

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV signal. Set all controls for normal operation. Turn the Horizontal Hold (Oscillator Coil Slug) clockwise until the picture loses

sync. Then turn slowly counterclockwise until the picture just falls into sync.

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove all knobs. Remove cabinet back held by 7 screws.
2. Remove tuner assembly held by 3 screws and volume control held by 2 screws.
3. Unplug high voltage lead and picture tube socket; loosen yoke clamp.
4. Place cabinet face down on soft protective surface and remove 4

chassis screws. Remove 2 screws at lower control panel.

5. Disconnect pilot light and unplug speaker. Remove chassis.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions.
2. After removing 4 bolts at corners, remove picture tube.

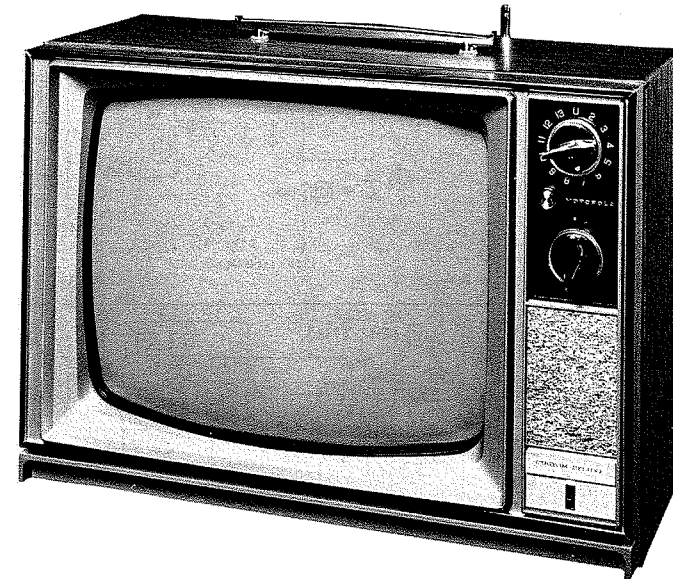
SET 667 FOLDER 1

MOTOROLA CHASSIS DTS-585/Y,
PDT5-585/Y, PFTS-585/Y, SDTS-585/Y

PHOTOFACT® Folder



MOTOROLA CHASSIS DTS-585/Y,
PDT5-585/Y, PFTS-585/Y, SDTS-585/Y



MODEL 19T40WG

TRADE NAME	MOTOROLA	Models	Chassis
		19T38BE, CH, P	SDTS-585
		19T39AW, CH	PDT5-585
		19T40MPG, WG	DTS-585
		23T27BE, BR, 23T28MG, MPG, WG	PFTS-585
		Y19T38BE, CH, P	SDTS-585Y
		Y19T39AW, CH	PDT5-585Y
		Y19T40MPG, WG	DTS-585Y
		Y23T27BE, BR, Y23T27MG, MPG, WG	PFTS-585Y
MANUFACTURER	Motorola Inc., 9401 W. Grand Avenue, Franklin Park, Illinois		
TYPE SET	Television Receiver		
TUBES	VHF - Fifteen, UHF - Sixteen		
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)		
		RATING	164 Watts, 1.4 Amp. @ 117 Volts AC

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.

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 Width Coil. (For location, see "Tube Placement Chart".)

OPTIMIZER CONTROL

The optimizer control should be used in conjunction with Fine Tuning, Contrast, and Brightness controls to reduce the snow effect in Fringe areas.

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.

MOTOROLA CHASSIS DTS-585/Y,
PDT5-585/Y, PFTS-585/Y, SDTS-585/Y

SET 667 FOLDER 1

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.

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SET 667 FOLDER 1

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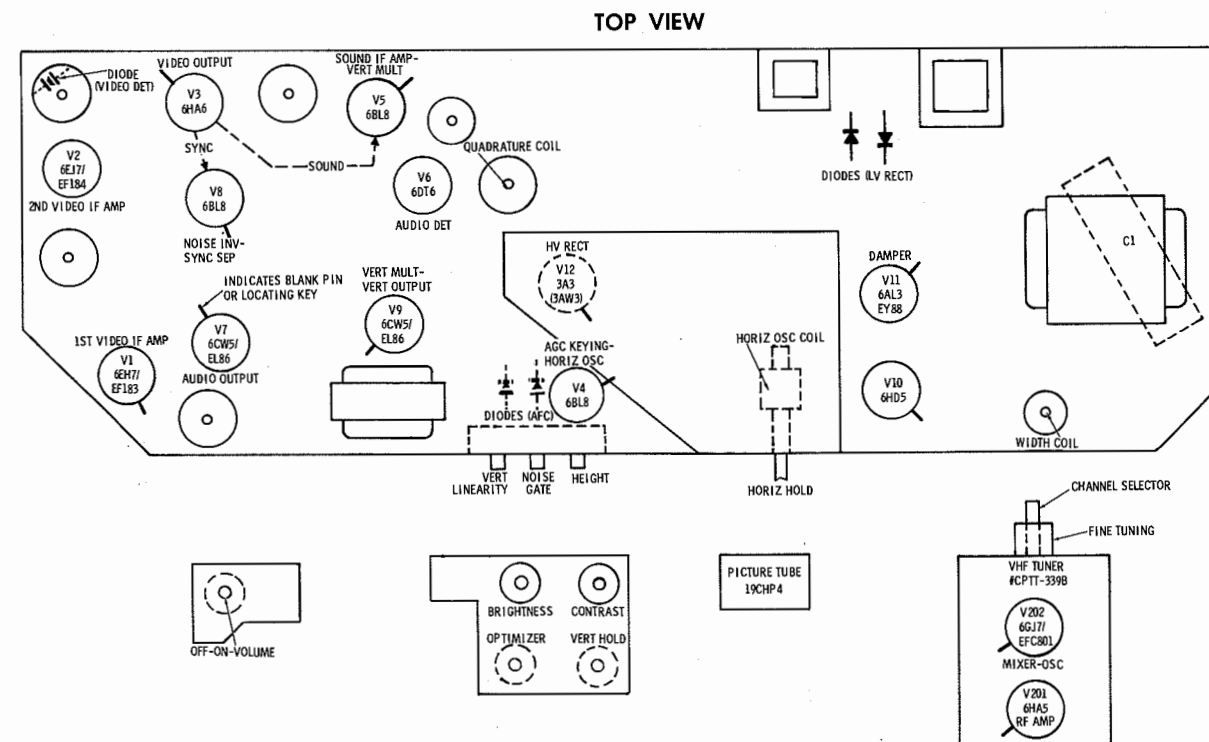
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6EH7/EF183	44Ω	688K	44Ω	FIL	FIL	0Ω	† 2200Ω	† 7800Ω	0Ω
V2	6EJ7/EF184	47Ω	.1Ω	47Ω	FIL	FIL	0Ω	† 1140Ω	† 1140Ω	0Ω
V3	6HA6	50Ω	.3100Ω	NC	FIL	FIL	† 1920Ω	† 3000Ω	NC	0Ω
V4	6BL8	# 2.4meg	1.5meg	† 920Ω	FIL	FIL	† 200K	2700Ω	† 920Ω	† 36K
V5	6BL8	1.5meg	470K	† 150K	FIL	FIL	† 150K	0Ω	10K	820K
V6	6DT6	2.8Ω	680Ω	FIL	FIL	† 1meg	† 11K	560K		
V7	6CW5/EL86	NC	280K	150Ω	FIL	FIL	NC	† 199Ω	NC	† 920Ω
V8	6BL8	† 25K	2.2meg	† 920Ω	FIL	FIL	† 153K	0Ω	1500Ω	900K
V9	6CW5/EL86	NC	1.7meg	0Ω	FIL	FIL	NC	† 335Ω	NC	† 1160Ω
V10	6HD5	FIL	TP	TP	0Ω	† 2200Ω	NC	7.5Ω	NC	NC
					Pin 10 NC	Pin 11 800K	Pin 12 0Ω			
V11	6HL3/EY88	NC	NC	NC	FIL	FIL	NC	NC	NC	† 10Ω
V12	3A3	PINS 1 THRU 8 - HAVE INFINITE RESISTANCE								TOP CAP 2meg
V13	19CHP4	FIL	68K	† 180K	0Ω	NC	NC	130K	FIL	
V201	6HA5	# 4.4meg	0Ω	FIL	FIL	† 6600Ω	0Ω	0Ω		
V202	6GJ7/ECF801	0Ω	150K	0Ω	FIL	FIL	† 2000Ω	† 48K	† 13K	10K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

