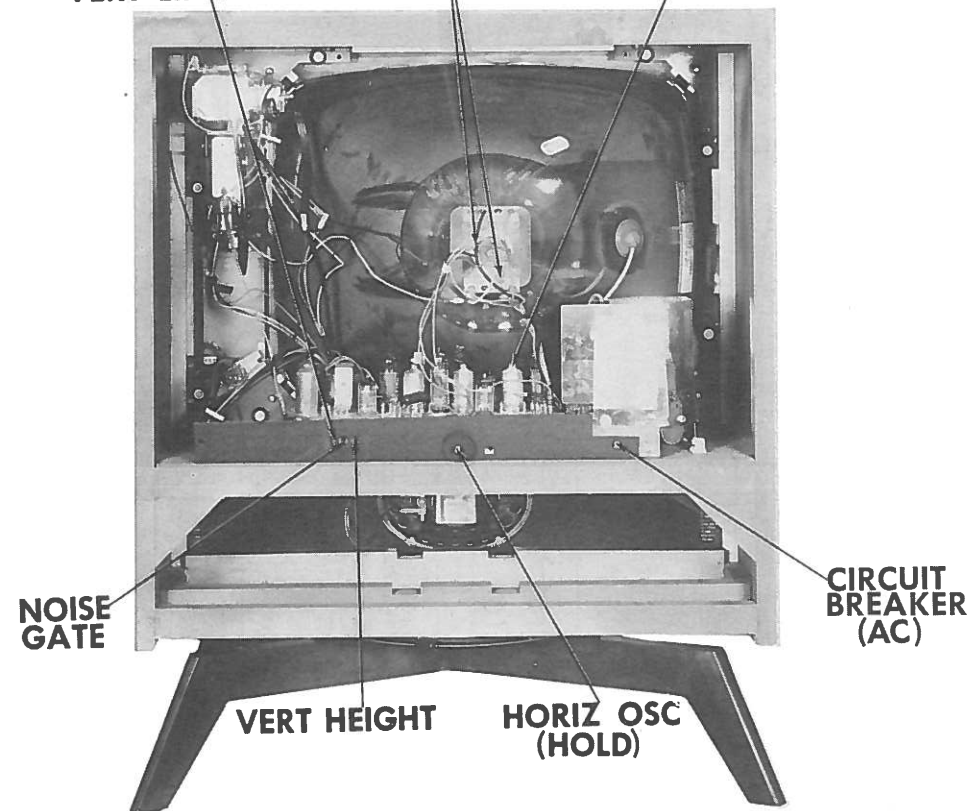


VERT LINEARITY CENTERING QUADRATURE COIL



CHASSIS—REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Adjust the Horizontal Hold (Osc. Coil Slug) until the picture remains in proper sync when switching from channel to channel.

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove all knobs and cabinet back held by 7 screws. Unplug antenna connections.
2. Remove 3 screws holding VHF tuner and remove 3 screws holding UHF Tuner.
3. Remove 2 screws holding vertical hold, brightness and contrast controls. Remove 2 screws holding volume control.
4. Unplug speaker, high voltage lead, and picture tube socket. Remove yoke clamp and 4 bottom chassis bolts. Remove chassis.

PICTURE TUBE REMOVAL

1. Remove cabinet back held by 7 screws. Unplug antenna connections.
2. Unplug high voltage lead and picture tube socket. Remove yoke and front bezel held by 9 screws.
3. Remove 4 picture tube mounting screws and remove picture tube.

SET 688 FOLDER 3

MOTOROLA CHASSIS DTS-586/Y,
LTS-586/Y, NDTS-586, PLTS-586/Y

PHOTOFACT® Folder



MOTOROLA CHASSIS DTS-586/Y,
LTS-586/Y, NDTS-586, PLTS-586/Y



CAUTION

ONE SIDE OF AC LINE CONNECTED TO CHASSIS

MODEL Y23K89MA-1

TRADE NAME	MOTOROLA	MODELS	CHASSIS
		19P35BR/BRH	DTS-586
		19P37BL/GR	NDTS-586
		Y19P35BR, Y19P37BL/GR	DTS-586Y
		23K89MA/WA, 23K97MA/WA, 23T25CHA	LTS-586
		23T26MGA/WGA, Y23T26MGA/WGA	PLTS-586Y
		Y23K89MA/WA, Y23K97MA/WA, Y23T25CHA	LTS-586Y
SUPPLIER	Motorola Inc., 9401 W. Grand Ave., Franklin Park, Illinois		
TYPE SET	Television Receiver		
TUBES	VHF - Sixteen, UHF - Seventeen		
POWER SUPPLY	110-120 Volts, AC, 60 Cycles		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

Code A-04

SERVICING IN THE FIELD

SAFETY GLASS

For picture tube and safety glass cleaning, it is necessary to remove the chassis. (See "Disassembly Instructions".)

FUSE OR FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection and may be reset by depressing the reset button. (See "Tube Placement Chart" for location.)

VHF OSCILLATOR ADJUSTMENT

Set fine tuning at the center of its range and adjust osc. slug (one for each channel) for best sound and picture.

AGC

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

SYNC STABILITY

Sync stability may be varied by means of a Noise Gate Control. (See "Tube Placement Chart" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

The Horizontal Frequency Slug is used for the horizontal hold. (See "Tube Placement Chart" for location.)

WIDTH

The width may be varied by a jumper to pin 1 or pin 2 on width terminals. (See "Chassis - Top View" for location.)

FOCUS

The focus may be varied by connecting the lead from pin 4 of the picture tube to various voltage points. (For location, see "Chassis - Top View".)

CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

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



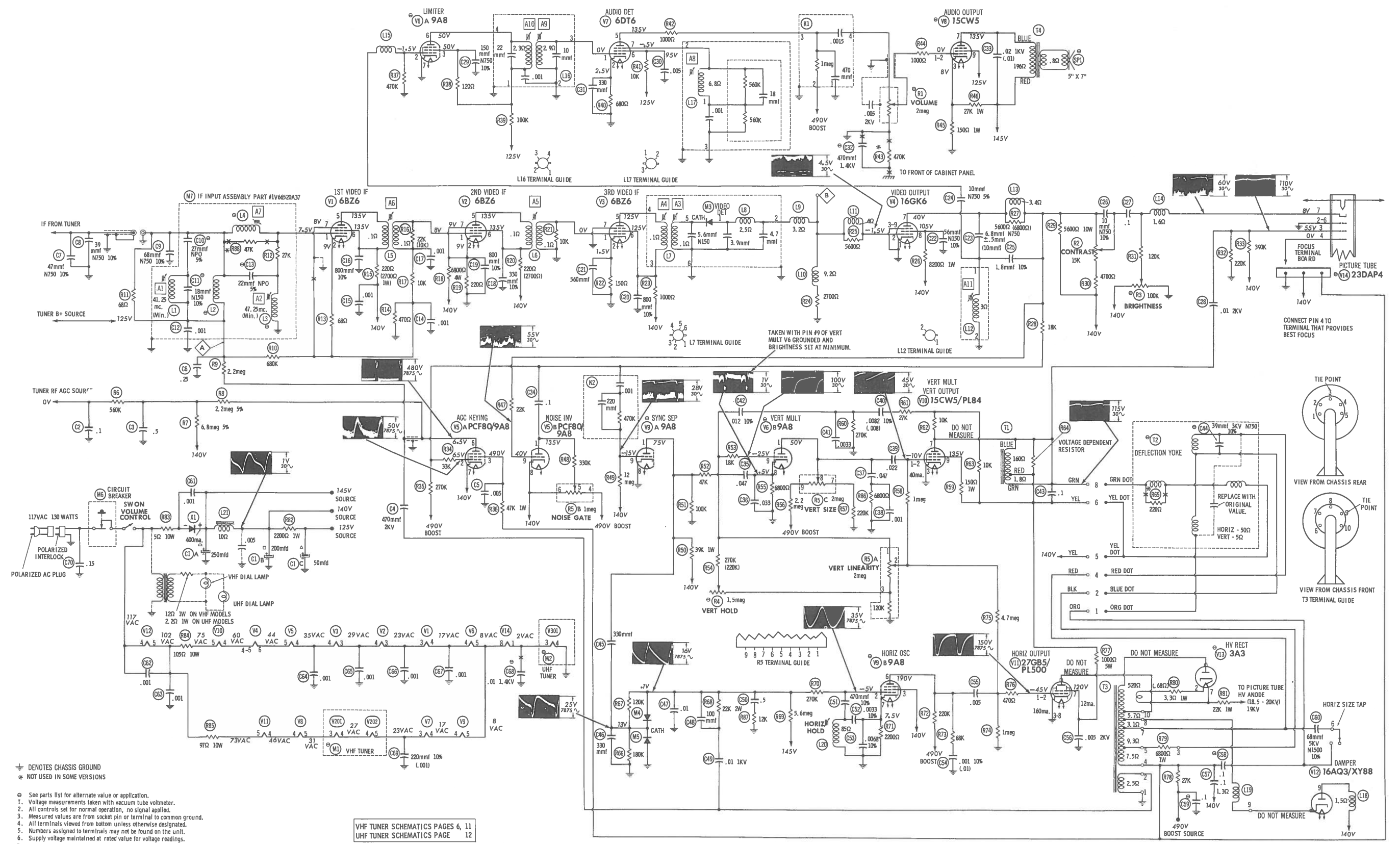
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MA511

