

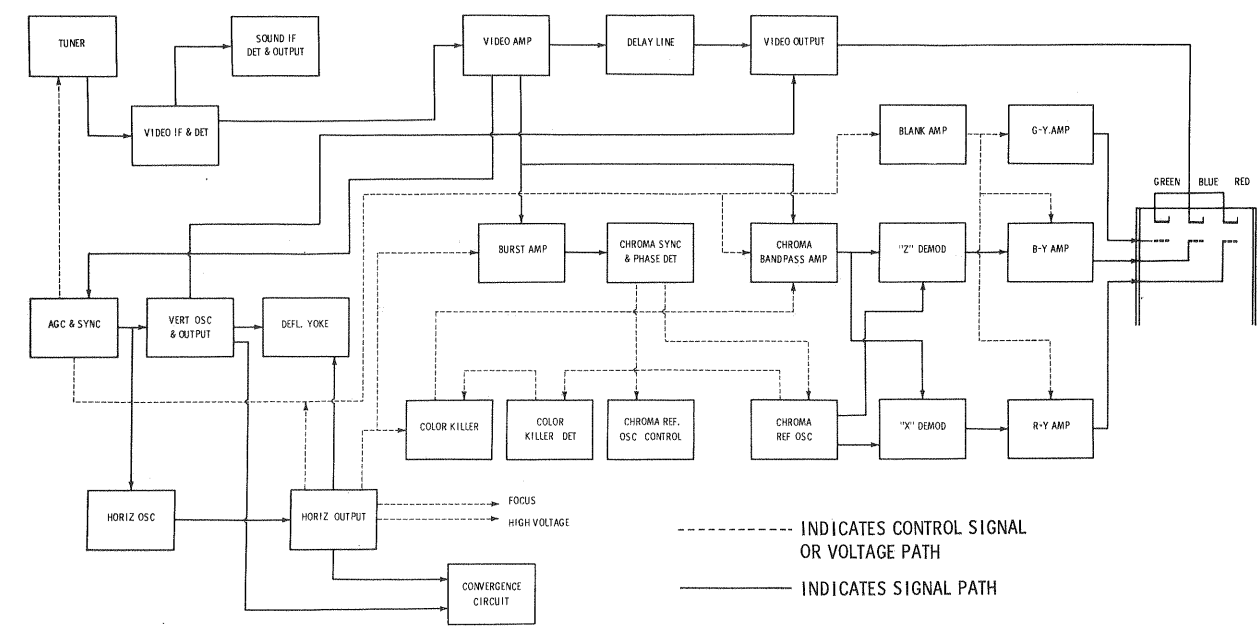
CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL**

 1. Remove rear cover (29 screws). Remove 2 oval knobs and 7 controls from front of cabinet.
 2. Disconnect antenna leads, picture tube socket, high voltage cable, speaker leads, and wires from yoke.
 3. Disconnect power plug to convergence board.
 4. Remove 5 screws from bottom of cabinet and remove one 1/4" screw from VHF tuner brace.
 5. Loosen four 5/16" screws from VHF tuner brace, lift up and out, and remove tuner.
- PICTURE TUBE REMOVAL**

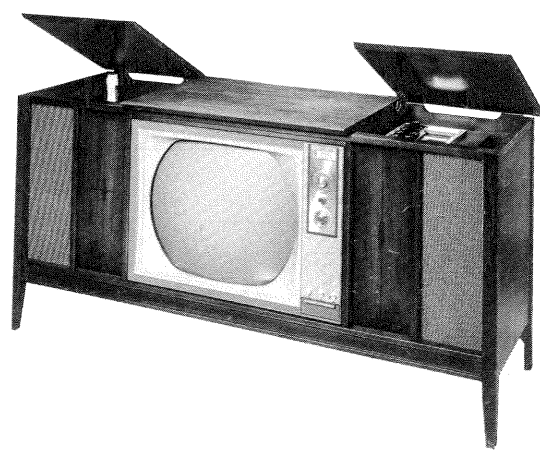
 1. Follow "Chassis Removal" instructions.
 2. Remove Blue lateral magnet, purity ring, magnet assembly, and convergence magnet assembly from picture tube neck.
 3. Remove 8 bolts from picture tube mounting brackets. Use brackets as handles and lift picture tube out of cabinet.



BLOCK DIAGRAM

749 FOLDER 1
 SET
 CATALINA MODELS
 122-570A/-572A/-574A/-576A/-578A

PHOTOFACT® Folder with **CIRCUITRACE™**



MODEL 122-578A

TRADE NAME	Catalina Models 122-570A/572A/574A/576A/578A
SUPPLIER	For current address, see Master Index.
TYPE SET	Color Television Receiver
TUBES	VHF: Twenty-Six, UHF: One Transistor
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 400 Watts, 3.95 Amps. @ 117 Volts AC

FOR SERVICE INFORMATION ON RECORD CHANGER — SEE SIMILAR UNIT IN PHOTOFACT SET 646 FOLDER 10

SERVICING IN THE FIELD

- SAFETY GLASS**

The safety glass is an integral part of the picture tube.
- FUSE OR FUSE DEVICE**

A 2 3/4" length of fuse wire is used for filament protection. (For location, see M1 in photo "Chassis - Bottom View".)

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**

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

The AGC may be varied by means of an AGC Control. (See "Tube Placement Chart" for location.)
- HORIZONTAL OSCILLATOR FIELD ADJUSTMENT**

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horiz. Oscillator Coil (Wave-form Slug, B1). (See "Tube Placement Chart" for location.)
- HORIZONTAL LINEARITY**

The linearity may be varied by a Horizontal Efficiency Coil.
- FOCUS**

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

Horizontal and Vertical centering is accomplished by 2 controls located at rear of set.

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. NB191 10 9 8 7 6 5 4 3 2 1 0

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CATALINA MODELS
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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.

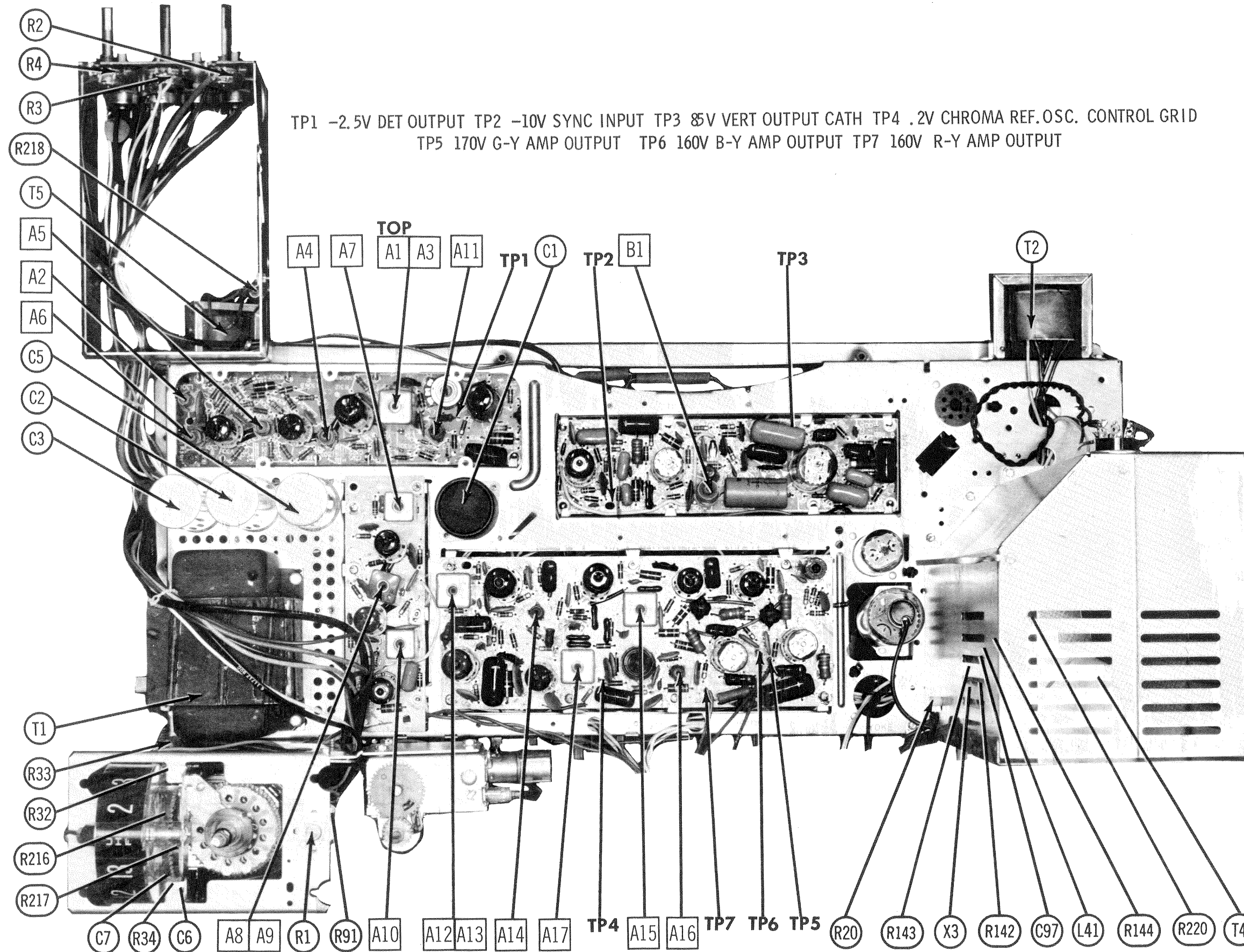
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*How
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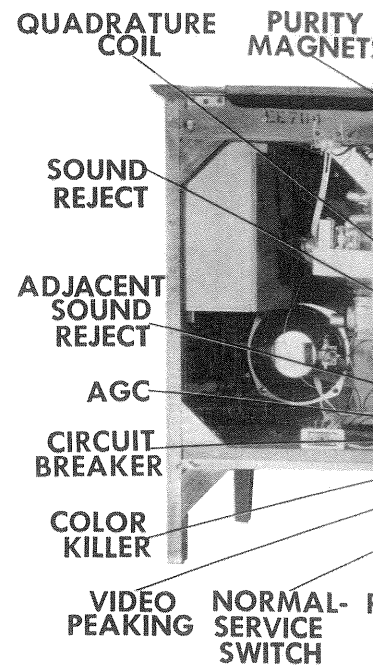
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SET 749 FOLDER 1



TP1 -2.5V DET OUTPUT TP2 -10V SYNC INPUT TP3 85V VERT OUTPUT CATH TP4 .2V CHROMA REF. OSC. CONTROL GRID
TP5 170V G-Y AMP OUTPUT TP6 160V B-Y AMP OUTPUT TP7 160V R-Y AMP OUTPUT

