

CIRCUIT BREAKER VERT SIZE VERT LINEARITY HORIZ HOLD HORIZ SIZE

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably with a test pattern. Set the Brightness and Contrast controls for a normal picture. Turn the Horizontal Hold clockwise until the picture loses sync. It may be necessary to switch off channel and back again for picture to lose sync.

Turn the Horizontal Hold slowly counterclockwise until the picture just falls into sync. Adjust the Horizontal Size for a picture SLIGHTLY wider than necessary to fill the picture mask.

SET 464 FOLDER 1

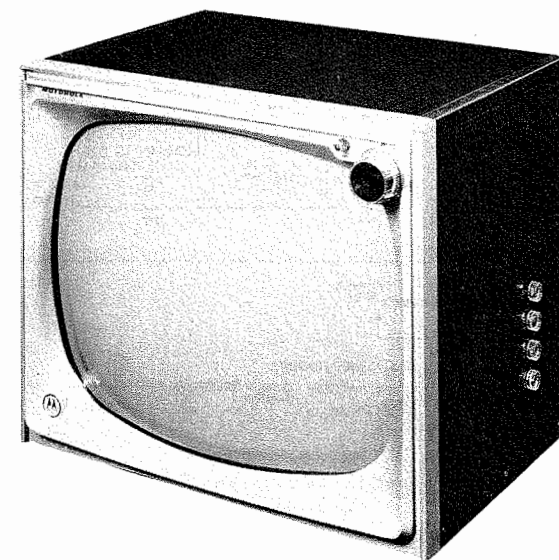
MOTOROLA CHASSIS TS-556, Y, VTS-556, Y



DISASSEMBLY INSTRUCTIONS

CABINET REMOVAL MODEL 21T64M

1. Remove 7 push-on type knobs from front and side of the cabinet.
2. Remove 8 metal screws holding the rear cover. Remove the antenna leads. Remove the rear cover.
3. Remove front bezel locking screw located at the upper right corner of the cabinet.
4. Remove 3 bezel retaining screws at bottom front of cabinet.
5. Remove bezel.
6. Remove 6 screws holding bottom cover. Remove bottom cover.
7. Remove speaker leads.
8. Remove 2 screws holding tuner bracket to cabinet.
9. Remove 8 screws holding cabinet to chassis (3 on each side and 2 in front).
10. Remove cabinet.



MODEL 21T64M (Ch. TS-556)

CAUTION  
ONE SIDE OF AC LINE CONNECTED TO CHASSIS.

TRADE NAME	Motorola	MODELS	CHASSIS
		21K123B, M, 21T64B, M, W	TS-556
		Y21K123B, M, Y21T64B, M, W	TS-556Y
		21T71BR	VTS-556
		Y21T71BR	VTS-556Y
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois		
TYPE SET	Television Receiver		
TUBES	VHF-Sixteen, UHF-Seventeen		
POWER SUPPLY	110-120 Volts AC, 60 Cycle		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		
		RATING	150 Watts, 1.5 Amp. @ 117 Volts AC

SERVICING IN THE FIELD

SAFETY GLASS REMOVAL

See steps 1 thru 5 of "Disassembly Instructions".

FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection, and may be reset by depressing the reset button.

TUNER OSCILLATOR ADJUSTMENTS

To touch-up the VHF Oscillator, it is necessary to remove the chassis. (See "Disassembly Instructions".)

AGC

No provision is made to vary the AGC on this receiver.

FOCUS

The focus may be varied by the position of a strap on the base of the picture tube.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENTS

The Horizontal Frequency slug is used for the Horizontal Hold. (For location, see "Tube Placement Chart".)

WIDTH

The width may be varied by a Horizontal Size control. (For location, see "Tube Placement Chart".)

CENTERING

Centering is accomplished by 2 magnetic rings, located behind the yoke, on the neck of the picture tube.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

