

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune to a TV station and adjust all controls for normal operation. Turn the Horizontal Hold Control, R3, clockwise until the picture loses sync, then turn counterclockwise until the picture just falls into sync.

DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL**

  1. Remove 6 screws from rear cover and remove 2 bolts holding antenna terminal board. Turn terminal board 90° and put board back through opening.
  2. Remove rear cover from cabinet and remove 4 control knobs from top of cabinet.
  3. Loosen clamp on yoke, unplug yoke from chassis, and remove yoke.
  4. Remove 2 Phillips screws from bottom of chassis and lift chassis
- up and outward. **Note:** To remove chassis, take care not to damage speaker mounted on top of chassis.

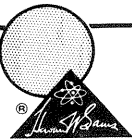
**PICTURE TUBE REMOVAL**

  1. Follow "Chassis Removal" instructions and lay cabinet face down on a soft protective surface.
  2. Remove picture tube ground clamp from left side of picture tube.
  3. Remove copper wire and remove picture tube.

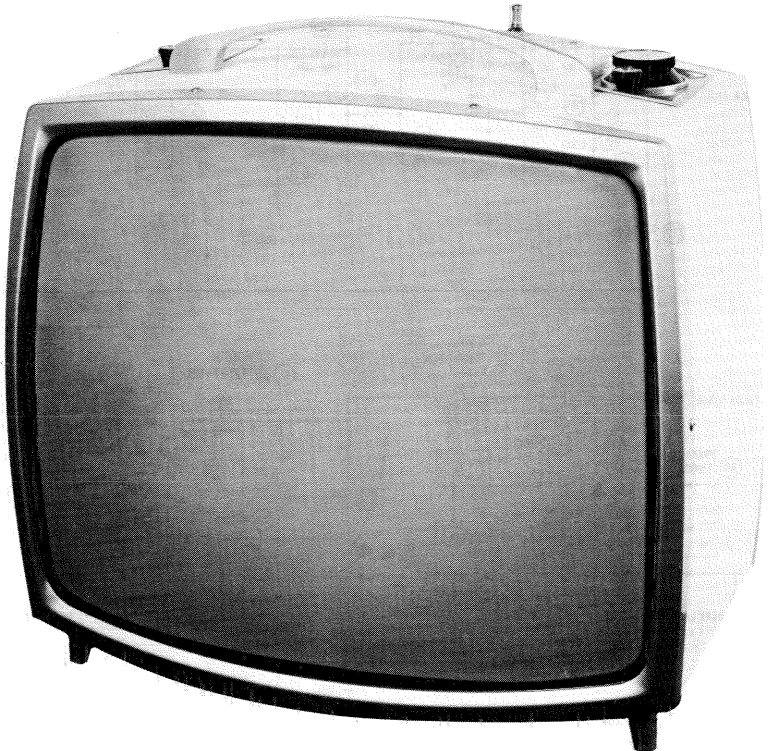
SET 742 FOLDER 3

SETCHELL-CARLSON  
MODELS 19P65U, 19T65U

PHOTOFACT® Folder



SETCHELL-CARLSON  
MODELS 19P65U, 19T65U



MODEL 19P65U

TRADE NAME	Setchell Carlson Models 19P65U, 19T65U, Chassis 301		
SUPPLIER	For current address, see Master Index.		
TYPE SET	Television Receiver		
TUBES	VHF - Sixteen, UHF - Seventeen		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	118 Watts, 1.2 Amps. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

SERVICING IN THE FIELD

SAFETY GLASS

The safety glass is an integral part of the picture tube.

FUSE OR FUSE DEVICE

A 3 Amp. 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

The fine tuning mechanically engages osc. slug for adjustment (one slug for each channel).

AGC

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

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

The Horizontal Multivibrator Circuit is adjusted by the Horizontal Hold Control.

FOCUS

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

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. NA113

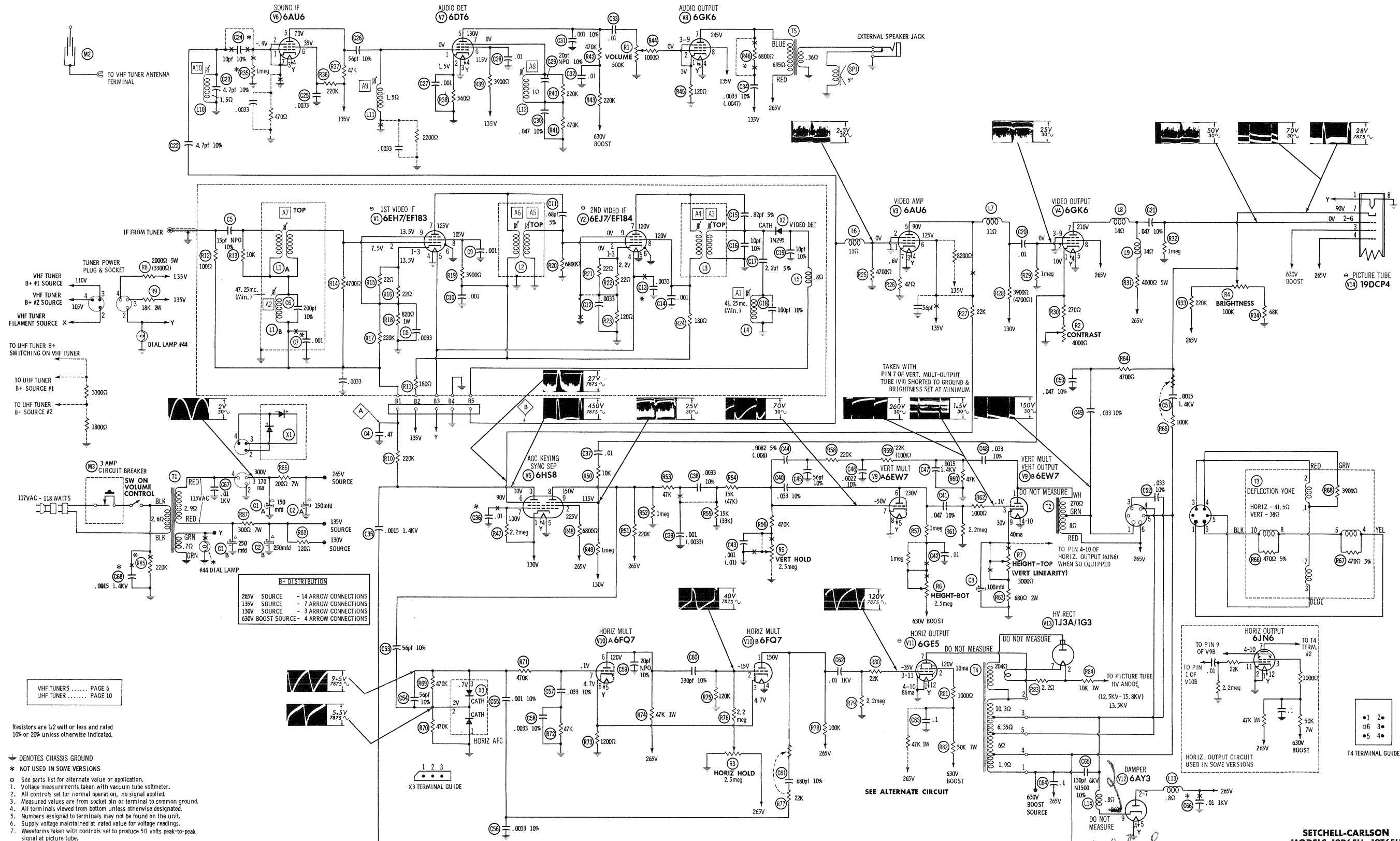
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VHF TUNERS ..... PAGE 6  
UHF TUNER ..... PAGE 10

Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

⊕ DENOTES CHASSIS GROUND  
\* NOT USED IN SOME VERSIONS

- See parts list for alternate value or application.
- Voltage measurements taken with vacuum tube voltmeter.
- All controls set for normal operation, no signal applied.
- Measured values are from socket pin or terminal to common ground.
- All terminals viewed from bottom unless otherwise designated.
- Numbers assigned to terminals may not be found on the unit.
- Supply voltage maintained at rated value for voltage readings.
- Waveforms taken with controls set to produce 50 volts peak-to-peak signal at picture tube.