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DATE 4-64 SET 688 FOLDER 3

MOTOROLA CHASSIS DTS-586/Y,
LTS-586/Y, NDTS-586, PLTS-586/Y

SET 688 FOLDER 3



⚡ DENOTES CHASSIS GROUND
* NOT USED IN SOME VERSIONS

1. See parts list for alternate value or application.
2. Voltage measurements taken with vacuum tube voltmeter.
3. All controls set for normal operation, no signal applied.
4. Measured values are from socket pin or terminal to common ground.
5. All terminals viewed from bottom unless otherwise designated.
6. Numbers assigned to terminals may not be found on the unit.
7. Supply voltage maintained at rated value for voltage readings.
8. Waveforms taken with controls set to produce 60 volts peak-to-peak signal at picture tube.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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VHF TUNER SCHEMATICS PAGES 6, 11
UHF TUNER SCHEMATICS PAGE 12

MOTOROLA CHASSIS DTS-586/Y,
LTS-586/Y, NDTs-586, PLTs-586/Y

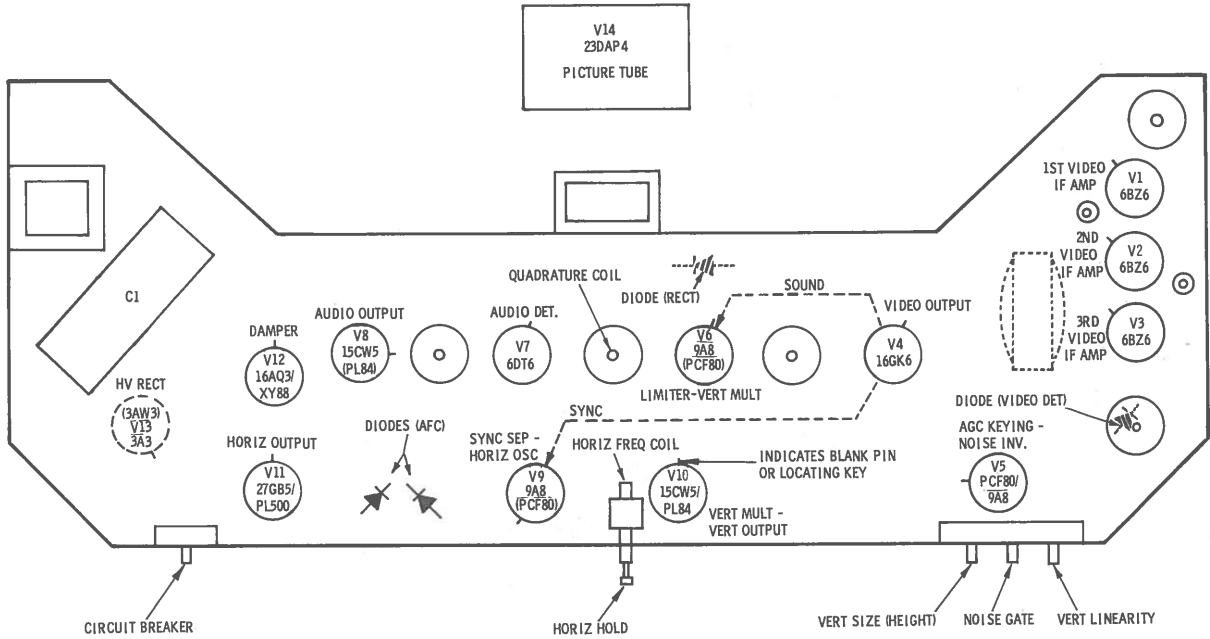
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	27K	538Ω	8Ω	5Ω	† 230Ω	† 230Ω	470Ω		
V2	6BZ6	10K	220Ω	8Ω	10Ω	† 230Ω	† 230Ω	220Ω		
V3	6BZ6	.1Ω	150Ω	10Ω	12Ω	† 1000Ω	† 1000Ω	0Ω		
V4	16GK6	0Ω	•2700Ω	0Ω	15Ω	19Ω	TP	† 4500Ω	† 8200Ω	0Ω
V5	PCF80/9A8	† 350K	† 55K	† 47K	12Ω	15Ω	#† 2.5meg	† 10Ω	† 10Ω	† 27K
V6	9A8	† 1meg	470K	† 102K	5Ω	2Ω	† 102K	0Ω	6800Ω	650K
V7	6DT6	2.9Ω	680Ω	8Ω	5Ω	† 1meg	† 12K	560K		
V8	15CW5	100K	NC	150Ω	18Ω	13Ω	NC	† 196Ω	NC	† 2200Ω
V9	9A8	† 39K	† 5.8meg	† 10Ω	5Ω	2Ω	† 247K	2200Ω	0Ω	† 12meg
V10	15CW5/PL84	NC	1.5meg	0Ω	19Ω	26Ω	NC	† 170Ω	NC	† 160Ω
V11	27GB5/PL500	900K	NC	0Ω	18Ω	28Ω	NC	† 1000Ω	NC	NC
V12	16AQ3/XY88	NC	NC	NC	76Ω	71Ω	NC	NC	NC	† 10Ω
V13	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								
V14	23DAP4	1Ω	0Ω	#† 160K	0Ω	NC	NC	150K	2Ω	
V201	4GK5	0Ω	5.6meg	13Ω	11Ω	† 5500Ω	0Ω	0Ω		
V202	8GJ7/PCF801	0Ω	150K	0Ω	11Ω	8Ω	† 2200Ω	† 17K	† 14K	10K
V301	2DZ4	† 4900Ω	5600Ω	1Ω	0Ω	1Ω	5600Ω	† 4900Ω		

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
• READING DEPENDS ON POLARITY OF METER CONNECTIONS.
† MEASURED FROM OUTPUT OF X1.
‡ MEASURED FROM TOP CAP OF V12.

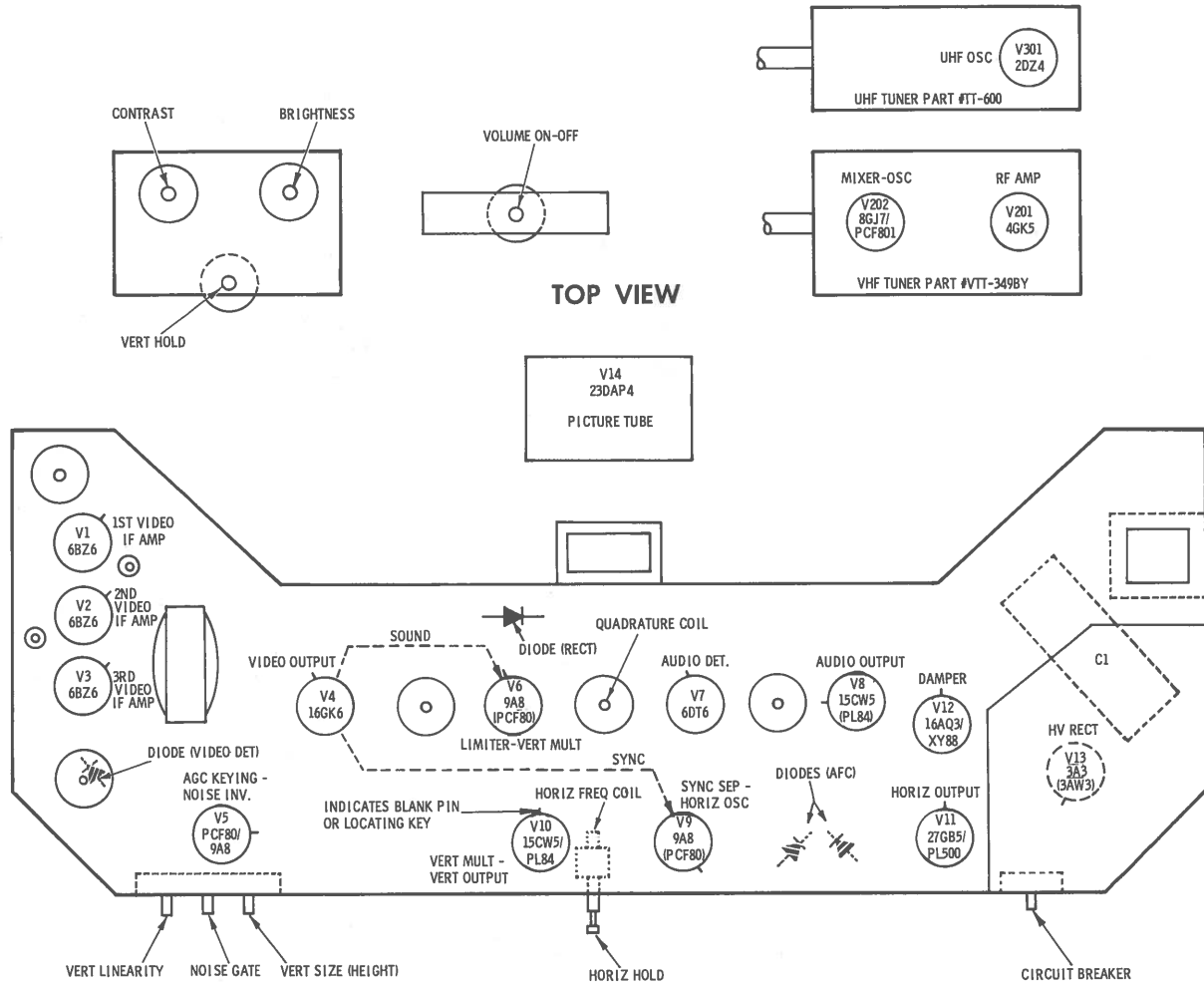
NC NO CONNECTION
TP TIE POINT

BOTTOM VIEW



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 M6 Circuit Breaker, X1 Selenium Rectifier