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DATE 11-59

SET 464

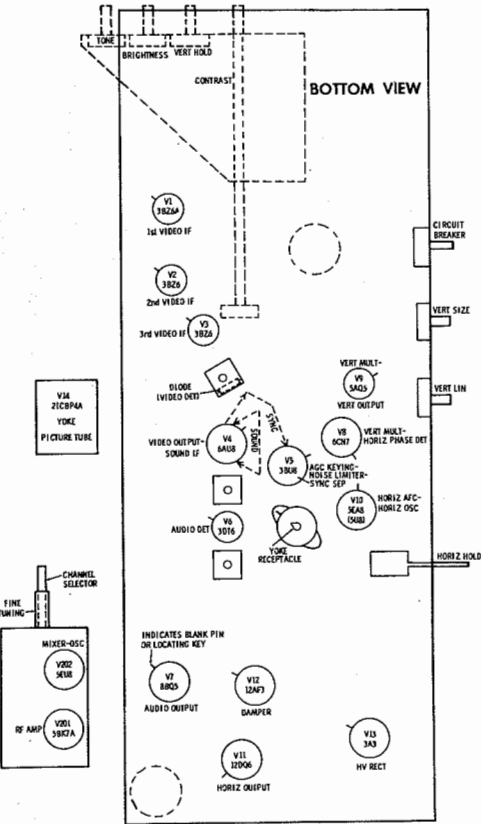
FOLDER 1



RESISTANCE MEASUREMENTS

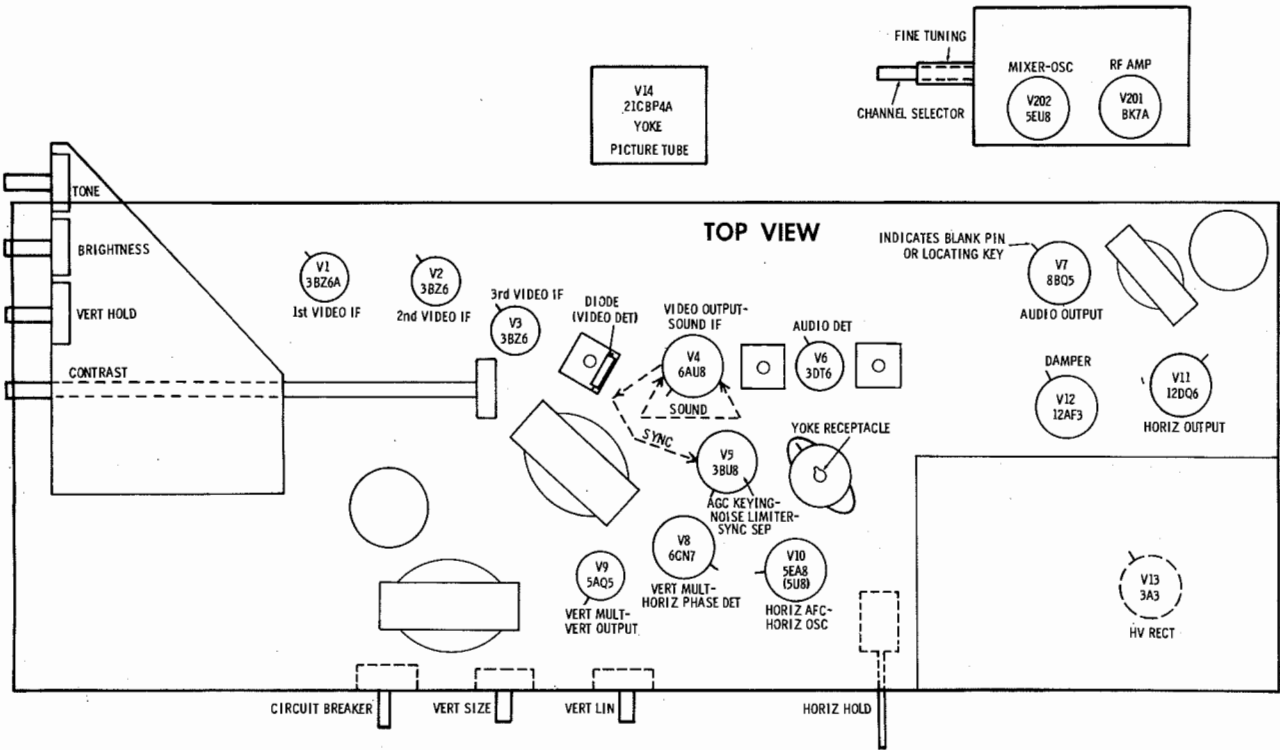
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	3BZ6A	650K	47Ω	13Ω	12Ω	▲ 220Ω	▲ 220Ω	0Ω		
V2	3BZ6	60K	▲ 15Ω	12Ω	11Ω	† 220Ω	† 220Ω	1N		
V3	3BZ6	1000Ω	120Ω	10Ω	11Ω	† 6900Ω	† 27K	0Ω		
V4	6AU8	0Ω	100K	† 42K	9Ω	10Ω	47Ω	3900Ω	† 15K	† 6500Ω
V5	3BU8	† 4700Ω	† 0Ω	2.8meg	5.5Ω	4.5Ω	† 35K	† 220K	† 78K	† 8.7meg
V6	3DT6	3.4Ω	560Ω	2Ω	3Ω	† 390K	† 15K	640K		
V7	8BQ5	0Ω	0Ω	180Ω	13Ω	15Ω	NC	† 840Ω	NC	† 470Ω
V8	6CN7	1200Ω	940K	470K	6Ω	6Ω	0Ω	● 1.7meg	● † 1.8meg	5.5Ω
V9	5AQ5	● 1.5meg	0Ω	7.5Ω	9Ω	† 610Ω	† 150Ω	● 1.5meg		
V10	5EA8	† 11K	† 2.7meg	† 11K	3Ω	4.5Ω	† 47K	0Ω	760Ω	5.8meg
V11	12DQ6	NC	17.5Ω	NC	● † 9500Ω	1meg	NC	15Ω	18Ω	TOP CAP † 11.5Ω
V12	12AF3	NC	† 2.7Ω	NC	20Ω	18Ω	NC	NC	NC	† 2.7Ω
V13	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP † 255Ω
V14	21CBP4A	7.5Ω	78K	† 500K	Pin 6 † 500K	Pin 10 † 500K	Pin 11 270K	Pin 12 6Ω		
V201	5BK7A	† 1000Ω	1N	1N	0Ω	1Ω	1N	3.3meg	0Ω	0Ω
V202	5EU8	† 10K	15K	† 12K	1Ω	2Ω	0Ω	100K	0Ω	† 57K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

- † THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
● THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.  
▲ MEASURED FROM PIN 7 OF V2.  
† MEASURED FROM 255V SOURCE.  
† MEASURED FROM CAP OF V12.  
NC NO CONNECTION.



TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

The following chart lists tubes whose failures are most likely to produce indicated symptoms. Refer to tube placement chart for location and type of tube.

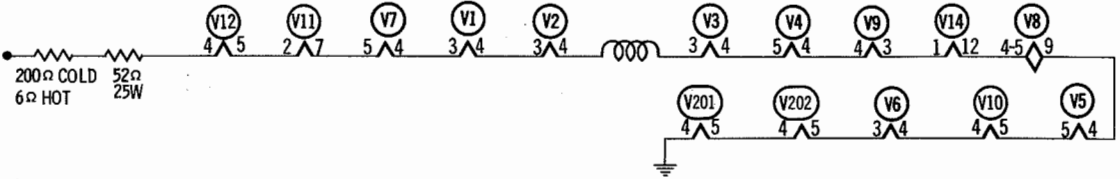
**POWER SUPPLY FAILURE**  
No raster, no sound Circuit Breaker, Rect. (B+)

**SWEEP FAILURE**  
No raster, has sound V8, V10, V11, V12, V13, V14  
No vertical deflection V8, V9  
Poor vert. linearity or foldover V8, V9  
Poor horiz. linearity or foldover V10, V11, V12  
Narrow picture V10, V11, V12, Rect. (B+)  
Vert. off freq. V8, V9  
Horiz. off freq. V8, V10

**LOSS OF PICTURE OR SOUND**  
No pic, no sound, has raster V1, V2, V3, Diode (Video Det.), V4  
No pic, no sound, has snow V201, V202, V1  
No pic, has sound, has raster V4, V14  
Has pic, no sound V4, V6, V7  
Overloaded picture V5

**SYNC FAILURE**  
No vert. sync V5  
No horiz. sync V5, V8  
No vert. or horiz. sync V5

This receiver employs tubes used in a series filament network, an open filament in any tube will cause the set to be inoperative. (See circuit below.)



MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS


Use an ISOLATION TRANSFORMER TO PROTECT the Test Equipment.  
The High Voltage lead should be securely taped and kept away from the chassis.  
Allow a 20 minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: GENERAL CEMENT #8606, 8606L, 8282, 9295  
WALSCO #2526, 2543, 2544, 2545

VIDEO IF ALIGNMENT

Short grid (pin 2) of V202 to chassis. Remove deflection yoke plug and connect a 1500Ω 50W resistor from TP7 to TP6. CAUTION: TP7 has B+ voltage on it.  
Set Contrast control fully counterclockwise.  
Short antenna terminals together but not to chassis.  
Connect the negative lead of a 4.5 volt bias supply to TP4. Positive to chassis.  
Connect synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.  
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.  
Use only enough sweep generator output to provide a usable pattern on scope.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	.001mfd	High side to TP2. Low side to chassis.	44.0MC (10MC Swp)	45.75MC	I3	Vert. Amp. thru 47K to TP3. Low side to chassis. (Across Video Det. load)	A1, A2	Adjust for maximum gain and symmetry of response similar to Fig. 1. with markers as shown.
2.	Direct	Place a thin insulated metal strip between the Mixer-Osc. tube (V202), and tube shield. Connect the high side of sweep generator to the metal strip. Low side to chassis.	"	47.25MC	"	"	A3, A4	Adjust to place marker in trap notch. (Slug away from chassis).
3.	"	"	"	41.25MC	"	"	A5	Adjust to place marker in trap notch. (Slug toward chassis).
4.	"	"	"	44.0MC	"	Vert. Amp. to TP1. Low side to chassis.	Mixer Plate Coil & A6	Set generator output for 3 volts peak to peak on scope. Adjust for maximum gain and symmetry of response similar to Fig. 2 with markers as shown. Mixer Plate Coil affects center peak and A6 affects outside peaks. (Slugs away from chassis).
5.	"	"	"	42.25MC 45.75MC	"	Vert. Amp. thru 47K to TP3. Low side to chassis.	A7, A8	Adjust for maximum gain and symmetry of response similar to Fig. 3 with markers as shown. Adjust A7 to place 42.25MC marker and A8 to place 45.75MC marker. If necessary, retouch Mixer Plate coil to correct for tilt.

SOUND IF ALIGNMENT

Tune in a strong TV signal and adjust controls for normal picture and sound. Connect the DC probe of a VTVM to point . Common to chassis. Adjust A9 for maximum deflection choosing the one of two peaks which produces the highest voltage. While listening to the sound, retouch A9 for maximum volume with MINIMUM distortion. The top slug (A10) is a preset slug which is set near the top of the coil form and left there. Change to a very weak signal (this may be done by loosely coupling the antenna lead to the antenna terminals) that produces a hiss in the sound. Adjust A11 and A12 for maximum sound and MINIMUM distortion. Adjust A13 for maximum undistorted sound. If sound is not clear at this point, repeat the above procedure.