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MODELS 19P65U, 19T65U

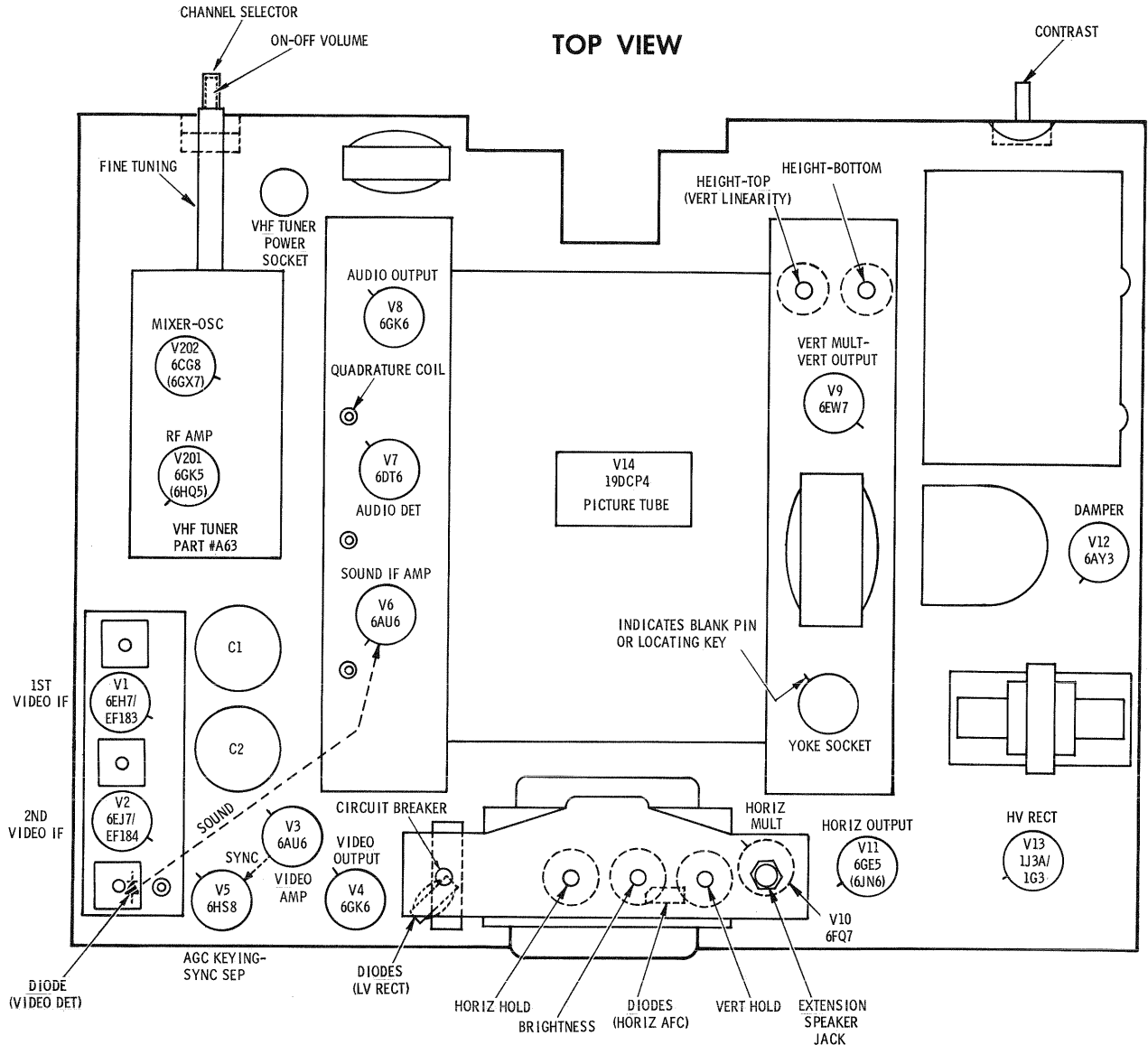
T4 TERMINAL GUIDE

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
V1	6EH7/ EF183	832Ω	200K	832Ω	FIL	FIL	0Ω	▲ 480Ω	▲ 4380Ω	820Ω			
V2	6EJ7/ EF189	131Ω	0Ω	131Ω	FIL	FIL	0Ω	▲ 660Ω	▲ 660Ω	0Ω			
V3	6AU6	● 250Ω	0Ω	FIL	FIL	▲ 4320Ω	▲ 300Ω	47Ω					
V4	6GK6	1000Ω	1meg	0Ω	FIL	FIL	NC	† 4225Ω	† 200Ω	NC			
V5	6HS8	▲ 420Ω	† 7000Ω	440K	FIL	FIL	▲ 26K	▲ 2.2meg	† 220K	▲ 1meg			
V6	6AU6	1meg	0Ω	FIL	FIL	FIL	▲ 47K	0Ω					
V7	6DT6	1.5Ω	560Ω	FIL	FIL	FIL	† 690K	470K					
V8	6GK6	120Ω	100K	NC	FIL	FIL	NC	† 895Ω	▲ 300Ω	120Ω			
V9	6EW7	† 478Ω	NC	2.2meg	FIL	FIL	† 3meg	1.5meg	0Ω	1000Ω			
V10	6FQ7	† 100K	120K	1200Ω	FIL	FIL	† 47K	1.5meg	1200Ω	NC			
V11	6GE5	FIL	† 50K	NC	NC	NC	NC	† 11.1Ω	NC	NC	0Ω	2.2meg	FIL
V12	6AY3	NC	NC	NC	FIL	FIL	NC	† 200Ω	NC	INF			
V13	1J3A/1G3												TOP CAP # 215Ω
V14	19DCP4	FIL	1meg	† 15Ω	† 200Ω	NC	NC	140K	FIL				
V201	6GK5	0Ω	3meg	FIL	FIL	† 19K	NC	0Ω					
V202	6CG8	4700Ω	▲ 7000Ω	0Ω	FIL	FIL	▲ 3300Ω	▲ 2300Ω	0Ω	225K			
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12

● READING DEPENDS ON POLARITY OF METER CONNECTIONS. ▲ MEASURED FROM JUNCTION OF C1B & R87.  
† MEASURED FROM PIN 3 OF RECTIFIER SOCKET. NC NO CONNECTION † MEASURED FROM PIN 9 OF V12.