SWEEP FAILURE

No raster, has sound V9, V11, V12, V13, V14
No vertical deflection V8, V10
Poor vert. linearity or foldover V8, V10
Poor horiz. linearity or foldover V9, V11, V12
Narrow picture V9, V11, V12, X1
Vert. off freq. V8, V10
Horiz. off freq. V9, V11, M4 & M5 (AFC Diodes)

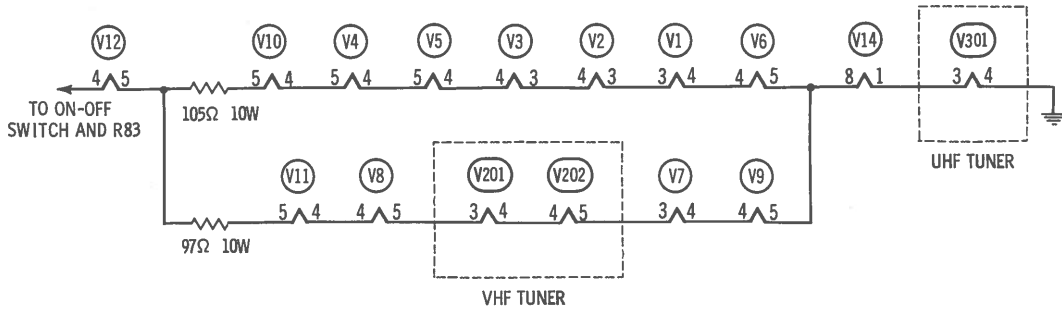
LOSS OF PICTURE OR SOUND

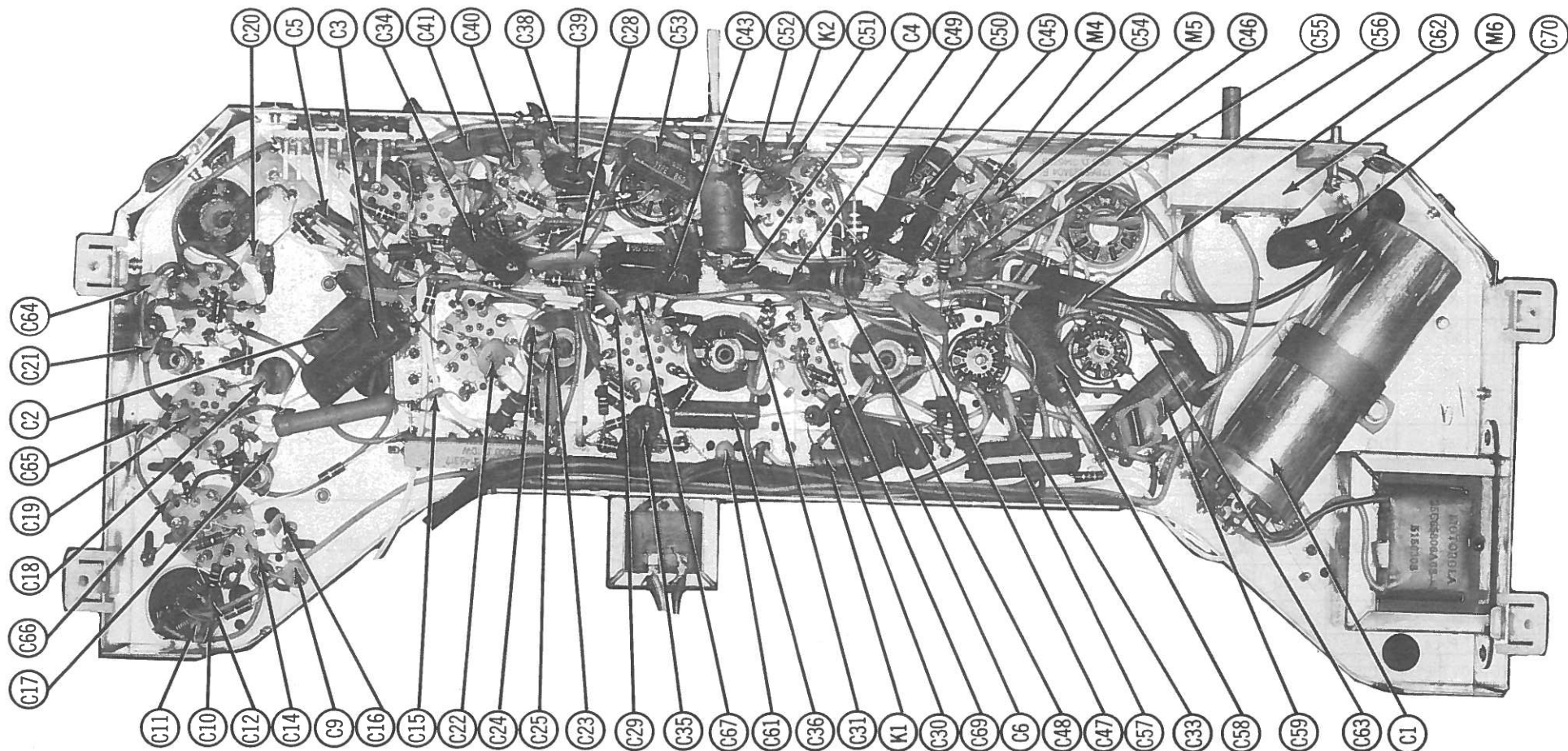
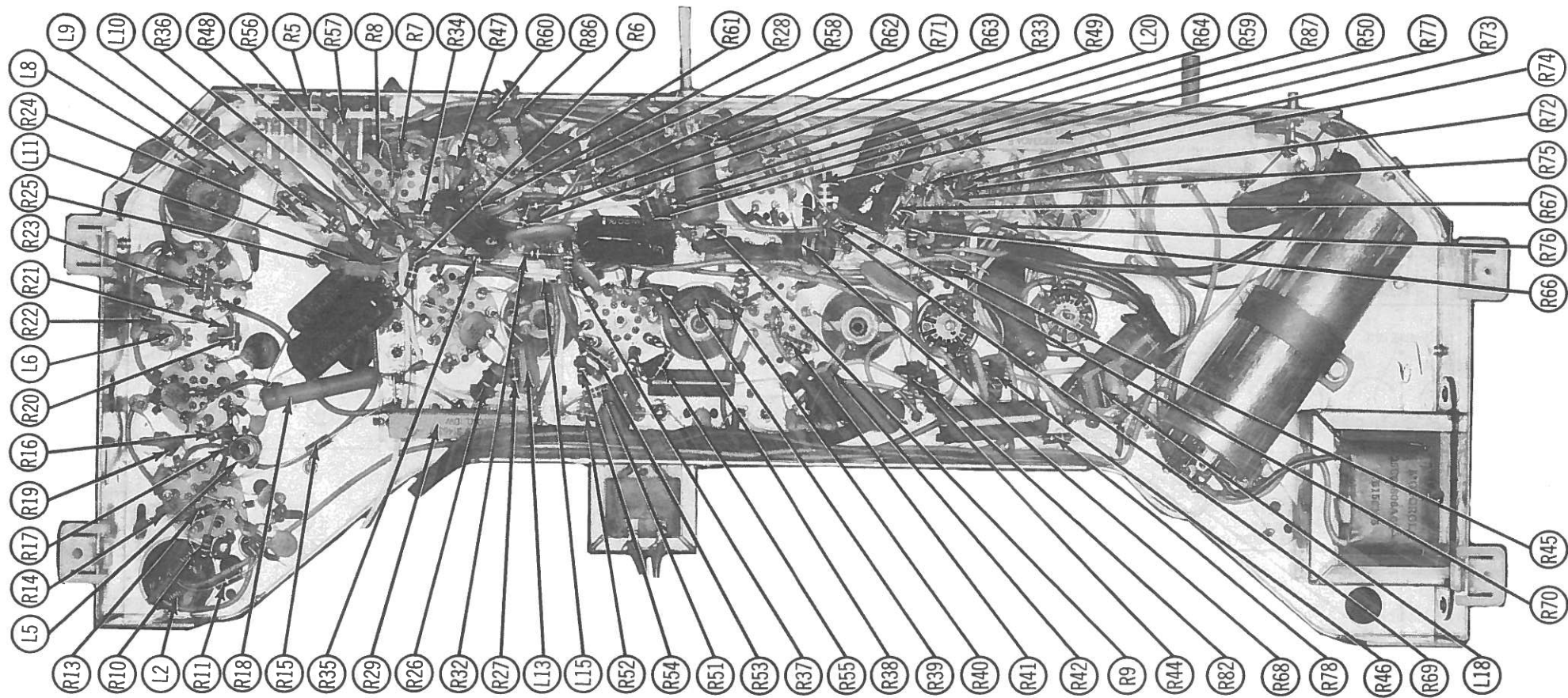
No pic, no sound, has raster V1, V2, V3, M3 (Video Det.), V4
No pic, no sound, has snow V201, V202, V301, V1
No pic, has sound, has raster V4, V14
Has pic, no sound V6, V7, V8
Overloaded picture V5