CHASSIS-TOP VIEW

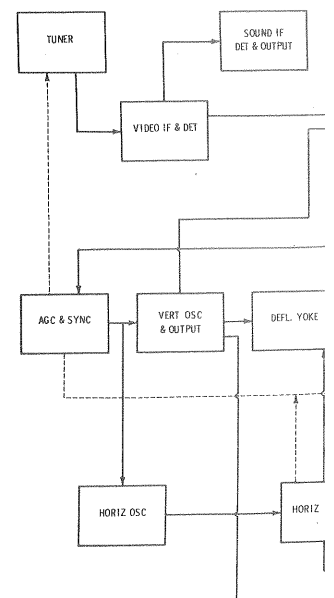


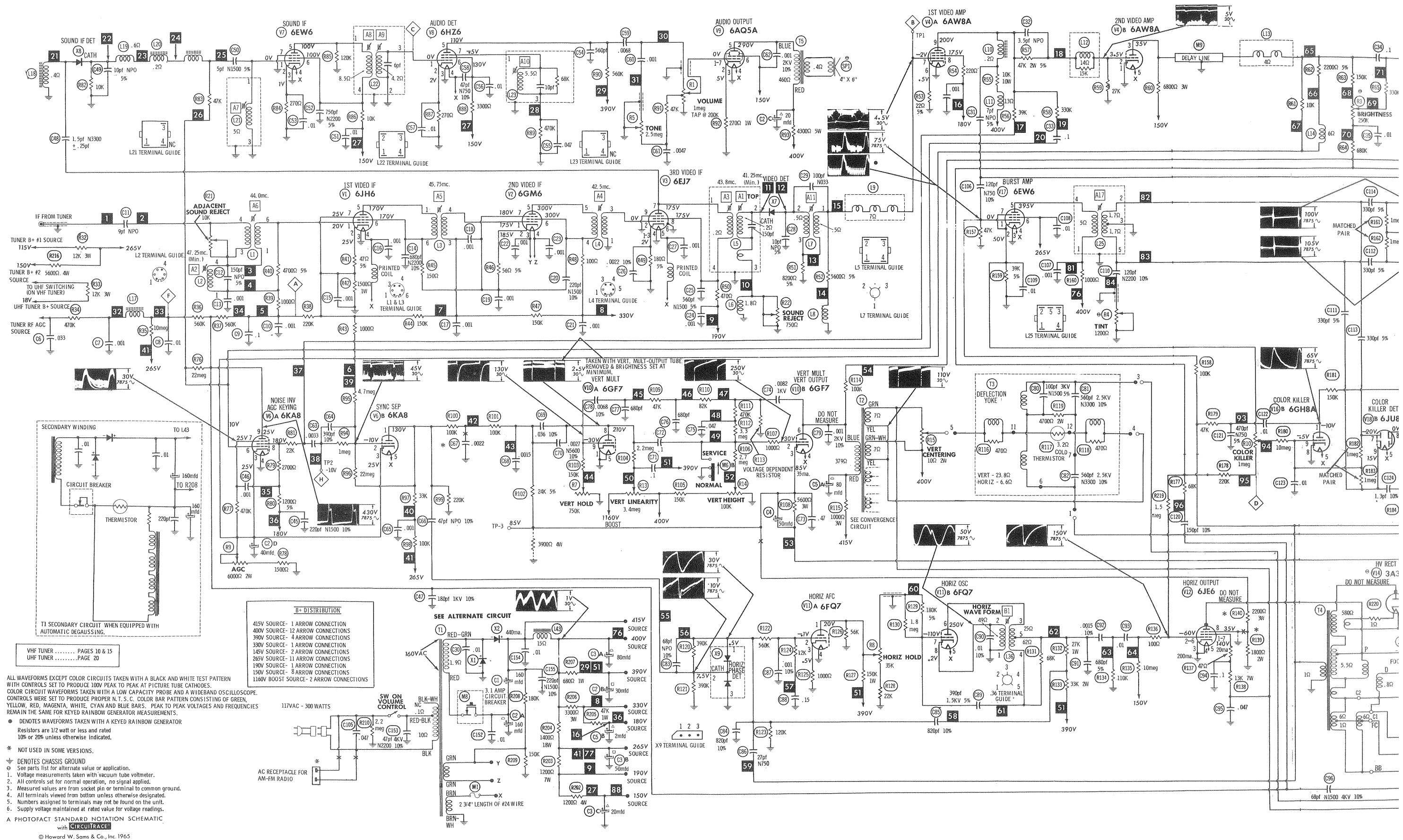
CATALINA MODELS
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FOLDER 1

CHASSIS REMOVAL

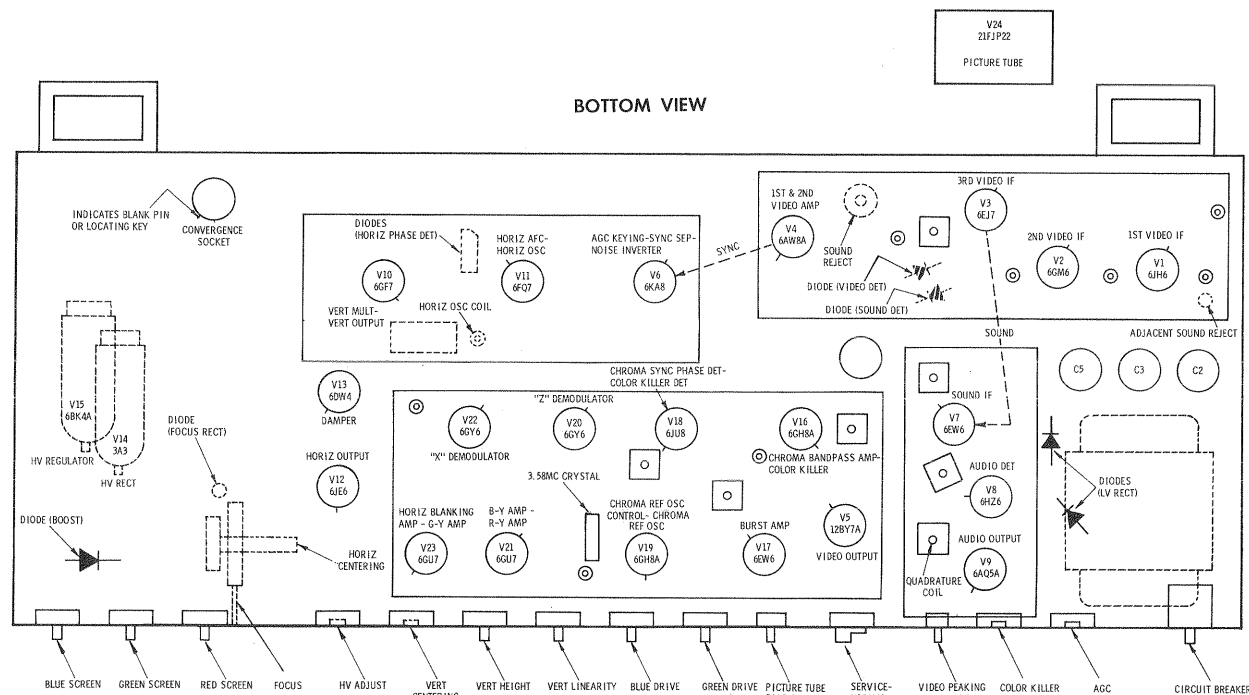
1. Remove rear cover (29 screws). Remove controls from front of cabinet.
2. Disconnect antenna leads, picture tube speaker leads, and wires from yoke.
3. Disconnect power plug to convergence.
4. Remove 5 screws from bottom of cabinet from VHF tuner brace.
5. Loosen four 5/16" screws from VHF and remove tuner.



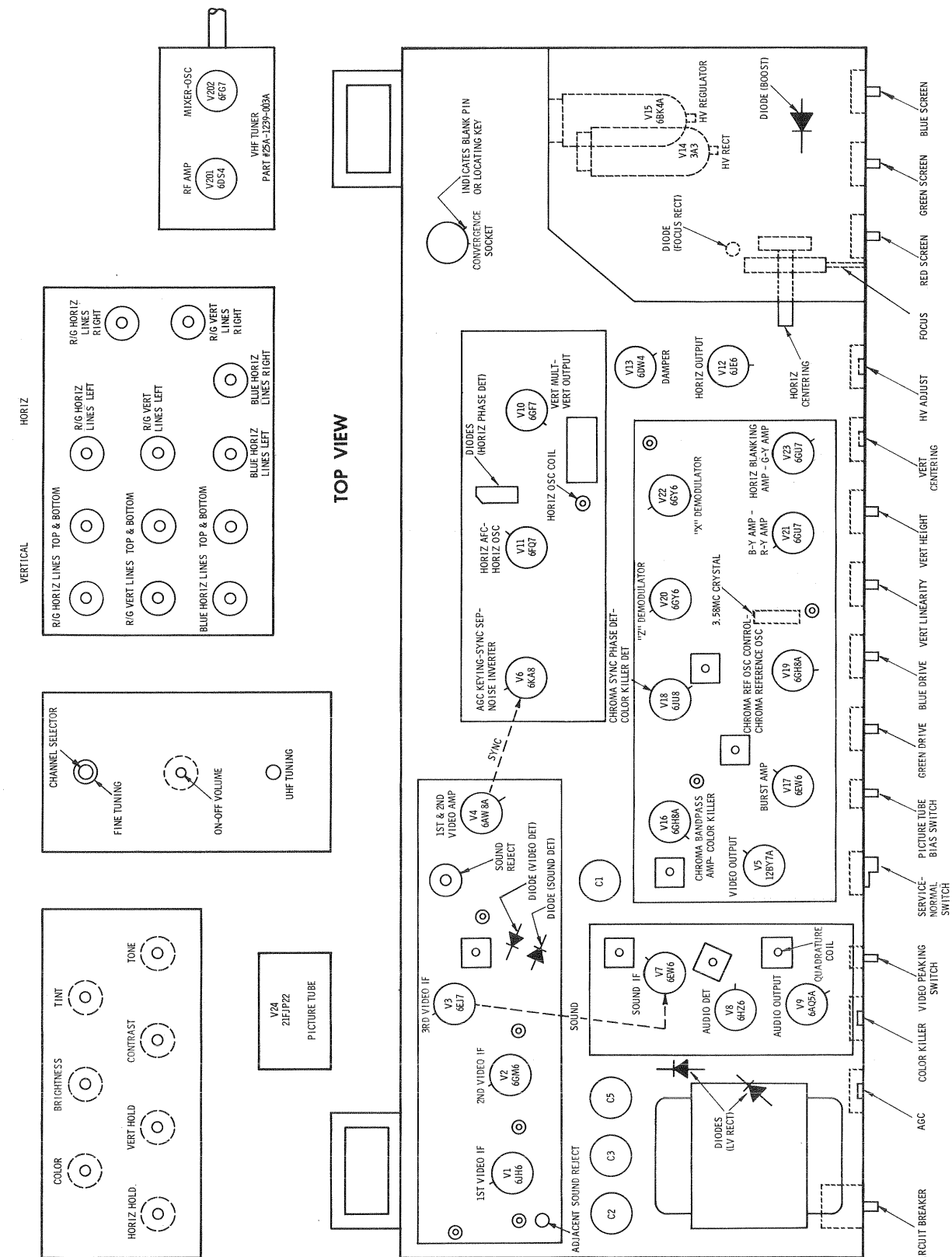


ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
V1	6JH6	220K	1450Ω	FIL	FIL	216Ω	216Ω	1400Ω					
V2	6G6	75K	INF	FIL	FIL	3400Ω	3400Ω	56Ω					
V3	6EJ7	180Ω	0Ω	180Ω	FIL	FIL	0Ω	3100Ω	3100Ω	0Ω			
V4	6AW8A	0Ω	# 22K	7500Ω	FIL	FIL	22Ω	1000Ω	32K	10K			
V5	12BY7A	320Ω	650K	0Ω	FIL	FIL	FIL	6500Ω	23K	0Ω			
V6	6KA8	60K	4meg	5500Ω	FIL	FIL	55K	470K	30K	700K			
V7	6EW6	5Ω	270Ω	FIL	FIL	14K	14K	0Ω					
V8	6HZ6	4.5Ω	270Ω	FIL	FIL	560K	7100Ω	470K					
V9	6AQ5A	60K	270Ω	FIL	FIL	4700Ω	3800Ω	NC					
V10	6GF7	0Ω	2.7meg	2100Ω	FIL	FIL	1370Ω	NC	3.2meg	280K			
V11	6FQ7	# 1 20K	670K	1000Ω	FIL	FIL	60K	215K	45Ω	0Ω			
V12	6JE6	1 3K	1.6meg	0Ω	FIL	FIL	1.6meg	1 3K	1600Ω	NC			TOP CAP 1 6.9Ω
V13	6DW4	NC	1 26Ω	NC	FIL	FIL	NC	1 26Ω	NC	2.9meg			
V14	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE											TOP CAP 1 582Ω TOP CAP INF
V15	6BK4	1 1000Ω	FIL	NC	NC	1 1.5meg	NC	FIL	NC				
V16	6GH8A	370K	220K	1 4800Ω	FIL	FIL	1 2900Ω	390Ω	0Ω	11meg			
V17	6EW6	32K	38K	FIL	FIL	1 1000Ω	1 1400Ω	38K					
V18	6JU8	1 1meg	220Ω	1 1meg	FIL	FIL	0Ω	12meg	22K	12meg			
V19	6GH8A	1 20K	47K	1 48K	FIL	FIL	1 8600Ω	0Ω	680Ω	INF			
V20	6GY6	135Ω	100Ω	FIL	FIL	1 5300Ω	1 3900Ω	2.2Ω					
V21	6GU7	1 22K	1meg	270Ω	FIL	FIL	1 22K	1meg	270Ω	0Ω			
V22	6GY6	135Ω	150Ω	FIL	FIL	1 5300Ω	1 3900Ω	.6Ω					
V23	6GU7	1 47K	260K	390Ω	FIL	FIL	1 22K	1meg	270Ω	0Ω			
V24	21FJP22	FIL	127K	420K	1 6400Ω	1 4500Ω	1 127K Pin 13 1 4500Ω	420K Pin 14 FIL	NC	1 70meg	NC	420K	1 127K
V201	6DS4	NC	1 15K	NC	1.8meg	NC	NC	NC	0Ω	NC	FIL	NC	FIL
V202	6FG7	4700Ω	1 12.5K	0Ω	FIL	FIL	1 8000Ω	1 30K	0Ω	222K			
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