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 M3, Rectifier X1

SWEEP FAILURE  
No raster, has sound V10, V11, V12, V13, V14  
No vertical deflection V9  
Poor vert. linearity or foldover V9  
Poor horiz. linearity or foldover V10, V11, V12  
Narrow picture V10, V11, V12, X1  
Vert. off freq. V9  
Horiz. off freq. AFC Diode X3, V10

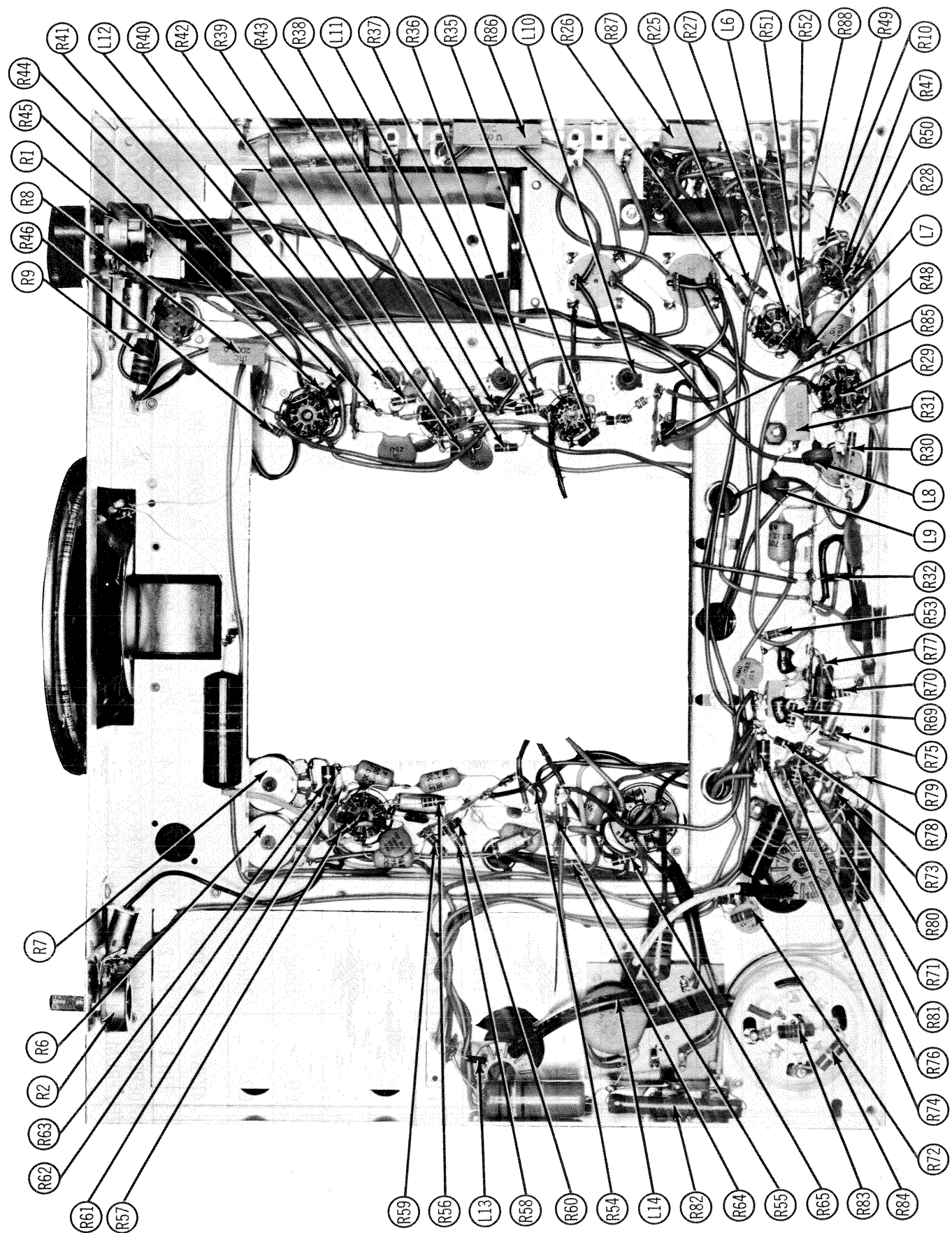
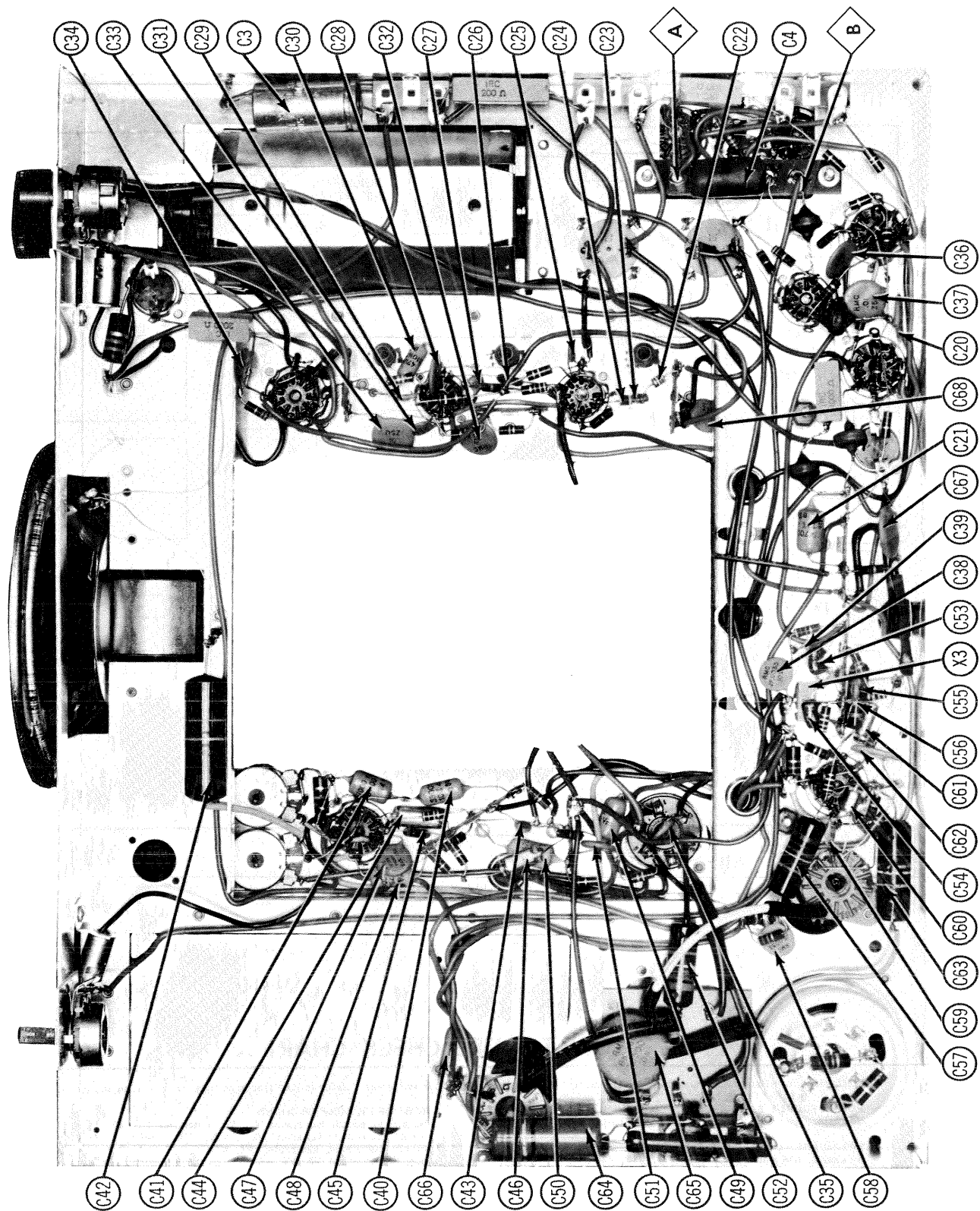
LOSS OF PICTURE OR SOUND  
No pic, no sound, has raster V1, V2, Video Det. X2, V3  
No pic, no sound, has snow V201, V202, V1  
No pic, has sound, has raster V4, V14  
Has pic, no sound V8, V7, V8  
Overloaded picture V5

