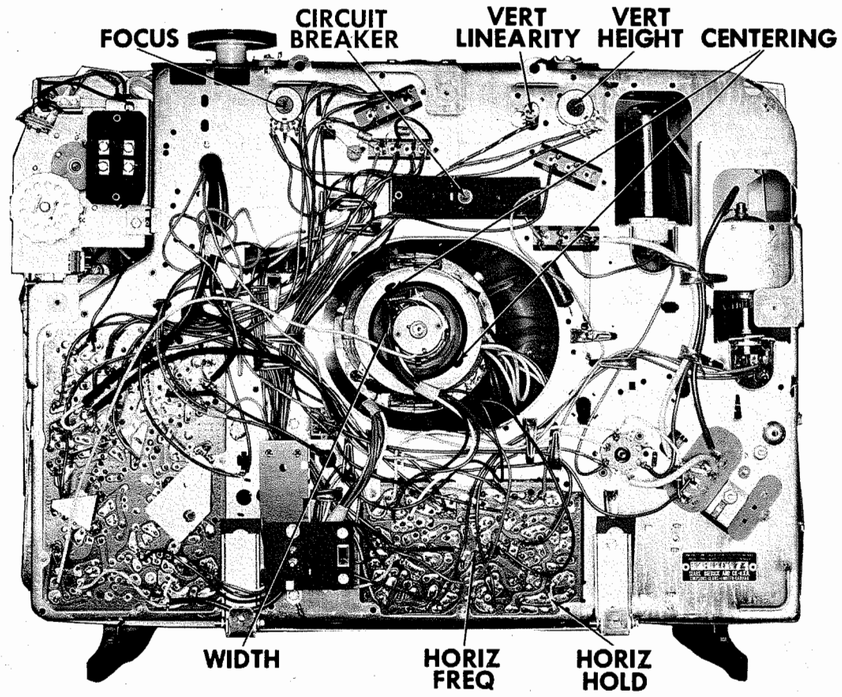


CABINET—REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV station. Connect a jumper across the Horizontal Stabilizer (Hold) Coil (L17). Connect a VTVM from point Ⓒ to ground. Adjust the Horizontal Frequency Control (R8) until the picture is in sync and the VTVM reads + .9 volts. Remove the jumper from across the Horizontal Stabilizer Coil. Adjust the Horizontal Hold Coil until the VTVM reads 0 volts. Remove VTVM.

Note:
Some versions use a Horizontal Hold Control in addition to the above Stabilizer Coil and Frequency Control. For these versions set the Horizontal Hold Control to the center of its range and follow the same Sweep Circuit Adjustments as shown.

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove all knobs. Remove cabinet back held by 5 screws. Remove 2 screws (1 on each top bracket).
2. Place TV receiver face down on soft protective surface. Remove 3 screws from bottom (rear) of cabinet. Remove 4 screws (2 in each control panel) from top front of cabinet.
3. Remove 2 screws from tuner panel (top). Disconnect picture tube socket, yoke, high voltage lead, retaining wire, and speaker leads.
4. Remove chassis.

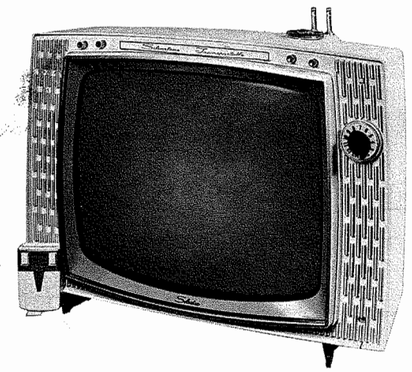
PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions.
2. Remove spring from retaining wire around picture tube.
3. Remove picture tube.

PHOTOFACT® Folder with CIRCUITRACE™

SILVERTONE CHASSIS 456/528.60000 Series

SILVERTONE CHASSIS 456/528.60000 Series



IMPORTANT FILING NOTICE

Some models covered by this PHOTOFACT Folder employ chassis in addition to the TV chassis. PHOTOFACT Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

INDEX

Remote Control Receiver, Transmitter . . . . . SET 651, FOLDER 3-A

MODEL 3115

CAUTION

ONE SIDE OF AC LINE CONNECTED TO CHASSIS

TRADE NAME	SILVERTONE
SUPPLIER	Sears, Roebuck & Co., 925 So. Homan Ave., Chicago, Illinois
TYPE SET	Television Receiver (Models 3114, 3115, PC3114, PC3115 with Remote Control)
TUBES	VHF - Fourteen, UHF - Fifteen
POWER SUPPLY	110-120 Volts AC, 60 Cycles
RATING	TV with Remote Control Receiver: 140 Watts, 1.5 Amp. @ 117 Volts AC (150 Watts, 1.6 Amp. while Tuning)
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound 41.25MC (Intercarrier)

VHF TUNERS	UHF TUNERS	UHF SWITCHES
95-300-0	95-265-0	69-411-0
95-296-0	95-308-0	69-443-0
		69-414-0

SILVERTONE MODELS	CHASSIS
PC-1144A	456.60056/220/226/228
PC-1145A	456.60057/221/227/229
PC-2144, PC-3100A	456.60040/42/44/46/48/50/52/54/56/58/220/226/228
PC-2145, PC-3101A	456.60041/43/45/47/49/51/53/55/57/59/221/227/229
PC-3104, PC-31045, PC-3110	456.60000/02/04/06/08/10/12/14/16/18/72/76/200/202/210/218
PC-3105, PC-31055, PC-3111	456.60001/03/05/07/09/11/13/15/17/19/73/77/201/203/211/219
PC-3114	456.60160/164/172/178
PC-3115	456.60161/165/173/179
PC-3136, PC-3140	456.60140/142/144/146/148/150/152/154/156/240/242/244
PC-3137, PC-3141	456.60141/143/145/147/149/151/153/155/157/241/243/245
PC-3142, PC-3144, PC-3146	456.60120/122/124/126/128/130/132/134/136/138/572
PC-3143, PC-3145, PC-3147	456.60121/123/125/127/129/131/133/135/137/139/573
1144A	528.60056/220/226/228
1145A	528.60057/221/227/229
2144, 3100A	528.60040/42/44/46/48/50/52/54/56/58/220/226/228
2145, 3101A	528.60041/43/45/47/49/51/53/55/57/59/221/227/229
3104, 31045, 3110	528.60000/02/04/06/08/10/12/14/16/18/72/76/200/202/210/218
3105, 31055, 3111	528.60001/03/05/07/09/11/13/15/17/19/73/77/201/203/211/219
3114	528.60160/164/172/178
3115	528.60161/165/173/179
3136, 3140	528.60140/142/144/146/148/150/152/154/156/240/242/244
3137, 3141	528.60141/143/145/147/149/151/153/155/157/241/243/245
3142, 3144, 3146	528.60120/133/124/126/128/130/132/134/136/138/572
3143, 3145, 3147	528.60121/123/125/127/129/131/133/135/137/139/573

SERVICING IN THE FIELD - PAGE 5

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.
MA223

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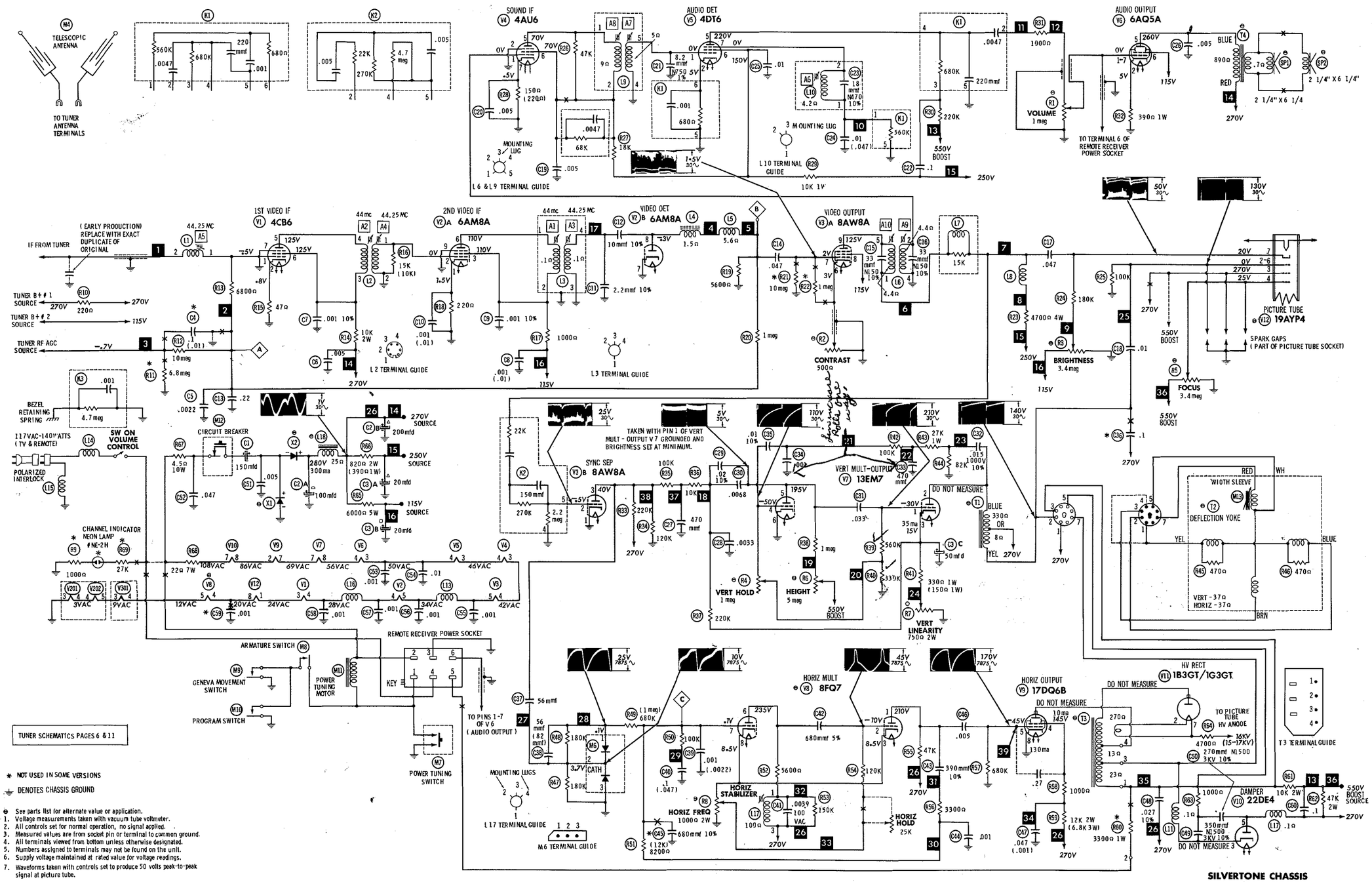
SET 651 FOLDER 3