BOTTOM VIEW



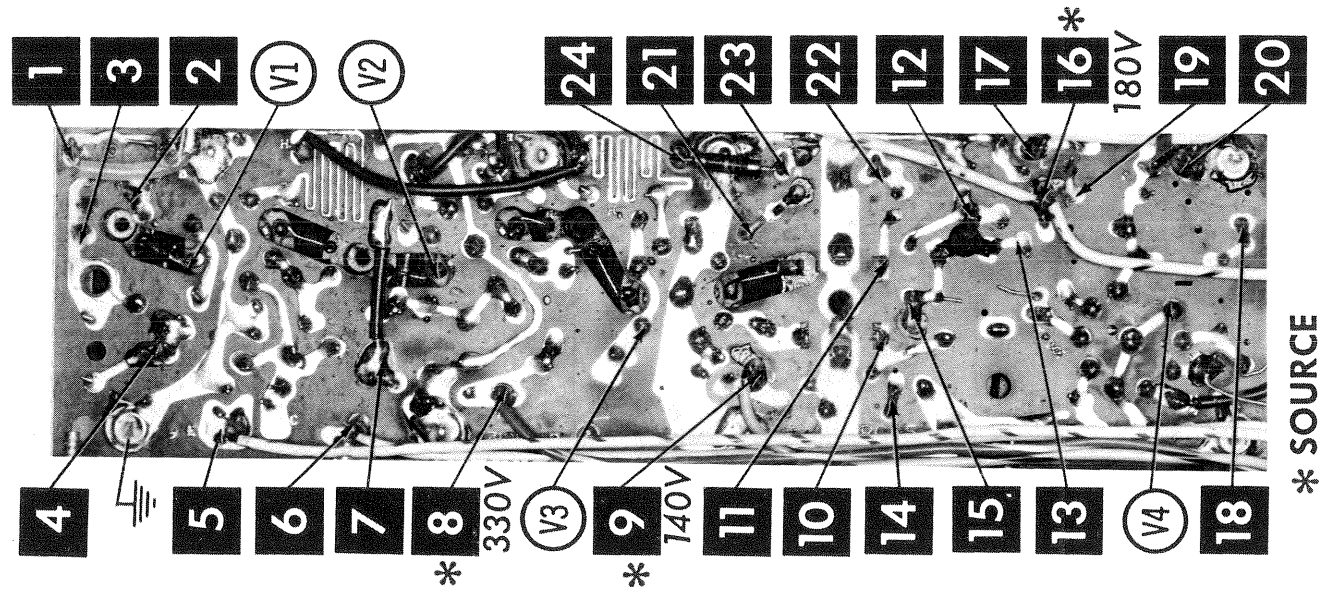
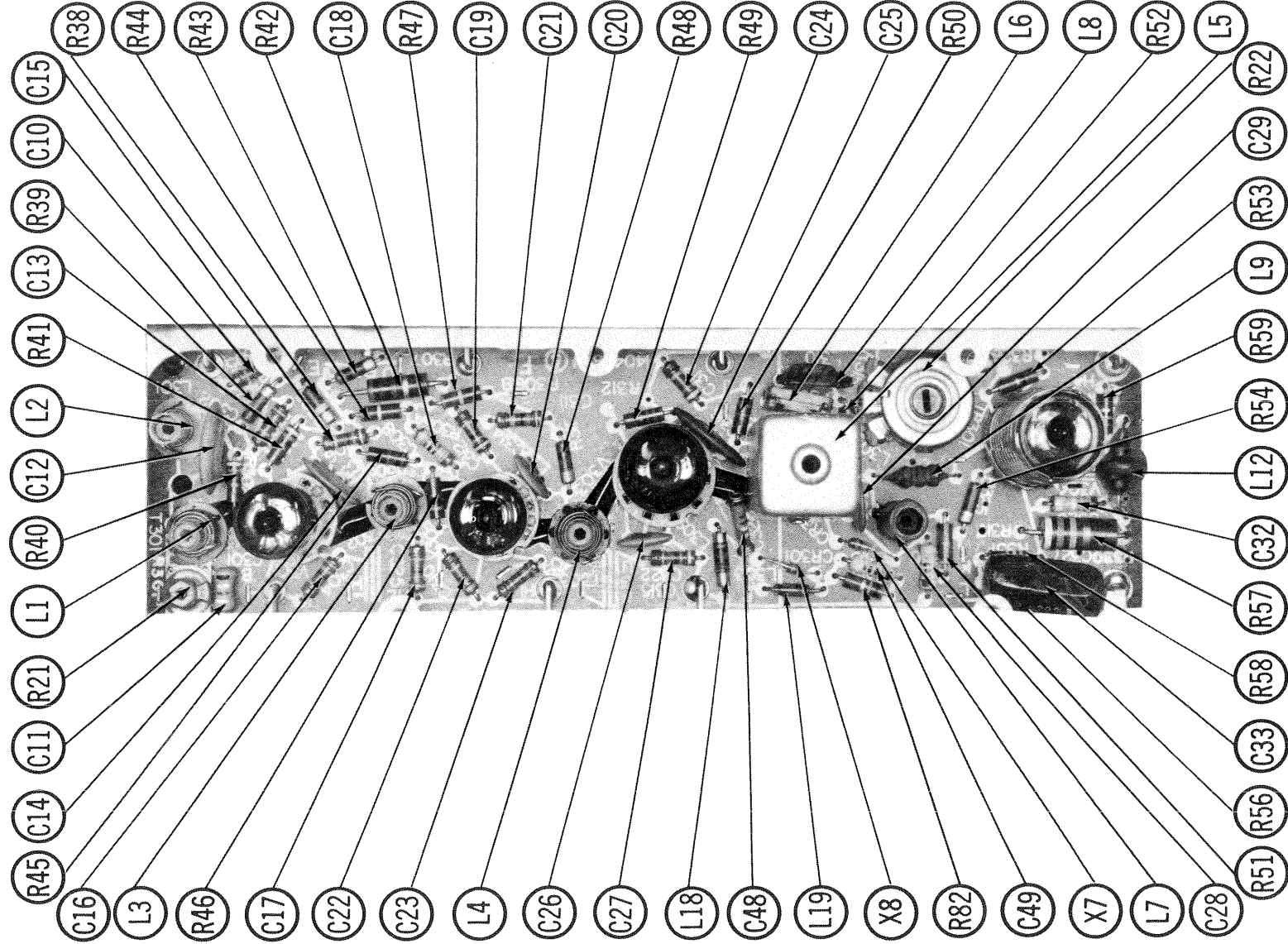
TUBE PLACEMENT CHART



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FOLDER 1

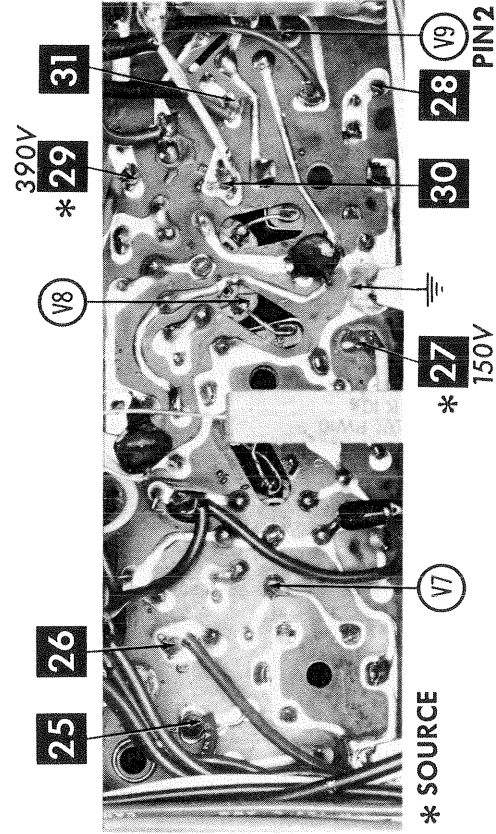
ARROWS INDICATING TUBE LOCATIONS ARE
POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