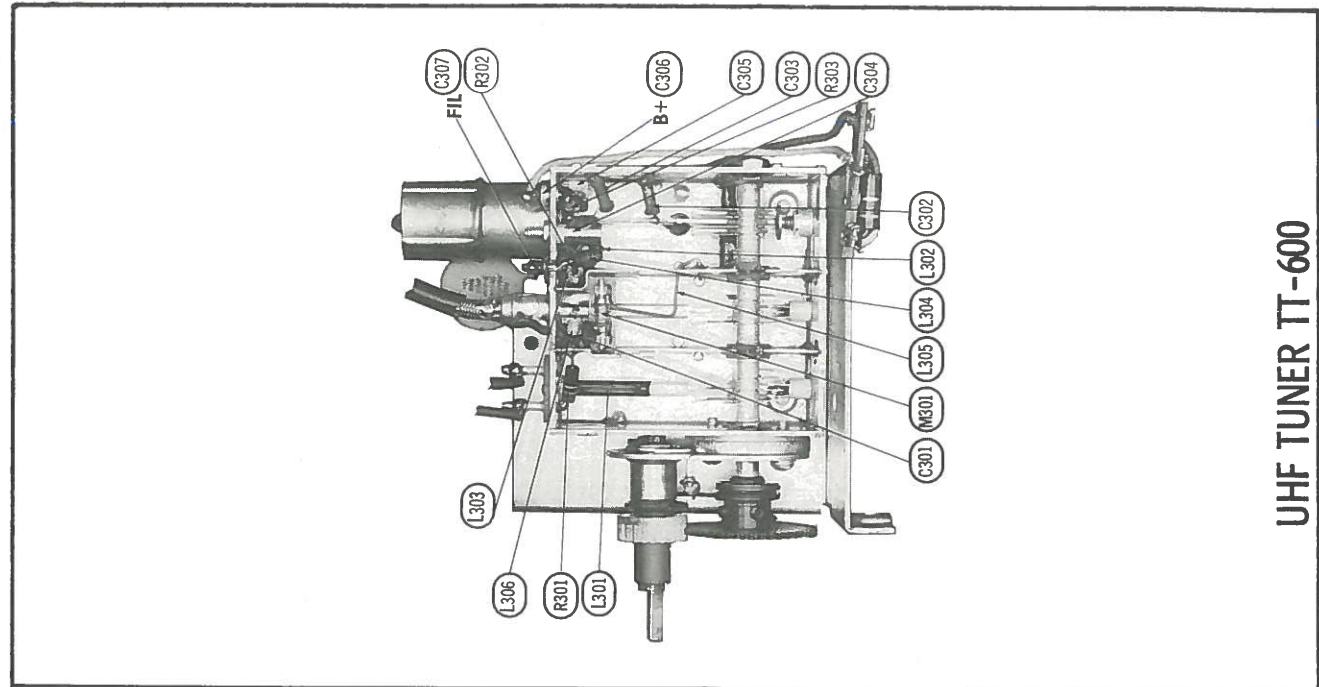
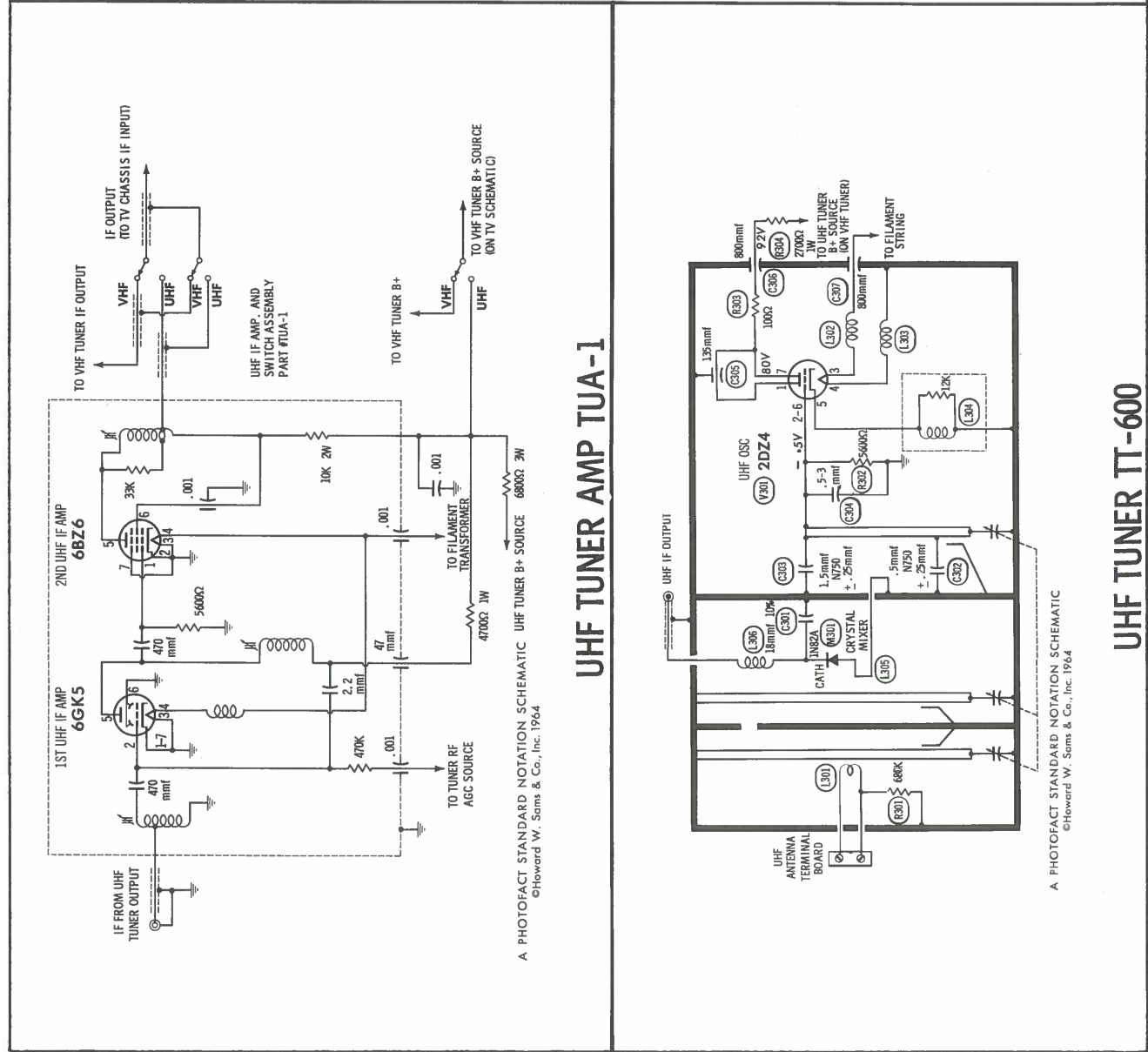
SYNC FAILURE

No vert. sync V5, V9
No horiz. sync V5, V9
No vert. or horiz. sync V5, V9

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.)







ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A11..... GENERAL CEMENT #9302, 8606, 8889 ... WALSCO #2511, 2544, 2588
Mixer Plate Coil .. GENERAL CEMENT #9302, 9296, 9297 ... WALSCO #2511, 2546, 2547

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point Δ) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1.	Connect DC probe of a VTVM thru a 47K resistor to point Δ . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	41.25MC 47.25MC	A1 A2	Adjust for MINIMUM.
2.	Connect vertical input of a scope to point Δ . Low side to ground.	Connect high side to pin 1 (grid) of V3. Low side to ground.	44MC (10MC Sweep) 42.0MC 45.75MC	A3 A4	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3.	Connect vertical input of a scope to point Δ . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep) 41.25MC 42.4MC 45.75MC 47.25MC	A5, A6, A7, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A 3 and A 4.