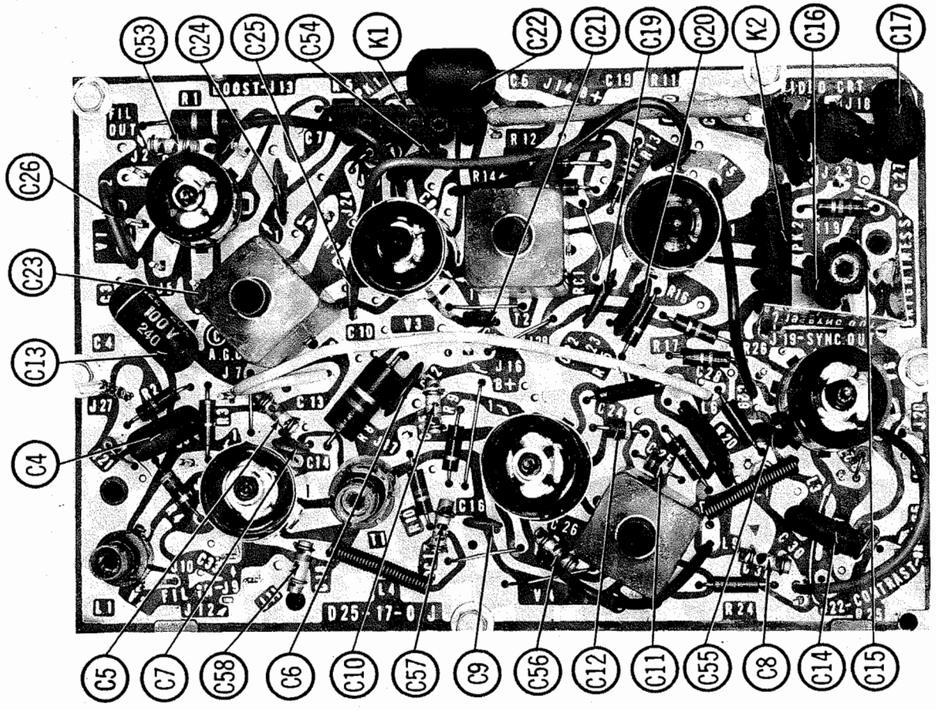

TELESCOPIC ANTENNA
TO TUNER ANTENNA TERMINALS
SOUND IF V4 4AU6
AUDIO DET V5 4DT6
AUDIO OUTPUT V6 6AQ5A
VOLUME 1 meg
TO TERMINAL 6 OF REMOTE RECEIVER POWER SOCKET
MOUNTING LUG
L6 & L9 TERMINAL GUIDE
L10 TERMINAL GUIDE
550V BOOST
250V
1ST VIDEO IF V1 4CB6
2ND VIDEO IF V2A 6AM8A
VIDEO DET V2B 6AM8A
VIDEO OUTPUT V3A 8AW8A
(EARLY PRODUCTION) REPLACE WITH EXACT DUPLICATE OF ORIGINAL
IF FROM TUNER
44.25 MC
44mc
TUNER B+ #1 SOURCE
TUNER B+ #2 SOURCE
TUNER RF AGC SOURCE
L2 TERMINAL GUIDE
L3 TERMINAL GUIDE
CONTRAST 500Ω
BRIGHTNESS 3.4meg
FOCUS 3.4meg
PICTURE TUBE V12 19AYP4
SPARK GAPS (PART OF PICTURE TUBE SOCKET)
BEZEL RETAINING SPRING
117VAC-140W ATTS (TV & REMOTE)
POLARIZED INTERLOCK
SW ON VOLUME CONTROL
CIRCUIT BREAKER
280V 25Ω 300ma
270V SOURCE
250V SOURCE
115V SOURCE
CHANNEL INDICATOR NEON LAMP #NE-2H
3VAC
9VAC
12VAC
20VAC
24VAC
28VAC
34VAC
42VAC
ARMATURE SWITCH
GENEVA MOVEMENT SWITCH
PROGRAM SWITCH
POWER TUNING MOTOR
KEY
POWER TUNING SWITCH
REMOTE RECEIVER POWER SOCKET
TO PINS 1-7 OF V6 (AUDIO OUTPUT)
TAKEN WITH PIN 1 OF VERT MULT - OUTPUT V 7 GROUNDED AND BRIGHTNESS SET AT MINIMUM.
SYNC SEP V3B 8AW8A
VERT MULT-OUTPUT V7 13EM7
VERT HOLD 1 meg
HEIGHT 5 meg
VERT LINEARITY 750Ω 2W
DO NOT MEASURE
DEFLECTION YOKE
VERT - 37Ω
HORIZ - 37Ω
HORIZ MULT V8 8FQ7
HORIZ STABILIZER
HORIZ FREQ 1000Ω 2W
HORIZ HOLD 25K
HORIZ OUTPUT V9 17DQ6B
HV RECT V11 1B3GT/1G3GT
TO PICTURE TUBE HV ANODE
16KV 4700Ω (15-17KV)
DAMPER V10 22DE4
T3 TERMINAL GUIDE
M6 TERMINAL GUIDE
L17 TERMINAL GUIDE
TUNER SCHEMATICS PAGES 6 & 11
* NOT USED IN SOME VERSIONS
DENOTES CHASSIS GROUND
See parts list for alternate value or application.
1. Voltage measurements taken with vacuum tube voltmeter.
2. All controls set for normal operation, no signal applied.
3. Measured values are from socket pin or terminal to common ground.
4. All terminals viewed from bottom unless otherwise designated.
5. Numbers assigned to terminals may not be found on the unit.
6. Supply voltage maintained at rated value for voltage readings.
7. Waveforms taken with controls set to produce 50 volts peak-to-peak signal at picture tube.
A PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITRACE
©Howard W. Sams & Co., Inc. 1963
SILVERTONE CHASSIS
456/528.60000 Series

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	4CB6	900K	47Ω	9Ω	11Ω	†10K	†10K	0Ω		
V2	6AM8A	220Ω	0Ω	†7000Ω	11Ω	13Ω	†7000Ω	0Ω	5000Ω	0Ω
V3	8AW8A	0Ω	2.2meg	¶ † 50K	16Ω	13Ω	90Ω	950K	†6000Ω	†5500Ω
V4	4AU6	5Ω	0Ω	16Ω	18Ω	†29K	†29K	150Ω		
V5	4DT6	5.5Ω	680Ω	18Ω	19Ω	† 1meg	†11K	560K		
V6	6AQ5A	NC	390Ω	19Ω	22Ω	†915Ω	†6000Ω	130K		
V7	13EM7	890K	†320Ω	440Ω	650K	† 2.2meg	0Ω	28Ω	22Ω	
V8	9FQ7	†47K	121K	1000Ω	7.5Ω	4.5Ω	†5600Ω	1.2meg	1000Ω	NC
V9	17DQ6B	NC	35Ω	TP	†13K	680K	NC	28Ω	0Ω	TOP CAP † 13Ω
V10	22DE4	TP	NC	¶ 80K	NC	†26Ω	TP	43Ω	35Ω	
V11	1B3GT 1G3GT	PINS	1 THRU 8		HAVE	INFINITE	RESISTANCE			TOP CAP † 283Ω
V12	19AYP4	9Ω	100K	† 26Ω	130K	NC	0Ω	910K	7.5Ω	
V201 •	3FS5	4.4meg	0Ω	0Ω	1Ω	†220Ω	†6000Ω	0Ω		
V202 •	6FG7	15K	†16K	0Ω	1Ω	3Ω	†8200Ω	†68K	0Ω	224K
V301 •	3AF4B	†9600Ω	5600Ω	3Ω	4.5Ω	0Ω	5600Ω	†9600Ω		
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