* SOURCE

VIDEO IF PRINTED BOARD

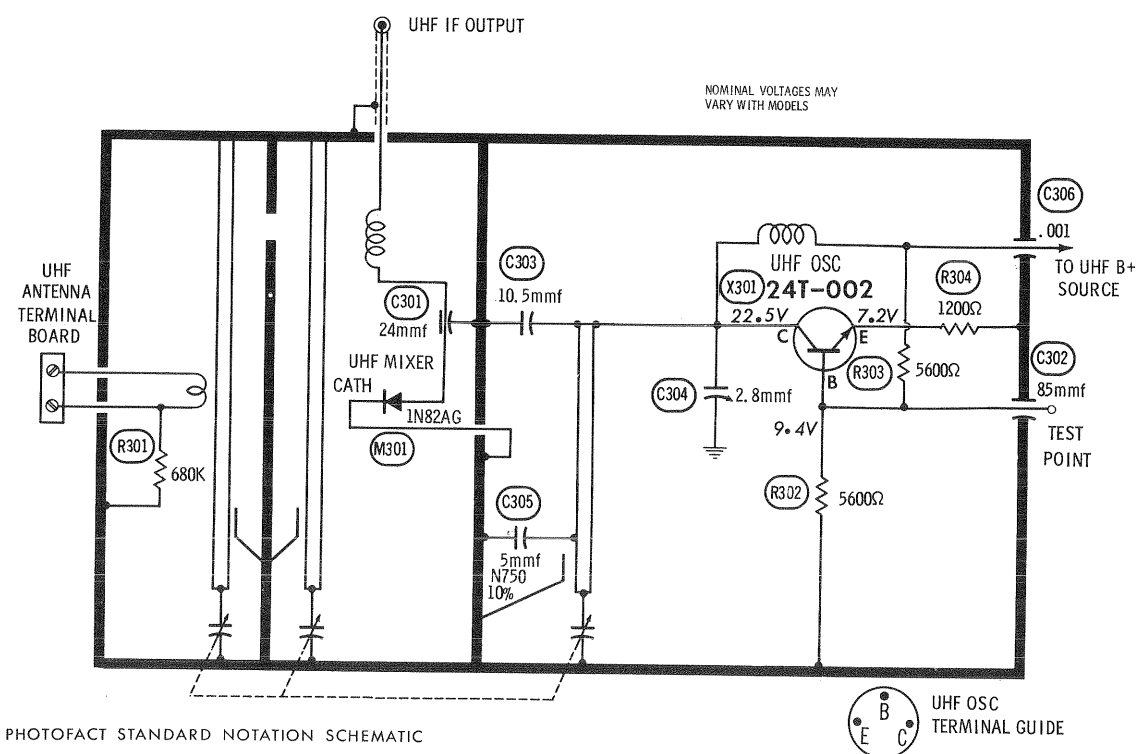
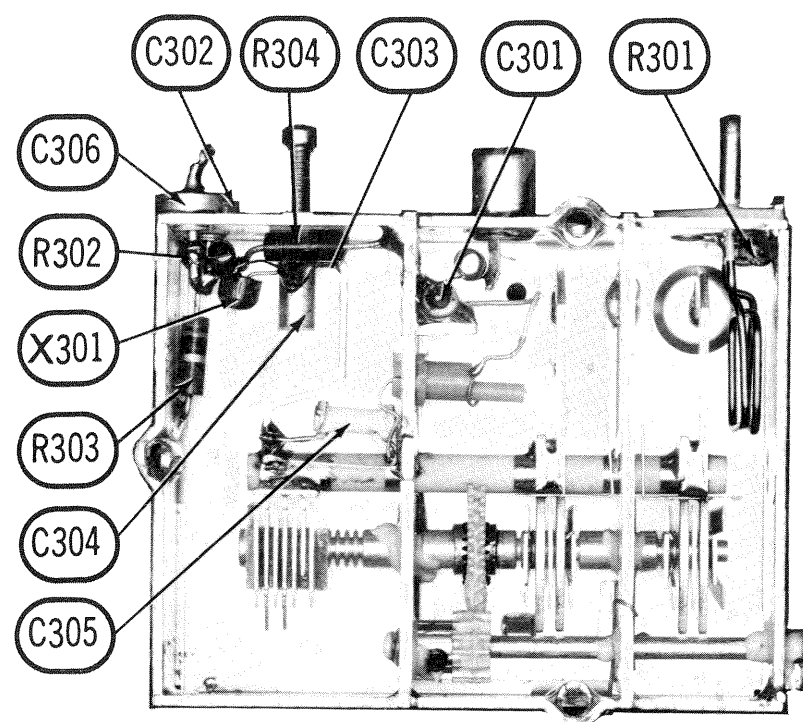
ARROWS INDICATING TUBE LOCATIONS ARE
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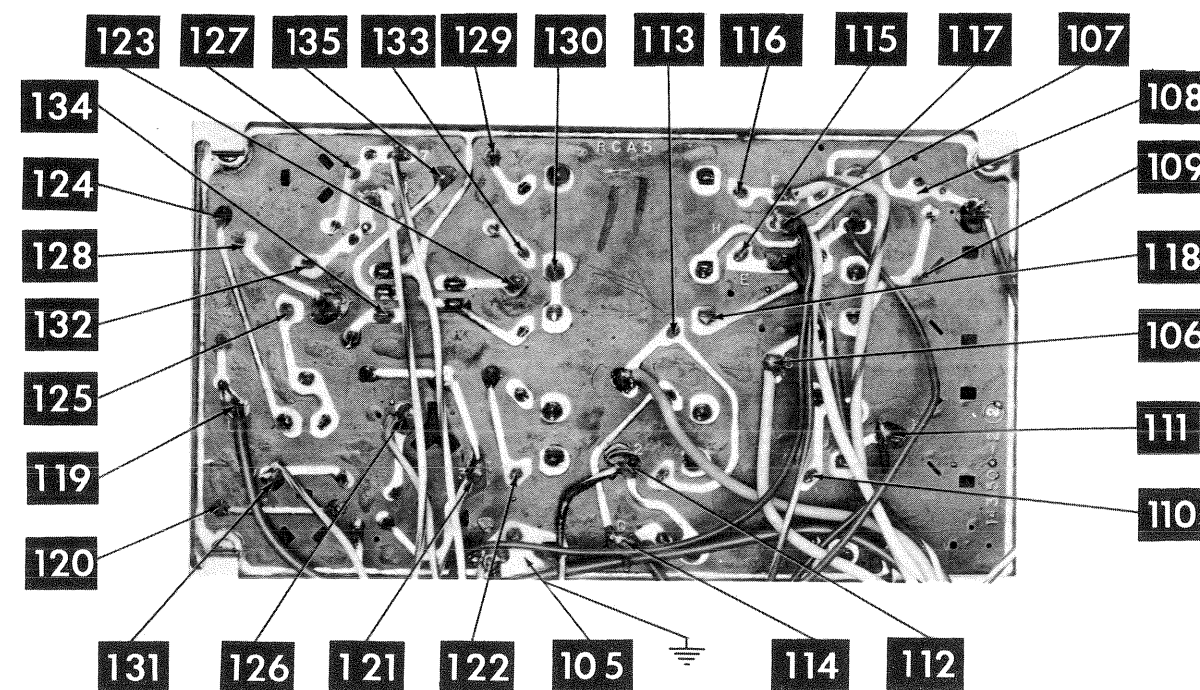
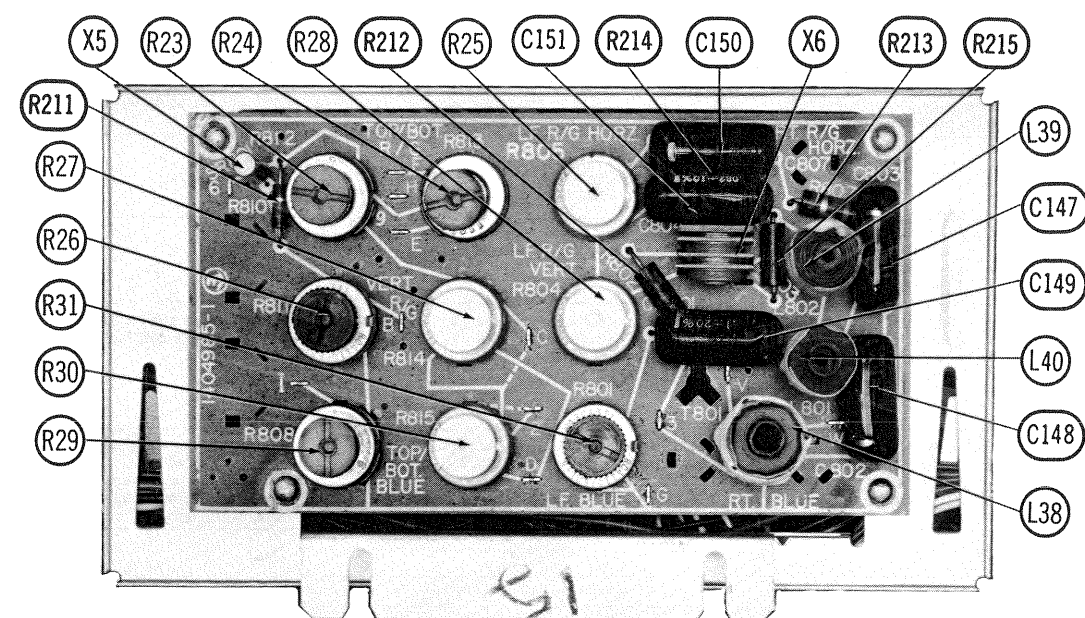
* SOURCE

SOUND IF PRINTED BOARD

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UHF TUNER 25A1243-003



A Howard W. Sams CIRCUITRACE Photo

CONVERGENCE PANEL
SET 749 FOLDER 1

CATALINA MODELS
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FOLDER 1

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 A14 GENERAL CEMENT #8606, 8869, 9302 ... WALSCO #2511, 2543, 2588
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 ⬢) 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.		41.25MC 47.25MC	A1, R22 A2, R21	Adjust for MINIMUM.
2.	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.		43.8MC 42.5MC 45.75MC 44.0MC	A3 A4 A5 A6, Mixer Plate Coil	Adjust for maximum. Use peak with core nearest printed board end of coil for A3.
3.	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)		41.25MC 42.2MC 45.0MC 45.75MC 47.25MC	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 A3, A4, A5, A6 and Mixer Plate Coil for optimum response.

SOUND IF ALIGNMENT

Connect a VTVM thru a detector probe to point ⬢. Tune in a TV station and adjust A7, A8, and A9 for maximum deflection. Remove the VTVM. Reduce the signal at the antenna terminals until distortion occurs in the sound. Adjust A10 clockwise from the fully out position to the second peak. Continue to reduce the signal and adjust A10 for MINIMUM distortion until no further improvement can be made.

4.5MC 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.

CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RF Modulator (RCA WG304A or equivalent). Connect a -15 volt supply to point ⬢. Connect a -2 volt supply to point ⬢. Connect a -15 volt supply to point ⬢. Positive of all supplies to ground. Connect a jumper from point ⬢ to ground. Turn the color intensity to maximum. Remove the Horizontal Output tube and connect a 2000Ω 100W resistor from Source "B" to ground.

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	High side thru .1mfd to grid of Bandpass Amp. (V17). Low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC		Vert. Amp. to pin 1 of demodulators, point ⬢. Low side to ground.	A12, A13	Adjust for response curve similar to Fig. 2.
5.	High side of sweep gen. to Video Sweep Input of RF demodulator. High side of signal gen. (set at 45.75MC) to picture carrier input. Output of RF modulator to mixer grid test point on tuner. Low side to ground.	Sweep generator to 3MC (6MC Sweep)	"		"	A14	Adjust for response curve similar to Fig. 3. If necessary, retouch A12 to flatten top of response.

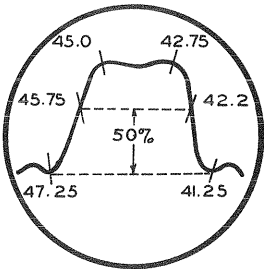


FIG. 1

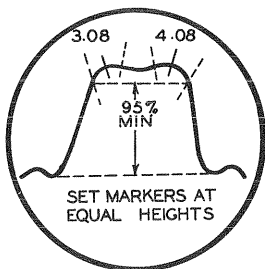


FIG. 2

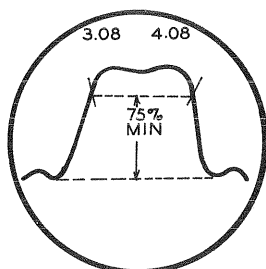


FIG. 3

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Suggested Alignment Tools:
A15, A16, A17 GENERAL CEMENT #8606, 8606L, 8869
WALSCO #2543, 2544, 2588

Connect:
A 0-500MA meter in series with cathode lead of horizontal output tube.
A .47mfd capacitor across meter.
A 0-500 microammeter in series with the cathode lead of the HV regulator tube.
A VTVM thru a high voltage probe to picture tube anode connector, point ⬢ to ground.
A short across horizontal oscillator cathode coil (pin 8 to ground).

Tune in a TV station and set all controls for normal operation. Adjust the Horizontal Hold control until the picture "floats" with the blanking bars vertical. Remove the short from the Horizontal Oscillator Cathode and adjust B1 until the picture "floats" horizontally. Remove the short from point ⬢. Adjust the Horizontal Linearity Coil for MINIMUM current in the horizontal output tube (should not exceed 210MA).

Adjust the High Voltage control for 23KV on picture tube anode with normal brightness. Check the High Voltage Regulator current. The current should not be less than 850 microamperes. If current is less than 850 microamperes, turn the Horizontal Linearity slug one-half turn clockwise. Check to see that horizontal output current does not exceed 210MA. If foldover occurs in picture, adjust Horizontal Linearity clockwise to eliminate foldover while checking to make sure horizontal output current does not exceed 210MA.

Adjust Focus, Height and Vertical Linearity controls.

AGC ADJUSTMENT

Tune in a strong TV station and advance the AGC control until instability appears in the picture (pulling, jitter, overload, etc.). Reduce the control to the point just below the instability and check all available stations for proper AGC action.

COLOR AFC ALIGNMENT

Set the Killer Threshold control to fully counterclockwise. Set the Tint control to the center of its range. Connect a color bar generator to the antenna terminals. Adjust receiver for normal color reception. Short pin 1 of Burst Amp. (V17) to ground.

Connect DC probe of VTVM thru 470K to pin 1 of Phase Detector (V19). Adjust A15 for maximum deflection on VTVM. If no reading is obtained oscillator is not operating. Adjust A16 to start oscillator, then adjust

A15 for maximum. Remove the short from pin 1 of Burst Amp. Adjust A17 for maximum deflection on VTVM. Make sure the oscillator is running and locked in.

Short point ⬢ to ground. Remove VTVM. Adjust A16 until color bars stand still or drift slowly. Remove the short from point ⬢ and check to see that the color bars will "Sync" with a low level input signal. If necessary, retouch A16 for best hold.

Connect the Vertical Input of a Scope to point ⬢. Check for proper waveform with the color bar generator being used. See waveform on schematic for pattern obtained from a standard NTSC signal. Check the range of the Tint control. The bars should move 30° either side of proper signal. If necessary, retouch A17 for proper range of control.

Check for proper waveform at G-Y and B-Y outputs (points ⬢ and ⬢). Tune in a weak signal or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the Killer Threshold control to eliminate the color in the snow. Check with a color signal to make sure the killer is not eliminating picture coloring.

PURITY ADJUSTMENTS

Perform step 1 of Convergence Adjustments. If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets. Connect the Blue and Green grids of the picture tube to ground. Loosen the deflection yoke and move it rearward until it is against the convergence yoke assembly.

Adjust the tabs on the purity magnet and rotate the assembly until a Red spot appears at the center of the picture tube. Slide the deflection yoke forward to obtain a uniform Red over entire picture tube face. A low power microscope is useful to observe the beam landings.