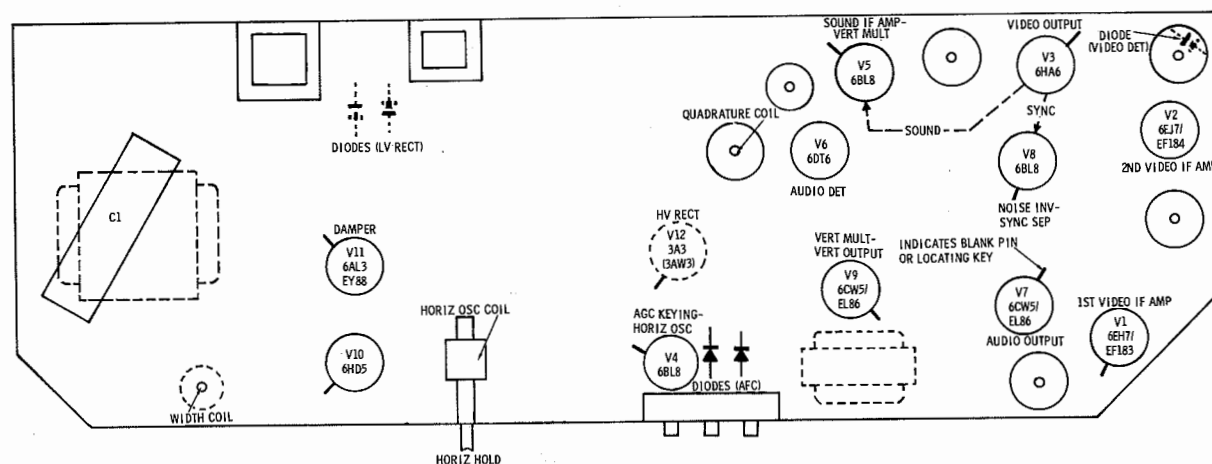
THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 † READING DEPENDS ON POLARITY OF METER CONNECTIONS.
 ‡ MEASURED FROM OUTPUT OF X1.
 § MEASURED FROM BOOST SOURCE.

TP TIE POINT
 NC NO CONNECTION
 ■ MEASURED FROM CAP OF V11.

TUBE PLACEMENT CHART



BOTTOM VIEW



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 M6, Selenium Rectifiers X1, X2

SWEEP FAILURE

No raster, has sound V4, V10, V11, V12, V13
 No vertical deflection V5, V9
 Poor vert. linearity or foldover V5, V9
 Poor horiz. linearity or foldover V4, V10, V11
 Narrow picture V4, V10, V11, X1, X2
 Vert. off freq. V5, V9
 Horiz. off freq. AFC Diodes M4, M5, V4