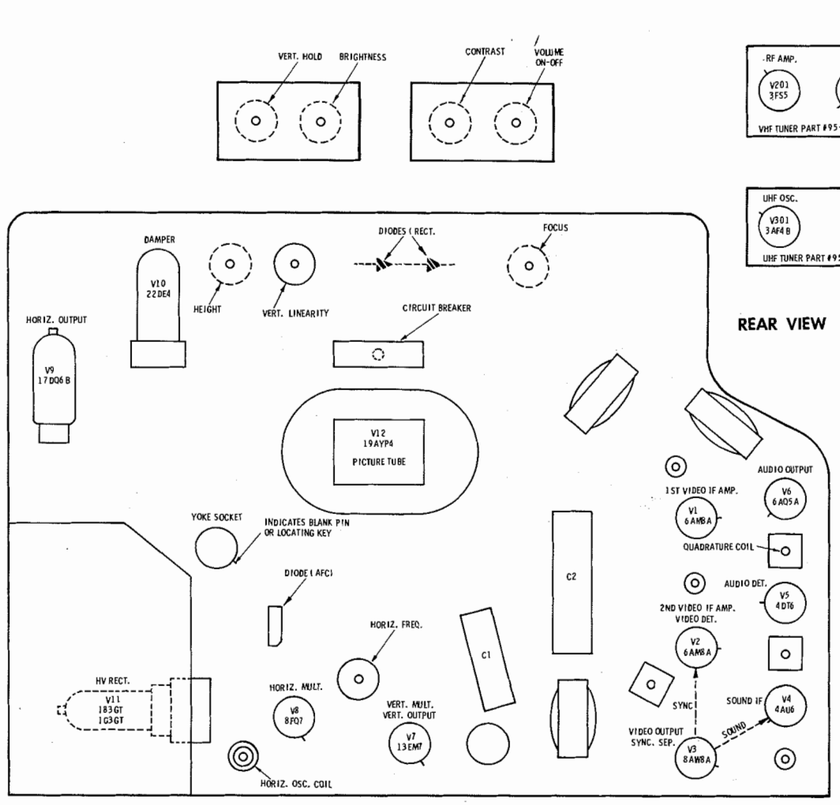
¶ THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
† MEASURED FROM OUTPUT OF X2.
† MEASURED FROM PIN 3 OF V10.

NC NO CONNECTION
TP TIE POINT
• 95-300-0 VHF and 95-308-0 UHF TUNERS



VIDEO-SOUND PRINTED BOARD

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.

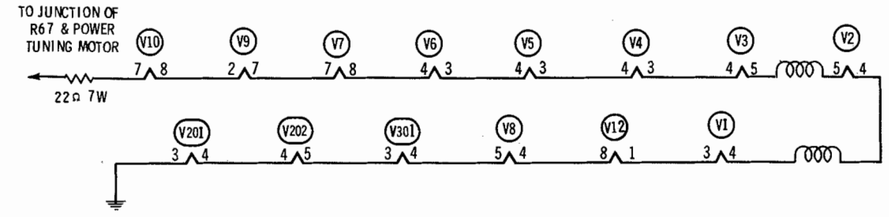
POWER SUPPLY FAILURE
No raster, no sound Circuit Breaker M12, Selenium Rectifiers, X1, X2

SWEEP FAILURE
No raster, has sound V8, V9, V10, V11, V12
No vertical deflection V7
Poor vert. linearity or foldover V7
Poor horiz. linearity or foldover V8, V9, V10
Narrow picture V8, V9, V10, X1, X2
Vert. off freq. V7
Horiz. off freq. AFC Diode M6, V8

LOSS OF PICTURE OR SOUND
No pic, no sound, has raster V1, V2, V3
No pic, no sound, has snow V201, V202, V1
No pic, has sound, has raster V3, V12
Has pic, no sound V4, V5, V6
Overloaded picture

SYNC FAILURE
No vert. sync V3
No horiz. sync V3
No vert. or horiz. sync V3

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.)



SET 651 FOLDER 3

A Howard W. Sams CIRCUITRACE® Photo

ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

SWEEP PRINTED BOARD

(RESISTOR, INDUCTOR IDENT.)

VIDEO SOUND PRINTED BOARD

ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

A Howard W. Sams CIRCUITRACE® Photo

ADDITIONAL VIDEO, SOUND PHOTO , PAGE 14

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
V1	1st Video IF Amp.	4CB6
V2	2nd Video IF Amp. - Video Detector	6AM8A
V3	Video Output - Sync Sep.	8AW8A
V4	Sound IF	4AU6
V5	Audio Detector	4DT6
V6	Audio Output	6AQ5A
V7	Vert. Mult. - Vert. Output	13EM7
V8	Horiz. Mult.	8FQ7 (8CG7) *
V9	Horiz. Output	17DQ6B
V10	Damper	22DE4
V11	HV Rectifier	1B3GT/1G3GT

AMPEREX • GENERAL ELECTRIC • RCA • RAYTHEON • SYLVANIA •

* Alternate

PICTURE TUBE

ITEM No.	REPLACEMENT DATA					NOTES
	SILVERTONE PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
V12	19AYP4 19AXP4 23BQP4	19AXP4/AYP4 ① 19AXP4/AYP4 ①	19AYP4 ① 19AYP4 ①		19AYP4 ② 19AXP4 ② 23BQP4 ②	①Aluminized ②Silver Screen "85"

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.3A	86-1-3	1N2070 or 1N3194 ①	1N1763 or 1N2863 or 1N3194	40H
X2	.3A	86-1-3	1N2070 or 1N3194 ①	1N1763 or 1N2863 or 1N3194	40H

① X1 and X2 may be replaced by a single unit, VB600.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	SILVERTONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	150	150	18-136-5	PR1-060	BR150-150	QT1-25	TD-150-150	TC405	TVA-1422
C2A	▲ 100	300	18-140-5	AFHS2-35-50	BO286	XC3-19	TMD-2340	FP219.7	TVLS2595 *
B	▲ 200	300							
C3A	▲ 20	300	18-52-3	AFH3-98-98	BO400 BR50-50	XC2-14 MT1-17	TMD-2295 TD-50-50	FP326.55	TVLS-3751.2*
B	■ 20	300							
C	50	50							

* 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	.1	100V	(.01)† Note 1	P288N-1	DF-104	CUB2P1	1DP-2-104	GEM-201	2TM-P10
C5	.0022			SI2200	D6-222	L10D22	CCD-222	B-222	5HK-D22
C6	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C7	.001	10%		DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C8	.001		(.01)†	SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C9	.001	10%		DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C10	.001		(.01)†	SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C11	2.2mmf	10%	#20-5-0						
C12	10mmf	10%	#20-14-0						
C13	.22	100V		P288N-22		CUB2P22	1DP-3-224	GEM-2022	2TM-P22
C14	.047	100V		P288N-047	DF-503	CUB2S47	1DP-2-473	PVC1147	2TM-S47
C15	33	N150 10%					*		10TCP-Q33
C16	33	N150 10%					*		10TCP-Q33
C17	.047	400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C18	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C19	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C20	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C21	8.2mmf	N750 1%	#12-829294-2						
C22	.1	400V		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10
C23	18	N470 10%					*		
C24	.01		(.047)†	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C25	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C26	.005	2KV			DD30-502	HVC20D5	3CCD-502	2HV-247	BL-D50
C27	470			BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C28	.0033			BPD-0033	DD-332	BYA10D33	CCD-332	B-233	5HK-D33
C29	.02	400V 10%		BE4S2		PM4S22	4DP-2-203	PVC412	4TM-S20
C30	.0068			BPD-0068	DD-682	BYA10D68	CCD-682	B-268	5HK-D68
C31	.033	400V		P488N-033	DD-303	CUB6S33	4DP-2-333	GEM-4133	6TM-S33
C32	.015	1000V 10%				DPMS15S15	16DP-4-153		10TM-S15
C33	470			BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C34	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C35	.01	400V 10%		BE4S1	CF-103	PM4S1	4DP-1-103	PVC411	4TM-S10
C36	.1	200V	Note 1	P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C37	56			DI-56	DD-560	L10Q56	CCD-560	GP456	5GA-Q57
C38	56		(82)†	DI-56	DD-560	L10Q56	CCD-560	GP456	5GA-Q57
C39	.001		(.0022)†	BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C40	.1	100V	(.047)†	P288N-1	DF-104	CUB2P1	1DP-2-104	GEM-201	2TM-S10
C41	.0039	100VAC			CPR-3900J	1R5D39	DM-20-392J	MCJ462.5	MS-239
C42	680	5%		1469-00068	CPR-680J	5R5T68	DM-15-681J	MCJ249	MS-368
C43	390	10%		1469-00039	CPR-390J	5R5T39	DM-15-391K		MS-339
C44	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C45	680	10%	Note 1	DI-680	DD-681	5R5T68	CCD-681	GP368	10TS-T68
C46	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C47	.047	400V	(.001)†	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C48	.027	600V 10%		BE6S27		PM6S27	6DP-3-273	PVC6125	6PS-S27
C49	350	N1500 3KV 10%	#12-351516-8						