GRAY SCALE ADJUSTMENTS

Tune in a black and white picture or a color picture with the Color control set to MINIMUM. Switch the Kine bias switch to the "Up" position. Turn the Red, Blue and Green screen controls fully counterclockwise. Move the Normal-Service switch to "Service". Advance the screen controls one at a time until each produces a barely visible line on the screen.

If one or more controls fail to produce a line, change the Kine bias switch to the center or possible "Down" position and begin again. Return the Normal-Service switch to "Normal". Adjust the Blue and Green Drive controls to eliminate coloring in the dark and bright areas of the picture.

CONVERGENCE ADJUSTMENTS			
Step	Control	Use to Converge (or straighten)	Remarks
1.			Perform center dot convergence using convergence magnets. If more range is needed, reverse magnet holder in clip. See Fig. A.
2.	R-G Vert. lines, Top and Bottom	Red and Green vertical bars at top and bottom of screen.	Touch up both controls for best convergence from top to bottom along vertical center line (Fig. B).
3.	R-G Horiz. lines, Top and Bottom	Red and Green horizontal bars at top and bottom of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. B).
4.	Blue Horiz. lines, Top and Bottom	Blue horizontal bars at top and bottom of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. C).
5.			Perform center dot static convergence (Fig. A).
6.	Blue Horiz. lines, Right	Blue horizontal bars at right side of screen.	Touch up both controls for best convergence along horizontal center line (Fig. D).
7.	Blue Horiz. lines, Left	Blue horizontal bars at left side of screen.	
8.	R-G Vert. lines, Right	Red and Green vertical lines at right side of screen.	(Fig. E)
9.	R-G Horiz. lines, Right	Red and Green horizontal bars at right side of screen.	Use control to converge blue bar with red and green bars on right side of screen (Fig. E).
10.	R-G Vert. lines, Left	Red and Green vertical bars at left side of screen.	(Fig. E)
11.	R-G Horiz. lines, Left	Red and Green horizontal bars at left side of screen.	Use control to converge blue bar with red and green bars at left side of screen (Fig. E).

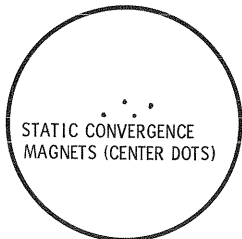


FIG. A

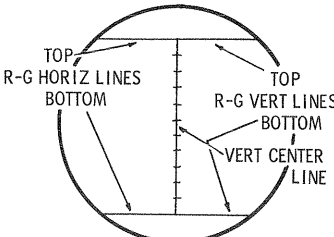


FIG. B
(RED & GREEN ONLY)

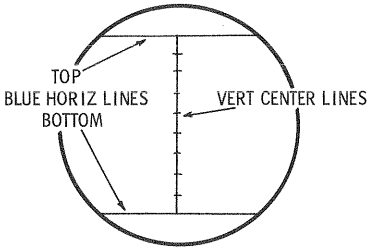


FIG. C
(BLUE BARS)

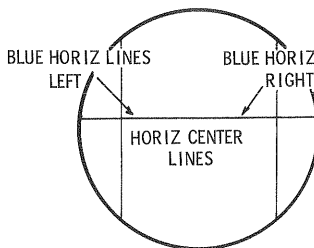


FIG. D
(BLUE BARS)

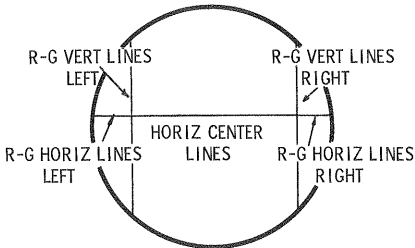
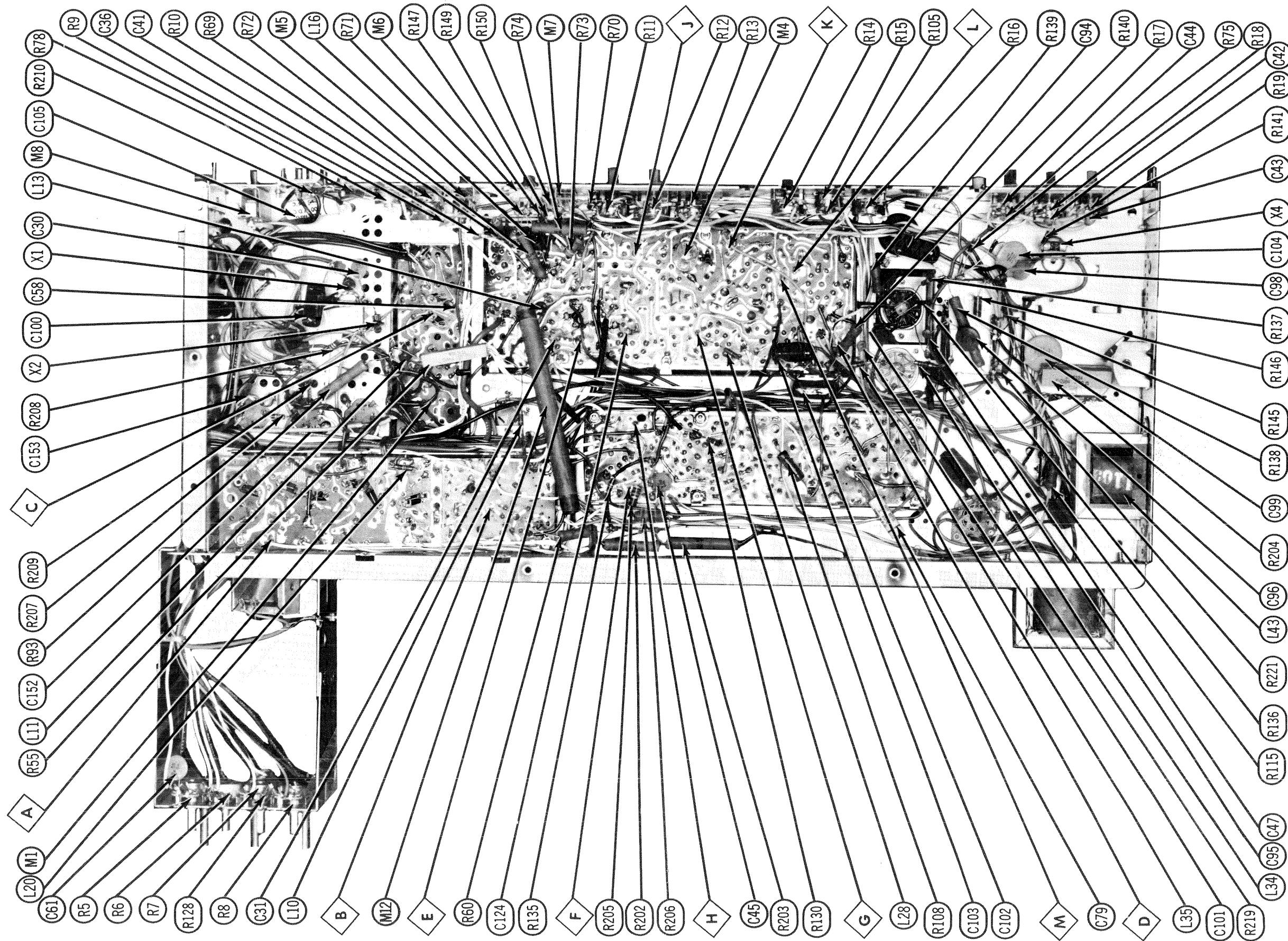


FIG. E

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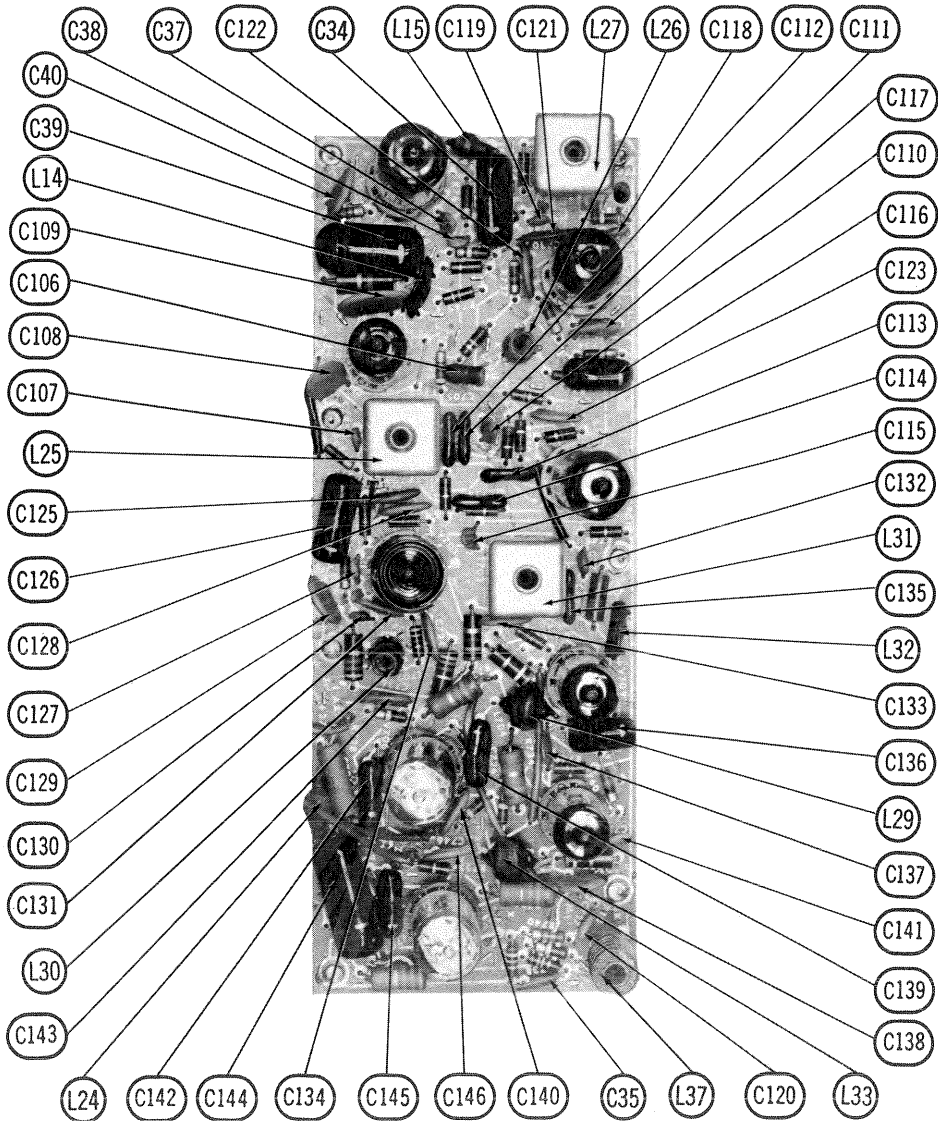
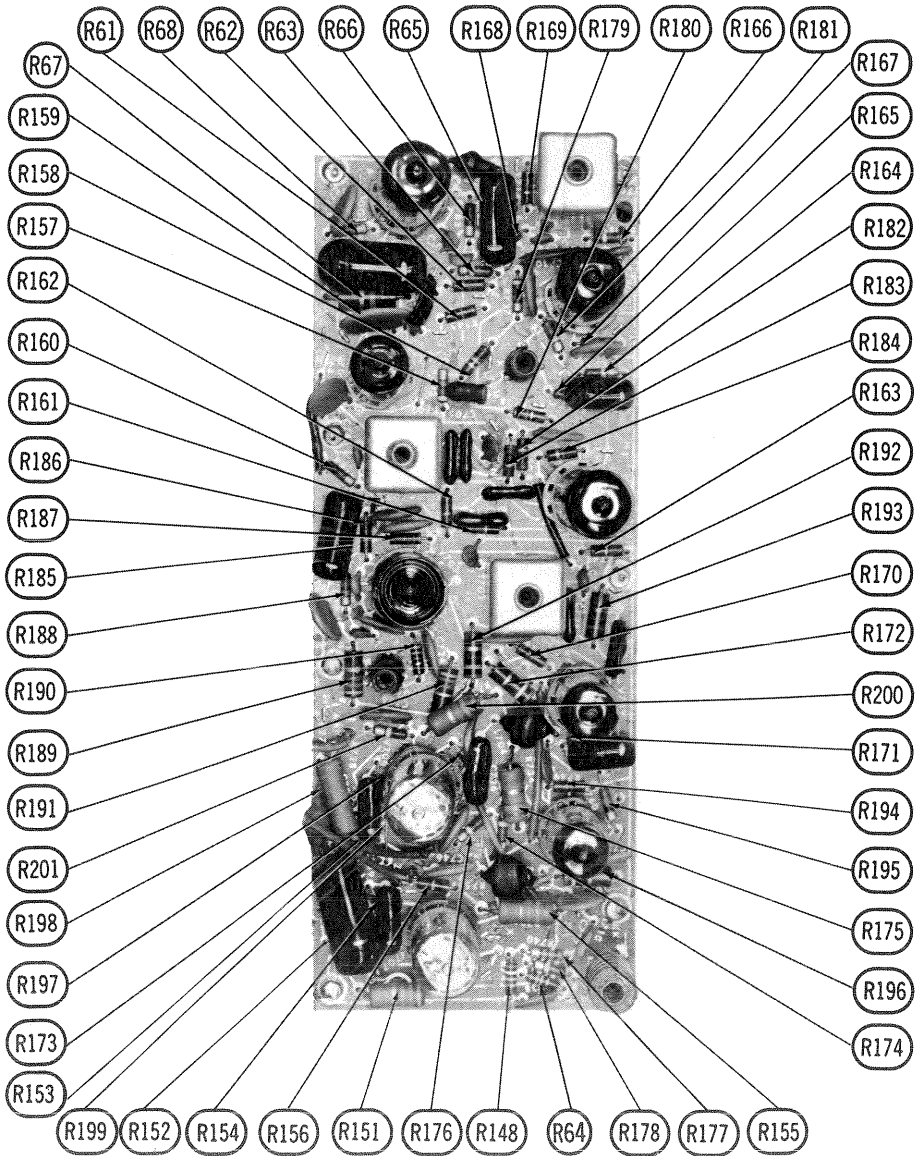
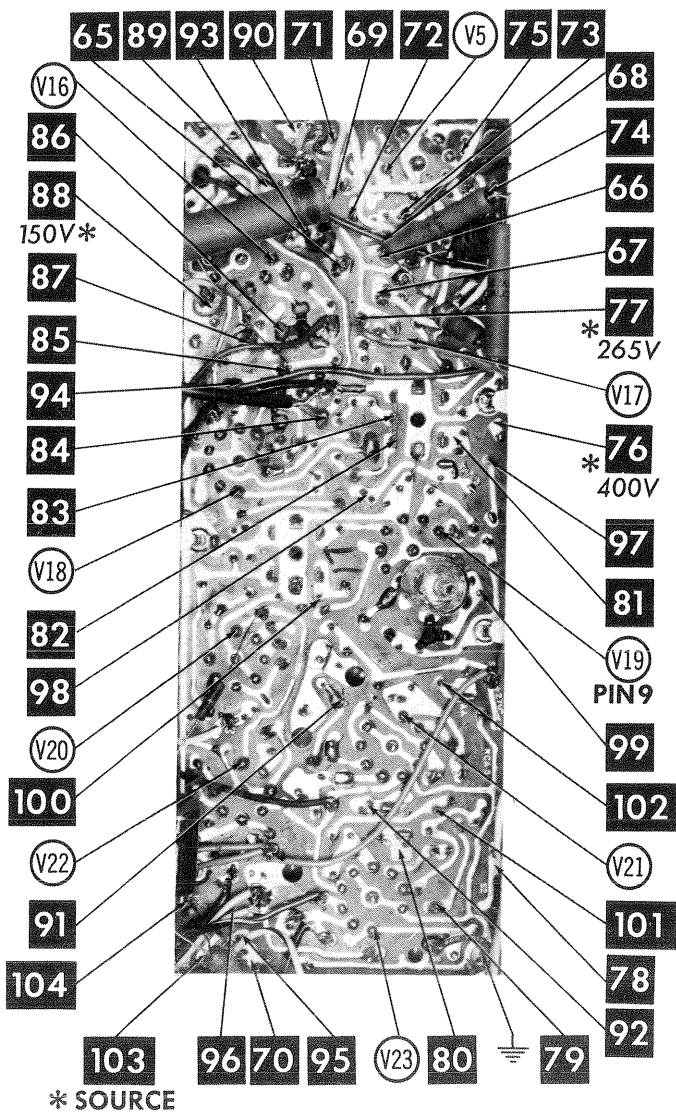
FOLDER 1