SYNC FAILURE  
No vert. sync V5  
No horiz. sync V5  
No vert. or horiz. sync V5

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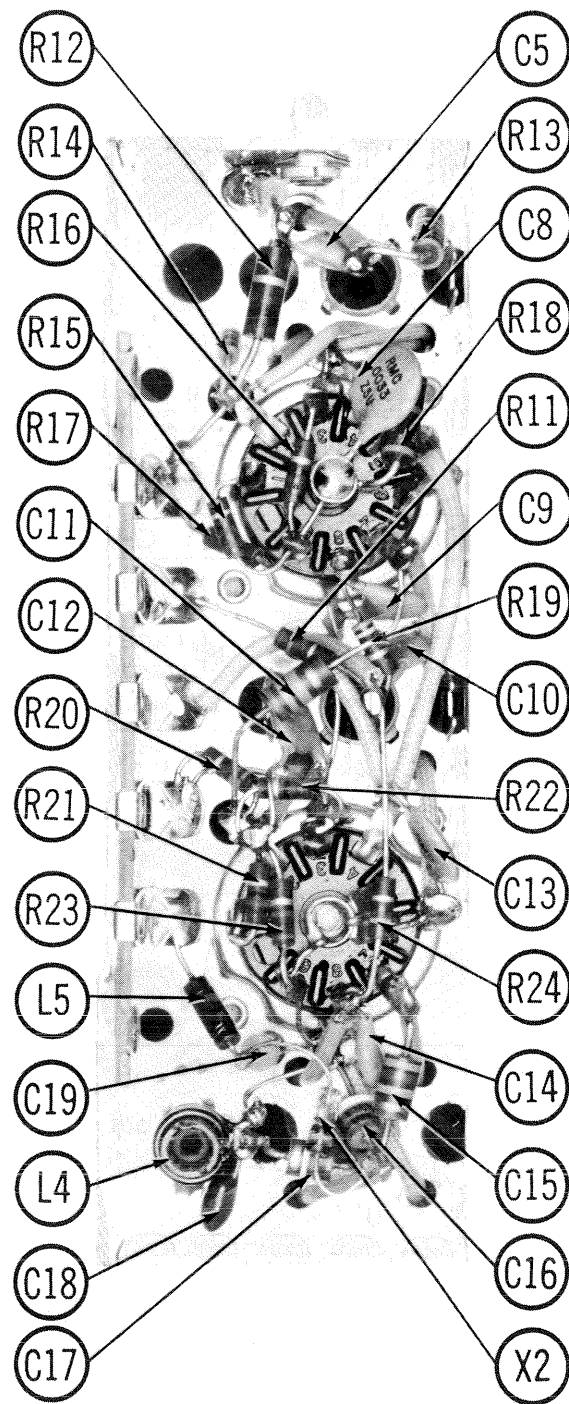




CHASSIS-FRONT VIEW

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VIDEO IF SUBCHASSIS-BOTTOM VIEW

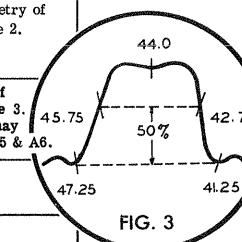
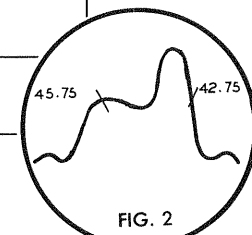
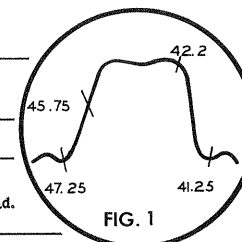
## ALIGNMENT INSTRUCTIONS

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: A2 thru A7 ... GENERAL CEMENT #8606, 8869, 9302 ... WALSCO #2511, 2543, 2588  
A1, A8, A9, A10 and Mixer Plate Coil ... GENERAL CEMENT #9296, 9300, 9302 ... WALSCO #2510, 2511, 2547

### VIDEO IF ALIGNMENT

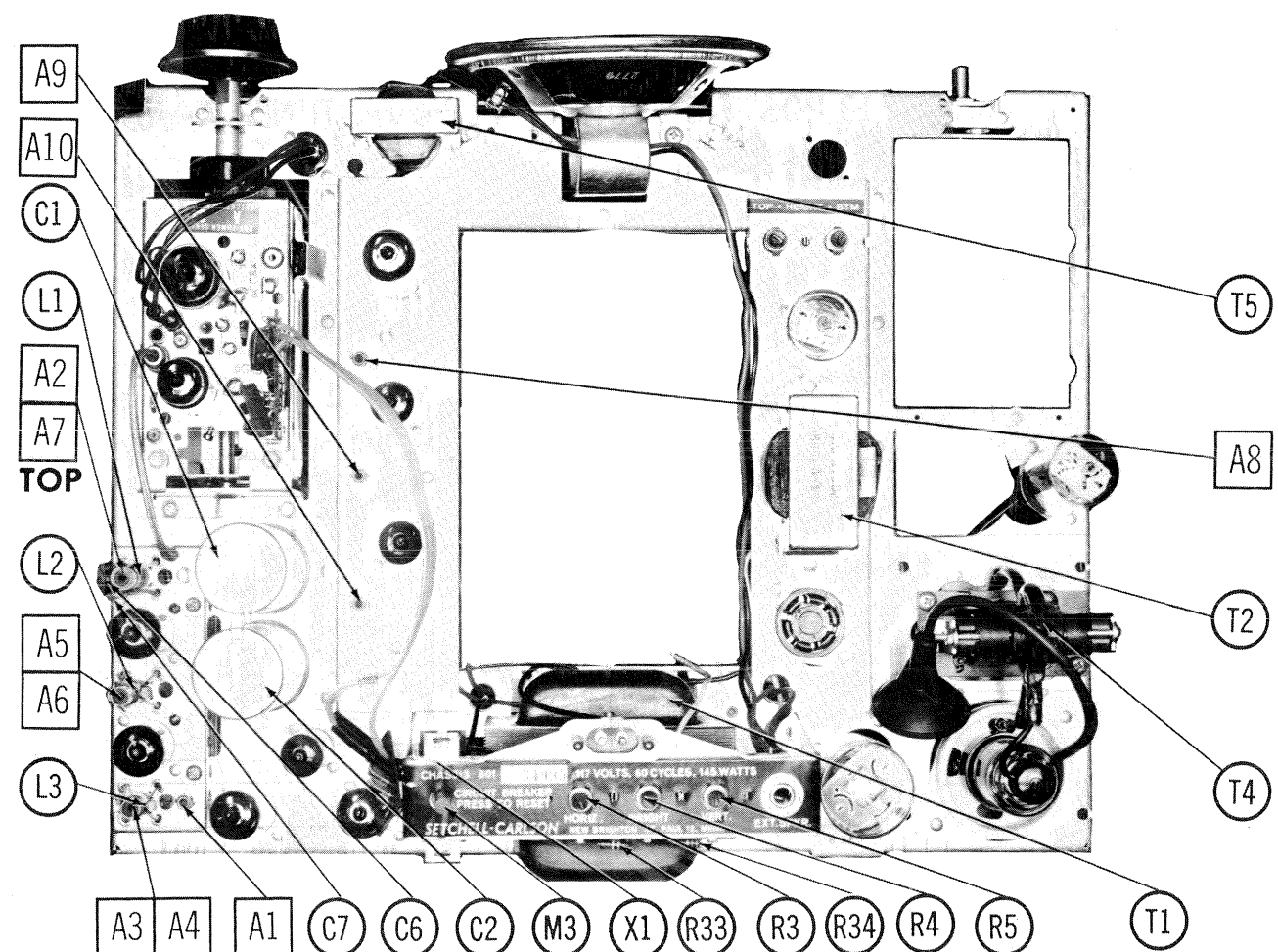
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point  $\Delta$ ) 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 $\Delta$ . 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 $\Delta$ . Low side to ground.	Connect high side to pin 2 (grid) of V2. Low side to ground.		42.2MC 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 $\Delta$ . Low side to ground.	Connect high side to pin 2 (grid) of V1. Low side to ground.	44MC (10MC Sweep)	42.75MC 45.75MC	A5, A6	Adjust for maximum amplitude and symmetry of response with markers as shown in Figure 2.
4.	Connect vertical input of a scope to point $\Delta$ . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.75MC 44.0MC 45.75MC 47.25MC	A7 and Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 3. In order to obtain a proper response, it may be necessary to slightly retouch A3, A4, A5 & A6.