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.
C50	270	N1500 3KV 10%	#12-271518-8						
C51	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C52	.047	400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C53	.001			SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C54	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C55	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C56	.001			SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C57	.001			SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C58	.001			SI 1000	D6-102	L10D1	CCD-102	B-210	5HK-D10
C59	.001		Note 1	BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C60	.1	400V		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10

\# Silvertone Part Number † Alternate Value Note 1 Not used in some versions.
* 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				
			SILVERTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume,Switch	1meg	24-561-B				
R2	Contrast	500Ω	(24-561) † 24-565-C				
R3	Brightness	3.4meg	(24-565) † 24-566-B				
R4	Vert. Hold	1meg	(24-566) † 24-564-C				
R5	Focus	3.4meg	(24-564) † 24-491-A (24-491) †	TT-64 or (F1-3meg, SN010, AK-38)	B47-3meg-S	HLC3	PTA355L or (RU36L, SL37, SN1000) or (UA36L, SN1000)
R6	Height	5meg	24-437-D (24-437) †	TT-87 or (F3-5meg, SN010, AK-38)	B47-5meg-S	HLC5	PTA56L or (RU56L, SL37, SN1000) or (UA56R, SN1000)
R7	Vert. Linearity	750Ω (2W)	24-484-A (24-484) †	WN-751 or (WW-751)	39-800	112-800	FL-750 or (VW-750) or (R750L)
R8	Horiz. Frequency	1000Ω (2W)	24-570-A (24-570) †			110-1000	PFL-1K
	Horiz. Hold	25K	24-568-B ① (24-568) †				

① Used in Chassis 456/528.60120 thru 456/528.60157, 456/528.240 thru 456/528.245, 456/528.572 and 456/528.573.
† Alternate Part Number.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		REMARKS
		IRC PART No.	WORKMAN PART No.	
R23	4700Ω 4W		4G-4700	
R65	6000Ω 5W	PW5-6000	5W-SQ-6000	
R67	4.5Ω 10W	PW10-4.5	10W-SQ-4.5	
R68	22Ω 7W	PW7-22	7W-SQ-22	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		SILVERTONE PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	1st Video IF	10-26-3					
L2	2nd Video IF	10-37-3					
L3	3rd Video IF	10-143-2					
L4	RF Choke (12uh)	10-65-1	BC-566	4612	RTC-8522	T860	
L5	Peaking (60uh)	10-148-1	BC-866	6110	RTC-8573	T338	
L6	Sound Takeoff-4.5MC Trap	10-152-1					
L7	Peaking (270uh)	10-150-1 ①	BC-674 ♦	6130 ♦	RTC-8598 ♦	T315 ♦	①Wound on 15K Resistor.
L8	Peaking (450uh)	10-206-1	BC-677	6138	RTC-8580	T323	♦ Shunt with 15K Resistor.
L9	Sound Interstage IF	10-23-3					
L10	Quadrature	10-36-5					
L11	RF Choke (2uh)	10-172-1	BC-563	4608	RTC-8517	T857	
L12	RF Choke (4.7uh)	10-124-1	SW-631	4529	RTC-8505	T977	
L13	Fil. Choke (1uh)	10-156-1	BC-561	4602	RTC-8515	T855	
L14	Line Choke (40uh)	10-149-1					
L15	Line Choke (40uh)	10-149-1					
L16	Fil. Choke (1uh)	10-156-1	BC-561	4602	RTC-8515	T855	

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA							NOTES
		SILVERTONE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	Workman PART No.	
L17	Horiz. Stabilizer	10-34-5						TB171	
	Horiz. Adj. Rod	39-293-3							

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	SILVERTONE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L18	.3ADC	25Ω	.27Hy	80-19-6C 80-19-6 †	C-4115①	C-2343①	26C80	C-36X	①Drill new mtg. hole(s), if necessary. † Alternate part #.

*TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		SILVERTONE PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	Vert. Output	80-13-2F (80-13-2) †	A-2823 ①	VO-112 ①	26S24	A-133X	① Connect as autoformer † Alternate Part No.
T2	Yoke (Horiz. 21MH) 114° (Vert. 35MH)	80-20-4L (80-20-4) †	MDF-133	DY-46A ②	Y-53 ②	Y-62 & NW-21	② Use original vertical damping network if necessary.
	Yoke	80-29-4 ♦	MDF-133	DY-46A ②	Y-53 ②	Y-62 & NW20	♦ Used in some models.
	Yoke Rear Cover and Centering Device	83-1453					
	Yoke Clamp	22-145-3					
T3	Horiz. Output	D80-14-3H (80-14-3) †	HVO-218	HO-357		D-220	
	Horiz. Output	80-17-3 ♦	HVO-218			D-220	
	Horiz. Output	80-21-3 ♦					

*COMPONENT CONNECTION DATA

ORIGINAL → / REPLACEMENT ↓	HV TRANSFORMER				VERTICAL OUTPUT				YOKE								YOKE PLUG							
	Original Connections				Original Connections				Original Connections								1	2	3	4	5	6	7	8
	1	2	3	4	Blue	Orn.	Yel.		Blu	Yel.	Red	Wht	Brn				TO YOKE TERMINAL							
MERIT	1	2	3	4	Blue	Red, Yel.	Green	Note 1	2	10	8	4, 6	5				No Wiring Change necessary							
STANCOR					Blue	Red, Green	Yel.	Note 2	6	4	3	2, 7	1				4	6	1	2, 7	3			
THORDARSON					Blue	Red	Yel.		6	4	2	1, 3	7				4	6	7	1, 3	2			
TRIAD					Blue	Red	Yel.		6	4	2	1, 3	7				4	6	7	1, 3	2			

Note 1. Connect Red and Yellow leads together and use as autoformer.

Note 2. Connect Red and Green leads together and use as autoformer.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	SILVERTONE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T4	1000Ω	3-4Ω	80-149-1F Alt. 80-149-1	A-2932 ①	A-3879 ①	24S83	S-11X	①Drill new mounting hole(s) if necessary.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		SILVERTONE PART No.	QUAM PART No.	
SP1	2 1/4" x 6 1/4" PM 6-8Ω	33-513-4 ①		① Models: 3110, 3111, 3114, 3115, and PC3110, PC3111, PC3114, PC3115.
SP2	2 1/4" x 6 1/4" PM 6-8Ω	33-513-4 ①		② Models: 3142 thru 3147 (2 used), PC3142 thru PC3147.
	4" PM 6-8Ω	33-318-4 ②	4A07Z8	③ Models: 3104, 31045, 3105, 31055, 3136, 3137, 3140, 3141, PC3104, PC31045, PC3105, PC31055, PC3136, PC3140, PC3141.
	3" x 5" PM 3-4Ω	33-379-4 ③	35A05	④ Models: 1144A, 1145A, 2144, 2145, 3100, 3100A, 3101, 3101A, PC1144A, PC1145A, PC2144, PC2145, PC3100, PC3100A, PC3101, PC3101A.
	4" PM 3-4Ω	33-509-4 ④	4A07	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	SILVERTONE PART No.	REPLACEMENT DATA
K1	Sound Detector	680Ω, 560K, 680K, 220mmf, .001mfd, .0047mfd	13-34-5	
K2	Sync. Network	22K, 270K, 2.2meg, 150mmf, .005mfd	13-9-5	
K3	Chassis Isolation	4.7meg, .001mfd	13-17-5	Sprague PRC-8
	Sound IF (V4) Screen Filter	68K, .0047mfd	13-21-3①	

① Used in chassis 456., 528.60008, .60009, .60016, .60017, .60018, .60019, .60040, .60041, .60046, .60047, .60050, .60051, .60122, .60123, .60144, .60145, .60147, .60150, .60151, .60152, .60153, .60158, .60157, .60160, .60161, .60164, .60165, .60220, .60221, .60240, .60241.

SILVERTONE CHASSIS 456/528.60000 Series

FOLDER 3

MISCELLANEOUS PARTS LIST AND DESCRIPTION (CONTINUED)

ITEM No.	PART NAME	SILVERTONE PART No.	NOTES
M1	VHF Tuner	95-300-0	All Chassis in Models 3114, 3115, 2144, 2145, 3101A, 1144A, 1145A, 3137, 3140, 3141.
M2	UHF Switch	69-411-0	
	VHF Tuner	95-296-0	All Chassis in Models 3104, 31045, 3105, 31055, 3110, 3111, 3142, 3143, 3144, 3145, 3146, 3147.
	UHF Switch	69-414-0	All Chassis except 456/528.60072, 73, 456/528.60076, 77, and 456/528.60572, 573 in same Models as above (Tuner #95-296-0).
	UHF Switch	69-443-0	Chassis 456/528.60072, 73, 456/528.60073, 77, and 456/528.60572, 573 in same Models as above (Tuner #95-296-0).
M3	UHF Tuner	95-265-0	Used in Models 3115, 31045, 3105, 31055, 3111, 3143, 3145, 3147.
	UHF Tuner	95-308-0	Used in Models 2145, 3101A, 1145A, 3137, 3141.
M4	Antenna VHF	39-304-3	JFD REPLACEMENT #TA-365, Used in Models 3114, 3115, 3110, 3111, 31045, 31055.
	Antenna VHF	82-181-0	JFD REPLACEMENT #TA-142, Used in Models 3100A, 3101A.
	Antenna VHF	39-239-3	JFD REPLACEMENT #TA-406, Used in Models 3104, 3105.
M5	Antenna UHF	82-199-0	JFD REPLACEMENT #TA-419, UHF Models only.
M6	Diode	86-9-1	Horiz. AFC
M7	Switch	69-365-0	Power Tuning
M8	Switch	69-379-0	Motor Armature
M9	Switch	69-366-0	Program
M10	Switch	69-367-0	
M11	Motor	59-202	Power Tuning Motor
M12	Circuit Breaker	43-12-2	
M13	Width Sleeve	83-1387	
	Magnet	27-70-2	Beam Aligner (when required)
	Printed Board	25-17-0	If Sync and Sound Board only *
	Printed Board	25-20-0	Vertical & Horizontal Sweep Board only *

* If complete board assembly with components is required, specify Model and Chassis number.