LOSS OF PICTURE OR SOUND

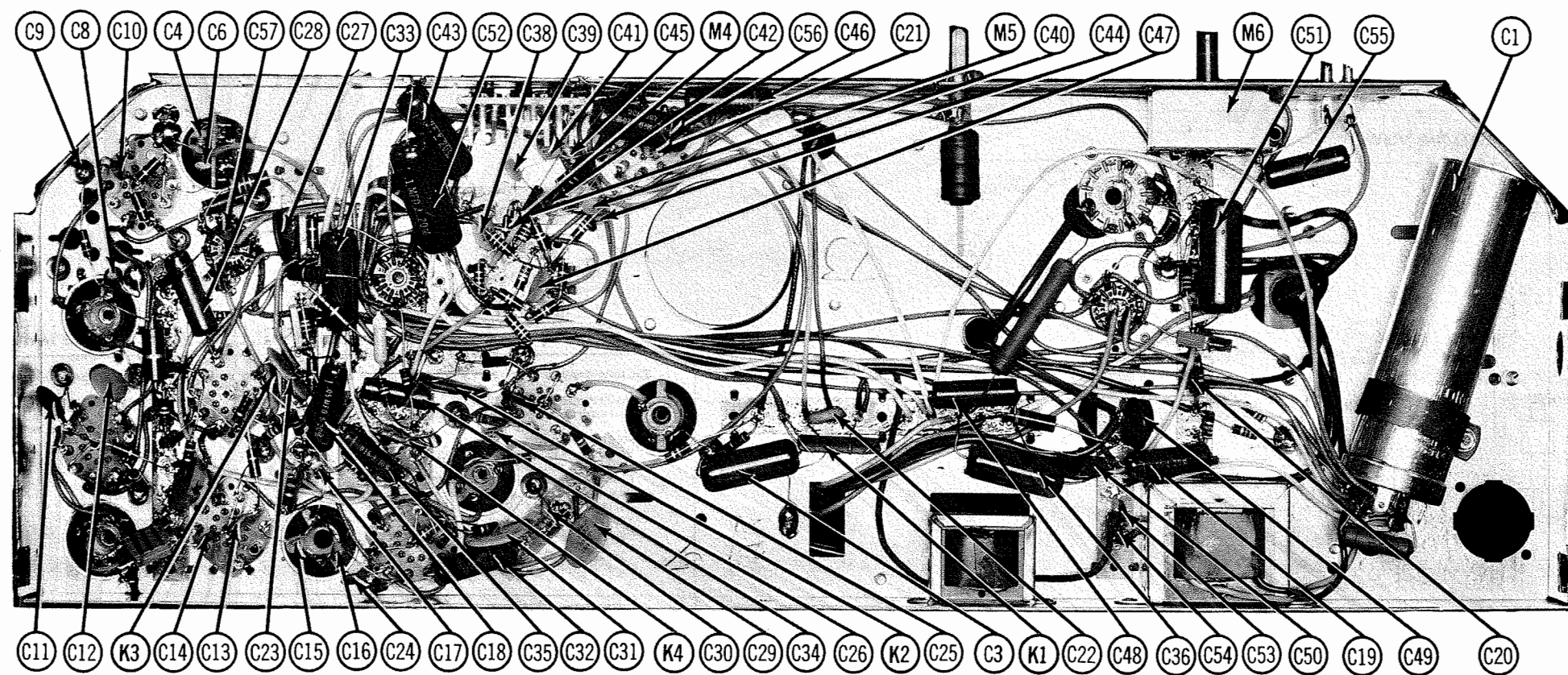
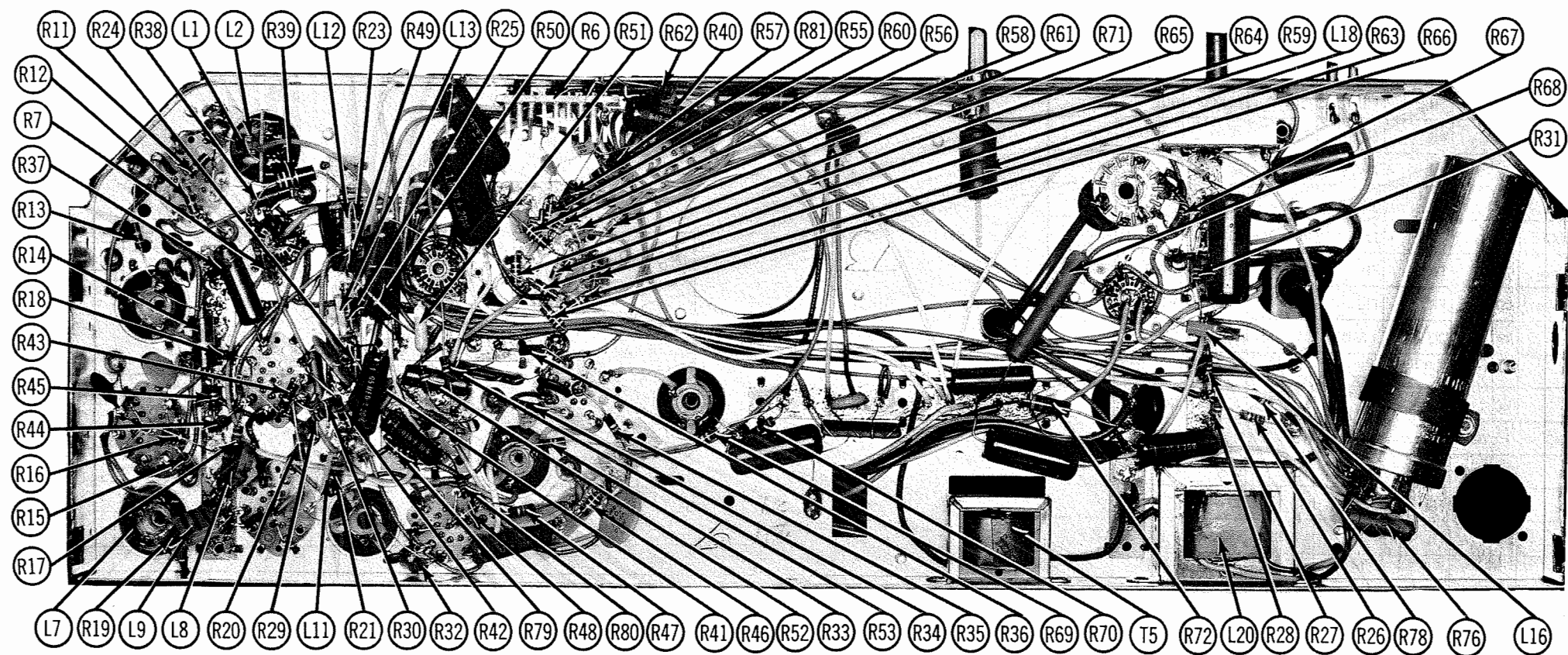
No pic, no sound, has raster V1, V2, Video Det. M3, V3
 No pic, no sound, has snow V201, V202, V1
 No pic, has sound, has raster V3, V13
 Has pic, no sound V5, V6, V7
 Overloaded picture V4

SYNC FAILURE

No vert. sync V8
 No horiz. sync V8
 No vert. or horiz. sync V8

TUBE PLACEMENT CHART

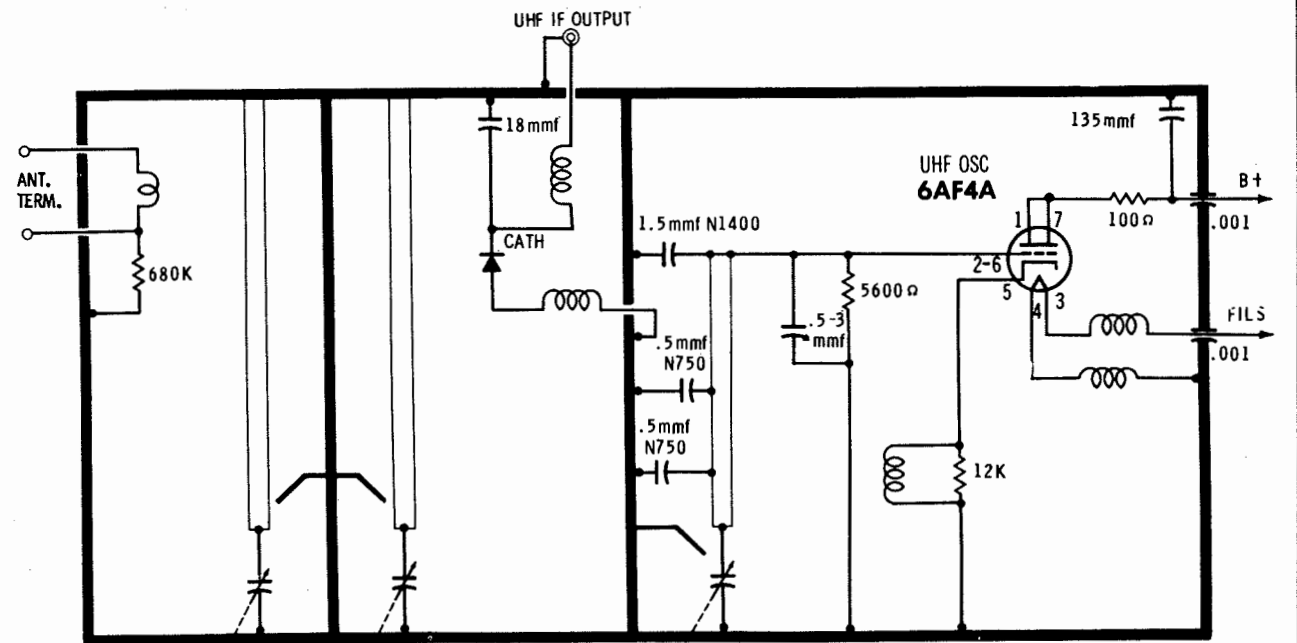
SET 667 FOLDER 1



CHASSIS-BOTTOM VIEW

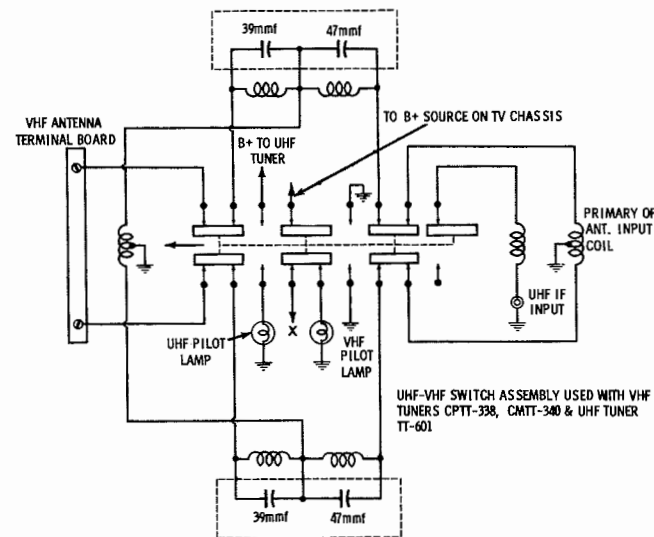
MOTOROLA CHASSIS
DTS-585/Y, PDTS-585/Y PPTS-585/Y, SDTS-585/Y

FOLDER 1



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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UHF TUNER VTT/MTT-601



ALT UHF TUNER SWITCHING CIRCUIT

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, 8608L, 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 \diamond) 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.