### 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 A9 and A10.

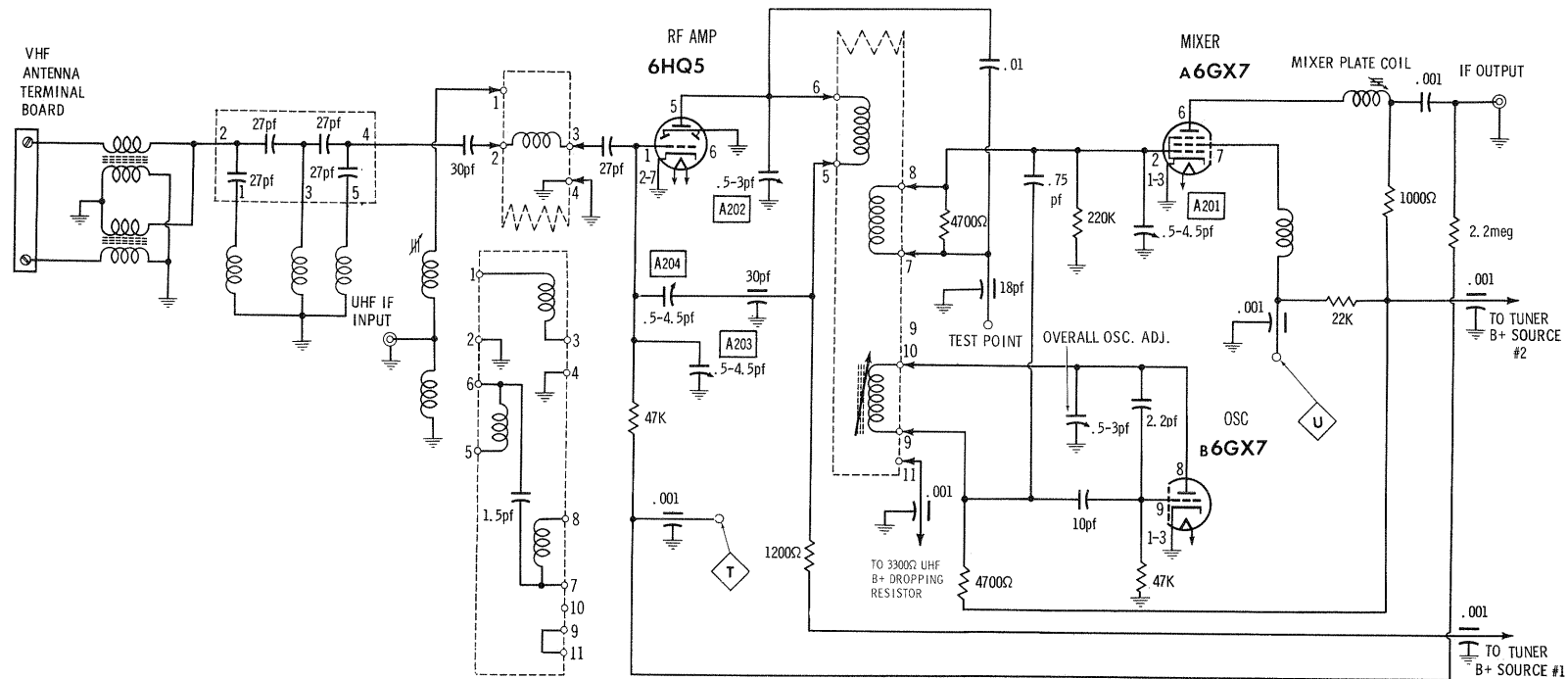


CHASSIS-REAR VIEW

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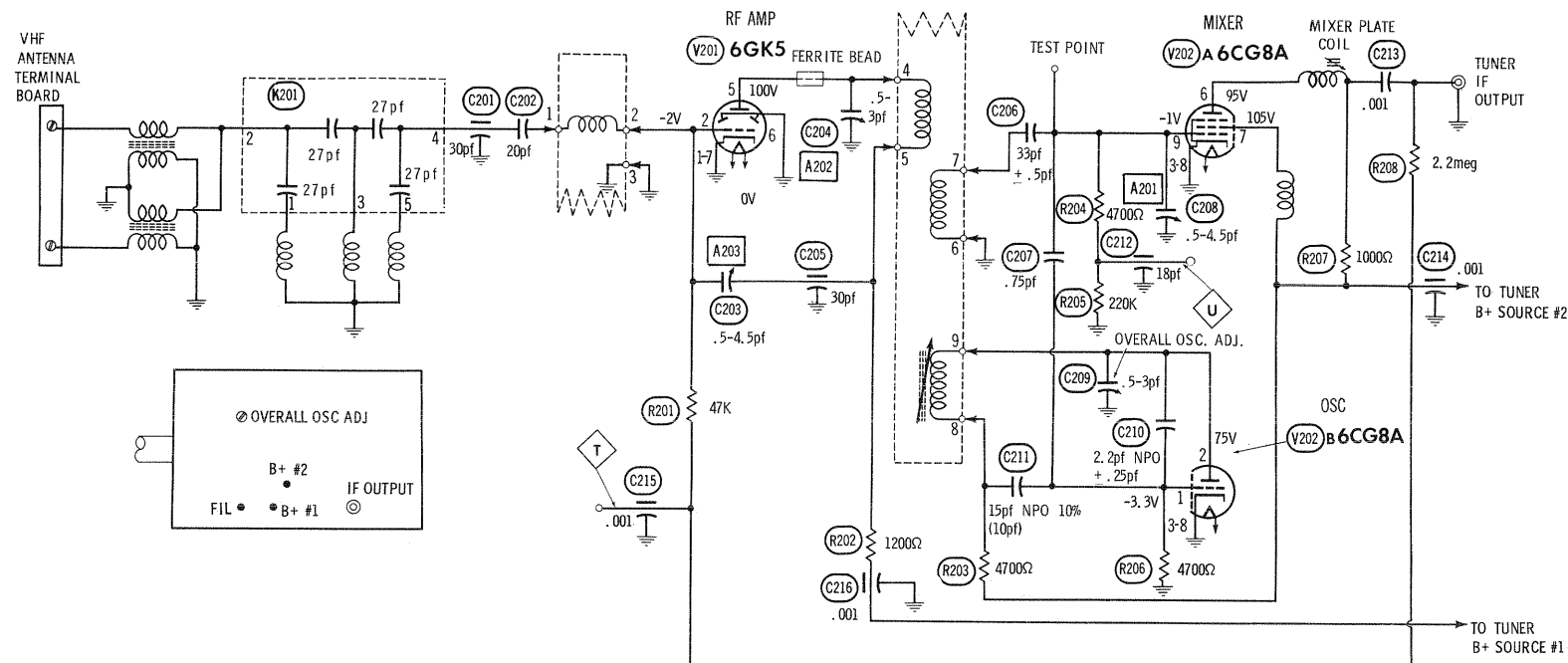
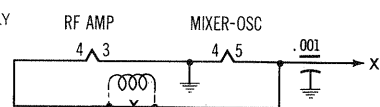
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### 13 POSITION TURRET-TYPE VHF TUNER A-V65