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

VHF TUNER PARTS LIST AND DESCRIPTION

95-300-0

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
	◆ AMPEREX ◆ GENERAL ELECTRIC ◆ RCA ◆ RAYTHEON ◆ SYLVANIA ◆				
V201	RF Amp.	3FS5	V202	Mixer-Osc.	6FG7

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	10		DI-10	DD-100	L10Q1	CCD-100	GP410	10TS-Q10
C202	150		DI-150	DD-151	L10T15	CCD-151	GP315	10TS-T15
C203	10		DI-10	DD-100	L10Q1	CCD-100	GP410	10TS-Q10
C204	56	#267-560						
C205	12 NPO 5%			TCZ-12	C10Q12C		CNO-412	10TCC-Q12
C206		#3362-514						
C207	1.5 NPO ±2.5mmf		NPO-DI 1.5	DTZ-IR5	C10V15C		CNO-515	10TCC-V15
C208	.001		EF-001	MFT-1000		CCF-102	CT280A	
C209	.002	#278-1						
C210	100	#266-101						
C211		#3362-514						
C212	22		DI-22	DD-220	L10Q22	CCD-220	GP422	10TS-Q22
C213	.001		BPD-001	DD-102	BYAJ0D1	CCD-102	B-210	5HK-D10
C214	.001		EF-001	MFT-1000		CCF-102	CT280A	
C215	10 N750 10%				C10QIU	CCTN-100		10TCU-Q10
C216	10 N750 10%				C10QIU	CCTN-100		10TCU-Q10
C217	.001		BPD-001	DD-102	BYAJ0D1	CCD-102	B-210	5HK-D10
C218	.001		EF-001	MFT-1000		CCF-102	CT280A	
C219	.001		BPD-001	DD-102	BYAJ0D1	CCD-102	B-210	5HK-D10
C220	33	#267-330						
C221	.001		EF-001	MFT-1000		CCF-102	CT280A	
C222	.001		BPD-001	DD-102	BYAJ0D1	CCD-102	B-210	5HK-D10
C223	.001		EF-001	MFT-1000		CCF-102	CT280A	
C224	.001		EF-001	MFT-1000		CCF-102	CT280A	

* Silvertone Part Number

COILS (RF-IF)

ITEM No.	USE	SILVERTONE PART No.	NOTES
L201	Ant. Matching	3612-1	
L202	RF Choke	1785-69	
L203	Trap	3634-1	
L204	Trap	3634-2	
L205	Ant., RF, Mixer, Osc.	3262-516	Chan. 2 Strip
L206	"	3263-516	Chan. 3 Strip
L207	"	3264-516	Chan. 4 Strip
L208	"	3265-516	Chan. 5 Strip
L209	"	3266-516	Chan. 6 Strip
L210	"	3267-516	Chan. 7 Strip
L211	"	3268-516	Chan. 8 Strip
L212	"	3269-516	Chan. 9 Strip

ITEM No.	USE	SILVERTONE PART No.	NOTES
L213	Ant., RF, Mixer, Osc.	3270-516	Chan. 10 Strip
L214	"	3271-516	Chan. 11 Strip
L215	"	3272-516	Chan. 12 Strip
L216	"	3273-516	Chan. 13 Strip
L217	Fine Tuning		
L218	RF Choke	300-10	
L219	RF Choke	300-5	
L220	Mixer Plate	3538-507	
L221	VHF IF Strip	3261-516	
L222	VHF IF Input	2110-32	
L223	RF Choke	301-12	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	SILVERTONE PART No.	REPLACEMENT DATA
K201	Antenna Isolation	1meg, 470mmf	330-1	Centralab RC-471, Sprague AC1-1
K202	Antenna Isolation	1meg, 470mmf	330-1	Centralab RC-471, Sprague AC1-1

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

DESCRIPTION	PART NO.	CABINETS MODELS 3114	42-328-0 3115	42-328-0 3140	3141	3142	3143	3144	3145	3146	3147	42-327-0 3110	42-327-0 3111	42-315-0 3100A	42-315-0 3101A	42-332-0 2144	42-332-0 2145	42-332-0 1144A	42-332-0 1145A	42-313-0 Front 21-1108-0 Back 3104	42-313-0 Front 21-1108-0 Back 31045	42-315-0 Front 21-1109-0 Back 3105	42-315-0 Front 21-1109-0 Back 31055	42-332-0 3136	42-332-0 3137
Safety Glass	48-170-0	X	X									X	X							X	X	X	X		
Safety Glass	48-179-0													X	X										
Safety Glass	48-178-0															X	X	X	X						
Safety Glass Frame	40-71-5	X	X									X	X												
Bezel	40-112-5	X	X																						
Bezel	40-100-5			X																					
Bezel	40-101-5				X																				
Bezel	40-94-5					X		X		X															
Bezel	40-102-5						X		X		X														
Bezel	40-104-5											X	X												
Bezel	40-88-5													X											
Bezel	40-108-5														X										
Bezel	40-106-5															X									
Bezel	40-110-5																X								
Bezel	40-116-5																	X							
Bezel	40-117-5																		X						
Bezel	40-98-5																						X		
Bezel	40-99-5																							X	
Knob, VHF Channel Selector	52-1817-0	X	X									X	X												
Knob, VHF Channel Selector	52-1784-0			X	X															X		X	X	X	
Knob, VHF Channel Selector	52-1857-0					X	X	X	X	X	X														
Knob, VHF Channel Selector	52-1750-0																			X		X			
Knob, VHF Channel Selector	52-1830-0													X	X	X	X	X	X						
Knob, VHF Fine Tuning	52-1570-0	X	X									X	X												
Knob, VHF Fine Tuning	52-1839-0			X	X																		X	X	
Knob, VHF Fine Tuning	52-1877-0					X	X	X	X	X	X														
Knob, VHF Fine Tuning	52-1880-0													X	X										
Knob, VHF Fine Tuning	52-1831-0															X	X								
Knob, VHF Fine Tuning	52-1927-0																	X	X						
Knob, VHF Fine Tuning	52-1810-0																			X		X			
Knob, VHF Fine Tuning	52-1811-0																			X		X			
Knob, UHF Indicator Dial	52-1771-0		X											X											
Knob, UHF Indicator Dial	52-1866-0				X																			X	
Knob, UHF Indicator Dial	52-1851-0						X		X		X														
Knob, UHF Indicator Dial	52-1804-0															X		X							
Knob, UHF Indicator Dial	52-1788-0																								
Knob, UHF Fine Tuning	52-1773-0		X											X											
Knob, UHF Fine Tuning	52-1867-0				X																			X	
Knob, UHF Fine Tuning	52-1858-0						X		X		X														
Knob, UHF Fine Tuning	52-1802-0															X		X							
Knob, UHF Fine Tuning	52-1790-0																								
Knob, UHF Fine Tuning	52-1789-0																								
Knob, Control (4 used)	52-1884-0	X	X									X	X												
Knob, Control (5 used)	52-1838-0			X	X																			X	
Knob, Control (4 used)	52-1849-0					X	X	X	X	X	X														
Knob, On-Off, Volume	52-1855-0					X	X	X	X	X	X														
Knob, Control (4 used)	52-1903-0													X	X										
Knob, Control (4 used)	52-1749-0															X	X	X	X						
Knob, Control (4 used)	52-1452-0																			X		X			
Knob, Control (4 used)	52-1406-0																			X		X			
Knob, VHF Skirt	52-1879-0					X	X	X	X	X	X														
Knob, UHF Skirt	52-1847-0						X		X		X														

VHF TUNER ALIGNMENT INSTRUCTIONS

OSCILLATOR ALIGNMENT TUNER 95-296-0

Set the fine tuning to the center of its range and adjust the overall oscillator adjustment for best picture and sound on each active channel.