CHASSIS-BOTTOM VIEW

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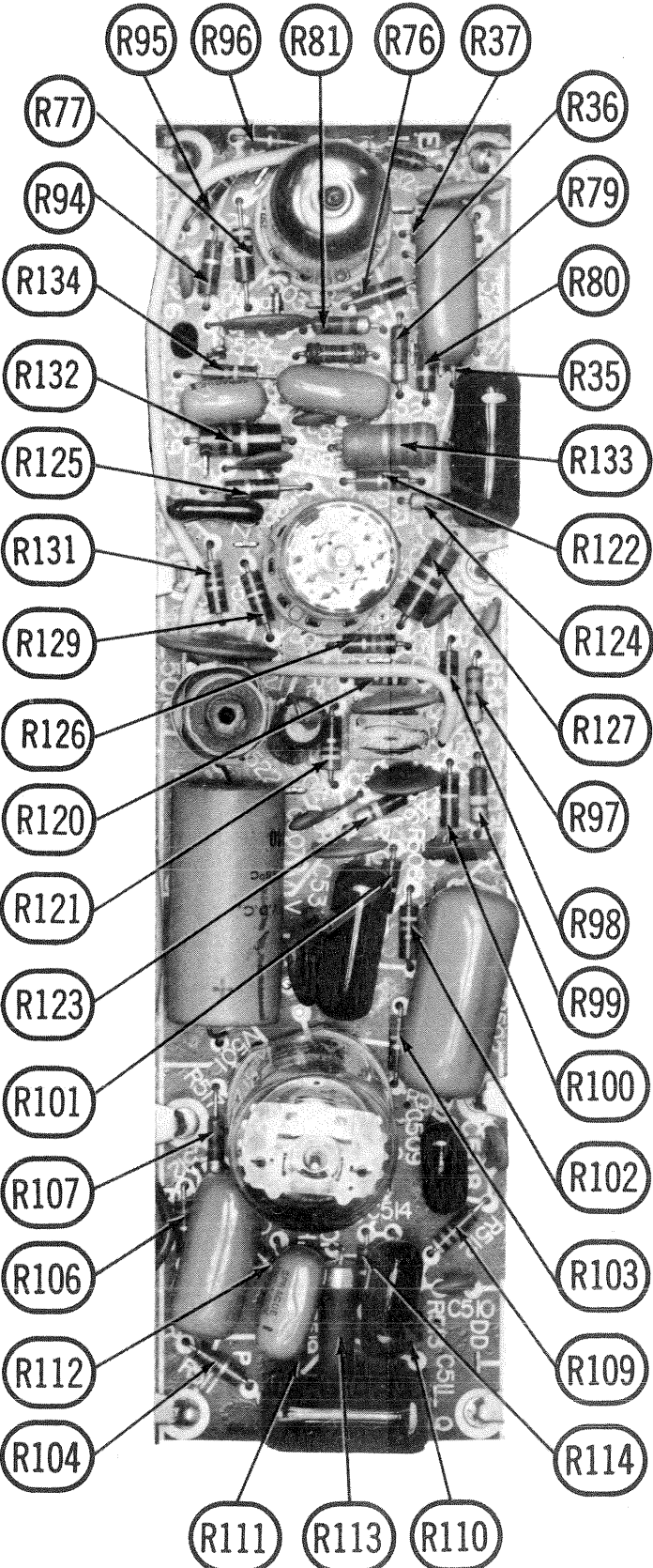
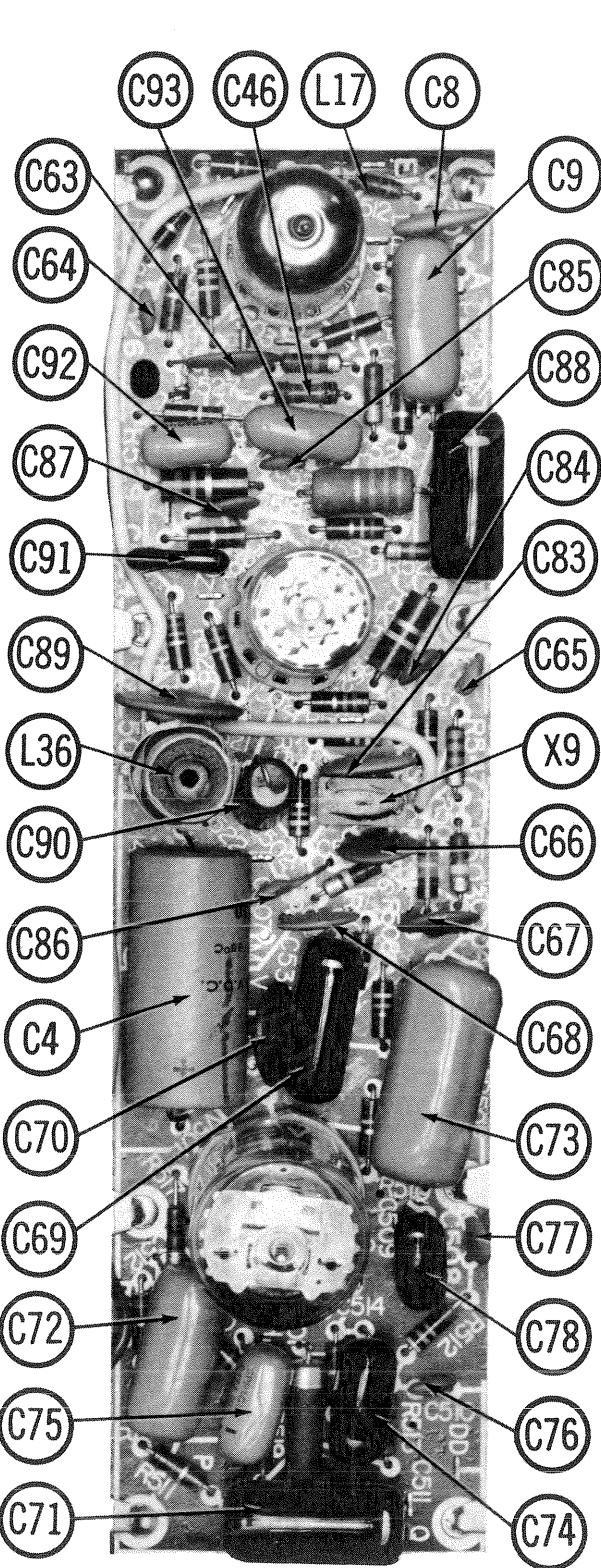
ARROWS INDICATING TUBE LOCATIONS ARE
POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