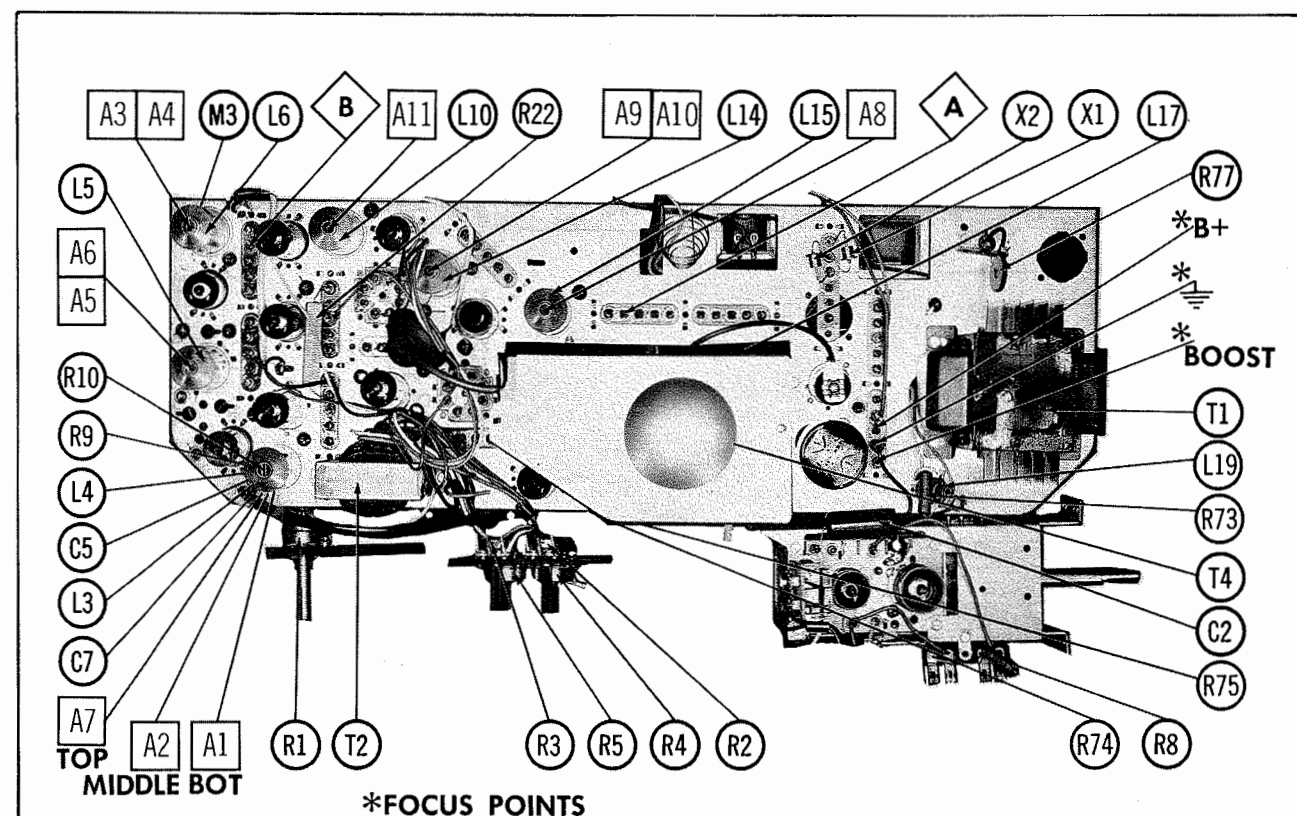
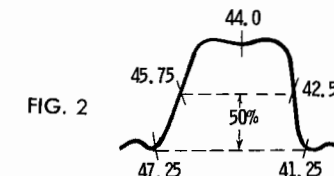
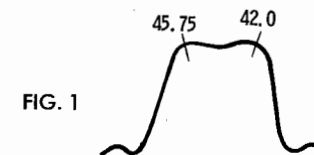
INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1. Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC 47.25MC	A1 A2	Adjust for MINIMUM.
2. Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to pin 2 (grid) of V2. 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 \diamond . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.5MC 44.0MC 45.75MC 47.25MC	A4, 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 A3, A4.

SOUND IF ALIGNMENT

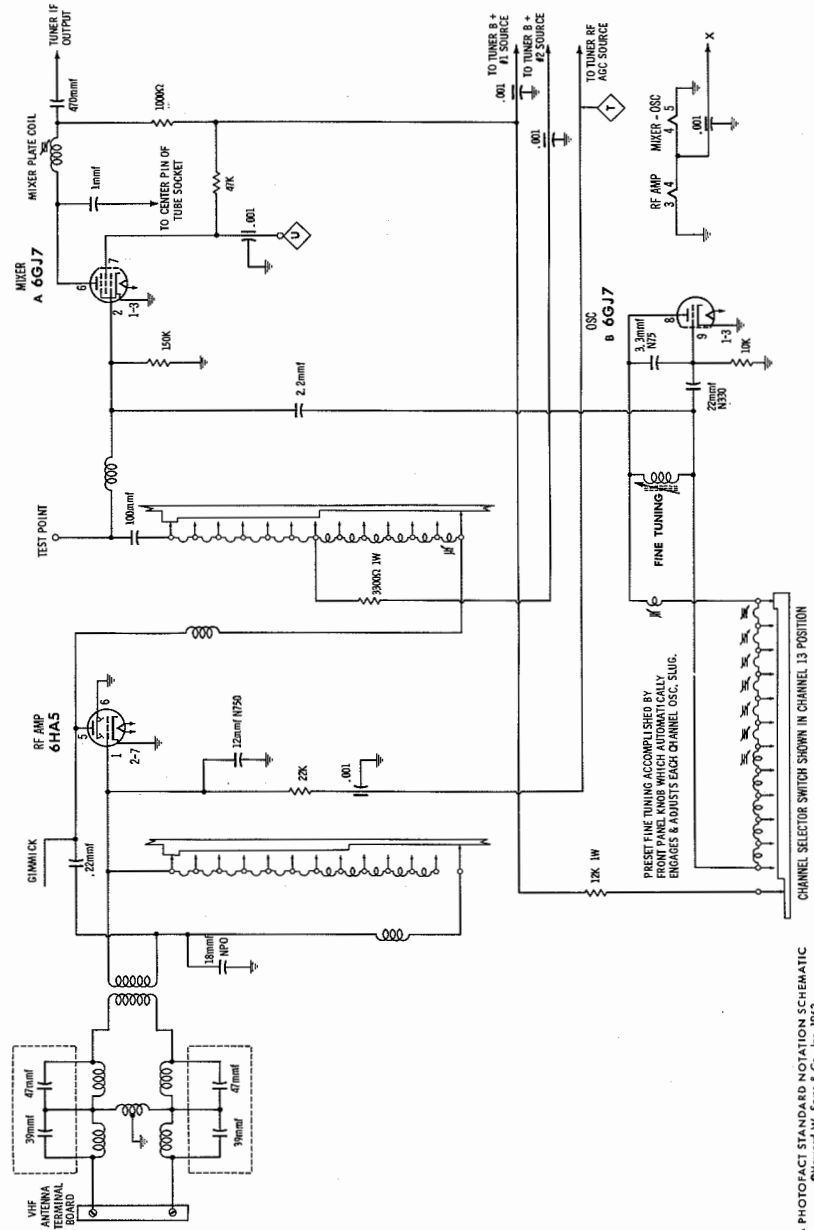
Tune in a station and adjust A8 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce signal while aligning for undistorted output by adjusting A8, A9, and A10.