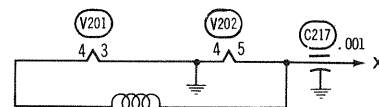
PRESET FINE TUNING MECHANICALLY  
ADJUSTS EACH CHANNEL  
OSC. SLUG



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### 13 POSITION TURRET-TYPE VHF TUNER A-63

PRESET FINE TUNING MECHANICALLY  
ADJUSTS EACH CHANNEL  
OSC. SLUG



### VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT #8868, 8987, 9089; WALSCO #2531-X, 2541, 2587

#### OSCILLATOR ADJUSTMENTS

The oscillator for each channel is preset by means of the fine tuning control. Adjust fine tuning for best picture and sound on each channel. If any channel cannot be properly tuned in with the fine tuning, adjust overall oscillator adjustment and recheck all available 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 a variable bias to the 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.	213MC	211.25MC 215.75MC	13	Vert. Input to Point U, low side to ground.	A201, A202	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A203	Increase bias to -15 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 2	Vert. Input to Point U, low side to ground.		Decrease bias. Check response on all channels and make compromise adjustments of A201 and A202 if required.
SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point U, low side to ground.	A201, A202, A203	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A204	Increase bias to -15 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 2	Vert. Input to Point U, low side to ground.		Decrease bias. Check response on all channels and make compromise adjustments of A201, A202 and A203 if required.

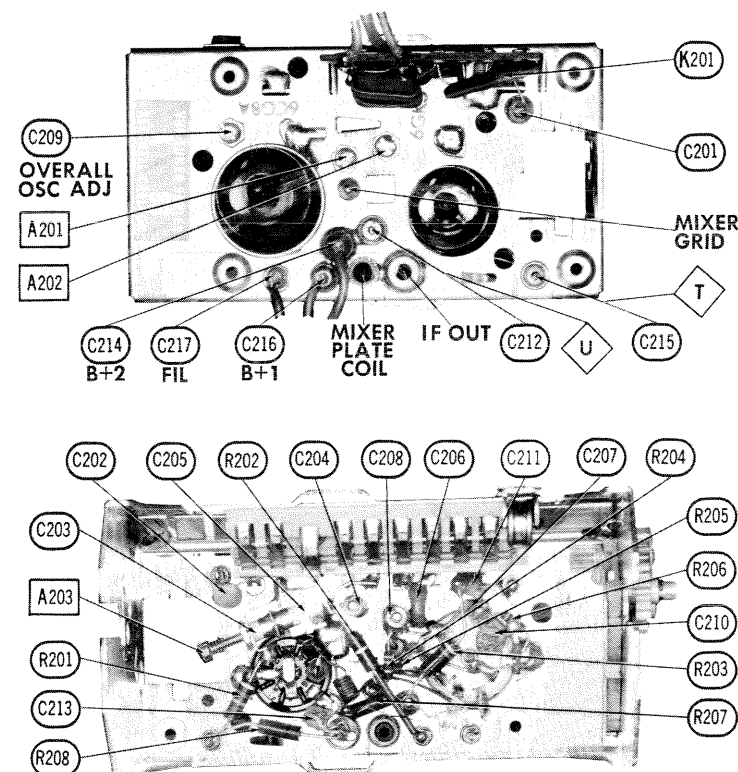
### CHANNEL & FREQUENCY CHART

SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL
57MC	55.25MC 59.75MC	2	85MC	83.25MC 87.75MC	6	193MC	191.25MC 195.75MC	10
63MC	61.25MC 65.75MC	3	177MC	175.25MC 179.75MC	7	201MC	199.25MC 203.75MC	11
69MC	67.25MC 71.75MC	4	183MC	181.25MC 185.75MC	8	207MC	205.25MC 209.75MC	12
79MC	77.25MC 81.75MC	5	189MC	187.25MC 191.75MC	9	213MC	211.25MC 215.75MC	13



FIG. 201

Tune to a UHF station and adjust UHF IF Input Coil for best picture and sound.



### VHF TUNER A-63

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VHF TUNER PARTS LIST AND DESCRIPTION

TUNER # A-63

TUBES

♦ AMPEREX ♦			♦ GENERAL ELECTRIC ♦			♦ RCA ♦			♦ SYLVANIA ♦		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V201	RF Amp.		6GK5			V202	Mixer - Osc.		6CG8		