4.5MC TRAP ALIGNMENT

Tune in a strong TV signal and turn the Contrast fully clockwise. Adjust the Fine Tuning until a strong 4.5MC beat pattern is visible. Adjust A14 to find the two points at which the beat pattern is just noticeable. Tune the slug to the center of these two points. (Use MINIMUM inductance which will result in no apparent beat pattern).

TUNER ALIGNMENT INSTRUCTIONS LOCATED ON PAGES 6 & 15

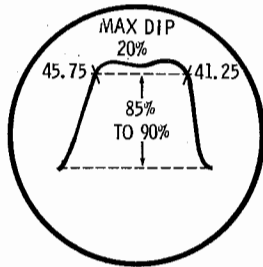


FIG. 1

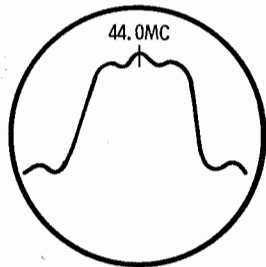


FIG. 2

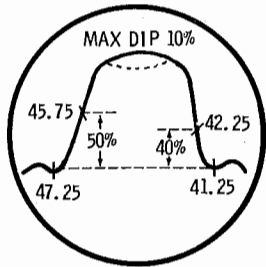
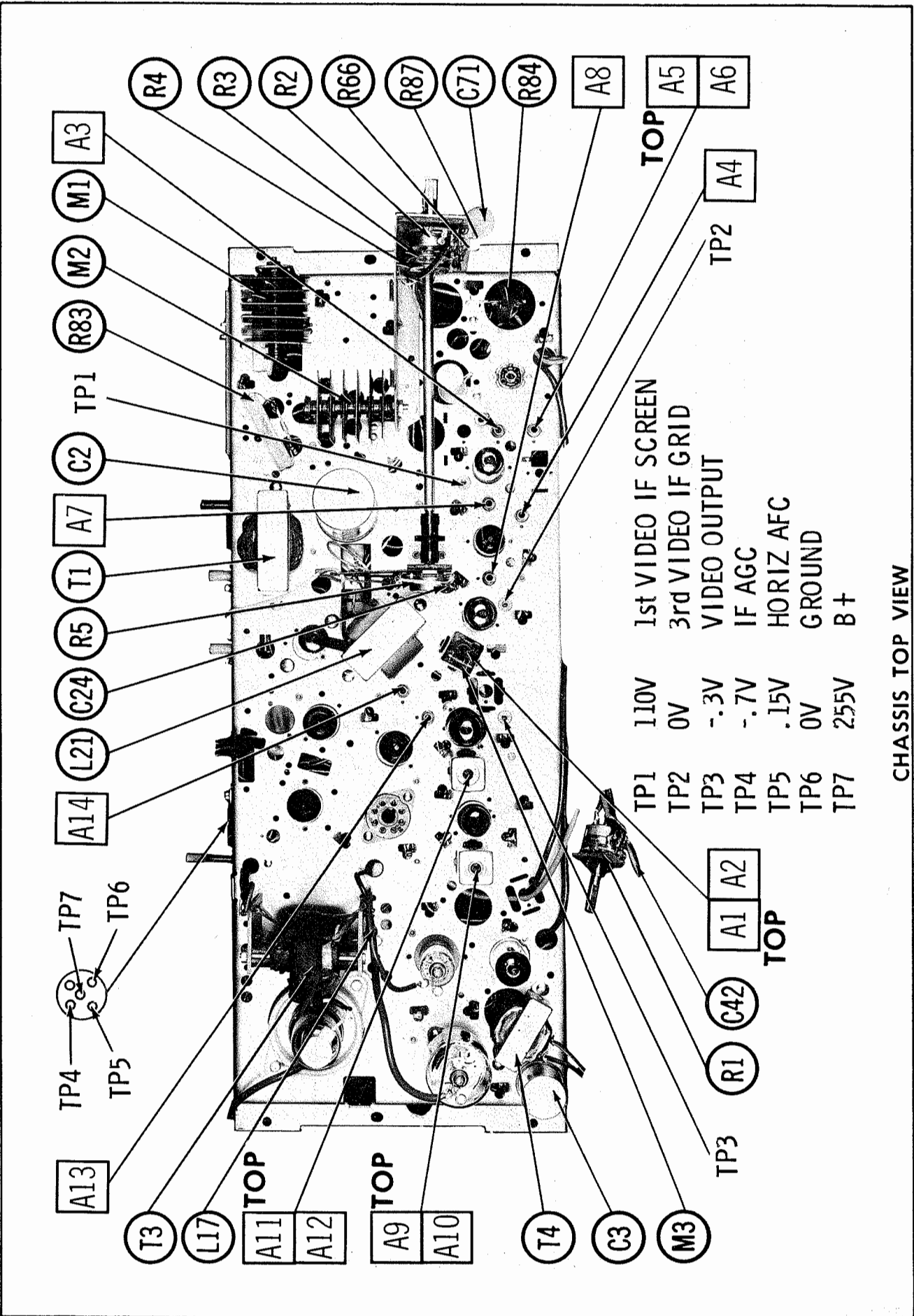


