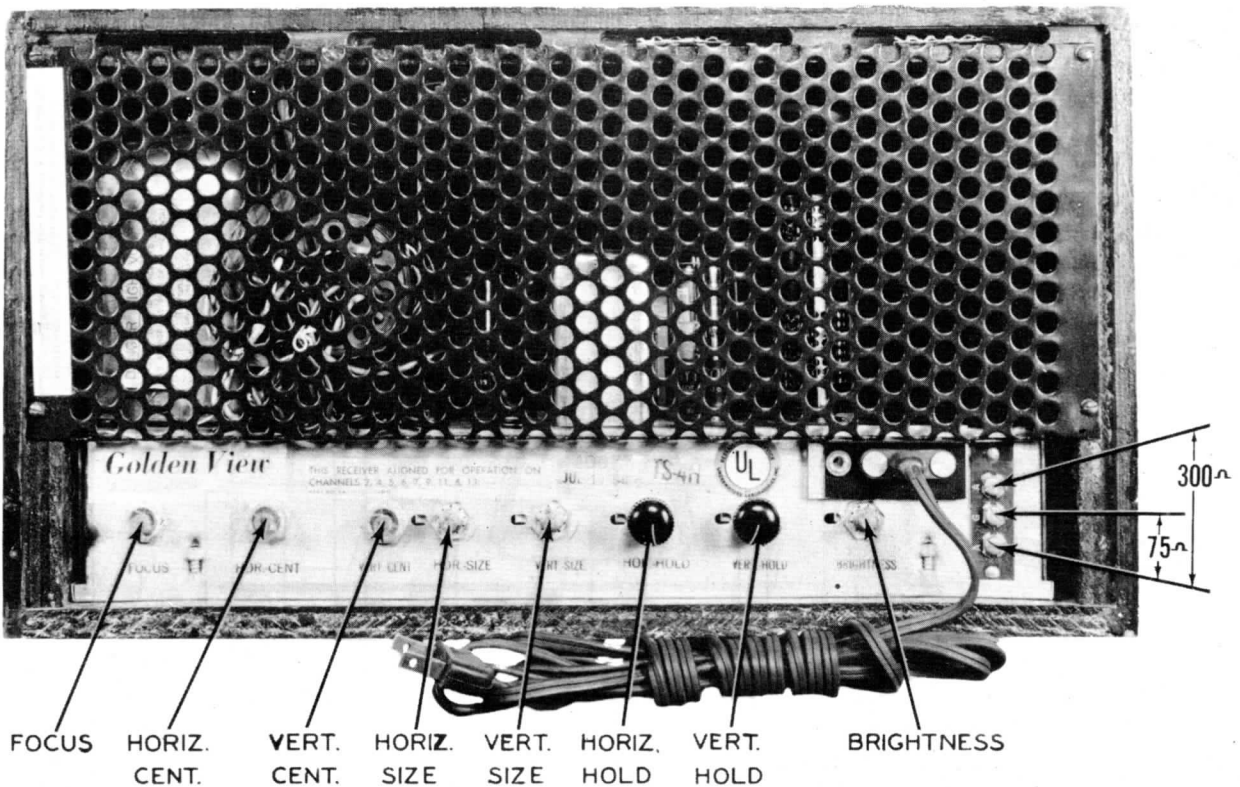
1. Remove 4 screws holding back panel and power interlock and remove.
2. Remove push on type knobs and 2 felt washers on front of receiver.
3. Unplug speaker leads.
4. Remove picture tube socket.
5. Remove 4 chassis bolts from bottom of cabinet.
6. Slide chassis out rear of cab.
7. Remove 4 nuts and lock washers on speaker and remove.

## POSITIONING OF FEEDBACK SPRING ON H.V. RECTIFIER

Feedback to the grid of H. V. Oscillator tube is obtained by a capacitive coupling device consisting of a coil mounted around the envelope of the High Voltage Rectifier tube. The position of this spring is very critical and misplacement will result in very low or no high voltage.

For the old construction tube (8016) the lower edge of the spring should be  $13/16" \pm 1/32"$  from the top of the tube base. On the new type construction (1B3GT), the bottom edge of the spring should be  $3/4" \pm 1/32"$  from the top of the tube base.

MOTOROLA  
MODEL VT71



CABINET-REAR VIEW