OSCILLATOR ALIGNMENT TUNER 95-300-0

The individual oscillator slugs are accessible through a hole in the front of the tuner. Set the fine tuning to the center of its range and adjust each individual oscillator slug for best picture and sound on respective 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 Ⓣ. Adjust bias to obtain response curve which shows no indication of overloading.
Suggested Alignment Tools: A201, A202 GENERAL CEMENT #9087, 8290, 8868, WALSCO #2525, 2528, 2587

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS TUNER 95-296-0
Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to point Ⓣ, low side to ground.		Adjust for maximum gain and symmetry of response similar to Fig. 201 with marker as shown. Adjust by expanding or compressing coil turns.
	207MC	205.25MC 209.75MC	12			
						TUNER 95-300-0
	201MC	199.25MC 203.75MC	11		A201 A202	Adjust for maximum gain and symmetry of response similar to Fig. 201 with marker as shown. Check response on all channels and make compromise adjustments of A201 and A202 if required.
	195MC	193.25MC 197.75MC	10			
	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			

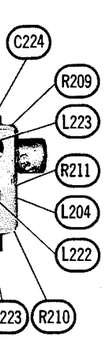
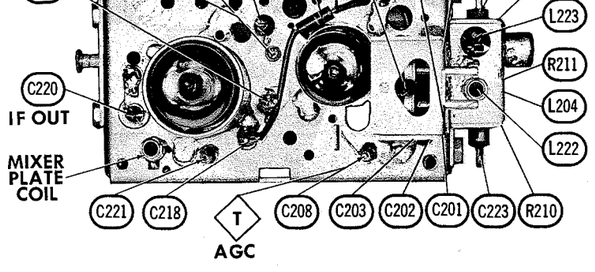
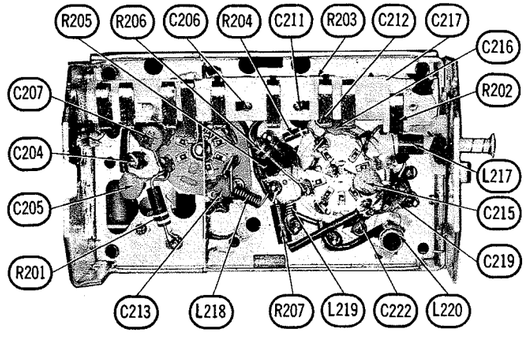


FIG. 201

Tune in a UHF station and adjust UHF IF input coil for best picture and sound.



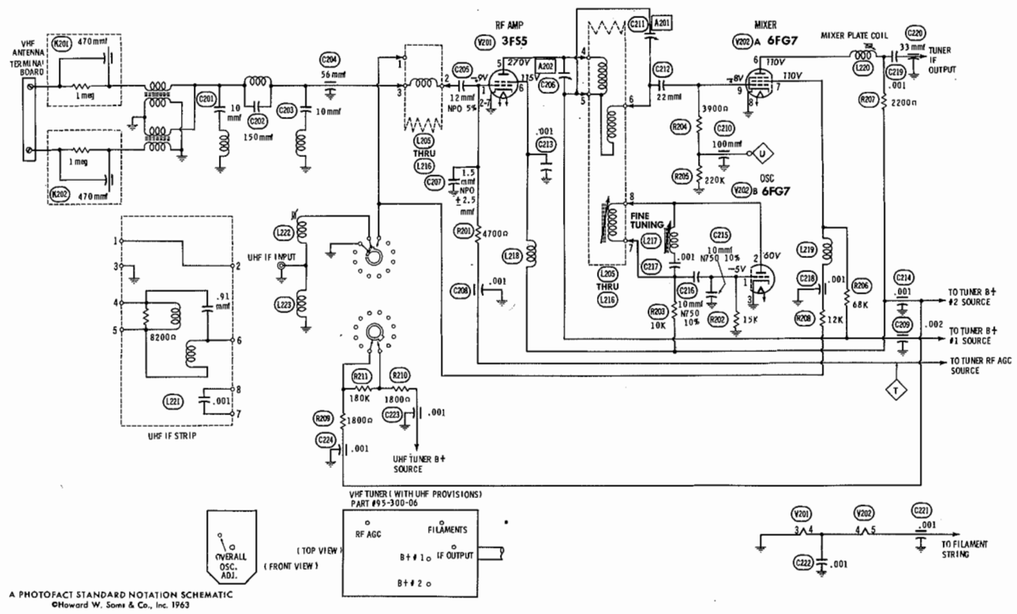


VHF TUNER 95-300-0

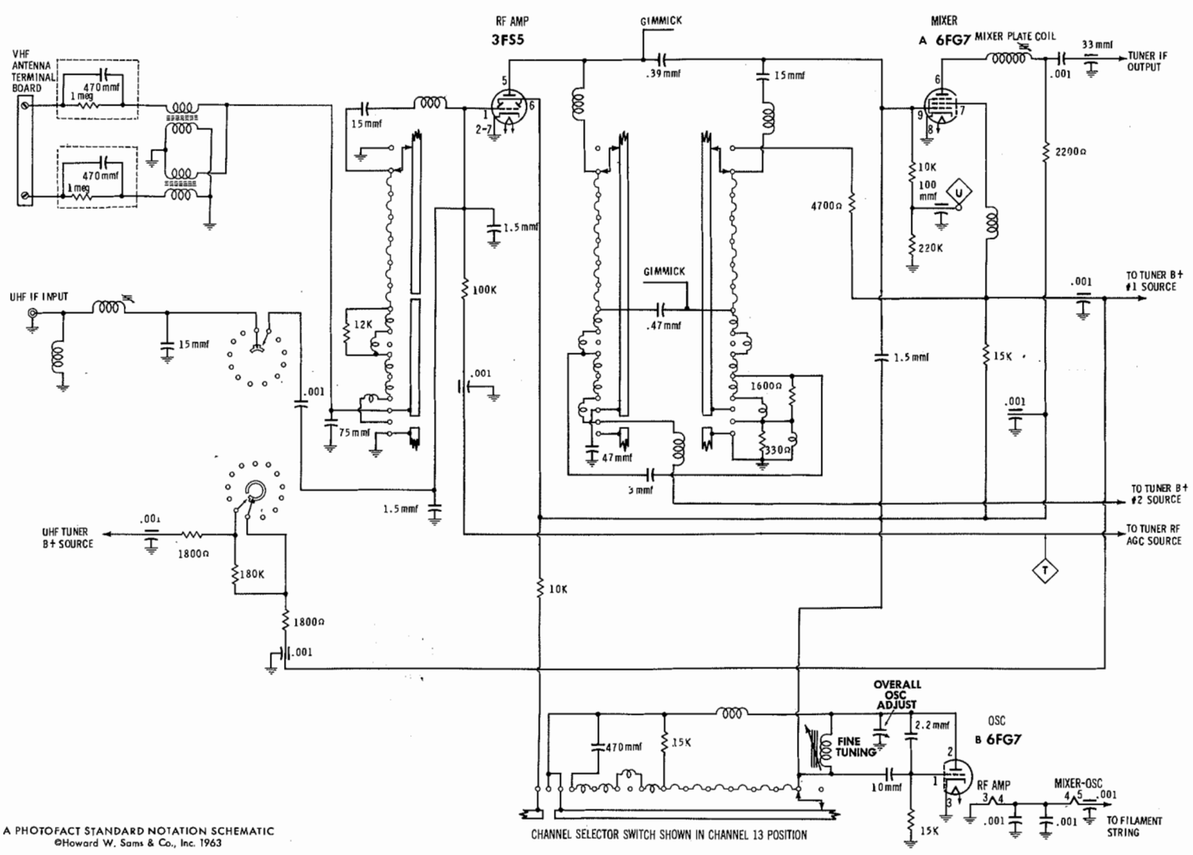
SET 651 FOLDER 3

SILVERTONE CHASSIS 456/528.60000 Series

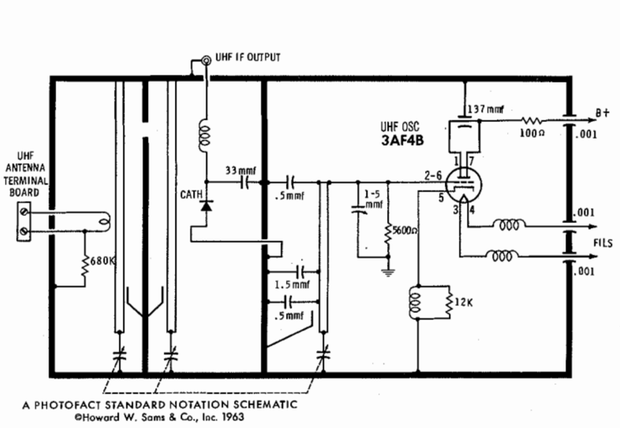
FOLDER 3



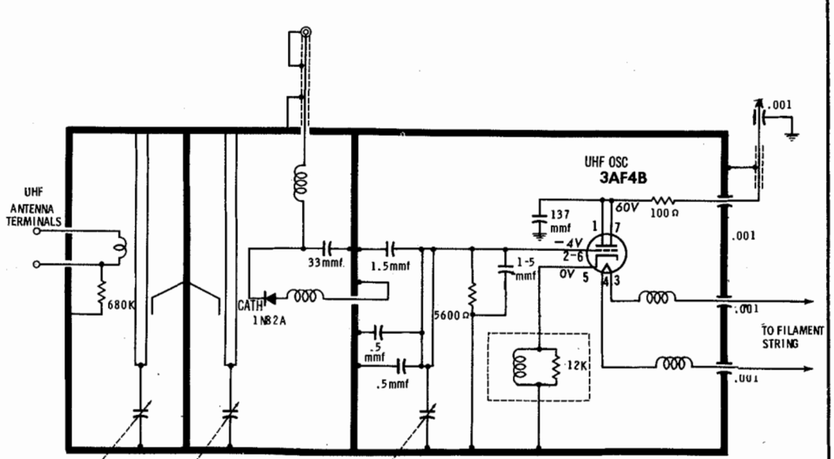
13 POSITION TURRET-TYPE VHF TUNER 95-300-0, UHF SWITCH 69-411-0