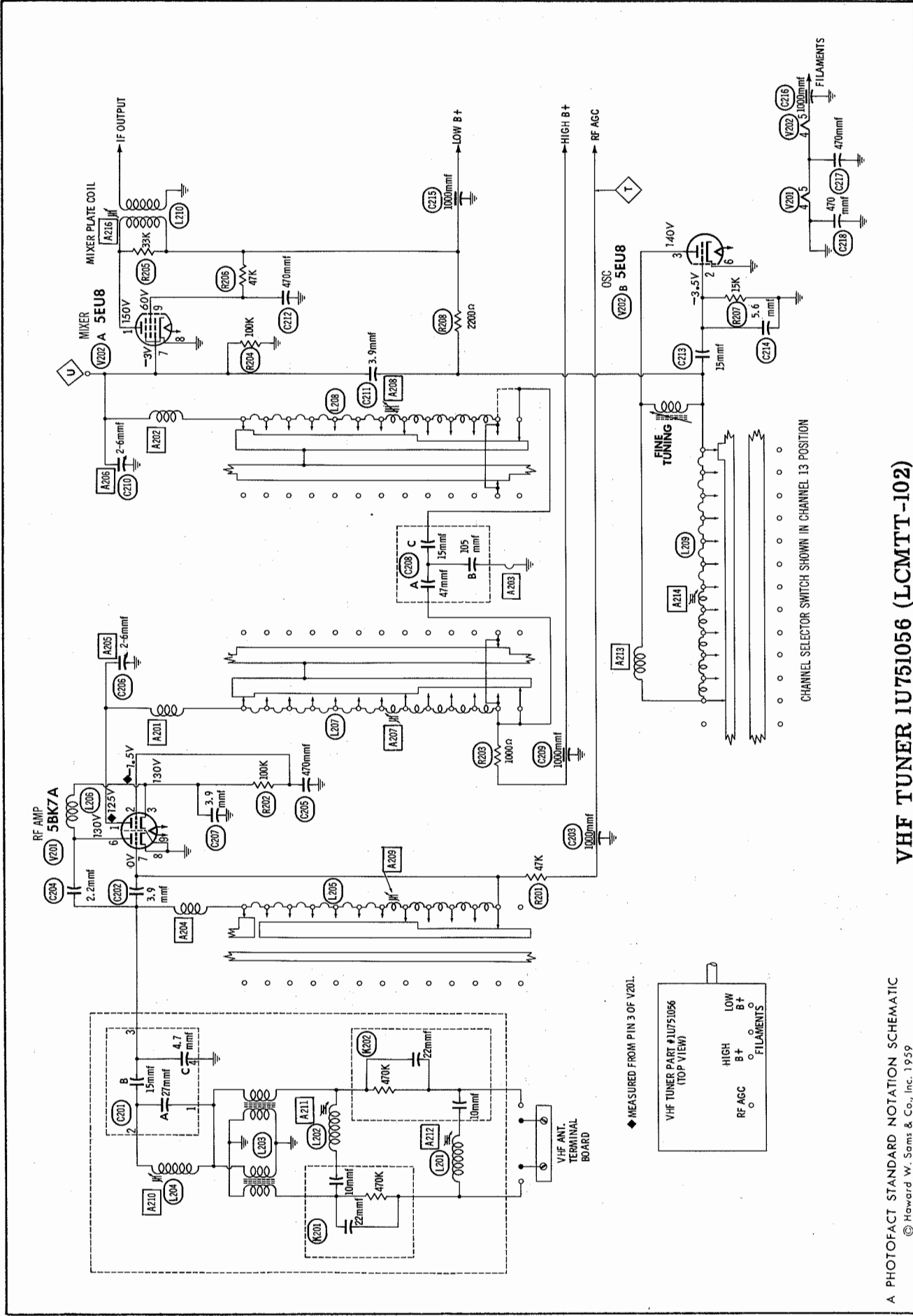
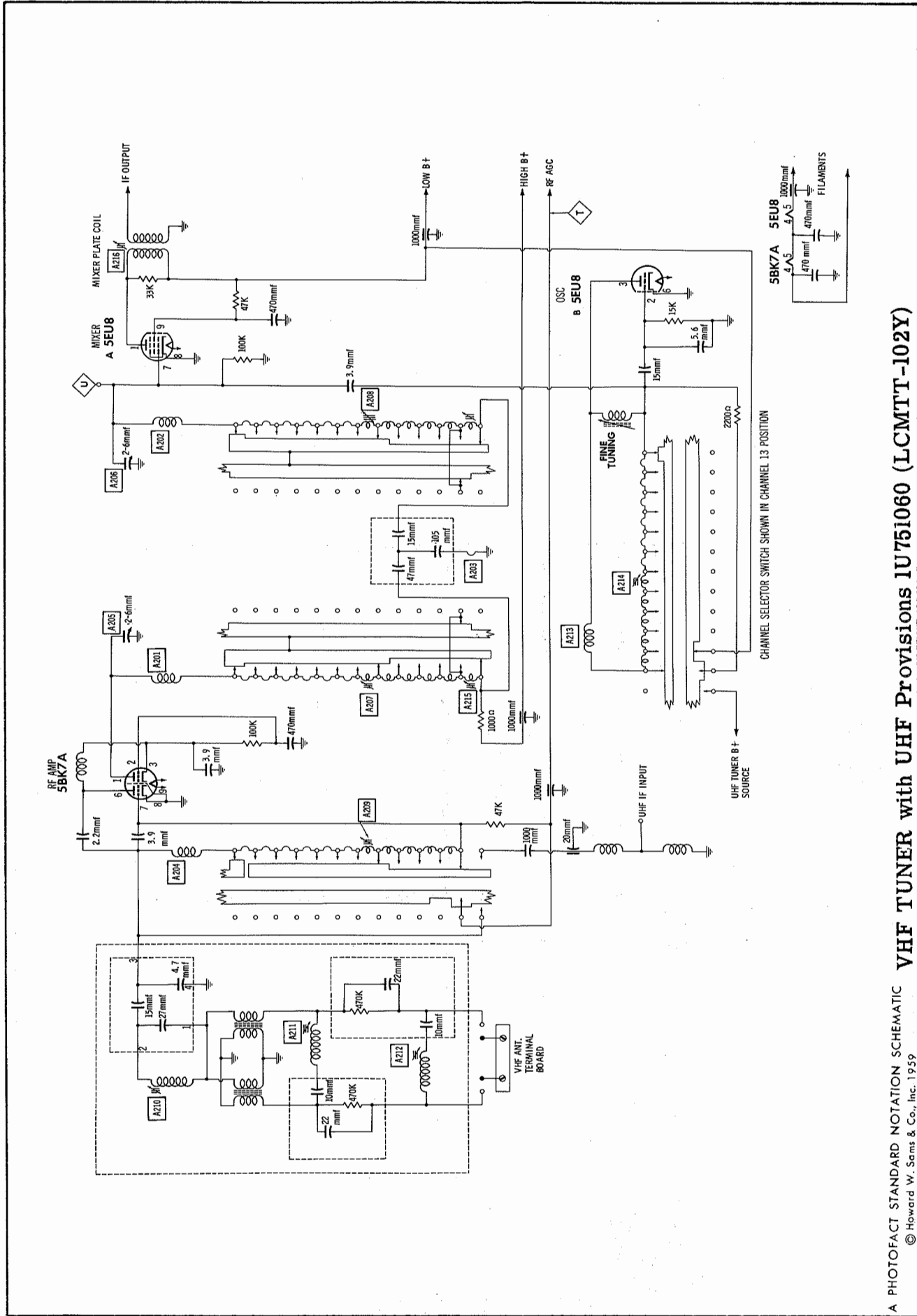
FIG. 3



MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1





TUNER ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

Use an ISOLATION TRANSFORMER TO PROTECT the Test Equipment.  
Allow a 20 minute warm-up period for the receiver and test equipment.  
Remove yoke plug to prevent interference radiation.  
Connect a 1500Ω 50W resistor between pins 3 and 5 of the Service Test Receptacle.  
Suggested Alignment Tools: A205, A206 ..... GENERAL CEMENT #5000, 5003, 5014, 5015, 5016, 8276, 8290  
WALSCO #2512, 2515, 2522, 2523, 2525, 2537  
A207, A208, A209 ..... GENERAL CEMENT #9296, 9297  
WALSCO #2546, 2547

VHF RF AND MIXER ALIGNMENT

Connect a clip lead from point  $\diamond$  to chassis. DO NOT remove the tuner cover.  
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.  
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.  
Use only enough sweep generator output to provide a usable pattern on scope.  
Use 10MC sweep unless other wise noted.  
Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Two 120Ω Carbon Resistors	Across VHF antenna terminals with 120Ω in each lead.	213MC	211. 25MC 215. 75MC	13	Vert. Amp. thru 47K to point $\diamond$ . Low side to chassis.	A201, A202, A203	Preset A205 and A206 so that top of screws are .35" above tuner chassis. Adjust A201 and A202 for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary adjust A203 (Gimmick) for correct bandwidth.
2. "	"	"	"	"	"	A204	Adjust for maximum amplitude and MINIMUM tilt.
3. "	"	177MC	175. 25MC 179. 75MC	7	"	A205, A206	Adjust A205 for proper marker positions as in Fig. 201. Adjust A206 for MINIMUM tilt.
4. "	"	85MC	83. 25MC 87. 75MC	6	"	A207, A208, A209	Adjust for maximum gain and symmetry of response similar to Fig. 201. with markers as shown. A207 places 83.25MC marker, A208 places 87.75MC marker and A209 controls tilt.
5. "	"	"	94MC	"	"	A210	Adjust to point where it just begins to affect high side of response curve.
6. "	"	79MC 69MC 63MC 57MC	77. 25MC 81. 75MC 87. 25MC 91. 75MC 97. 25MC 101. 75MC 107. 25MC 111. 75MC	5 4 3 2	"		Check for response similar to Fig. 201. If necessary, make compromise adjustment of A207, A208 and A209.
7. "	"	57MC	45. 25MC 43. 5MC	"	"	A211, A212	Adjust A211 for MINIMUM response at 45.25MC marker. Adjust A212 for MINIMUM response at 43.5MC marker. Re-adjust either or both for flat response consistent with minimum trap frequency amplitude.