4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A11 for MINIMUM beat interference.

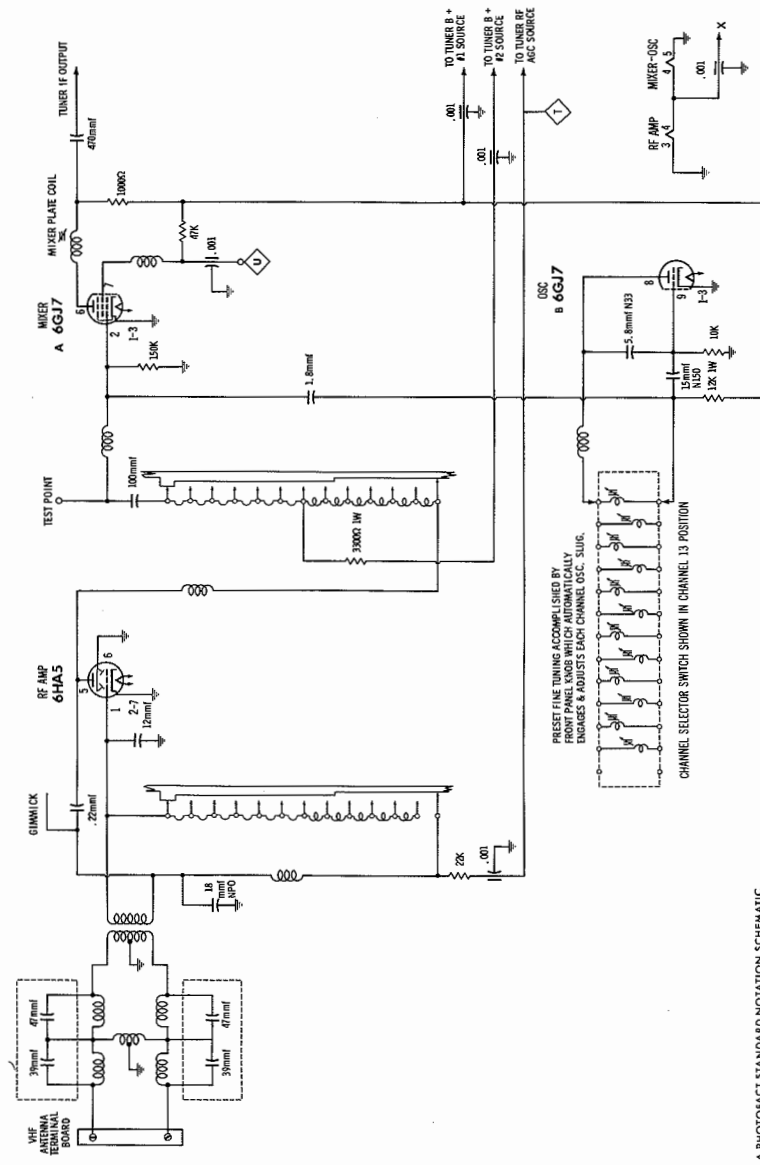


CHASSIS—TOP VIEW



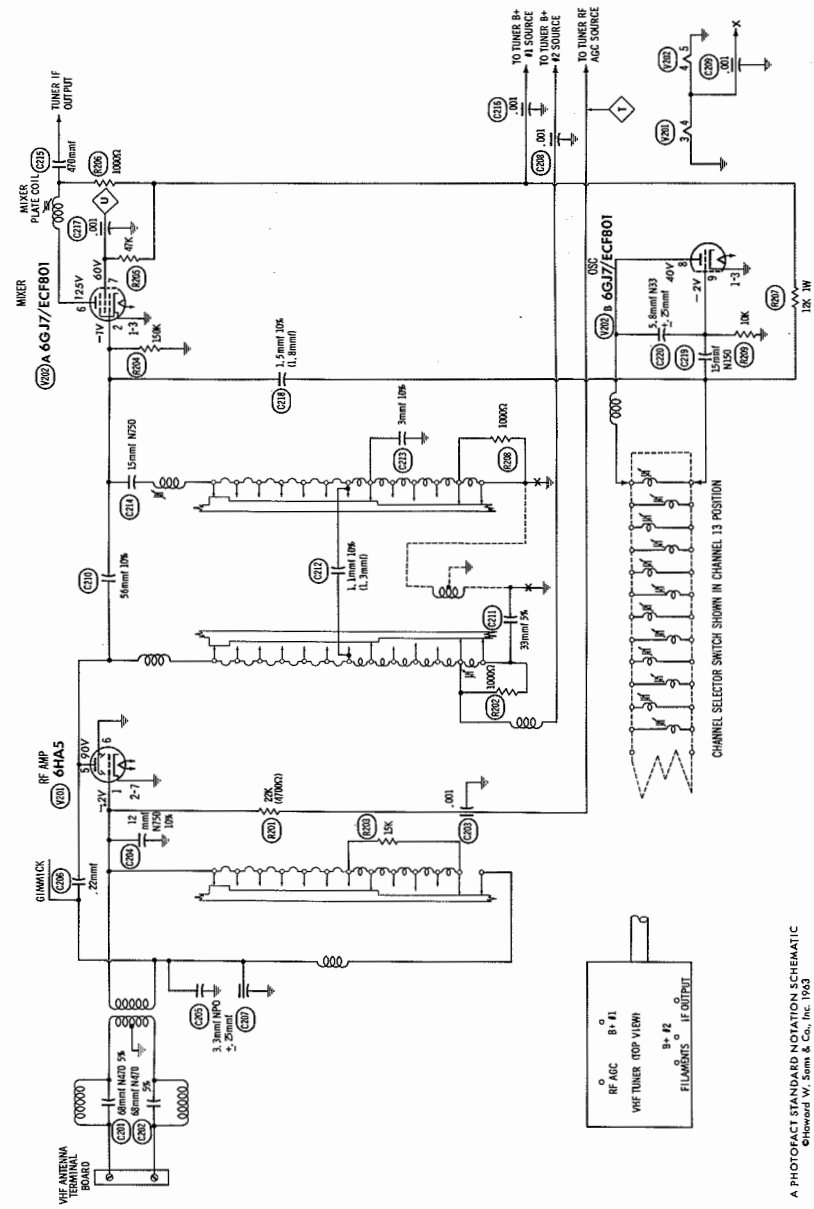
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13 POSITION WAFER-TYPE VHF TUNER CMTT-340