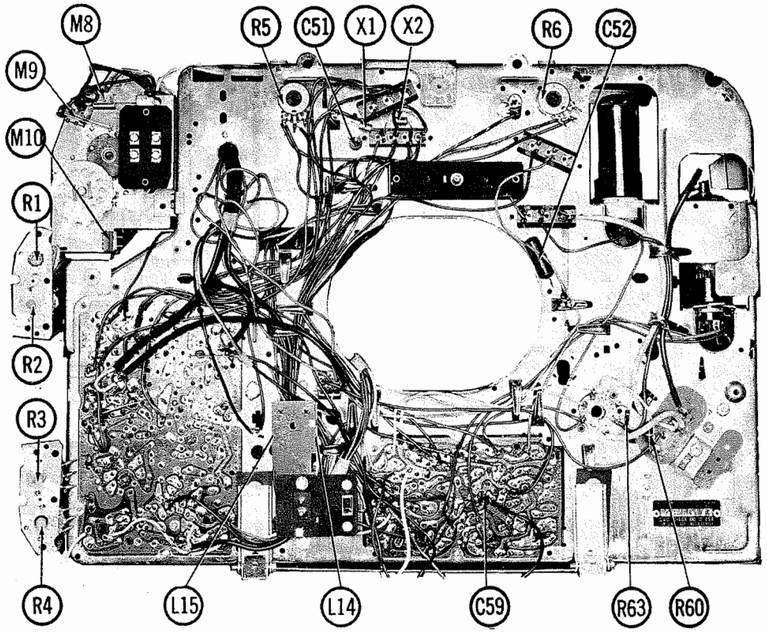
13 POSITION SWITCH-TYPE VHF TUNER 95-296-0, UHF SWITCH 69-414-0, 69-443-0



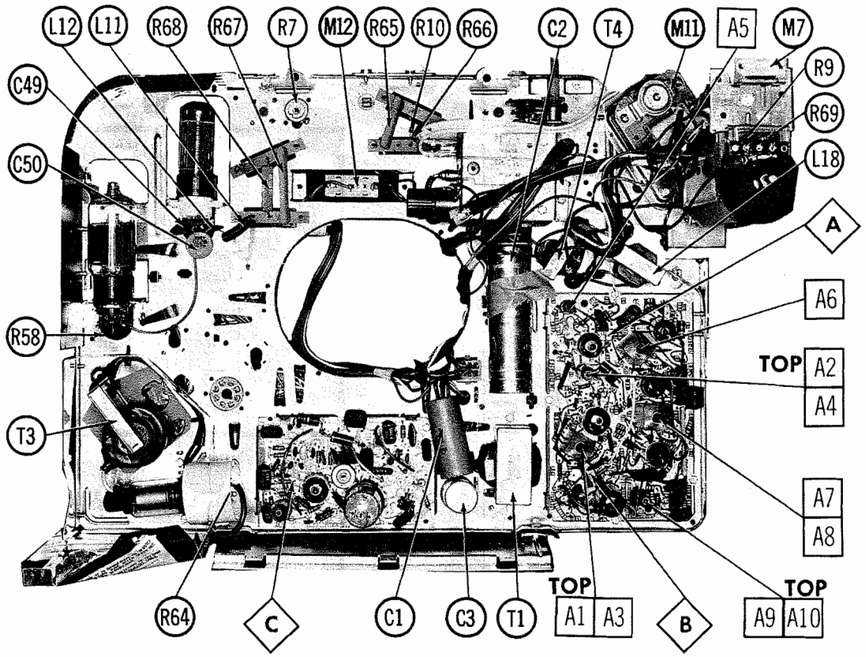
UHF TUNER 95-308-0



UHF TUNER 95-265-0



CHASSIS REAR VIEW



CHASSIS FRONT 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: A 1 Thru A10 ..... GENERAL CEMENT #9302, 8606L, 8869 ..... 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 Ⓐ) 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 Ⓑ. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		44.0MC 44.25MC	A1, A2 A3, A4, A5	Adjust for maximum.
2.	Connect vertical input of a scope to point Ⓑ. Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	42.75MC 43.6MC 45.0MC 45.75MC	Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 1. In order to obtain a proper response, it may be necessary to slightly retouch A 1, A2, A3, A4, A5.

SOUND IF ALIGNMENT

Tune in a station and adjust A 6 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears.
Continue to reduce signal while aligning for undistorted output by adjusting A6, A7, A8, and A9.

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 A10 for MINIMUM beat interference.

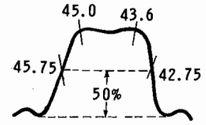


FIG. 1

SERVICING IN THE FIELD

SAFETY GLASS

Remove 1 screw holding the trim strip at the bottom edge (center) of the safety glass. Tilt glass out and remove.

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 Stabilizer Coil Slug, Frequency Control, and Horizontal Hold Control* are used for Horiz. Mult. Adjustments. (See back page for complete "Horizontal Sweep Circuit Adjustments".) * Not used in some versions.

FOCUS

The focus may be varied by means of a Focus control. (See "Tube Placement Chart" for location.)

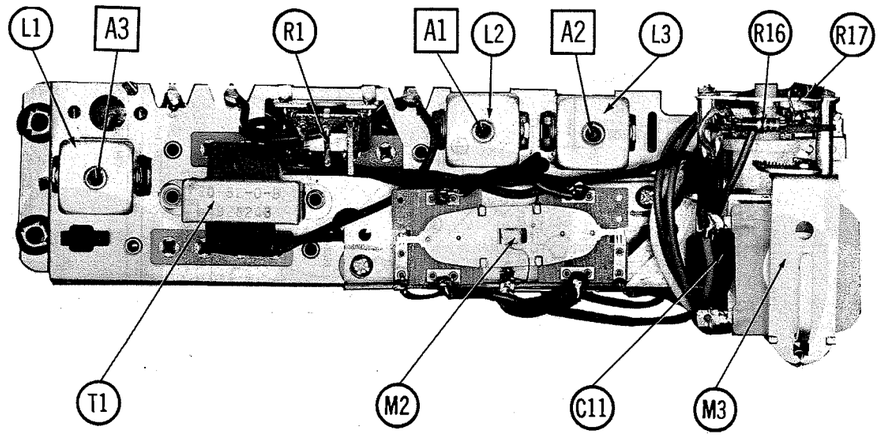
CENTERING

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

SILVERTONE REMOTE CONTROL CHASSIS 456/528.60180, 456/528.60182 , 456/528.60183

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 651 FOLDER 3 . File this Folder with the TV Folder in the yellow filing jacket provided.



SILVERTONE REMOTE CONTROL CHASSIS 456/528.60180, 456/528.60182, 456/528.60183

TRADE NAME	SILVERTONE
SUPPLIER	Sears, Roebuck and Co., 925 So. Homan Ave., Chicago, Illinois
TYPE SET	Remote Control Receiver Ch. 456/528.60180 and .60182, and Transmitter Ch. 456/528.60183
TRANSISTORS	Receiver: Seven Transmitter: One
POWER SUPPLY	Receiver: 110-120 Volts AC, 60 Cycles Transmitter: Battery (4.2V)

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS REMOTE CONTROL RECEIVER

Remove receiver from cabinet. Allow a 20-minute warm-up period for receiver and test equipment.
Suggested Alignment Tools: A1, A2, A3 ...GENERAL CEMENT #9440
A4 ..... GENERAL CEMENT #8606, 8606L, 8869 ... WALSCO #2543, 2544, 2588
A5 ..... GENERAL CEMENT #9087, 8290, 8868 ..... WALSCO #2525, 2528, 2587

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	High side to point (A), common to chassis.	38KC		Positive to point (B), negative to point (D).	A1	Set sensitivity control fully clockwise. Adjust for maximum deflection.
2.	"	41.5KC		Positive to point (C), negative to point (D).	A2	Adjust for maximum deflection.
3.	High side to transducer input jack, low side to chassis.	38KC		Positive to point (B), negative to point (D).	A3	Adjust for maximum deflection.

The sensitivity control should normally be set at maximum. If unusual noises cause false triggering, sensitivity should be reduced.

REMOTE CONTROL TRANSMITTER

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	Connect generator across horizontal input terminals on scope.	41.5KC		Vert. Input to point (B) on remote receiver, low side to chassis.	A4	Place the transmitter one foot from the transducer. Depress channel button and adjust A4 for single elliptical pattern on scope.
5.	"	38KC		"	A5	Depress On-Off-Volume button and adjust A5 for single elliptical pattern on scope.