VHF OSCILLATOR ALIGNMENT

The tuner cover must be in place.  
Set the Fine Tuning to the center of its range.  
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.  
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.  
Use only enough sweep generator output to provide a usable pattern on scope.  
Use 10MC sweep unless otherwise noted.  
Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
8. Two 120Ω Carbon Resistors	Across VHF antenna terminals with 120Ω in each lead.	213MC	215. 75MC	13	Vert. Amp. thru 47K across Video Det. load.	A213	Adjust to place marker in trap notch as in Fig. 202.
9. "	"	207MC 201MC 195MC 189MC 183MC 177MC	209. 75MC 203. 75MC 197. 75MC 191. 75MC 185. 75MC 179. 75MC	12 11 10 9 8 7	"		Check to see that marker falls in trap notch as in Fig. 202. If not, make compromise adjustment of A213.
10. "	"	85MC	87. 75MC	6	"	A214	Adjust to place marker in trap notch as in Fig. 202.
11. "	"	79MC 69MC 63MC 57MC	81. 75MC 87. 25MC 93. 75MC 99. 75MC	5 4 3 2	"		Check to see that marker falls in trap notch as in Fig. 202. If not, make compromise adjustment of A214.

TUNER ALIGNMENT INSTRUCTIONS (cont)

UHF IF ALIGNMENT

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
12. Fig. 203	Thru network to UHF input receptacle of VHF tuner.	44MC (10MC Swp)	41. 25MC 45. 75MC	UHF	Vert. Amp. thru 47K to point $\diamond$ . Low side to chassis.	A215, A216	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.

UHF TUNER ALIGNMENT

This portion of the tuner has been properly aligned at the factory and is very stable. Alignment of this portion should not be attempted in the field.

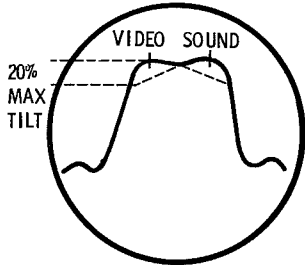


FIG. 201

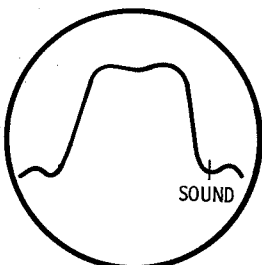


FIG. 202

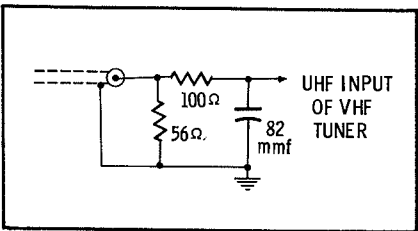
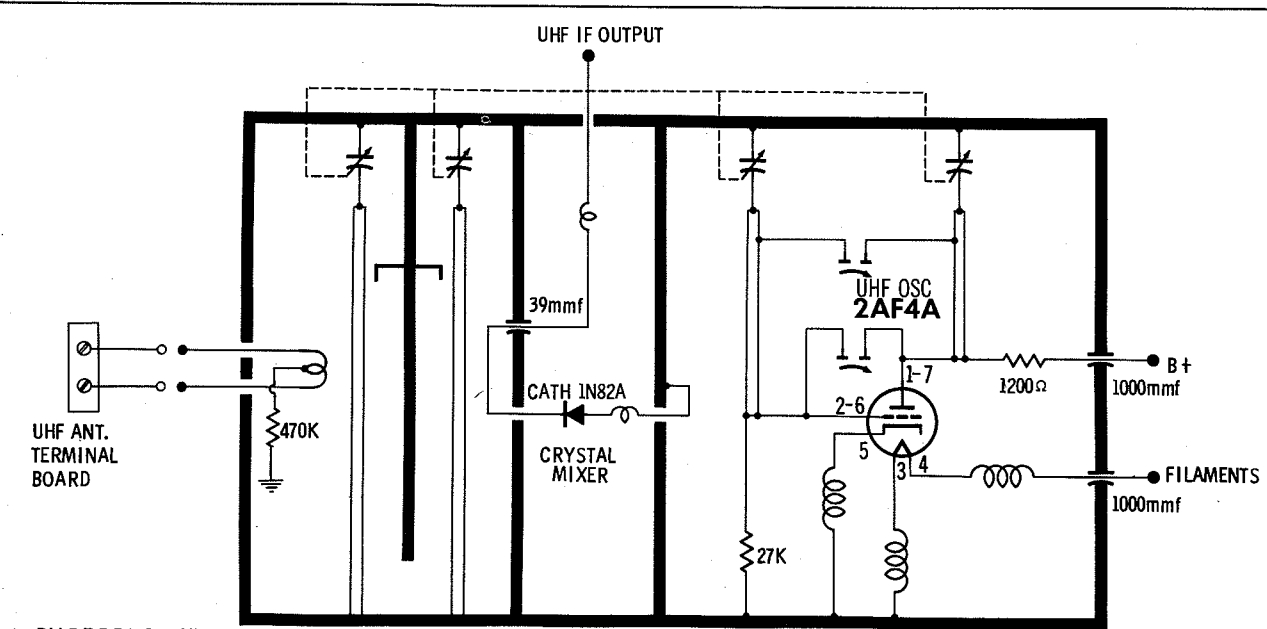
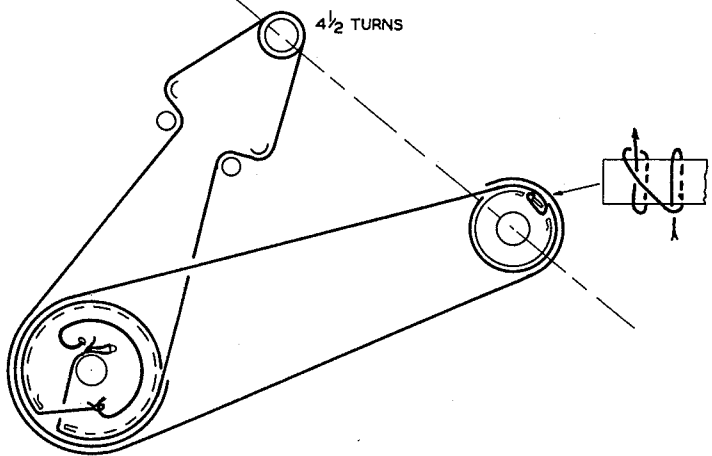