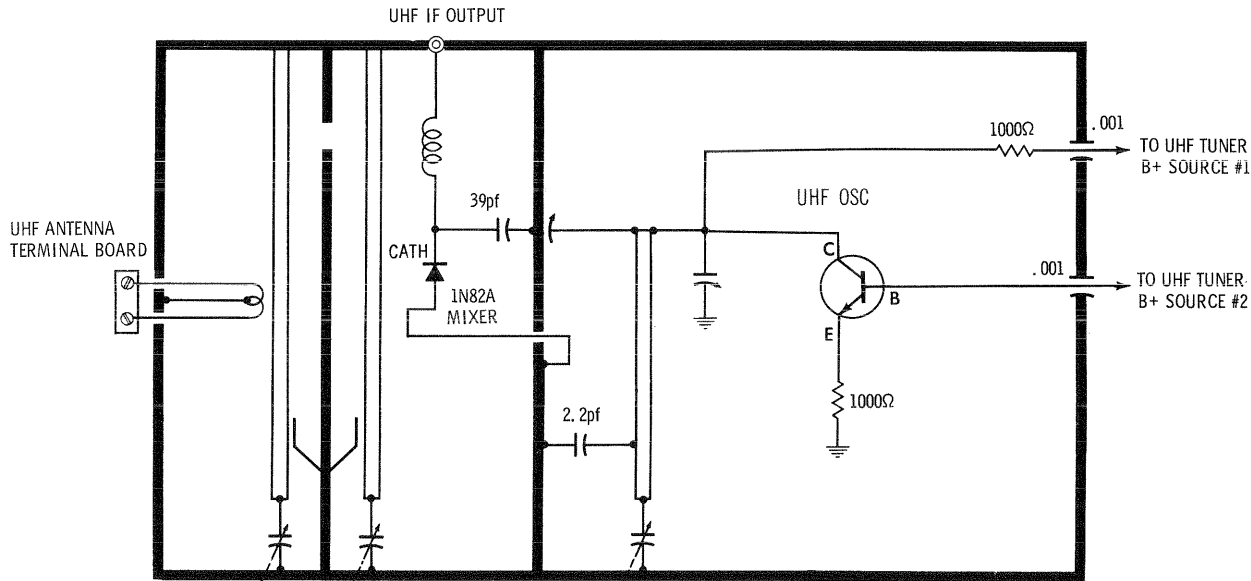
FIXED CAPACITORS

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	30		DI-20	DD-200	LA10Q2-SL	CCD-200	GP420	10TS-Q20
C202	20							
C203	.5-4.5							
C204	.5-3							
C205	30							
C206	33	±.5pf						
C207	.75pf	10%						
C208	.5-4.5							
C209	.5-3							
C210	2.2	NPO ±.25pf						
C211	15	NPO 10%	NPO-DI 15	TCZ-2R2 DTZ-15	C10Q15C	CCTO-150	CNO522 CNO415	10TCC-V22 10TCC-Q15
C212	18							
C213	.001							
C214	.001							
C215	.001							
C216	.001							
C217	.001							
			BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
			EF-001	MFT-1000		CCF-102	CT280A	
			EF-001	MFT-1000		CCF-102	CT280A	
			EF-001	MFT-1000		CCF-102	CT280A	

† Alternate Value

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	Setchell Carlson PART NO.	REPLACEMENT DATA
K201	Antenna Network	27pf, 27pf, 27pf, 27pf		



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UHF TUNER A-U65

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<sup>®</sup> for the most up-to-date replacement.

TUBES

♦ AMPEREX ♦			♦ GENERAL ELECTRIC ♦			♦ RCA ♦			♦ SYLVANIA ♦		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V1	1st Video IF Amp.		6EH7/EF183 (6EH7)*			V8	Audio Output		6GK6		
V2	2nd Video IF Amp.		6EJ7/EF184 (6EJ7)*			V9	Vert. Mult. - Vert. Output		6EW7		
V3	Video Amp.		6AU6			V10	Horiz. Mult.		6FQ7		
V4	Video Output		6GK6			V11	Horiz. Output		6GE5 (6JN6) *		
V5	AGC Keying - Sync Sep.		6HS8			V12	Damper		6AY3		
V6	Sound IF Amp.		6AU6			V13	HV Rectifier		1J3A/1G3		
V7	Audio Detector		6DT6								

\* Alternate

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	Setchell Carlson PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V14	19DCP4 ①			19DCP4 ②	① Aluminized ② Silver Screen "85"

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS				DIODES
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	GENERAL ELECTRIC PART No.
X1	.17A	ZR1031	GE-504 or 1N1695 ①	VB500	1N1764 or 1N2863 ①	40H or F-4 ①	
X2		1N295					1N295
X3							6GC1

① Two required.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Setchell Carlson PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	150	300	927-1844	AFHS2-82-56.5	DD0866	XC4-38	TMQ-4134	FP419.4A	TVLS2560.7*
C1B	250	150		AFHS2-82-56.5	DD0866	XC4-38	TMQ-4134	FP419.4A	TVLS2560.7*
C2A	150	300	927-1844	AFHS2-82-56.5	DD0866	XC4-38	TMQ-4134	FP419.4A	TVLS2560.7*
C2B	250	150		AFHS2-82-56.5	DD0866	XC4-38	TMQ-4134	FP419.4A	TVLS2560.7*
C3	100	50		PR81360	BR100-50	QT1-23	TD-100-50	TC3501	TVA-1310

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

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.
C4	.47		P288N-47		WMF1P47	IDP-4-474	PVC1047	2TM-P47
C5	15	NPO 10%	NPO-DI 15	DTZ-15	C10Q15C	CCTO-150	CNO415	10TCC-Q15
C6	200	10%	ADM-15-201	DTZ-200	CD10F201J	DM-10-201K	CNO320	10TCC-T20
C7	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C8	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B233	5HK-D33
C9	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C10	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C11	.68pf	5%						
C12	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B233	5HK-D33
C13	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B233	5HK-D33
C14	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C15	.82pf	5%						
C16	10	10%						
C17	2.2	5%						
C18	100	10%	ADM-15-101	DTZ-100	C10Q1C	CCTO-101	CNO310	10TCC-T10
C19	10	10%						
C20	.01		BPD-01	DD-103	BYA1081	CCD-103	B110	5HK-S10

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MODELS 19P65U, 19T65U

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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.
C21	.047 400V 10%	①	BE4S47		PM4S47	4DP-3-473	GEM4147	4TM-P47
C22	4. 7 10%		BPD-0033	DD-322	BYA10D33	CCD-332	B233	5HK-D33
C23	4. 7 10%		ADM-15-560	DD-102	CD10F560J	CCTO-560	CNO456	10TCC-Q56
C24	10 10%		BPD-001	DD-103	BYA10D1	CCD-102	B210	5HK-D10
C25	.0033 10%		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C26	56 10%		NPO-DI 20	DTZ-20	C10Q2C	CCTO-200	CNO420	10TCC-Q20
C27	.001 10%		BE2S47		PM2S47	4DP-3-473		
C28	.01 10%		DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10
C29	.047 125V 10%		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C30	.001 10%		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C31	.01 10%	(.0047) †	DI-3300	CF-332	JB6D33	CCD-332	JF233	10TS-D33
C32	.01 10%		DI-3300	DD30-152	BYA10S1	CCD-103	2HV215	30GA-D15
C33	.01 10%		CF-332	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C34	.0033 10%		CF-332	DD-102	JB6D33	CCD-332	JF233	10TS-D33
C35	.0015 1.4KV		HVD-15-1500	DD30-152	PM4S33	4DP-2-333	PVC6133	4PS-S33
C36	.01 10%		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C37	.01 10%		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C38	.0033 10%		DI-3300	CF-332	JB6D33	CCD-332	JF233	10TS-D33
C39	.001 10%		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C40	.033 400V 10%		BE4S33		PM4S33	4DP-2-333	PVC6133	4PS-S33
C41	.047 400V 10%	(.01) †	BE4S47		PM4S47	4DP-3-473	GEM4147	4TM-S47
C42	.01 600V		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C43	.001 10%		DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10
C44	.0082 500V 5%		ADM-15-560	CPR-8200J	CP30F822J	DM-30-822J		
C45	56 10%		CPR-56J		CD15F560K	CCTO-560	CNO456	10TCC-Q56
C46	.0022 500V 10%		CPR-2200J		PM6D22	6DP-1-222	PVC6222	MS-222
C47	.0015 1.4KV		HVD-15-1500	DD30-152	PM4S33	4DP-2-333	PVC6133	4PS-S33
C48	.033 400V 10%		BE4S33		PM4S33	4DP-2-333	PVC6133	4PS-S33
C49	.033 400V 10%		BE4S33		PM4S33	4DP-2-333	PVC6133	4PS-S33
C50	.047 400V 10%		BE4S47		PM4S47	4DP-3-373	GEM4147	4PS-S47
C51	.0015 1.4KV	①	HVD-15-1500	DD30-152	PM4S33	4DP-3-473	PVC6133	4PS-S33
C52	.033 400V 10%		BE4S33		PM4S33	4DP-3-473	PVC6133	4PS-S33
C53	56 10%		ADM-15-560	CPR-56J	CD15F560K	CCTO-560	CNO456	10TCC-Q56
C54	56 10%		ADM-15-560	CPR-56J	CD15F560K	CCTO-560	CNO456	10TCC-Q56
C55	.001 10%		DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10
C56	.0033 600V 10%		BE4S33		PM4S33	4DP-1-332	GEM6233	6TM-D33
C57	.033 400V 10%		BE4S33		PM4S33	4DP-2-333	PVC6133	4PS-S33
C58	.0033 10%		DI-3300	CF-332	JB6D33	CCD-332	JF233	10TS-D33
C59	20 NPO 10%		NPO-DI 20	DTZ-20	C10Q2C	CCTO-200	CNO420	10TCC-Q20
C60	330 500V 10%		CPR-330J		CD15F331K	DM-19-331K	JF233	10TCC-T33
C61	680 500V 10%	①	CPR-680J		CD18F681K	DM-19-681K	JF388	MS-388
C62	.01 1KV		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C63	.1 400V		P488N-1	DF-104	PM4P1	4DP-3-104	GEM401	4TM-P10
C64	.1 600V		P688N-1	DF-104	PM6P1	6DP-4-104	GEM601	6TM-P10
C65	130, 6KV, N1500, 10%							
C66	.01 1KV		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C67	.01 1KV		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C68	.0015 1.4KV		HVD-151500	CI 222	ACA14D2	3CCD-202	UAC220	30GA-D15