SOUND IF ALIGNMENT

Tune in a station and reduce the signal strength at the antenna terminals until a hiss is heard in the sound. Align for maximum undistorted sound with MINIMUM buzz by adjusting. If the hiss disappears during alignment, further reduce the signal strength.

SOUND IF ALIGNMENT

Tune in a station and adjust A8 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce signal while aligning for undistorted output by adjusting A8, A9, A10, and A11.

FIG. 1

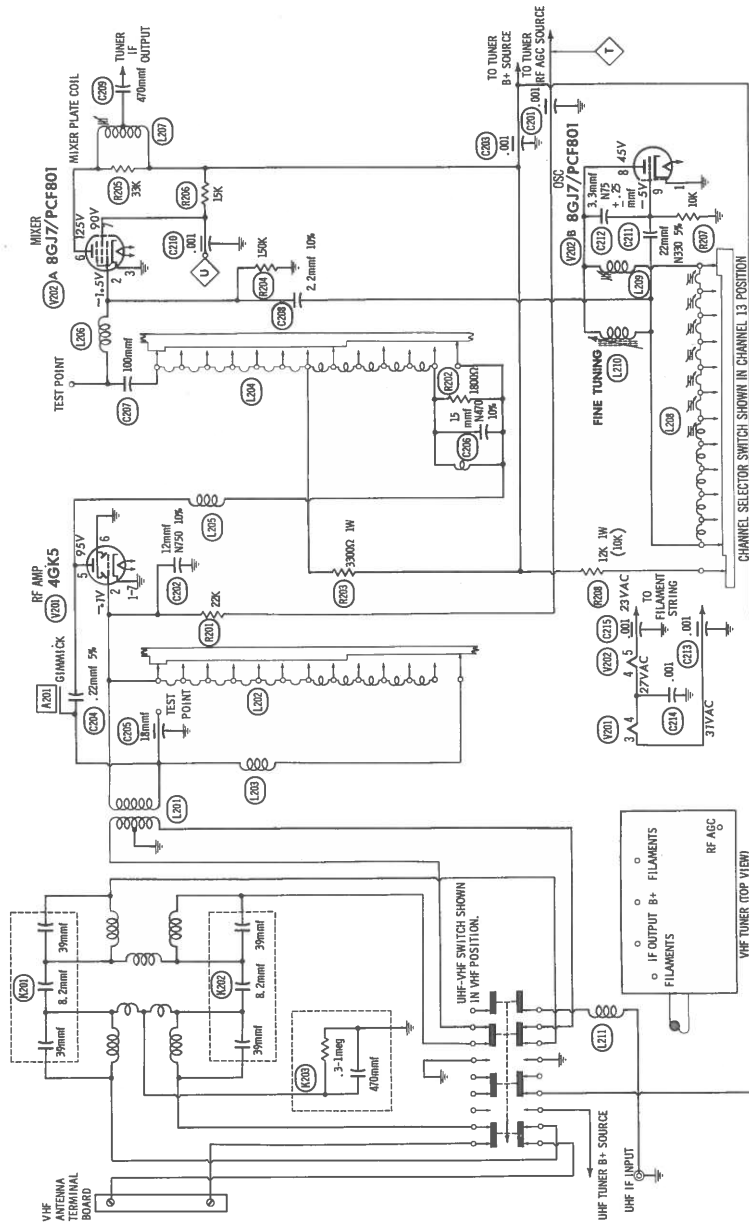
FIG. 2

CHASSIS—TOP VIEW

SET 688 FOLDER 3

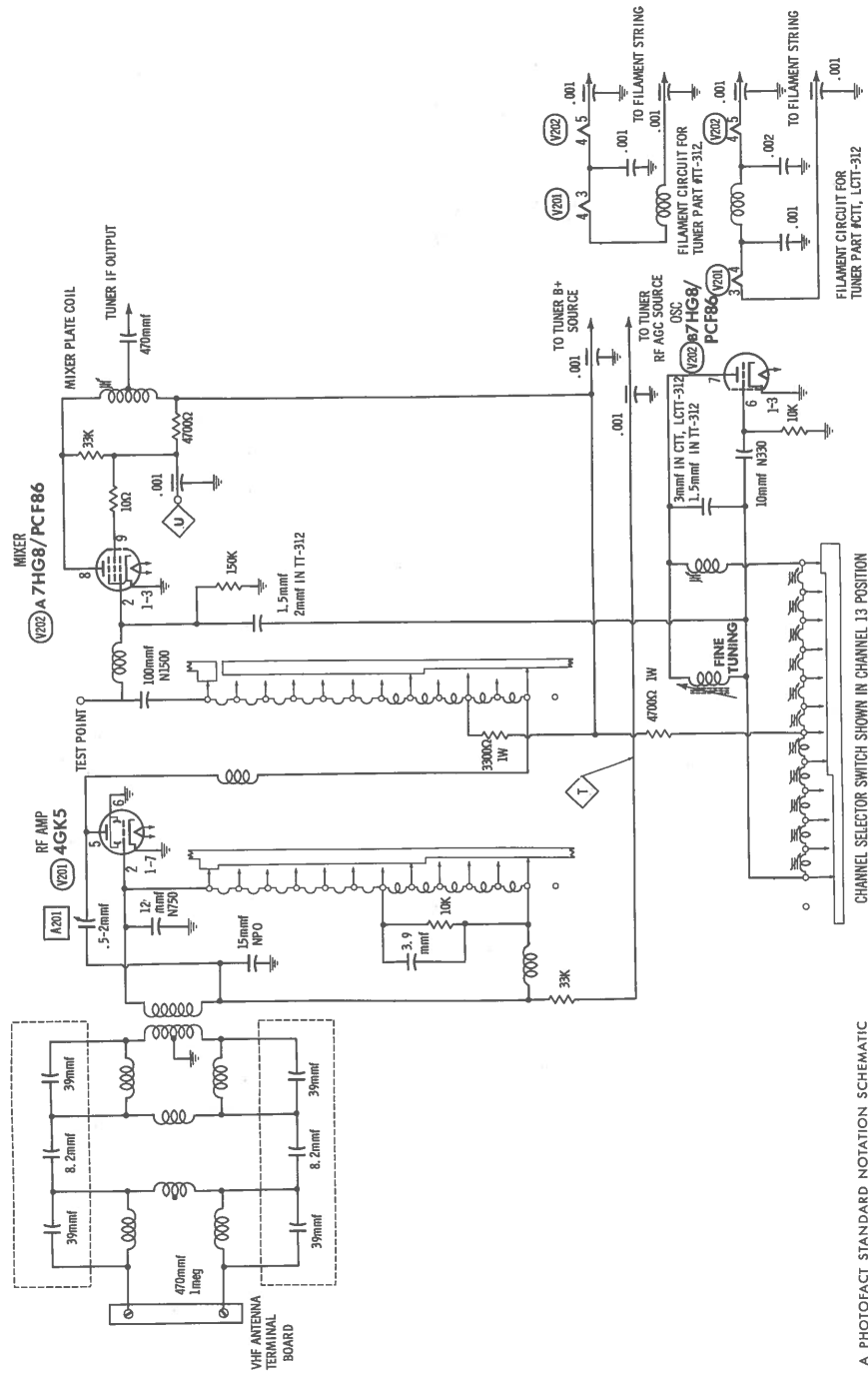
*FOCUS POINTS

Component callouts: TOP (A7, L4, A2, L3, A1, L1), MID (R88, R4, R3, R31, R2, R30, C27, C26, T4, R83, R43), BOT (R1, C32, L21, R84, R85, L19, R79, T3, C60, A), L7, M3, A4, A3, X1, A5, T1, A6, R12, M7, C13, C42, L12, C37, A9, A10, L16, HORIZ SIZE 1, 140V, 490V, HORIZ SIZE 2, A8, R80, R81, L17, A.