FIG. 203



A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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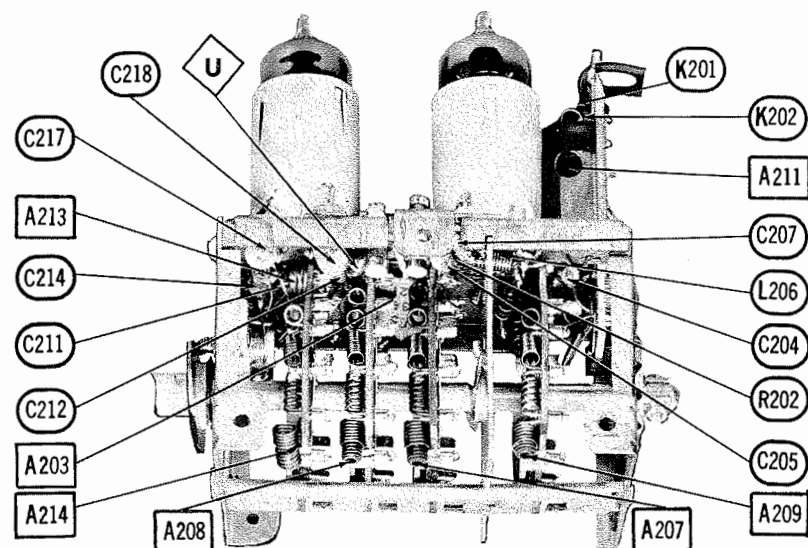
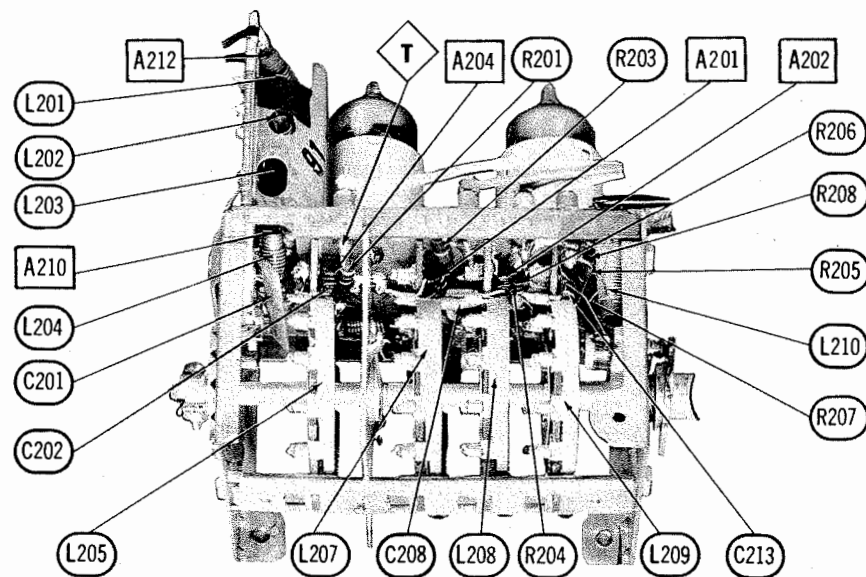
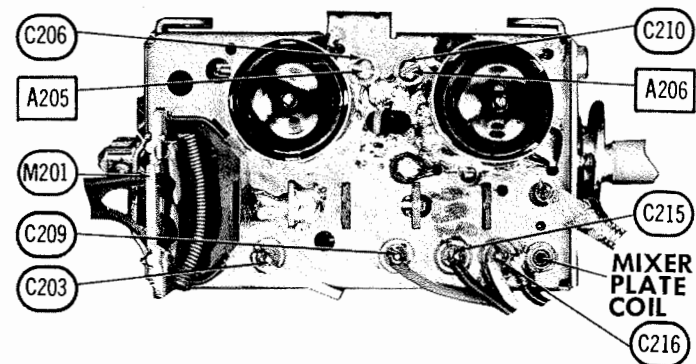
UHF TUNER SCHEMATIC 1U748975 (VTT-111)



DRIVE CORD STRINGING

MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1



VHF TUNER 1U751056 (LCMTT-102)

## TUNER PARTS LIST AND DESCRIPTIONS

1U751056(LCMTT-102)

### TUBES

• CBS •		GENERAL ELECTRIC		• RAYTHEON •		SYLVANIA		•	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE			
V201	RF Amplifier	5BK7A		V202	Mixer-Osc.	5EU8			

### FIXED CAPACITORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201A	27	#51C747536	EF-001 NPO-SI 2.2 BPD-00047	MFT-1000 TCZ-2R2 DD-47I 829-6	C10V4C  C10V22C BYA10T47	CCF-102  CCD-47I CV-3	CNO-522 GP347	10TCC-V39
B	15							
C	4.7							
C202	3.9	#21R128911	#21A747714 #21R128911	MFT-1000 829-6	C10V4C	CCF-102 CV-3	CNO-522 GP347	10TCC-V39
C203	1000							
C204	2.2							
C205	470	#21A747714 #21R128911	BPD-00047 NPO-SI 15	DD-47I TCZ-15	BYA10T47 C10Q15C	CCD-47I  CCD-47I CV-3	GP347 CNO-415	10TCC-V39 5GA-T47 10TCC-Q15 10TCC-V56
C206	2-6							
C207	3.9							
C208A	47	#51C747700	EF-001 EF-001 BPD-00047 BPD-00047	MFT-1000 MFT-1000 DD-47I DD-47I	C10V4C BYA10T47 BYA10T47 BYA10T47	CCF-102 CCF-102 CCD-47I CCD-47I	GP347 GP347	5GA-T47 5GA-T47
B	105							
C	15							
C209	1000	#21A747712 #21R128911	BPD-00047 NPO-SI 15	DD-47I TCZ-15	BYA10T47 C10Q15C	CCD-47I  CCD-47I CV-3	GP347 CNO-415	10TCC-V39 5GA-T47 10TCC-Q15 10TCC-V56
C210	2-6							
C211	3.9							
C212	470	#21K749376	EF-001 EF-001 BPD-00047 BPD-00047	MFT-1000 MFT-1000 DD-47I DD-47I	C10V4C BYA10T47 BYA10T47 BYA10T47	CCF-102 CCF-102 CCD-47I CCD-47I	GP347 GP347	5GA-T47 5GA-T47
C213	15							
C214	5.6							
C215	1000	#21K749376	EF-001 EF-001 BPD-00047 BPD-00047	MFT-1000 MFT-1000 DD-47I DD-47I	C10V4C BYA10T47 BYA10T47 BYA10T47	CCF-102 CCF-102 CCD-47I CCD-47I	GP347 GP347	5GA-T47 5GA-T47
C216	1000							
C217	470							
C218	470							

### RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R201	47K		R204	100K		R207	15K	
R202	100K		R205	33K		R208	2200Ω	
R203	1000Ω		R206	47K				

### COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K201	Antenna Filter	10mmf, 22mmf, 470K	51C747535	
K202	Antenna Filter	10mmf, 22mmf, 470K	51C747535	

### COILS (RF-IF)

ITEM No.	USE	MOTOROLA PART No.	NOTES
L201	IF Trap	24K749387 †	Channel 2 thru 13 Includes wafer Assy.
L202	IF Trap	24K749387 †	
L203	Ant. Trans.	24B749398 †	
L204	FM Trap	24K749386 †	
L205	Ant. Coils	1V748992	
L206	Cathode Choke	24B747799	Channel 2 thru 13 Includes wafer Assy.
L207	RF Coils	1V748994	