① Not used in some versions.

† Alternate Value

CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			Setchell Carlson PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	500K	821	F2-500K, SF012, KR-1 or (B-60-S)	A47-500K-Z, FS-3, SWE-12	Q13-133, 76-1 or (BU1, CF25, SS14, GC) *	UA55A, SF1000, US41 or (RU55A, SL38, SF1000, US41) or (U48, US26)
R2	Contrast	4000Ω	847	F5-5000, SF012 or (B-12)		Q17-114 or (BU1, CF34, SS14, DC1) *	RU452R, SL38, SF1000
R3	Horiz. Hold	2.5meg	803	BX-83 or (F1-2.5meg, SNK010)	A47-2.5meg-S FKS-1/2	B11-239, SK6 or (BU1, CF20, SS6) *	UA255L, SN1000 or (RU255L, SL38, SN1000) or (U255)
R4	Brightness	100K	802	BX-40 or (F1-100K, SNK010)	A47-100K-S FKS-1/2	B11-128, SK6 or (BU1, CF13, SS6) *	UA15L, SN1000 or (RU15L, SL38, SN1000) or (U41)
R5	Vert. Hold	2.5meg	803	BX-83 or (F1-2.5meg, SNK010)	A47-2.5meg-S FKS-1/2	B11-239, SK6 or (BU1, CF20, SS6) *	UA255L, SN1000 or (RU255L, SL38, SN1000) or (U255)
R6	Height (Bottom)	2.5meg	803	BX-83 or (F1-2.5meg, SNK010)	A47-2.5meg-S FKS-1/2	B11-239, SK6 or (BU1, CF20, SS6) *	UA255L, SN1000 or (RU255L, SL38, SN1000) or (U255)
R7	Height (Top) (Vert. Linearity)	3000Ω	801A	F5-5000, SNK010 or (B-12)		B17-112, SK6 or (BU1, CF33, SS6) *	UA33R, SL38, SN1000 or (U9)

\* "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
R8	2000Ω 5W	PW5-2000	5W-SQ-2000	(3300Ω) *	R83	2.2Ω	BWH 2, 2		
R31	4000Ω 5W	PW5-4000	5W-SQ-4000		R86	200Ω 7W	PW10-200	10W-SQ-200	
R82	50K 7W	1 3/4A-50K			R87	300Ω 7W	PW10-300	10W-SQ-300	

\* Alternate

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<sup>®</sup> for the most up-to-date replacement.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Setchell Carlson PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1A	1st Video IF	TL1002					
B	47. 25MC Trap						
L2	2nd Video IF	TL1003					
L3	3rd Video IF	TL1003					
L4	41. 25MC Trap		TV-131 *	6225 * †	RTC-8556 *†	TM244	* Relocate and drill larger mounting hole. † Disregard Tap.
L5	RF Choke (12uh)		BC-566	4624	RTC-8524	T985	
L6	Peaking (225uh)		TV-197	72F224AP	RTC-8586	TB528	
L7	Peaking (225uh)		TV-197	72F224AP	RTC-8586	TB528	
L8	Peaking (300uh)		TV-199	6155	RTC-8587	T318	
L9	Peaking (225uh)		TV-197	72F224AP	RTC-8586	TB528	
L10	Sound Takeoff		TV-119A†	1470 A†	RTC-8603A†	T250 A	
L11	Sound Interstage		TV-235A†	1480 A	RTC-8605 A	T251 A	
L12	Quadrature		TV-121 A	1480 A	RTC-8605 A	T251 A	
L13	RF Choke (12uh)		BC-566	4624	RTC-8524	T985	
L14	RF Choke (12uh)		BC-566	4624	RTC-8524	T985	

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	Setchell Carlson PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ 1. 2A	115VAC @ . 17A DC	6. 3VAC @ 5. 8A	M1192C	P-4082		26R105 ①	R-123HA ①①	① Drill new mounting holes.

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Setchell Carlson PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output	TM-615D2	A-2853 ①	VO-108	26S30	A-131X	
T3	Yoke (Horiz. 21.5MH)	Y-114	MDF-128 & DY-38A		Y-53 ②⑤⑥	Y-62 & NW-24	
T4	114 <sup>9</sup> (Vert. 32.5MH)	(20-100Y)	M47-1102③④	②④			
	Horiz. Output	TWF114 (WF114)					

① Cut and tape Green lead.

② Use original vertical damping network if necessary.

③ Cut and tape Brown and Black/White leads.

④ Extend leads.

⑤ Remove 27pf capacitor.

⑥ Use original leads.

\* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER				VERTICAL OUTPUT				YOKE				YOKE PLUG			
REPLACEMENT ↓	Original Connections				Original Connections				Original Connections				1	2	3	4
									Red	Blk	Blk	Yel				
MERIT									2	7	10	5	8	▲		
STANCOR									3	2	7	1	6	4	†	
THORDARSON									2	1	3	7	6	4	‡	
TRIAD									2	1	3	7	6	4	‡	

▲ Connect 3900Ω, 1/2 watt Resistor between Yoke Terminals #3 and #7. Disconnect Black lead from Yoke terminal #3 and connect to Yoke terminal #7.

† Connect 3900Ω, 1/2 watt Resistor between Yoke Plug Pin #4 and Yoke Terminal #2.

‡ Connect 3900Ω, 1/2 watt Resistor between Yoke Plug Pin #4 and Yoke Terminals #1 and #3.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	Setchell Carlson PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	12600Ω	3-4Ω	M1751	A-2932	A-3879	24S98	S-17X	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		Setchell Carlson PART No.	QUAM PART No.	
SP1	5" PM 3-4Ω	W110	5A15	

MISCELLANEOUS

ITEM No.	PART NAME	Setchell Carlson PART No.	NOTES
M1	VHF Tuner	A-63	STANDARD KOLLSMAN REPLACEMENT 41P13
M2	VHF Tuner	A-V65	
M3	UHF Tuner	A-U65	
	Antenna		
	Circuit Breaker	CB-1056	3 Amp.

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

WIRING DATA

High Voltage Lead .....	Use BELDEN No. 8869 (17KV) or 8868 (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

SETCHELL-CARLSON  
MODELS 19P65U, 19T65U

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