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13 POSITION WAFER-TYPE VHF TUNER CPTT-338



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13 POSITION WAFER-TYPE VHF TUNER CPTT-339B

DTS-585/Y, PDTS-585/Y PFTS-585/Y, SDTS-585/Y

MOTOROLA CHASSIS

VHF TUNER PARTS LIST AND DESCRIPTION

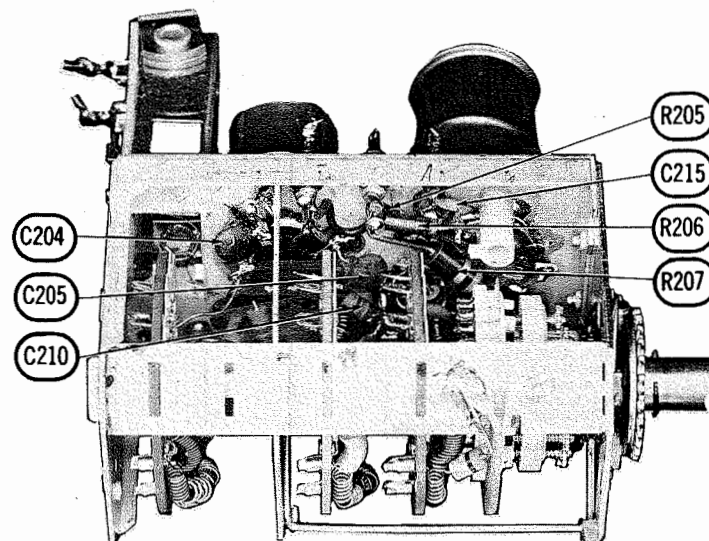
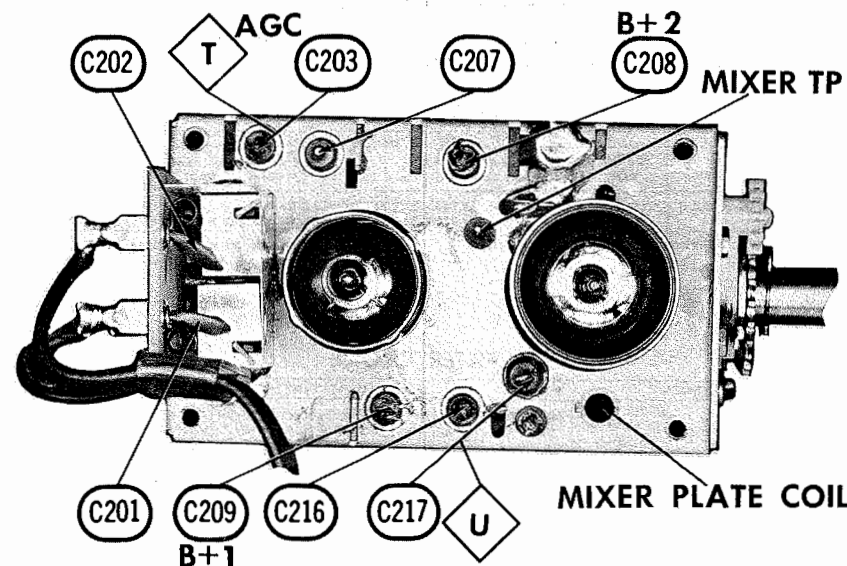
TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6HA5	V202	Mixer - Osc.	6GJ7/EFC801

FIXED CAPACITORS

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.
C201	68 N470 5%							10TCT-Q68
C202	68 N470 5%							10TCT-Q68
C203	.001		EF-001	MFT-1000 TCN-12		CCF-102	CT280A CN7-412	10TCU-Q12
C204	12 N750 10%			TCZ-3R3			CNO-533	10TCC-Q33
C205	3.3 NPO ±.25mmf							
C206	.22mmf							
C207	.001							
C208	.001		EF-001	MFT-1000		CCF-102	CT280A	
C209	.001		EF-001	MFT-1000		CCF-102	CT280A	
C210	58 10%							
C211	33 5%							
C212	1.1mmf 10%			DTZ-33	C10Q33C		CNO-433	10TCC-Q33
C213	3.0mmf 10%	(1.3mmf) ↑						
C214	15 N750		N750-DI 15	DTN-15	C10Q15U	CCTN-150	CN7-415	10TCU-Q15
C215	470		BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C216	.001		EF-001	MFT-1000		CCF-102	CT280A	
C217	.001		EF-001	MFT-1000		CCF-102	CT280A	
C218	1.5mmf 10%	(1.8mmf) ↑						
C219	15 N150							10TCP-Q15
C220	5.8 N33 ±.25mmf							

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



VHF TUNER ALIGNMENT INSTRUCTIONS

OSCILLATOR ALIGNMENT TUNER CMTT-340

Set Fine Tuning to center of its range. Starting with highest channel in area, adjust the appropriate oscillator screw for best picture and sound.

OSCILLATOR ALIGNMENT TUNERS CPTT-338, CPTT-339

The oscillator on each channel is preset by means of the fine tuning. Adjust the fine tuning for best picture and sound on each active channel.

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
Across antenna terminals with 120Ω in each lead.	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	Gimmick	Increase bias to -15 volts and adjust for MINIMUM amplitude of response curve.
"	213MC	211.25MC 215.75MC	13	Vert. Input to point (U), low side to ground.		Expand or compress coils for response similar to Figure 20L.
	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			

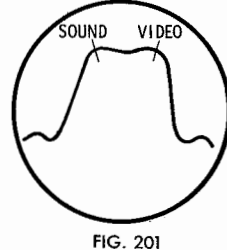
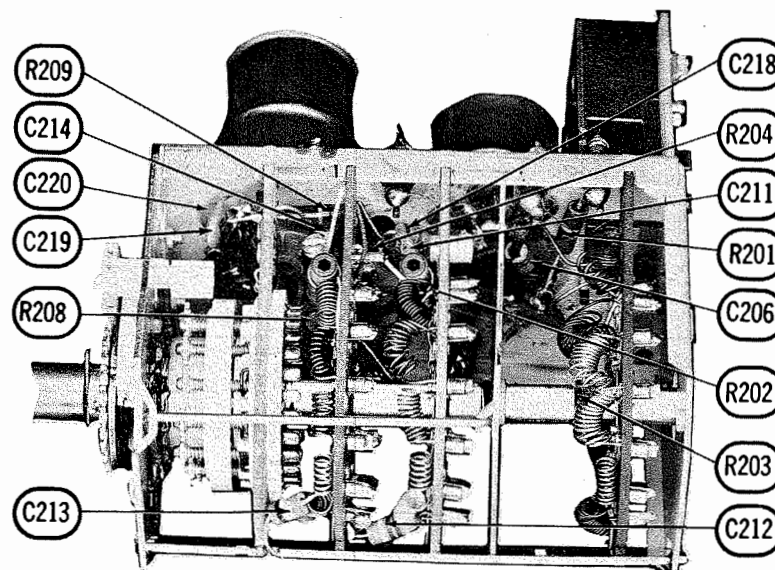


FIG. 20L



VHF TUNER CPTT- 339B

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.	6EH7/EF183	V7	Audio Output	6CW5/EL86
V2	2nd Video IF Amp.	6EJ7/EF184	V8	Noise Inverter - Sync Sep.	6BL8
V3	Video Output	6EA6	V9	Vert. Mult. - Vert. Output	6CW5/EL86
V4	AGC Keying - Horiz. Osc.	6BL8	V10	Horiz. Output	6BD5
V5	Sound Limiter-Vert. Mult.	6BL8	V11	Damper	6AL5/EY88
V6	Audio Detector	6DT6	V12	HV Rectifier	5A3 (3AW5) *

* Alternate

PICTURE TUBE

ITEM No.	MOTOROLA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	NOTES
V13	19CHP4 23CMP4	19CHP4 ①	19CHP4 ①	19CHP4 ②	① Aluminized ② Silver Screen "85"

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	MALLORY PART No.	RECTIFIERS PART No.	SARKIS TARZIAN PART No.
X1	.430A	48D6803TA04 ①	1N540 or 1N2070 ①	1N1784 or 1N2864	50H or F6
X2	.430A	48D6803TA04 ①	1N540 or 1N2070 ①	1N1784 or 1N2864	50H or F6

① Some versions may use Part #48D6803TA07 in this application.