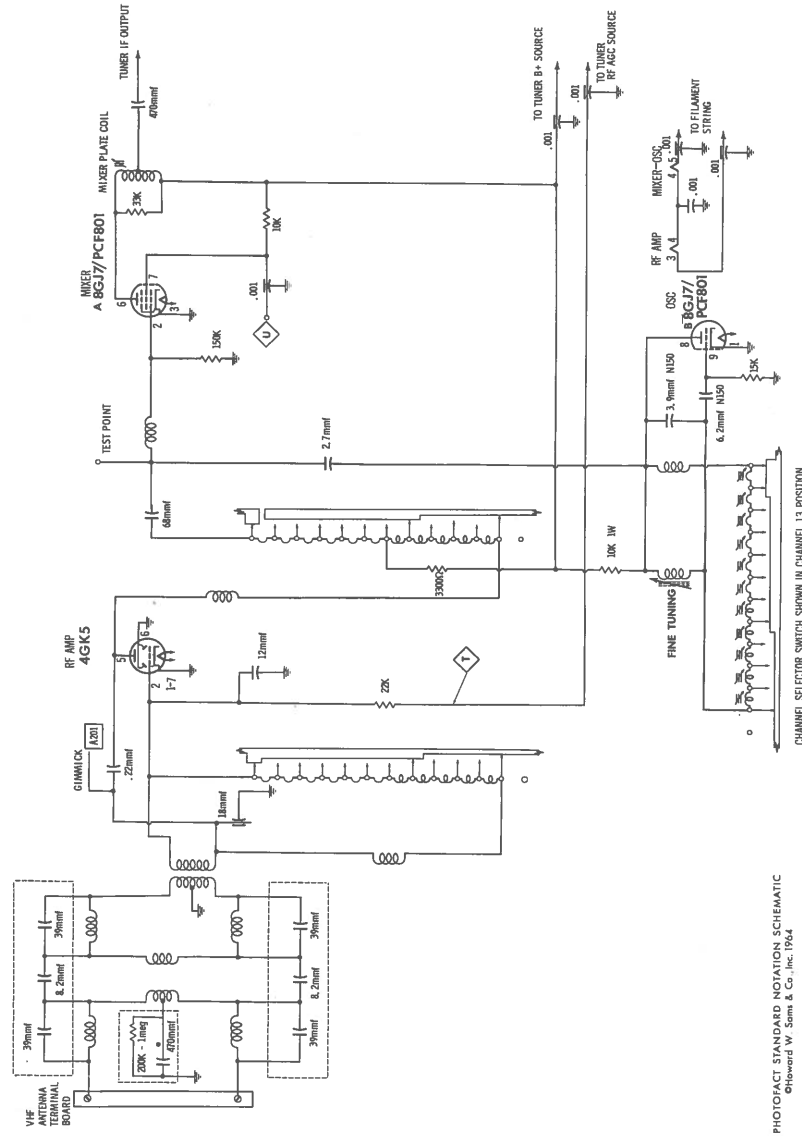
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13 POSITION SWITCH-TYPE VHF TUNER VTT-349BY



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13 POSITION SWITCH-TYPE VHF TUNER CTT-312



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13 POSITION SWITCH-TYPE VHF TUNER VTT-348

DT5-586/Y, LTS-586/Y, NDT5-586, PLTS-586/Y

MOTOROLA CHASSIS

VHF TUNER PARTS LIST

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	4GK5	V202	Mixer - Osc.	8GJ7/PCF801

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201	.001		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q12
C202	12 N750 10%		EF-001	TCN-12		CCF-102	CN7-412	
C203	.001			MFT-1000			CT280A	
C204	.22mmf 5%	#21R132742						
C205	18	#21R132744						
C206	15 N470 10%	#21R125929						
C207	100		DI-100	DD-101	LA10T1-S3	CCD-101	GP310	10TCT-Q15
C208	2.2 10%	#21R115948						10TS-T10
C209	470		BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C210	.001		EF-001	MFT-1000		CCF-102	CT280A	10TCS-Q22
C211	22 N330 5%	#21S180A08						
C212	3.3 N75 ±.25mmf	#21S180A10						
C213	.001		EF-001	MFT-1000		CCF-102	CT280A	
C214	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C215	.001		EF-001	MFT-1000		CCF-102	CT280A	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
Motorola Part Number

COILS (RF-IF)

ITEM No.	USE	MOTOROLA PART No.	NOTES	ITEM No.	USE	MOTOROLA PART No.	NOTES
L201	Ant. Matching Assembly	1P65121A13	Chans. 2 thru 12	L206	RF Choke	24P65117A36	
L202	Ant. Wafer	1P65121A17	Chans. 2 thru 12	L207	Mixer Plate	24P65121A28	
L203	Chan. 13 Ant.		Chans. 2 thru 12	L208	Osc. Wafer	1P65121A21	Chans. 2 thru 12
L204	RF Wafer	1P65121A19	Channel 13	L209	Osc.		Channel 13
L205	RF			L210	Fine Tuning	24P65121A14	
				L211	RF Choke	24D65947A29	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K201	Antenna Network	8.2mmf, 39mmf, 39mmf		
K202	Antenna Network	8.2mmf, 39mmf, 39mmf		
K203	Antenna Isolation	.3-1meg, 470mmf		Centralab RC-471 Sprague AC1-1

VHF TUNER ALIGNMENT INSTRUCTIONS

OSCILLATOR ALIGNMENT TUNER

Set the fine tuning to the center of its range. Starting with the highest available channel adjust appropriate oscillator for best sound and picture. If individual oscillator shows insufficient range, adjust overall oscillator adjustment and recheck all channels.

RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point (U). Adjust bias to obtain response curve which shows no indication of overloading.

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	Across antenna terminals with 120Ω in each lead.	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A201	Increase bias to -15 volts and adjust low MINIMUM amplitude of response curve.
2.	"	213MC	211.25MC 215.75MC	13	Vert. Input to point (U), low side to ground.		Decrease bias and adjust for response curve similar to Figure 201.
		207MC	205.25MC 209.75MC	12			
		201MC	199.25MC 203.75MC	11			
		189MC	187.25MC 191.75MC	9			
		183MC	181.25MC 185.75MC	8			
		177MC	175.25MC 179.75MC	7			
		85MC	83.25MC 87.75MC	6			
		79MC	77.25MC 81.75MC	5			
		69MC	67.25MC 71.75MC	4			
		63MC	61.25MC 65.75MC	3			
		57MC	55.25MC 59.75MC	2			

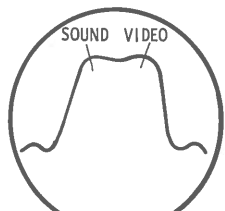
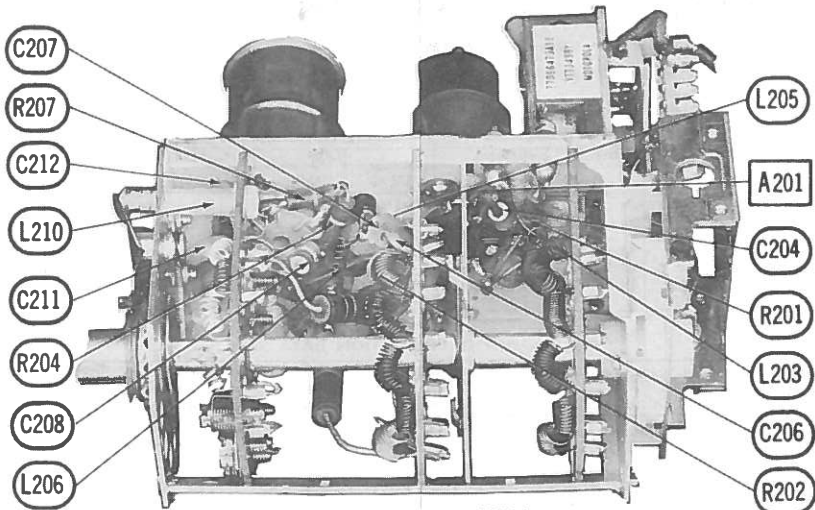
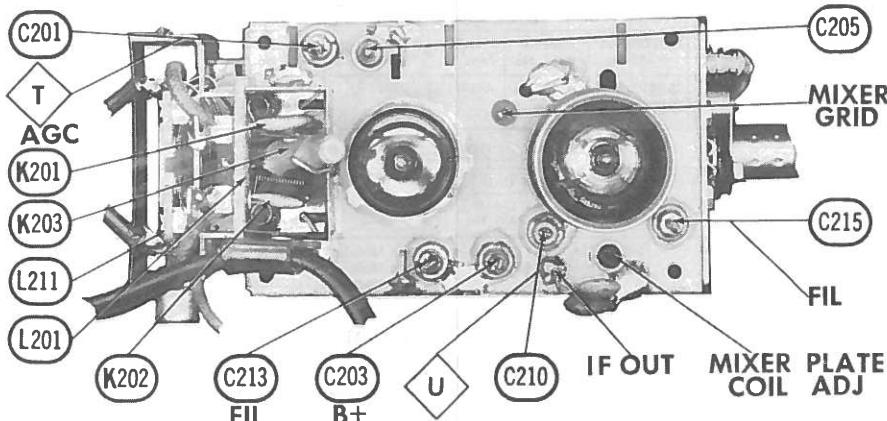