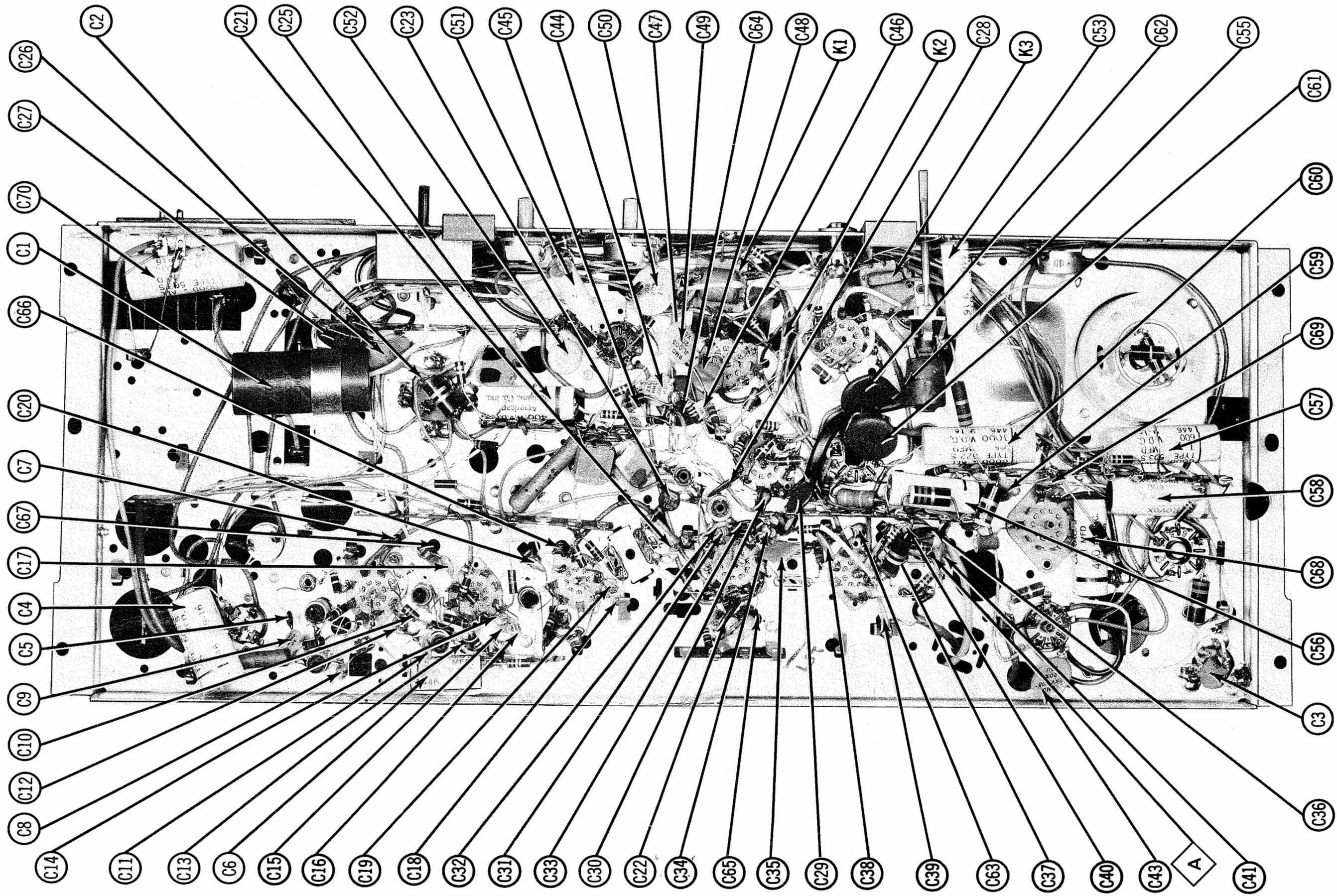
† Part of M1.

### MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M201	Ant. Input Assy.	1V748995	Includes C201, K201, K202, L201, L202, L203, L204 Fine Tuning (Includes Cam (LCMTT-102) Fine Tuning (Includes pulley (LCMTT-102Y) Channel Selector
	Shaft	1V751057	
	Shaft	1V751064	
	Shaft	9B747745	

MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1

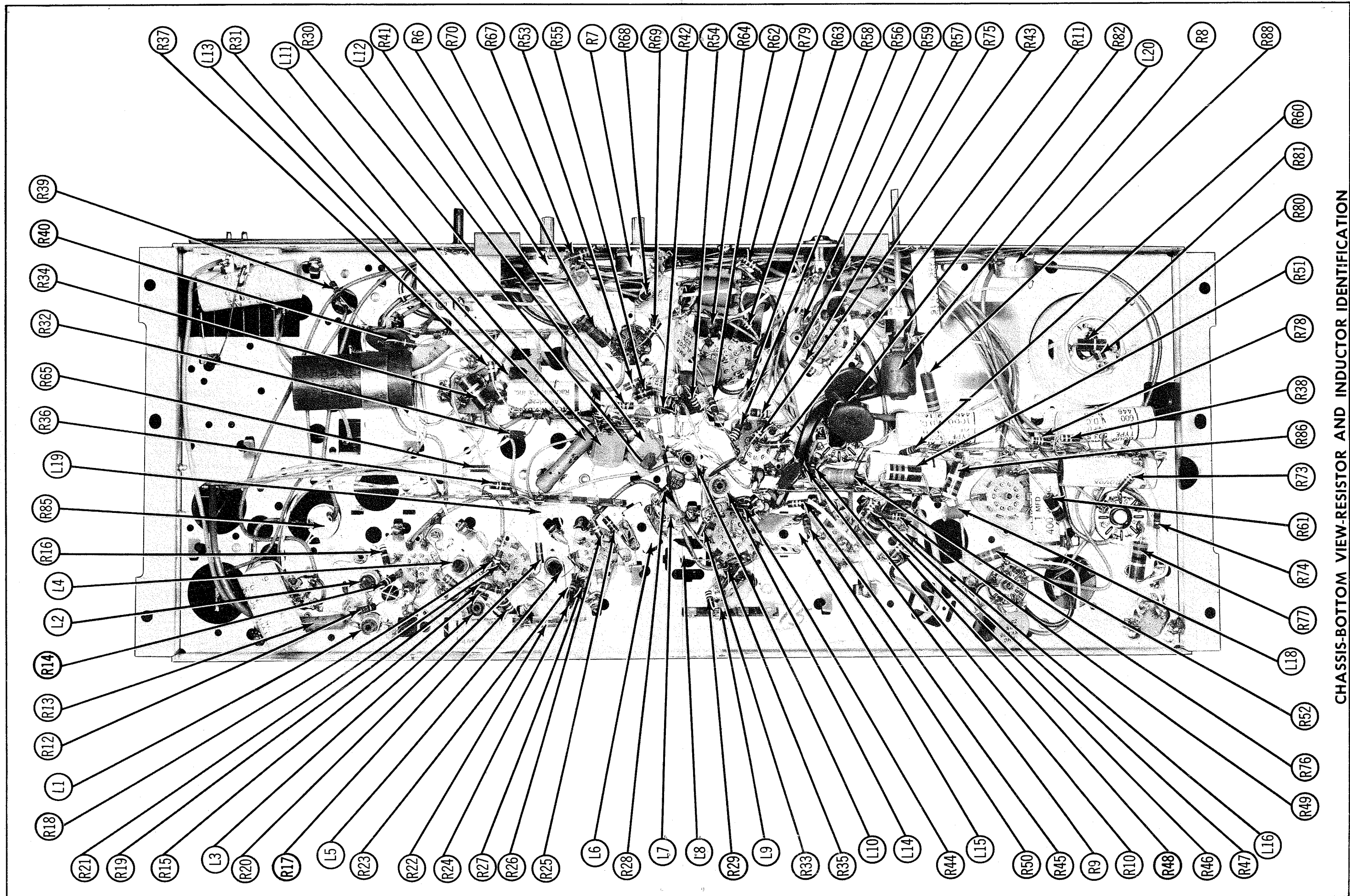


CHASSIS-BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1





CHASSIS-BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

MOTOROLA CHASSIS  
TS-556, Y, VTS-556, Y

FOLDER 1

## PARTS LIST AND DESCRIPTIONS

## TUBES

CBS			GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	3BZ6A	V8	Vert. Mult. -Horiz. Phase Det.	6CN7	V9	Vert. Mult. -Vert. Output Horiz. AFC-Horiz. Osc.	5A5 (5U8) *	V10	Horiz. Output	12DQ6
V2	2nd Video IF Amp.	3BZ6	V11	Horiz. Output	12DQ6	V12	Damper	3A3	V13	RV Rectifier	3A3
V3	3rd Video IF Amp.	6AU6									
V4	Video Output-Sound IF Amp.	3BU8									
V5	AGC Keying-Noise Limiter-Sync Sep.	3DT6									
V6	Audio Det.	3DT6									
V7	Audio Output	8BQ6									

\* Alternate.