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	100 200	23C65807A13						TVLS4479, 9*
C1B	350 200							
C1C	40 200							
C1D	30 200							

* 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	.5 50V		P288N-5		PM2P5	IDP-4-504	PVC105	2TM-P50
C3	.25 50V		P288N-25		PM2P5	IDP-3-254	PVC105	2TM-P25
C4	18 NPO 10%							10TCC-Q18
C5	27 NPO 5%							10TCC-Q18
C6	.001		BPD-001	TCZ-27	BYA10D1	CCD-102	CNO-427	5HK-D10
C7	22 NPO 5%			DD-102	C10Q22C	CCD-102	B-210	10TCC-Q22
C8	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C9	.001		DI-1000	DD-102	JB8D1	CCD-102	GP210	10TS-D10
C10	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C11	.0015 10%		DI-1500	DD-152		CCD-152	GP215	10TS-D15
C12	.0012 10%		DI-1200	DD-122	JB8D12	CCD-122	GP212	10TS-D12
C13	.001 10%		DI-1000	DD-102	JB8D1	CCD-102	GP210	10TS-D10
C14	.001 10%		DI-1000	DD-102	JB8D1	CCD-102	GP210	10TS-D10
C15	10 N750 5%		N750-DI 10	DTN-10	C10Q1U	CCD-102	CN7-410	10TCU-Q10
C16	10 N750 5%		N750-DI 10	DTN-10	C10Q1U	CCD-102	CN7-410	10TCU-Q10
C17	1.8 10%	(.51mmf) ↑						
C18	.05 200V		P288N-05	DF-503	PM2B5	4DP-3-503	PVC215	2TM-850
C19	.05 400V		P488N-05	DF-503	PM4B5	4DP-3-503	GEM-415	4TM-850
C20	4.7 NPO ±.5mmf		NPO-DI 4.7	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V47
C21	1.5 10%	#21K115859						
C22	470 2KV		HVD-30-470	DD30-471	HVB20T47	3CCD-471	2HV-347	30GA-T47
C23	.02		BPD-02	DD-203	BYA8S2	CCD-203	B-120	5HK-S20
C24	.001		DI-1000	DD-102	JB8D1	CCD-102	GP210	10TS-D10
C25	.005		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C26	330		BPD-00033	DD-331	LA10T33-C4	CCD-331	B-333	5GA-T33
C27	.1 1KV		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C28	.1 100V		P288N-1	DF-104	WMF1P1	IDP-2-104	PVC101	2TM-P10
C29	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C30	220		DI-220	DD-221	LA10T22-33	CCD-221	GP322	10TS-T22
C31	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C32	.05 400V 10%		BE485		PM4B5	4DP-3-503	PVC415	4TM-850
C33	.02 800V		P688N-02	DD-203	PM6B5	8DP-2-203	GEM-612	8TM-820
C34	.005 400V 10%		BE8D5	CF-502	PM6B5	8DP-1-502	PVC825	8TM-D50
C35	.015 200V 10%		BE2B15		WMF2B15	4DP-1-153	PVC2115	4TM-S15
C36	.033 800V		P688N-033	DD-303	PM6B5	8DP-3-333	GEM-6133	8TM-833
C37	81 3KV N1500 10%	(82) ↑						
C38	58 N150 10%	#21R124472						10TCC-Q58

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.
C39	.001	#21R132387	BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C40	22 N1500 1KV		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C41	.001	10%	P288N-25	DD-182	JB6D18	CCD-102	GP218	10TS-D18
C42	.0018		DI-470	DD-471	PM2P25	1DP-3-254	PVC1025	2TM-P25
C43	.25 50V	(.22) ↑ ②	BE6D39	CF-392	JB6T47	CCD-471	GP347	10TS-T47
C44	470 10%	10%	BE6D39	CF-392	PM6D39	6DP-1-392	PVC6239	6PS-D39
C45	.0039 400V 10%		BE6D68	CF-392	PM6D68	6DP-1-682	PVC4268	6TM-D68
C46	.0068 400V 10%	(.007) ↑	BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C47	.005	10%	BE483	DD-502	DPMS683	4DP-2-303	PVC613	4TM-S30
C48	.03 400V 10%							
C49	180 N2200 3KV 5%	(120) ↑ ③						
C50	180 N2200 3KV 5%	(120) ↑ ③						
C51	.1 600V	10%	P688N-1	DF-104	CUB6P1	6DP-4-104	GEM-601	6TM-P10
C52	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM-601	6TM-P10
C53	.001	10%	BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C54	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C55	.05 400V	10%	P488N-05	DF-503	PM485	4DP-3-503	GEM-415	4TM-S50
C56	.05 400V		P488N-05	DF-503	PM485	4DP-3-503	GEM-415	4TM-S50
C57	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10

① Part of a complete unit, Motorola Part #1V68512A05. ↑ Alternate Value
② Some versions may use component combination in lieu of individual capacitor. # Motorola Part Number
③ 23" Models use 91mmf; also some models may use component combinations.
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	2meg	18D65083A38-AN ①	F2-2meg, SU204, KR-1 or B-76, KR-1	A47-2meg-Z RS-2 ②, SWE-12	Q13-139, PQ 76-1	UA28A, SL2500 ②, US-41 or (RU28A, SL38, SL2500 ②, US-41) or (U55, US-25)
R2	Optimizer	5000Ω	18D6696A01-E	TT-10 or (F1-5000, SN104, AK-38)	A47-5000-S RS-2	B11-114, TM4 or (BU11, CF8, SS6)	TA53L or (RU53L, SL37, SL2500) or (UA53L, SL2500)
R3	Vertical Hold	1.5meg	18D6696A13-F	TT-742 or (F1-1.5meg, SN104, AK-38)	A47-1.5meg-S RS-2	B11-138, TM4 or (BU11, CF18, SS6) *	TA155L or (RU155L, SL37, SL2500) or (UA155L, SL2500)
R4	Brightness	100K	18D6696A09-E				
R5	Contrast	120Ω	18D6696A16-J				
R6A	Vertical Linearity	2meg	18D66401A08-F				
B	Noise Gate	3.4meg					
C	Vert Size	2meg					
	Horizontal Size	5000Ω	17D65820A18 ④				