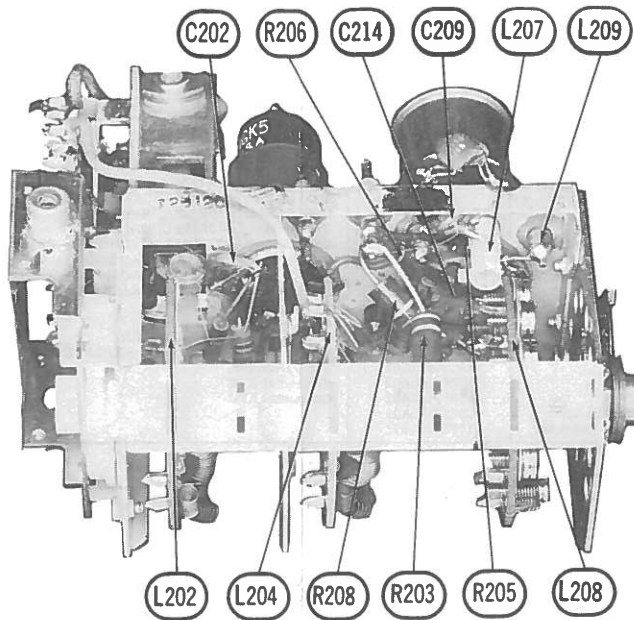
FIG. 201



VHF TUNER VTT-349BY



VHF TUNER VTT-349BY



VHF TUNER VTT-349BY

PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	6BZ6	V8	Audio Output	15CW5 (PL84) *
V2	2nd Video IF Amp.	6BZ6	V9	Sync Sep. - Horiz. Osc.	9A8 (PCF80) *
V3	3rd Video IF Amp.	6BZ6	V10	Vert. Mult. - Vert. Output	15CW5/PL84
V4	Video Output	16GK6	V11	Horiz. Output	27GB5/PL500
V5	AGC Keying-Noise Inverter	PCF80/9A8	V12	Damper	16AQ3/XY88
V6	Limiter - Vert. Mult.	9A8 (PCF80) *	V13	HV Rectifier	3A3 (3AW3) *
V7	Audio Detector	6DT6			

* Alternate

PICTURE TUBE

ITEM No.	MOTOROLA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	NOTES
V14	23DAP4 19CHP4	19CHP4 ①	23DAP4 19CHP4 ①	19CHP4 ②	① Aluminized ② Silver Screen "85"

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.400A	48K752497	1N539 or A300 or D300	1N1763 or 1N2862 or 1N3194	40R or F-4

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	250	175	23C6580TA14	AFH84-01-55	XD0015	XC4-77	FP318.85	TVL83454.12*
B	200	175						
C	150	175						

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

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C2	.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10
C3	.5 100V		P288N-5		PM28P5	1DP-4-504	PVC105	2PS-P50
C4	470 2KV		HVD-30-470	DD30-471	HVB20T47	3CCD-471	2HV-347	30GA-T47
C5	.005		BPD-005		BYA10D5	CCD-502	B-250	5HK-D50
C6	.25 50V		P288N-25		PM2P25	1DP-3-254	PVC1025	2PS-P25
C7	47 N750 10%		N750-DI 47	DTN-47	C10Q47U	CCTN-470	CNT-447	10TCU-Q47
C8	39 N750 10%			TCN-39	C10Q39U	CCTN-390	CNT-439	10TCU-Q39
C9	68 N750 10%			DTN-68	C10Q68U	CCTN-680	CNT-468	10TCU-Q68
C10	27 NPO 5%	Notes 1 & 6		TCZ-27			CNO-427	10TCC-Q27
C11	18 N150 10%	Notes 1 & 6						10TCP-Q18
C12	.001	Note 1	BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C13	22 NPO 5%	Note 1	DTZ-22		C10Q22C	10TCC-Q22	CNO-422	10TCU-Q22
C14	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C15	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C16	800 10%		DF-801	CE-801	JB6T8	CCD-801	GP382	10TS-T80
C17	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C18	330 10%		DI-330	DD-331	LA10T33-C4	CCD-331	GP333	10TS-T33
C19	800 10%		DI-800	CE-801	JB6T8	CCD-801	GP382	10TS-T80
C20	800 10%		DI-800	CE-801	JB6T8	CCD-801	GP382	10TS-T80
C21	560		DI-560	DD-581	LA10T56-C4	CCD-561	GP356	5GA-T56
C22	56 N150 10%	#21R124472						10TCP-Q56
C23	6.8 N750 ±.5mmf (10) ↑							10TCU-Q56
C24	10 N750 5%		N750-DI 10	DTN-10	C10Q10U	CCTN-100	CNT-568	10TCU-Q10
C25	1.8 10%	#21R115981						
C26	10 N750 10%		N750-DI 10	DTN-10	C10Q10U	CCTN-100	CNT-410	10TCU-Q10
C27	.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10
C28	.01 2KV							BL-S10
C29	150 N750 10%		N750-DI 150	DTN-150	C10T15U	CCTN-151	CNT-315	10TCU-T15
C30	.005		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C31	330		BPD-00033	DD-331	LA10T33-C4	CCD-331	GP333	5GA-T33
C32	470 1.4KV	Note 2 (.01) ↑	HVD-15-470	DD30-471	HVB20T47	3CCD-471	2HV-347	30GA-T47
C33	.02 1KV		BPD-02				B-120	10TS-S20
C34	.1 400V		P488N-1	DF-104	PM4P1	4DP-3-104	GEM-401	4TM-P10
C35	.047 200V		P288N-047	DD-503	PM2847	4DP-3-473	GEM-2147	2TM-S47
C36	.033 400V		P488N-033	DD-303	PM4833	4DP-3-333	GEM-4133	4TM-S33
C37	.047 400V		P488N-047	DD-503	PM4847	4DP-3-473	GEM-4147	4TM-S47
C38	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C39	.022 400V		PM4822	DD-203	PM4822	4DP-2-223	GEM-4122	4TM-S22
C40	.0082 400V 10%	(.008) ↑	PM4822	DD-203	PM4822	4DP-2-223	GEM-4122	4TM-S22
C41	.0033		B6D82	CF-822	PM6D82	8DP-2-822	PVC628	6PS-D82
C42	.012 400V 10%		BPD-0033	DD-332	BYA10D33	CCD-332	B-233	5HK-D33
C43	.1 600V				PM4812	8DP-2-123	PVC6112	6PS-S12
C44	39 3KV N750 10%	Note 3	P888N-1	DF-104	PM6P1	6DP-4-104	GEM-601	6TM-P10
C45	330		BPD-00033	DD-331	LA10T33-C4	CCD-331	GP333	5GA-T33
C46	330		BPD-00033	DD-331	LA10T33-C4	CCD-331	GP333	5GA-T33
C47	.01		BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-S10
C48	100		BPD-0001	DD-101	LA10T1-S3	CCD-101	GP310	5GA-T10
C49	.01 1KV		BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-S10
C50	.5 100V		P288N-5		PM2P5	1DP-4-504	PVC105	2PS-P50
C51	470 10%		JB6T47	DD-471			GP347	10TS-T47
C52	.0033 400V 10%		BE6D33	CF-332	WMF4D33	6DP-1-332	PVC4233	6PS-D33
C53	.0068 400V 10%		BE6D68		WMF4D68	6DP-1-682	PVC4268	6PS-D68
C54	.001 10%	(.01) ↑	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10
C55	.005		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C56	.005 2KV			DD30-502	HVC20D5	3CCD-502	2HV-247	BL-D50
C57	.1 400V	Note 4	P488N-1	DF-104	PM4P1	4DP-3-104	GEM-401	4TM-P10
C58	.1 400V		P488N-1	DF-104	PM4P1	4DP-3-104	GEM-401	4TM-P10

PARTS LIST AND DESCRIPTION (CONTINUED)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

FIXED CAPACITORS(cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.	
C59	.1	600V	Note 5 #218131481	P688N-1	DF-104	PM6P1	6DP-4-104	GEM-601	6TM-P10
C60	68	5KV N1500 10%							
C61	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C62	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C63	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C64	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C65	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C66	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C67	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C68	.01	1.4KV	Note 5 (.001) †	DAC-27	DD16-103	HVF16S1	16DP-3-103	UAC-110	BL-810
C69	220	10%		DI-220	DD-221	LA10T22-83	CCD-221	GP322	10TS-T22
C70	.15	400V		P488N-15		PM4P15	4DP-4-154	GEM-4015	4TM-P15

* Not normally in distributor's stock. Available thru distributor on order to manufacturer. † Alternate Value
Note 1. Part of M7. Note 4. 19" Models use .03mfd. ‡ Motorola Part Number
Note 2. Used in Chassis LTS and PLTS-586 only. Note 5. Used on UHF Models only.
Note 3. Some versions may use 56mmf. Note 6. C10 and C11 are reversed in some models.

CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	2meg	18D65083A36 ①	F2-2meg, SN104 ④, KR-1	A47-2meg-Z RN-3 ④, SWE-12	(BU1, CF27, S88 ④, GC) *	
R2	Contrast	15K	18D66966A08			B11-118, TM9 or (BU11, CF10, S88, DC2) *	
R3	Brightness	100K	18D66966A09 ②			B11-128, TM9 or (BU11, CF13, S88, DC2) *	
R4	Vert. Hold	1.5meg	18D66966A13 ③	F1-1.5meg, SN104 or (AB-742, AK-19)	A47-1.5meg-S RN-3	B11-138, TM4 or (BU11, CF18, S88) *	
R5A B C	Vert. Linearity Noise Gate Vert. Size	2meg 1meg 2meg	18D66401A12				

① Chassis DTS/NDTS-586 use Part #18D66836A06. ③ Chassis DTS/NDTS-586 use Part #18D66966A12.
② Chassis DTS/NDTS-586 use Part #18D66966A12. ④ File flat. * "SNAPTROL"

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R18	6800Ω 4W	PW10-7000	4G-8800		R83	5Ω 10W	PW10-5	10W-SQ-5	
R29	5600Ω 10W	MR 4	10W-SQ-5600		R84	105Ω 10W	MR 2	10W-SQ-105	
R64	V. D. R. †			#6C66283A01	R85	97Ω 10W	PW10-100	10W-SQ-97	
R77	1000Ω 5W	PW5-1000	5W-SQ-1000						

Motorola Part Number

† Voltage Dependent Resistor

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MOTOROLA PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	41.25MC Trap	①					① Part of Assembly M-7 (1V66520A37)
L2	RF Choke (3 turns)	①					
L3	47.25MC Trap	①					
L4	1st Video IF	①					
L5	2nd Video IF	24K747587	TV-130	6224	RTC-8555	TL227	
L6	3rd Video IF	24K751248	TV-130	6224	RTC-8555	TL224	
L7	4th Video IF - Detector Assembly	24C65939A04					
L8	RF Choke (8.8uh)	24C65828A09	BC-566	74F826AP	RTC-8522	T960	
L9	RF Choke (7.5uh)	24C66772A01	BC-565	74F826AP	RTC-8521	T982	
L10	Peaking (390uh)	24K749673	BC-676	72F394AP	RTC-8578	T350	
L11	Peaking (100uh)	24C65828A38	BC-669	8112	RTC-8574	T341	
L12	4.5MC Trap	1V66522A06					
L13	Peaking (75uh)	24C65828A36	BC-688	6172	RTC-8590	T339	
L14	RF Choke (10uh)	24R119889	BC-566	72F105AP	RTC-8522	T860	
L15	RF Choke (7.5uh)	24C65828A40	BC-565	74F826AP	RTC-8521	T982	
L16	Sound IF Interstage	1V66522A45					
L17	Quadrature	1V66507A11					
L18	RF Choke (6.8uh)	24C65828A17	BC-565	74F686AP	RTC-8520	T859	
L19	RF Choke (4.1uh)	24C66772A03	BC-564	74F396AP	RTC-8518	T858	

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		MOTOROLA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
L20	Horiz. Osc. (Hold)	24D65853A02	TV-195 ②	6333 ①②	RTC-8629 ②	HS-7 ①②	T111 ②③	

① Disregard Tap. ② Install plastic sleeve over adjustment screw. ③ Enlarge mounting hole.

FILTER CHOKE

ITEM No.	RATINGS		REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES. (0 CURRENT 1000~)	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L21	.358ADC	10Ω	.25 Hy.	25C65806A08 (-N)	C-4133	C-2708	26C81	C-40X

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MOTOROLA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	Vert. Output	25D65840A16(-AB)	A-2988 ①	VO-115 ①	26S07 ①	A-140X ①	① Drill new mounting hole. † Used in Chassis NDTS-586, DTS-586/Y.
T2	Yoke (Horiz. 27MH) 94° (Vert. 13MH)	24D67237A01					
T3	Alt. Yoke Horiz. Output Pri. & Sec. windings only	24D66928A05 † 24D66258A10(-M) 24D65958A10					

* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER					VERTICAL OUTPUT			YOKE								YOKE PLUG							
	Original Connections					Original Connections			Original Connections								TO YOKE TERMINAL							
REPLACEMENT ↓	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
MERIT																								
STANCOR																								
THORDARSON																								
TRIAD																								

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T4	2600Ω	8-10Ω	25B61632A01 (25D65984A13(-Z))	A-2902 ①	A-3849 ①	22S86 ①	S-54X ①	① Relocate on chassis and drill new mounting hole(s) if necessary.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MOTOROLA PART No.	QUAM PART No.	
SP1	5" x 7" PM 8-10Ω 5" x 7" PM 8-10Ω 3" x 5" PM 8-10Ω	50D66233A01 50D66755A01 50C66488A02	57A1Z8 * 57A1Z8	Used in Models Y/23K89 Series. * Drill new mounting holes. Used in Models Y/23K97 Series. Used in Models Y/23T26 Series, all 19" Models.

* Drill new mounting holes.

TRANSFORMER (PILOT LIGHT)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
				25D68001A04 ①				① Not used in all models.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K1	Audio Network	1meg, 470mmf, .0015mfd	51D65239A29	
K2	Sync Clipper	470K, 220mmf, .001mfd	51D65239A21	Centralab PC-436

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M1	VHF Tuner	VTT-349BY	Used in Models Y23K89MA, WA; Y23K97MA, WA; Y23T25CHA; Y23T26MGA, WGA. STANDARD COIL REPLACEMENT GK94551.
	VHF Tuner	TT-312, CTT-312	Used in Models Y19P35BR, BRH.
	VHF Tuner	TT-348	Used in Models Y19P37BL, GR.
	VHF Tuner	LC TT-312	Used in Models Y19P35BR; Y19P37BL, GR.
	VHF Tuner	VTT-348	Used in Models 23K89MA, WA; 23K97MA, WA; 23T25CHA.
	UHF Tuner	STT-800	Used in Models Y23K89MA, WA; Y23K97MA, WA; Y23T25CHA; Y23T26MGA, WGA.
	UHF Tuner	TT-600	Used in Models Y19P35BR.
	UHF Tuner	ZTT-600	Used in Models Y19P37BL, GR.
M3	Antenna	1B742795	Used in all 19" Models, JFD REPLACEMENT TA-364.
M4	Diode	48C85837A01	Video Detector
M5	Diode	48D67120A02	Horizontal AFC
M6	Diode	48D67120A02	Horizontal AFC
M7	Circuit Breaker IF Input Assembly	80C86390A01 1V66520A37	

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8888 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
300Ω Tuner Input Lead	Use BELDEN No. 8225
300Ω Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART NO.	MODELS												ITEM	USE	MOTOROLA PART No.	NOTES
		1P25BR	1P27BL	1P27BR	1P27BL	2K89MA	2K97MA	2T25CHA	2T26MGA	Y23K89MA	Y23K97MA	Y23T25CHA	Y23T26MGA				
Safety Glass	61C66250A01	X	X	X	X									X	X	X	
Safety Glass	61D6655A03					X	X	X	X	X	X	X	X	X	X	X	X
Bezel	13E6673A03							X									
Bezel	13P65127A10											X					
Bezel	13P65127A02								X			X				X	
Bezel	13P65127A01											X					X
Bezel	13P6673A08					X	X							X	X		
Bezel (Includes Mask)	13P65127A03					X				X				X		X	
Mask	43C66961A03								X								
Mask	43C66961A06										X			X			
Escutcheon	13C67091A02		X	X									X	X			
Escutcheon (Top)	13C67032A09											X					X
Escutcheon (Top)	13C67032A07								X							X	
Escutcheon (Bottom)	13C6703A06								X			X				X	X
Knob, VHF Channel Selector	36C67067A07		X		X								X	X			
Knob, VHF Channel Selector	36C67067A09		X		X								X	X			
Knob, VHF Channel Selector	36D66981A01							X				X					
Knob, VHF Channel Selector	36D66981A03								X			X				X	X
Knob, VHF Channel Selector	36D66981A07					X	X			X	X			X	X	X	X
Knob, VHF Fine Tuning	36C6643A05		X		X								X				
Knob, VHF Fine Tuning	36C6643A06			X	X								X	X			
Knob, VHF Fine Tuning	36D66962A03					X	X			X	X			X	X	X	X
Knob, VHF Fine Tuning	36D66962A01							X	X		X	X		X	X		X
Knob, UHF Channel Selector	36C67069A03				X												
Knob, UHF Channel Selector	36C67069A03				X									X			
Knob, UHF Channel Selector	36D66963A03									X							X
Knob, UHF Tuning	39C66975A03									X						X	
Knob, UHF Tuning	36C66975A01										X						
Knob, UHF Tuning	36C66963A01											X					X
Knob, On/Off Volume	36C67068A06		X										X				
Knob, On/Off Volume	36C67068A07			X										X			
Knob, On/Off Volume	36C67090A02				X												
Knob, On/Off Volume	36C67090A04				X									X			
Knob, On/Off Volume	36C66975A07							X	X							X	
Knob, On/Off Volume	36C66963A01										X	X					X
Knob, On/Off Volume	36C66975A09					X	X							X	X		
Knob, On/Off Volume	36C66963A03								X	X						X	X
Knob, Brightness, Vert. Hold	36C67090A01		X		X							X					
Knob, Brightness, Contrast, Vert. Hold	36C67090A03			X	X								X	X			
Cabinet Front	16F67078A01		X										X				
Cabinet Front, Blue	16P65127A05			X													
Cabinet Front, Green	16E65127A04												X				
Cabinet, Black Pearl	16E66964A01							X									
Cabinet, Mahogany	16E66964A13								X			X					
Cabinet, Walnut	16E66964A12															X	
Cabinet Back	15F67079A04		X														
Cabinet Back	1V66522A05												X				
Cabinet Back	15F67079A05			X													
Cabinet Back	15F67079A03												X				