## PICTURE TUBE

REPLACEMENT DATA						NOTES
ITEM No.	MOTOROLA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
V14	21CBP4A	21CBP4A ①	21CBP4A ①	21CBP4A	21CBP4A ②	① Aluminized. ② Silver Screen 85"

## ELECTROLYTIC CAPACITORS

RATING		REPLACEMENT DATA						NOTES
ITEM No.	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNEILL DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	140	150	23K737620	PR51520	BR15015	WS427	TD-150-150	TYA-1422
C2	150	300	23K751006	AFH54-56-84	BR3035	FP419.55		TVLS-4587.3*
C3	100	300				TC85		
C4	100	300						
C5	100	300						
C6	100	300						
C7	100	300						
C8	100	300						
C9	100	300						
C10	100	300						
C11	100	300						
C12	100	300						
C13	100	300						
C14	100	300						
C15	100	300						
C16	100	300						
C17	100	300						
C18	100	300						
C19	100	300						
C20	100	300						
C21	100	300						
C22	100	300						
C23	100	300						
C24	100	300						
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C37	100	300						
C38	100	300						
C39	100	300						
C40	100	300						
C41	100	300						
C42	100	300						
C43	100	300						
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C61	100	300						
C62	100	300						
C63	100	300						
C64	100	300						
C65	100	300						
C66	100	300						
C67	100	300						
C68	100	300						
C69	100	300						
C70	100	300						
C71	100	300						

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

## FIXED CAPACITORS

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

RATING		REPLACEMENT DATA						NOTES
ITEM No.	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNEILL DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C4	150	100V	23K737620	PR51520	BR15015	WS427	TD-150-150	TYA-1422
C5	150	100V	23K751006	AFH54-56-84	BR3035	FP419.55		TVLS-4587.3*
C6	150	100V				TC85		
C7	150	100V						
C8	150	100V						
C9	150	100V						
C10	150	100V						
C11	150	100V						
C12	150	100V						
C13	150	100V						
C14	150	100V						
C15	150	100V						
C16	150	100V						
C17	150	100V						
C18	150	100V						
C19	150	100V						
C20	150	100V						
C21	150	100V						
C22	150	100V						
C23	150	100V						
C24	150	100V						
C25	150	100V						
C26	150	100V						
C27	150	100V						
C28	150	100V						
C29	150	100V						
C30	150	100V						
C31	150	100V						
C32	150	100V						
C33	150	100V						
C34	150	100V						
C35	150	100V						
C36	150	100V						
C37	150	100V						
C38	150	100V						
C39	150	100V						
C40	150	100V						
C41	150	100V						
C42	150	100V						
C43	150	100V						
C44	150	100V						
C45	150	100V						
C46	150	100V						
C47	150	100V						
C48	150	100V						
C49	150	100V						
C50	150	100V						
C51	150	100V						
C52	150	100V						
C53	150	100V						
C54	150	100V						
C55	150	100V						
C56	150	100V						
C57	150	100V						
C58	150	100V						
C59	150	100V						
C60	150	100V						
C61	150	100V						
C62	150	100V						
C63	150	100V						
C64	150	100V						
C65	150	100V						
C66	150	100V						
C67	150	100V						
C68	150	100V						
C69	150	100V						
C70	150	100V						
C71	150	100V						

① Not used in Ch. VTS-556.

② Not used in some versions.

\* Alternate value.

\* Motorola Part Number.

\*\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

## CONTROLS

RATING		REPLACEMENT DATA						INSTALLATION NOTES
ITEM No.	RESISTANCE	WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	2meg	1/2	18K752396	AB-76	A47-2meg-Z	Q13-139	U55	Volume, Note 1
R1B	2meg	1/2		AK-8	RS-3/16	Q13-139	U55	
R1C	2meg	1/2		B-70	SWE-12	Q13-137	U55	
R2A	1meg	1/2	18K749387	B-70	A47-1meg-Z	Q13-137	U55	Tone, Note 2
R2B	1meg	1/2		Not Req.	KSS-3	Not Req.	U55	
R3A	100K	1/2	18K739548	B-40	A47-100K-S	Q11-128	TA15L	Brightness
R3B	100K	1/2		Not Req.	KSS-3	Not Req.	TA15L	
R4A	2meg	1/2	18K748948	B-76	A47-2meg-S	Q11-139	TA28L	Vert. Hold
R4B	2meg	1/2		Not Req.	KSS-3	Not Req.	TA28L	
R5	30K	1/2	18K748735					Contrast
R6A	4meg	1/2	18K743524	AB-86	A47-4meg-S	B11-240	PTA56L	Vert. Slze (Height)
R6B	4meg	1/2		AK-19	RN-3	B11-139	PTA26L	
R7A	2meg	1/2	18K743523	AB-75	B47-2meg-S	Not Req.	PTA26L	Vert. Lin.
R7B	2meg	1/2		AK-19	Not Req.	Not Req.	PTA26L	
R8A	5000Ω	2(WW)	17B746869		A43-5000	WPS-5000	FLSK	Horiz. Size
R8B	5000Ω	2(WW)			RN-3	Not Req.	Not Req.	

Note 1. Some versions may use 1meg, 600K tap, in this application (Part #18K751394)

Note 2. Not used in Ch. VTS-556.

## RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R9	1meg 5%		R36	100K		R63	68K	
R10	15meg 5%		R37	220K	(100K) *	R64	10K	Note 1
R11	2.2meg		R38	33K		R65	1.5meg	
R12	2200Ω		R39	68K		R66	680K	(1.5meg) *
R13	10K 3W		R40	10K		R67	680K	
R14	100K		R41	33K		R68	470K	
R15	220Ω		R42	150K	(680K) *	R69	22K	
R16	47Ω		R43	220K		R70	150Ω	
R17	100K		R44	100K		R71	560Ω	
R18	120K	(10K) *	R45	27K		R72	560Ω	
R19	8200Ω		R46	390K		R73	470Ω	
R20	220Ω		R47	15K 2W		R74	1meg	
R21	15Ω		R48	82K		R75	3900Ω	Note 1
R22	680K		R49	560K	(680K) *	R76	6800Ω	
R23	15K		R50	560Ω		R77	18Ω 2W	Note 1
R24	1000Ω		R51	470Ω 2W		R78	470K	
R25	2200Ω		R52	180Ω 1W		R79	27K	
R26	22K		R53	22K		R80	8.2Ω 1W	#6K12098
R27	120Ω		R54	470K		R81	22K 1W	
R28	47K		R55	10meg	(8.2meg) *	R82	6800Ω	
R29	3900Ω		R56	39K	(18K) *	R83	7.5Ω 10W	#17K748494
R30	5600Ω		R57	39K	(56K) *	R84	200Ω COLD	#6K746412
R31	7500Ω 4W		R58	1200Ω	(3300Ω) *		6Ω HOT	
R32	6800Ω		R59	4.7meg		R85	52Ω 25W	#17K751541
R33	33Ω		R60	22K		R86	4700Ω 2W	
R34	15K 2W		R61	12Ω		R87	2.2meg	
R35	47Ω		R62	68K		R88	6800Ω 1W	