① Chassis PFTS-585 combines Volume and Optimizer controls into a dual concentric, Part #18D65062A32.
② File flat.
③ Some versions may use Part #18D6696A06.
④ Not used in all versions.
* "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
R22	3300Ω 10W	PW10-3300	10W-SQ-3300	#6C66263A01 #6C65884A05	R73	18K 3W	PW3-910	3G-18K	#6C65884A04
R51	2Ω (Cold)				R76	910Ω 3W			
R54	(Thermistor)				R77	3V AC (Hot)			
R68	2200Ω 5W	PW5-2200	5W-SQ-2200	#17B65883A13					

Motorola Part Number

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 ② ③ ④					① Part of IF Input Assembly 1V68512A05.
L2	RF Choke (3 Turns)						
L3	47.25MC Trap						
L4	1st Video IF						
L5	2nd Video IF	24D68482A02	BC-566	74F828AP	RTC-8521	T960	
L6	3rd Video IF	24C65828A09					
L7	RF Choke (8.8uh)	24K749689	BC-673	6154	RTC-8586	T345	
L8	Peaking (200uh)	24K754360	BC-669	6112	RTC-8574	T341	
L9	Peaking (100uh)	1V68501A77	BC-668	74F825AI	RTC-9171	T339	
L10	4.5MC Trap	24C65828A15					
L11	Peaking (80uh)	24C65828A34	TV-208	6157	RTC-8589	T358	
L12	Peaking (90uh)	24K750825	BC-869	6112	RTC-8574	T341	
L13	Peaking (100uh)	1V68512A68	BC-565	74F886AP	RTC-8520	T859	
L14	Sound IF Interstage	1V68507A11					
L15	Quadrature	24C65828A17	BC-564	74F396AP	RTC-8518	T963	
L16	RF Choke (6.8uh)	24C65828A17					
L17	RF Choke (4.1uh)	24C68772A01					

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.	WORKMAN PART No.	
L18	Horiz. Osc. (Hold)	24D65853A02	TV-185 ①	8333 ① ②	RTC-8628 ①	HS-7 ①	T111 ①	TA128 ③	
L19	Width		MWC-2 ②	6318 ③	WC-7 ③	WC-33 ③	WLC-17 ③		

① Install plastic sleeve over metal adjustment screw.
② Disregard tap.
③ Relocate on rear panel of chassis for adjustment availability.

FILTER CHOKE

ITEM No.	RATINGS		REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
L20	.375ADC	10Ω	.24 Hy.	25C65806A09 (-P)	C-4084	C-2343	28C79	C-34X

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC ④ 1.4A	270VCT ④ .430A DC	6.3VAC ④ 7.8A	25D65863A14-AC (25D68841A05)					

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output Yoke (Horiz. 26MH) 114" (Vert. 18MH) ↑ Total (65MH each winding)	25D65840A15-AA					
T3	Yoke (used in models with 23" picture tube)	24D68928A02(-D)					
T4	Horiz. Output Pri. & Sec. windings Alt. Horiz. Output	24D68928A03					
		24D68258A14-W					
		24D65958A13					
		24D68258A13					

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.	
T5	2300Ω	6-8Ω	25B61632A01 (25D65984A14-Z)	A-2902	A-3849	24584	S-54X	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MOTOROLA PART No.	QUAM PART No.	
SP1	4" PM 6-8Ω	50D66232A07	4A0728	19T40 Model Series 19T38, 19T39 Model Series 23T27, 23T28 Model Series
	4" PM 6-8Ω	50K751421	4A128	
	3" x 5" PM 6-8Ω	50C752927	35A0528	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K1	AGC Coupler	680K, 2.2meg, 2.2meg, 6.8meg	51D67058A07 ①	① Some versions may use Part #51D65239A20 in this application.
K2	Audio Detector Network	1meg, 470mmf, .0015mf	51D65239A20	
K3	Sync Coupling	100K, 470mmf, .0047mf	51D67058A04	
K4	Vertical Oscillator Network	5800Ω, 27K, 270K, .0033mf	51D67058A02	

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M1	VHF Tuner VHF Tuner VHF Tuner VHF Tuner UHF Tuner	CPTT-339B CPTT-339 CPTT-338 CMTT-340 VTT-601	Used in Models 19T40, Y19T40 Series Used in Models 19T40, Y19T40 Series Used in Models Y19T39, Y/23T27, Y/23T28 Series. Used in Models 19T38, Y19T38 Series
M2	Antenna	1C66120A01	JFD REPLACEMENT TA-415
M3	Diode	48C65837A01	Video Detector
M4	Diode	48B66628A01	Horizontal AFC
M5	Diode	48B66628A01	Horizontal AFC
M6	Circuit Breaker	80C66390A01	

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART NO.	MODELS									
		19T38 Series	Y19T38 Series	19T39 Series	Y19T39 Series	19T40 Series	Y19T40 Series	23T27 Series	Y23T27 Series	23T28 Series	Y23T28 Series
Safety Glass	6K66250A01	X	X	X	X	X	X				
Safety Glass	61D65855A03							X	X	X	X
Safety Glass, Tinted	61D65855A02							X	X	X	X
Bezel, Gold	13E66967A19	X	X								
Bezel, Gold	13E66967A09			X	X						
Bezel, Gold	13E66967A13					X	X				
Bezel, Gold	13E66973A14							X			
Bezel, Gold	13E66973A15								X		
Bezel, Gold	13E66973A10									X	
Bezel, Gold	13E66973A12										X
Knob, VHF Channel Sel.	36D67004A07	X	X								
Knob, VHF Channel Sel.	1V66513A68			X	X	X	X				
Knob, VHF Channel Sel.	36D66981A04							X	X	X	X
Knob, Fine Tuning	36D67007A01	X	X								
Knob, Fine Tuning	36D67007A03			X	X	X	X				
Knob, Fine Tuning	36D66962A03							X	X	X	X
Knob, UHF Channel Sel.	1V66513A69		X		X		X				
Knob, UHF Tuning	36C66975A03								X		X
Knob, Volume, On-Off	1V66513A69	X		X		X					
Knob, Volume, On-Off	36C67001A03		X		X		X				
Knob, Volume, On-Off	36C66956A03							X		X	
Knob, Volume, On-Off	36C66963A04								X		X
Knob, Optimizer	36C66962A07							X		X	
Knob, Optimizer	36C66958A01								X		X
Cabinet, Beige	16F66985A25	Models	19T38,	Y19T38BE							
Cabinet, Charcoal	16F66985A27	Models	19T38,	Y19T38CH							
Cabinet, Pink	16F66985A26	Models	19T38,	Y19T38CH							
Cabinet, Antique White	16F66985A03	Models	19T39,	Y19T39AW							
Cabinet, Charcoal	16F66985A12	Models	19T39,	Y19T39CH							
Cabinet, Maple Grained	16F6698A14	Models	19T40,	Y19T40MPG							
Cabinet, Walnut Grained	16F66985A08	Models	19T40,	Y19T40WG							
Cabinet, Beige	16E66964A14	Models	23T27,	Y23T27BE							
Cabinet, Brown	16E66964A15	Models	23T27,	Y23T27BR							
Cabinet, Mahogany Grained	16E66964A05	Models	23T28,	Y23T28MG							
Cabinet, Maple Grained	16E66964A06	Models	23T28,	Y23T28MPG							
Cabinet, Walnut Grained	16E66964A03	Models	23T28,	Y23T28WG							