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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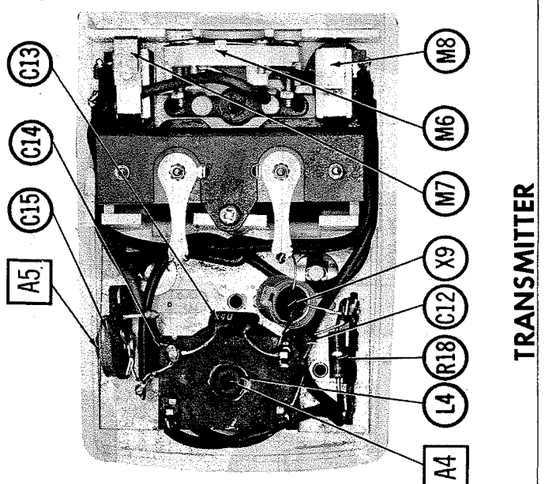
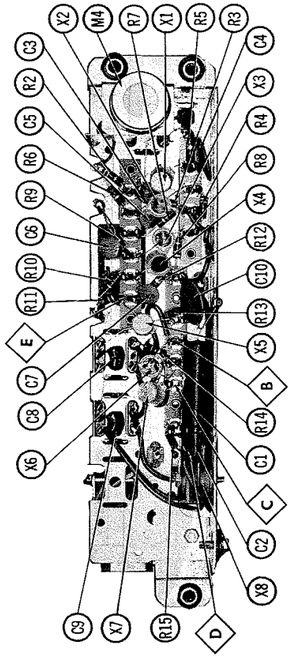


TRANSMITTER



RECEIVER—BOTTOM VIEW

TRANSMITTER PARTS LIST AND DESCRIPTION

BATTERIES

ITEM No.	VOLTAGE	SILVERTONE PART No.	REPLACEMENT DATA BURGESS	EVEREADY	MALLORY	NOTES
M5	4.2V	6415	H163	E163	TR163	

MISCELLANEOUS

ITEM No.	PART NAME	SILVERTONE PART No.	NOTES
M6	Transducer	33-45-1	Off-On Volume (Complete Assembly)
M7	Switch	84-8162	Channel Switch (Complete Assembly)
M8	Switch	84-9166	

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft. 17109 (Plastic) or 17129 (Rubber) - 9 Ft.
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8885 (Plastic)

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	NOTES
X9	86-78-2	Oscillator	DS28	GE1	2N408	PNP

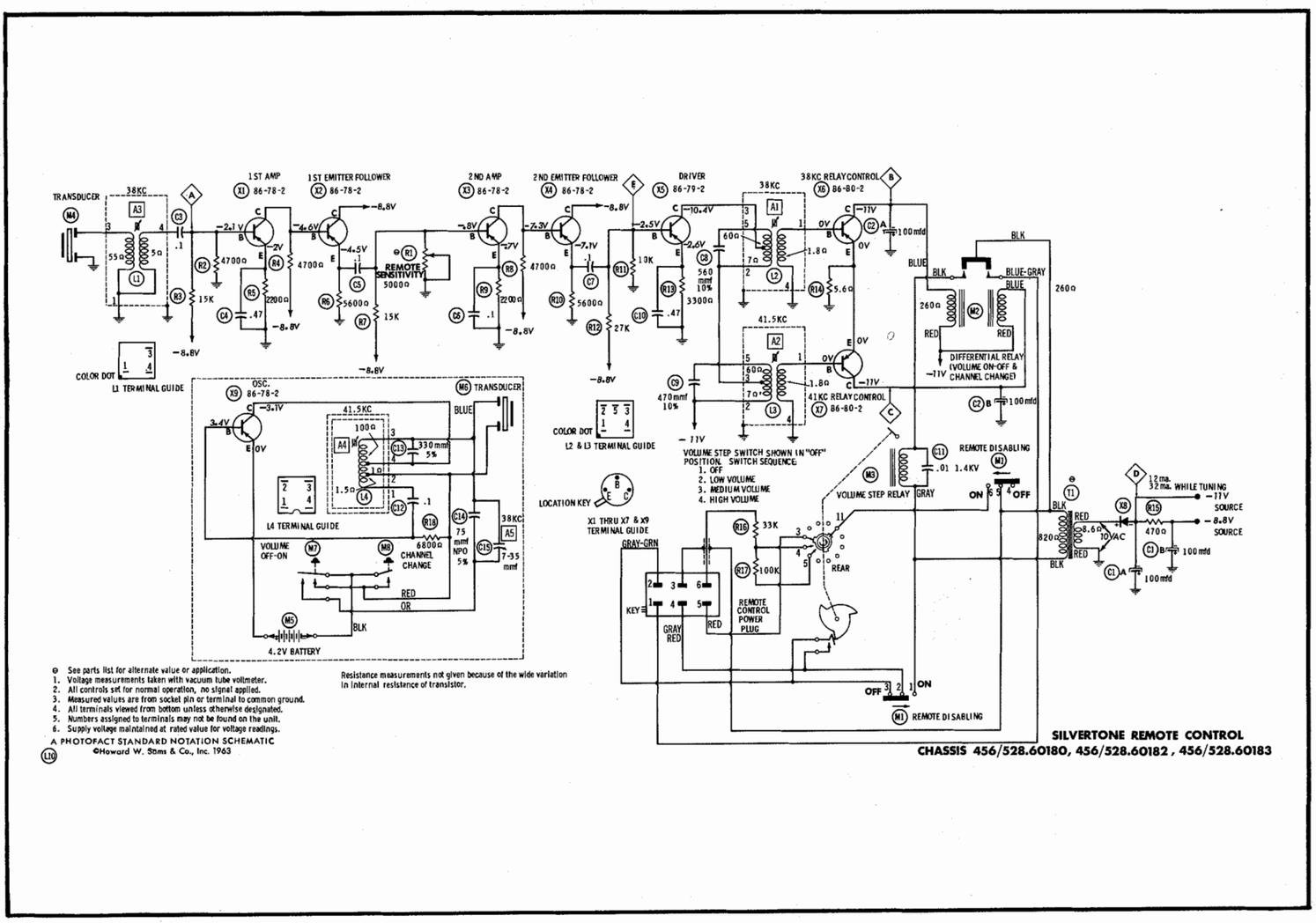
FIXED CAPACITORS

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.
C12	.1 10V 5%		TTD-1	UK10-104	BCC10104Z		TA-010	HY-320
C13	330 5%		1469-00033	CPR-330J	5S5T33	DM-15-33J		M3-333
C14	75 NPO 5%			DTZ-75	C10Q75C		CNO-475	10TCC-Q75
C15	7-35mmf	#19-4-5						

* Silvertone Part Number

COILS (RF-IF)

ITEM No.	USE	SILVERTONE PART No.	REPLACEMENT DATA MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	NOTES
L4	Osc.	10-75-4					



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

Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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RECEIVER PARTS LIST AND DESCRIPTION

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	86-78-2	Amplifier	DS25	GE1	2N218	PNP
X2	86-78-2	Emitter Follower	DS26	GE2	2N591	PNP
X3	86-78-2	Amplifier	DS25	GE1	2N218	PNP
X4	86-78-2	Emitter Follower	DS26	GE2	2N591	PNP
X5	86-79-2	Driver	DS25	GE2	2N591	PNP
X6	86-80-2	38KC Relay Control	DS26	GE2	2N218	PNP
X7	86-80-2	41KC Relay Control	DS26	GE2	2N218	PNP

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X8	.030A	86-30-3	1N2090 or A50 or D50	1N2858 or 1N536	2F4

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	SILVERTONE 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	15	18-47-0	BCD15X100100	NLW100-15	MT1-19	MLV5-15	TT15X100	TE-1162
B	100	15			NLW100-15	MT1-19	MLV5-15	TT15X100	TE-1162
C2A	100	15	18-47-0	BCD15X100100	NLW100-15	MT1-19	MLV5-15	TT15X100	TE-1162
B	100	15			NLW100-15	MT1-19	MLV5-15	TT15X100	TE-1162

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.
C3	.1 10V		TTD-1	UK10-104	HCC10104Z		TA-010	HY-320
C4	.47 10V			UK10-474	HCC10474Z			HY-330
C5	.1 10V		TTD-1	UK10-104	HCC10104Z		TA-010	HY-320
C6	.1 10V		TTD-1	UK10-104	HCC10104Z		TA-010	HY-320
C7	.1 10V		TTD-1	UK10-104	HCC10104Z		TA-010	HY-320
C8	560 10%		1469-00056	CPR-560J	5R5T56	DM-15-561K	MCJ247	MS-356
C9	470 10%		1469-00047	CPR-470J	5R5T47	DM-15-471K	MCJ244	MS-347
C10	.47 10V			UK10-474	HCC10474Z			HY-330
C11	.01 1.4KV		DAC-27	DDI6-103	HVE16S1	16DP-3-103	UAC-110	BL-S10

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			SILVERTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Remote Sensitivity	5000Ω	24-488-A (24-488) †	TT-10 or (F1-5000, SN010, AK-38)	B47-5000-S	B11-114, TM4 or (B111, CF8, SS6) *	PTA531 or (RU531, SL37, SN1000)

† Alternate Part Number

* "SNAPTROL"

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		SILVERTONE PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	Input	10-36-0					
L2	38KC Output	10-37-0					
L3	41.5KC Output	10-37-0					

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	SILVERTONE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .012A	10VAC @ .001ADC		80-52-0-B (80-52-0)†					† Alternate

MISCELLANEOUS

ITEM No.	PART NAME	SILVERTONE PART No.	NOTES
M1	Switch	69-341-0	Remote Off-On
M2	Relay	69-9-1	Differential Relay (Volume Off-On and Channel Change)
M3	Relay	69-4-1	Volume High, Medium, Low, and Off-On
M4	Transducer	33-50-1	

SILVERTONE REMOTE CONTROL
CHASSIS 456/528.60180, 456/528.60182, 456/528.60183

FOLDER 3-A