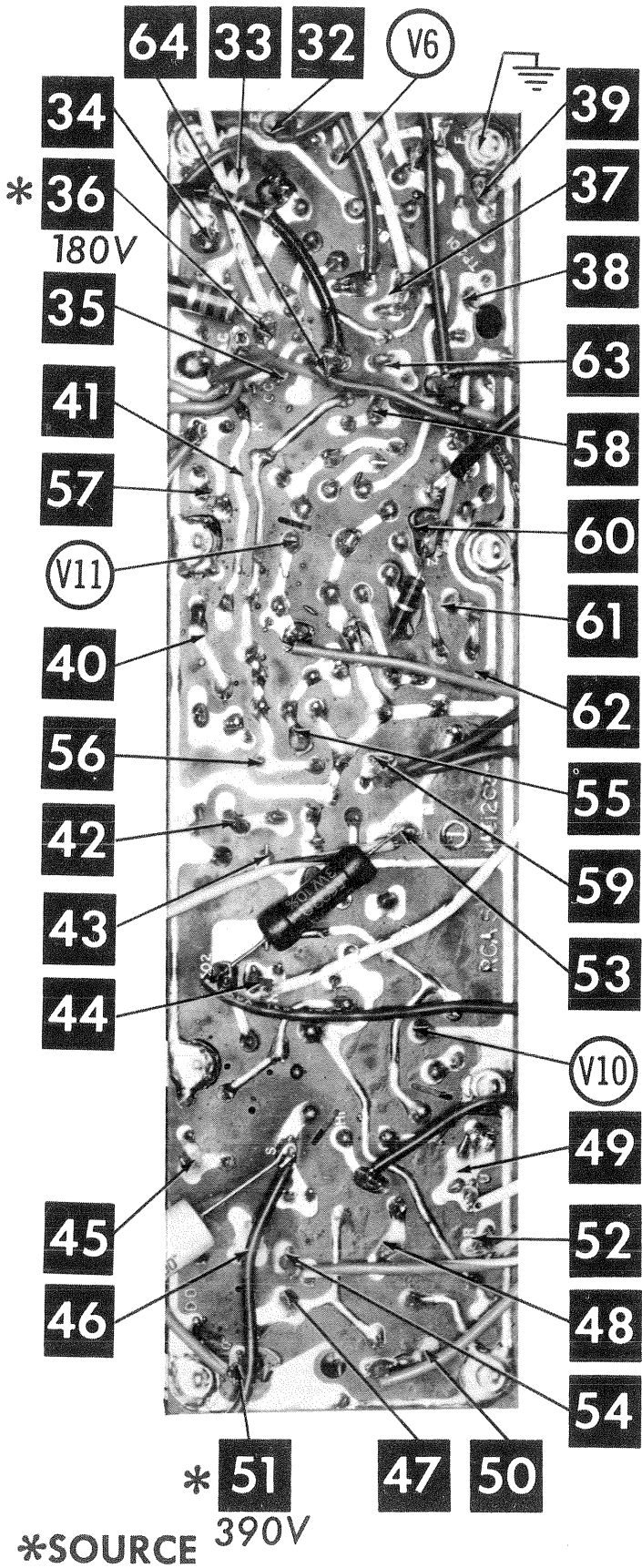
COLOR CIRCUIT PRINTED BOARD

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FOLDER 1

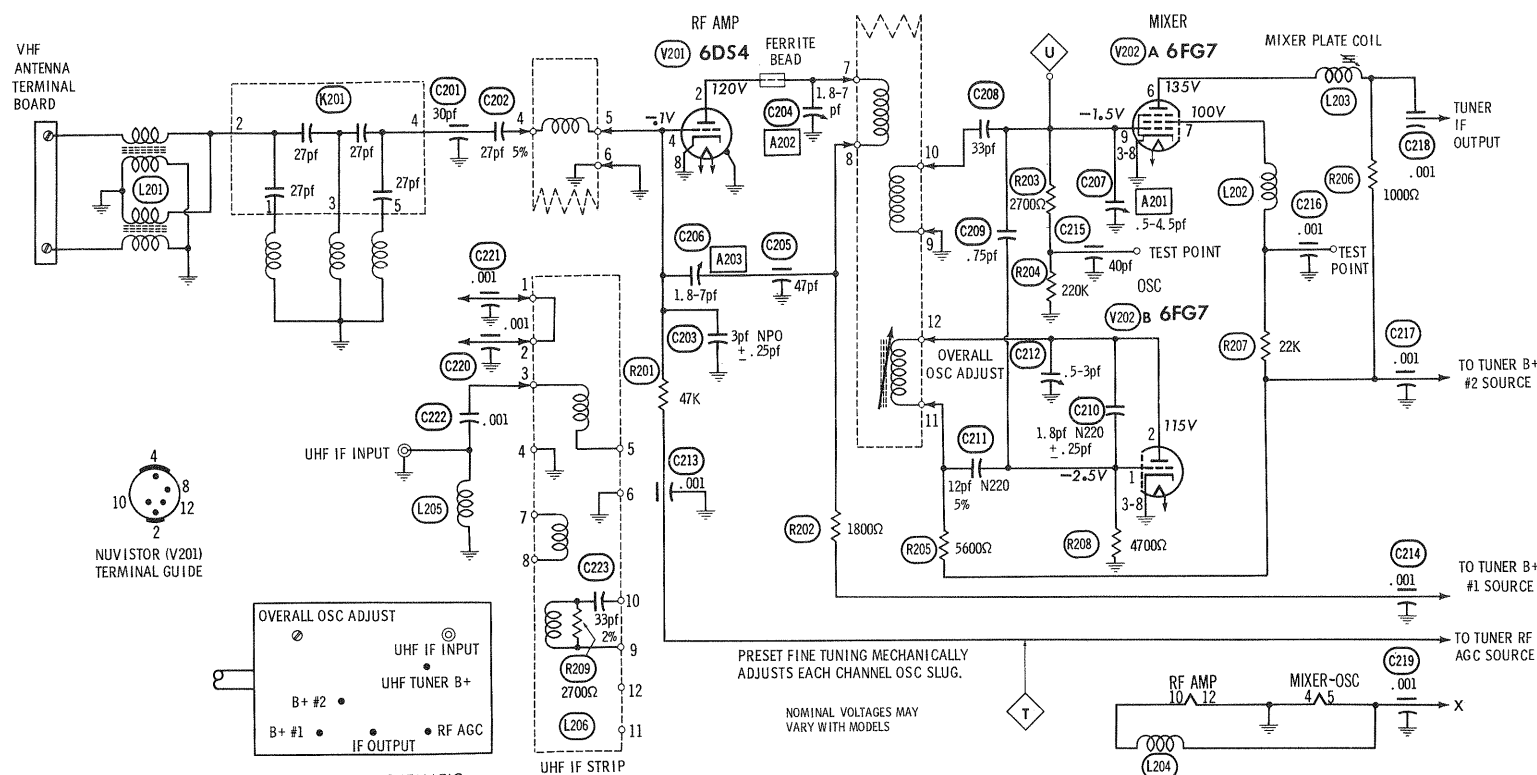


SWEEP PRINTED BOARD



CATALINA MODELS
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FOLDER 1



A PHOTOFAC STANDARD NOTATION SCHEMATIC
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VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201, A202, A203 .. GENERAL CEMENT #8868, 8887, 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 T. 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 T, 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 T, low side to ground.		Decrease bias. Check response on all channels and make compromise adjustments of A201 and A202 if required.

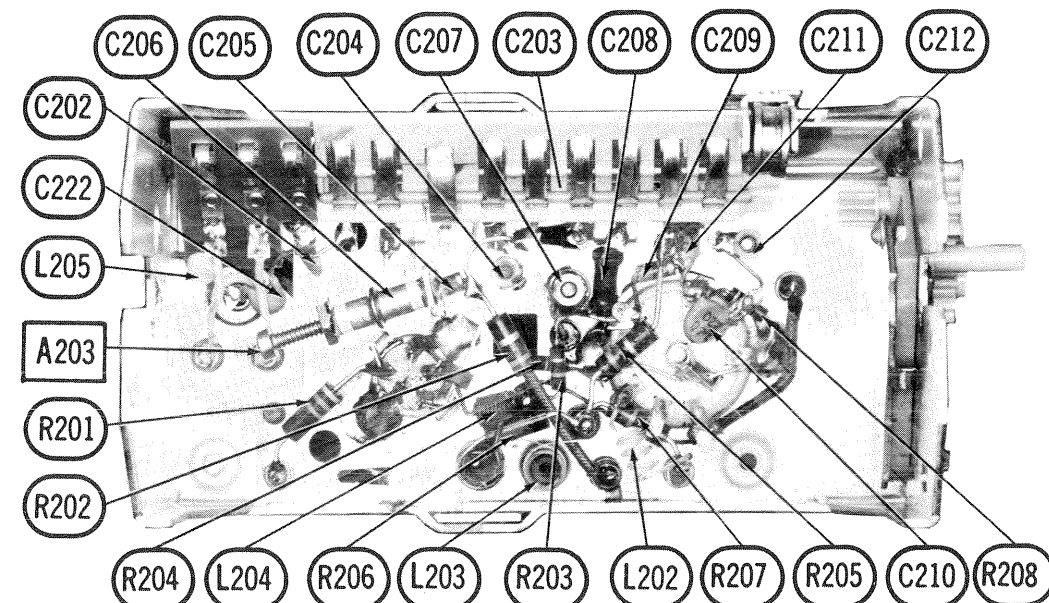
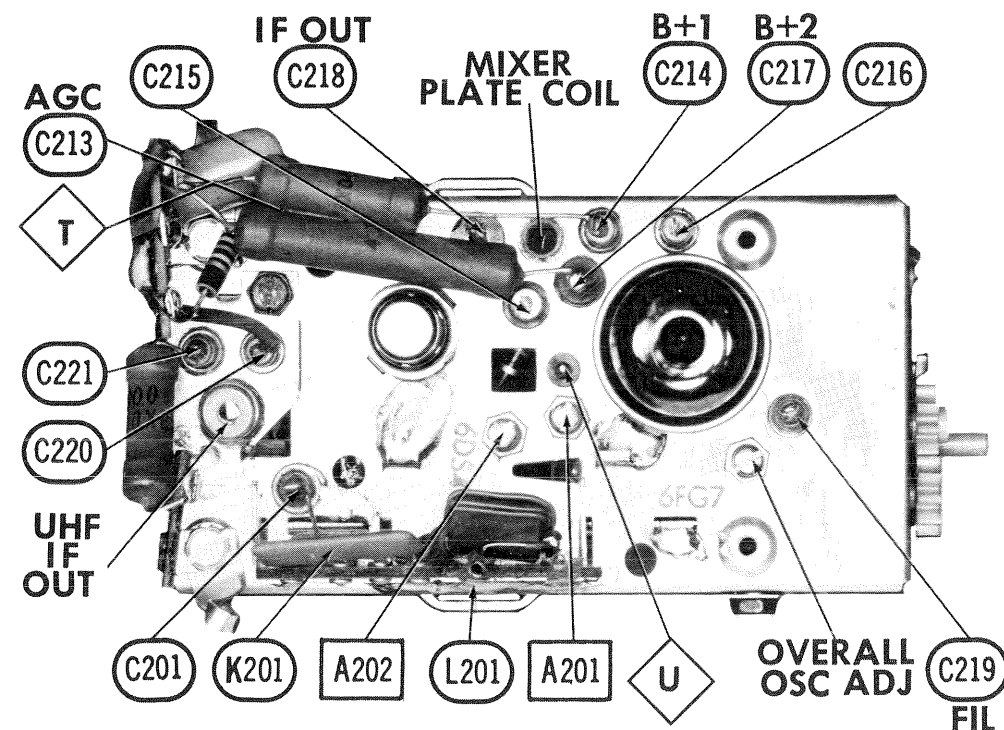
CHANNEL & FREQUENCY CHART

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	195MC	193.25MC 197.75MC	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	189MC	187.25MC 191.75MC	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 in a UHF station and adjust UHF IF Input Coil for best picture and sound.



13 POSITION TURRET-TYPE VHF TUNER 25A1239-003A

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.

* TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		CATALINA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output	51X0237-001 (51X0237-000)		VO-700C		A-305X	① Remove two (2) 270Ω resistors from vertical damping network.
T3	Yoke (Horiz. 12.4MH) 70° (Vert. 40MH)	9A2576-001		DY-90AC ①		YC-300-1 ②	② Remove two (2) 560Ω resistors from vertical damping network.
T4	Horiz. Output	53X0418-001				D-304	

* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER							VERTICAL OUTPUT										YOKE											
REPLACEMENT	Original Connections							Original Connections										Original Connections											
↓	P	D	C1	C2	FC	BB	Purple	Blue	Red	Grn	Yel	Whl	Blk	Blk	Blk	Grn	Grn	Red	Red	Whl	Whl	1	3	4	5				
MERIT																													
STANCOR																													
THORDARSON																													
TRIAD	P	D	C1	C2	FC <td>BB</td> <td>Purple</td> <td>Blue</td> <td>Red</td> <td>Grn</td> <td>Yel</td> <td>Whl</td> <td>Blk</td> <td>Blk</td> <td>Blk</td> <td>Grn</td> <td>Grn</td> <td>Red</td> <td>Red</td> <td>Whl</td> <td>Whl</td> <td>1</td> <td>3</td> <td>4</td> <td>5</td> <td></td> <td></td> <td></td> <td></td>	BB	Purple	Blue	Red	Grn	Yel	Whl	Blk	Blk	Blk	Grn	Grn	Red	Red	Whl	Whl	1	3	4	5				

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	CATALINA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	14000Ω	3-4Ω	51X0236-000 (51X0236-001)	A-2901	A-3823	24861	S-53X	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				BUSS PART No.
			CATALINA PART No.	UTTLIFUSE PART No.	FUSE	HOLDER	
M1	2 3/4" length #24 wire		320X2400				

MISCELLANEOUS

ITEM No.	PART NAME	CATALINA PART No.	NOTES
M2	VHF Tuner	25A1239-003A	STANDARD KOLLSMAN REPLACEMENT 41P13
M3	UHF Tuner	25A1243-003	
M4	Crystal	68X0003-001	
M5	Switch	2A0579-002	
M6	Switch	2A0579-001	
M7	Switch	2A0579-002	
M7	Switch	2A0530-001	
M8	Circuit Breaker	2A0568-002	
M9	Delay Line	9A2573-001	
M10	Magnet	2A0577-001	
M11	Magnet		
M12	Magnet	2A0576-001	
	Printed Circuit Board	38A2905-000	Purity Ring (Pair) Convergence Assembly (3 used) Blue Lateral Assembly Sound Circuits - Complete, less tubes IF & Video Circuits - Complete, less tubes Deflection Circuits - Complete, less tubes Chroma Circuits - Complete, less tubes Convergence Circuits - Complete
	Printed Circuit Board	38A2906-000	
	Printed Circuit Board	38A2907-000	
	Printed Circuit Board	38A2908-000	
	Printed Circuit Board	38A2930-000	

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Knob - VHF Channel Selector	38A3000-025	Knob - Brightness	10A1073-911
Knob - VHF Fine Tuning	10A1107-904	Knob - Tint	10A1073-912
Knob - UHF Tuning	38A3000-020	Knob - Contrast, Horizontal Hold,	
Knob - UHF Indicator	10A1113-902	Knob - Vertical Hold, Tone	
Knob - On/Off/Volume	10A1089-925	Mask Assembly	26A1141-000
Knob - Color	10A1073-910		

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8866 (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 8874 (Rubber) or 8895 (Plastic)
Power Cord (Interlock Type)	Use BELDEN No. 8225
300Ω Tuner Input Lead	Use BELDEN No. 8276 (Foam Core) or 8285 (Foam Jacketed)
300Ω Antenna Lead-in	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor
Antenna Rotor Cable	Use BELDEN No. 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

VHF TUNER PARTS LIST AND DESCRIPTION

TUNER # 25A1239-003A

TUBES

AMPEREX		GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
Y201	RF Amp.	6DS4		Y202	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	30	#13M-008		TC Z-27			CNO427	10TCC-Q27
C202	27	NPO 5%						
C203	3	NPO ±.25pf						
C204	1.8-7.0	#31B-902-017		829-10				
C205	47	#31T3846-03						
C206	1.8-7.0	#31T3846-03		829-10				
C207	.5-4.5	#31B-902-023						
C208	33	#13D-111-50	SE 33	D6-330	LA10Q33-S3	CCD-330	GP433	10TS-Q33
C209	.75pf	#13L8G1R8C						
C210	1.8pf N220 ±.25pf	#13L8RG120J						
C211	12	N220 5%						10TCR-Q12
C212	.5-3			829-3				
C213	.001	EF-001	EF-001	MFT-1000				
C214	.001	EF-001	EF-001	MFT-1000				
C215	40	#13M-009						
C216	.001	EF-001	EF-001	MFT-1000				
C217	.001	EF-001	EF-001	MFT-1000				
C218	.001	EF-001	EF-001	MFT-1000				
C219	.001	EF-001	EF-001	MFT-1000				
C220	.001	EF-001	EF-001	MFT-1000				
C221	.001	EF-001	EF-001	MFT-1000				
C222	.001	EF-001	EF-001	MFT-1000				
C223	33	2%	Part of L206					

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

Catalina Part Number

COILS (RF-IF)

ITEM No.	USE	CATALINA PART No.	NOTES	ITEM No.	USE	CATALINA PART No.	NOTES
L201	Ant. Matching	31T-3901-05		L204	Fil. Choke	34A-1085-06	
L202	Screen	25A-249-06		L205	UHF Output	20B-041-01	
L203	Mixer Plate	31U-630-019		L206	UHF Tuner Strip	9A2585-001	Ant., RF, Mixer

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	CATALINA PART No.	REPLACEMENT DATA
K201	Antenna Network	27pf, 27pf, 27pf, 27pf	13P-010-01	

UHF TUNER PARTS LIST AND DESCRIPTION

TUNER # 25A1243-003

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X301	24T-002	UHF Oscillator				NPN

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.
X302		1N82AG					1N82A

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.
C301	24							
C302	85							
C303	10.5			829-10				
C304	2-8							
C305	.5mmf N750 1%		EF-001	MFT-1000		CCF-102	CT280A	
C306	.001							

PARTS LIST AND DESCRIPTION

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TUBES

AMPEREX		GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
V1	1st Video IF Amp.	6JH6		V14	HV Rectifier	3A3	
V2	2nd Video IF Amp.	6GM6		V15	HV Regulator	6BK4A	
V3	3rd Video IF Amp.	6EJ7		V16	Chroma Bandpass Amp. - Color Killer	6GH8A	
V4	1st & 2nd Video Amp.	6AW8A		V17	Burst Amp.	6EW6	
V5	Video Output	12BY7A		V18	Chroma Sync Phase Det. - Color Killer Det.	6JU8	
V6	AGC Keying - Sync Sep. - Noise Inverter	6KA8		V19	Chroma Ref. Osc. Control - Chroma Reference Osc.	6GH8A	
V7	Sound IF Amp.	6EW6		V20	"Z" Demodulator	6GY6	
V8	Audio Detector	6H26		V21	B-Y Amp. - R-Y Amp.	6GU7	
V9	Audio Output	6AQ5A		V22	"X" Demodulator		
V10	Vert. Mult. - Vert. Output	6GF7		V23	Horiz. Blanking Amp. - G-Y Amp.		
V11	Horiz. AFC - Horiz. Osc.	6FQ7					
V12	Horiz. Output	6J86					
V13	Damper	6DW4					

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	CATALINA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V24	21FJP22 ①	21FJP22 ①	21FJP22 ①	21FJP22 ② RE21FJP22 ③	① Aluminized ② Silver Screen "85" ③ Color Brite "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	.44A	66X0023-003	1N1697	1N1096 or 1N2071	1N1764 or 1N2864	60H or F-6	
X2	.44A	66X0023-003	1N1697	1N1096 or 1N2071	1N1764 or 1N2864	60H or F-6	
X3		66X0035-001	GEGR-1		CR208	PG33-140H-Q	
X4	.0015A	66X0036-001	GEGR-2		CR203	PG33-18H-Q	
X5	.005A	66X0023-002	1N1693		1N2859 or 1N3754	20H or F-2	
X6A	.025A	66X0033-001	GEGR-3	1N2091 or A100	1N2858	S-648 or S-654	
B	.013A			A80 or D80	1N2858		
C	.021A			A80 or D80	1N2858		
X7		66X0020-001					1N60
X8		66X0020-001					1N60
X8*		66X0025-001					6GC1

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA							
	CAP.	VOLT.	CATALINA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1	180	250	45X0508-001	AFH51-37-25	AA0315 ①	XC1-19 ①	TMS-1480 ①	WP131.5 ①	TVLS1541 ①	
C2A	160	250	45X0505-001	AFH4-108-38	DD0818	XC3-29	TMT-3739	PFP427.69	TVLS4714.4 *	
B	30	450				QT1-26	TD-200-300			
C	20	450								
D	40	150								
C3A	80	450	45X0507-001	AFH4-108-35	DD0825.5	XC3-32	TMT-3763	FP427.67	TVLS4714.6 *	
B	50	450				QT1-15	TD-50-150			
C	20	250								
D	50	50								
C4	50	150	45X0509-001	PRS1480	BR50-150	QT1-17	TD-50-150	TC49	TVA-1414	
C5A	80	450	45X0506-001	AFH2-98 ②	AA0510	XC1-8	TMS-1800	PFP230.7	TVLS2738.5 *	
B	2	350			BR2-450	QT1-1	TD-2-450			

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.	
C34	.1 200V		P288N-1	DD-103	BYA10S1	2DP-3-104	GEM201	2TM-P10	
C35	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C36	.0022 10%		CF-222	DD-103	BYA10S1	CCD-222	GP222	10TS-D22	
C37	390 10%		DI-390	DD-391	LA10T39-C4	CCD-391	GP339	10TS-T39	
C38	390 10%		DI-390	DD-391	LA10T39-C4	CCD-391	GP339	10TS-T39	
C39	.22 200V		P288N-22	DD-103	PM2P22	2DP-4-224	GEM2022	2PS-P22	
C40	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C41	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C42	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C43	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C44	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C45	220 N1500 10%	#80X0096-006	SI 1000	DD-102	LA10D1-C4	CCD-102	B210	5HK-D10	
C46	.001		DI-180	DD-181	LA10T18-S3	CCD-181	GP318	10TS-T18	
C47	180 1KV 10%								
C48	1.5 N3300 ±.25pf	#47X0656-001							
C49	10 NPO 5%								
C50	5 N1500 5%	#47X0650-001							
C51	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C52	750 N2200 5%	#80X0099-032							
C53	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C54	560		DI-560	DD-561	LA10T56-C4	CCD-561	B366	5GA-T56	
C55	.047 200V		P288N-047	DD-503	CUB2847	4DP-3-473	GEM2147	2TM-S47	
C56	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C57	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C58	.47 N750 10%		N750-DI 47	DD-103	C10Q47C	CCTN-470	CN7447	10TCU-Q47	
C59	.0068		BPD-0068	DD-682	BYA10D68	CCD-682	B268	5HK-D68	
C60	.001		SI 1000	DD-682	BYA10D68	CCD-682	B268	5HK-D68	
C61	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47	
C62	.001		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47	
C63	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B233	5HK-D33	
C64	390 10%		DI-390	DD-391	LA10T39-C4	CCD-391	GP330	10TS-T39	
C65	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C66	.47 NPO 10%		NPO-DI 47	DD-222	C10Q47C	CCTO-470	CNO447	10TCC-Q47	
C67	.0022		BPD-0022	DD-222	LA10D22-C4	CCD-222	B222	10TS-D22	
C68	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	B215	10TS-D15	
C69	.036 600V 10%		BE6S39		PM6S39	6DP-3-393	PVC6139	6PS-S35	
C70	.0027 N5600 10%	#80X0099-025							
C71	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM601	6TM-P10	
C72	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM601	6TM-P10	
C73	.47 200V		P288N-47	DD-822	PKM16D82	16DP-3-802	GEM16282	MB-D82	
C74	.0082 1KV		P1088N-008	DD-503	CUB2847	4DP-3-473	GEM2147	2TM-S47	
C75	.047 200V		P288N-047	DD-503	CUB2847	4DP-3-473	GEM2147	2TM-S47	
C76	680		BPD-00068	DD-681	BYA10T68	CCD-681	B368	10TS-T68	
C77	680		BPD-00068	DD-681	BYA10T68	CCD-681	B368	10TS-T68	
C78	.0068 400V 10%		BE8D68		WMF4D68	6DP-1-682	PVC4268	6PS-D68	
C79	.001 2KV 10%	#359X1022-200							
C80	100 N2500 5KV, 5%	#80X0098-024							
C81	560, N3300, 2.5KV, 10%	#80X0098-025							
C82	560, N3300, 2.5KV, 10%	#80X0098-025							
C83	68 NPO 10%		NPO-DI 68	DTZ-68	C10Q68C	CCTO-680	CNO468	10TCC-Q68	
C84	820 10%		DI-820	DD-821	JB6T8	CCD-821	GP382	10TS-T82	
C85	820 10%		DI-820	DD-821	JB6T8	CCD-821	GP382	10TS-T82	
C86	27 N750 10%		N750-DI 25	DTN-27	C10Q25U	CCTN-270	CN7427	10TCU-Q27	
C87	.001		DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
C88	.15 200V		P288N-15	DD-103	PM2P15	2DP-3-154	GEM2015	2PS-P15	
C89	390 1.5KV 5%	#80X0098-026	DC4S1	CPR-10000J					
C90	.01 400V		DC4S1	CPR-10000J					
C91	680 5%		ADM-19-681	CPR-680J	CD19F681J	DM-19-681J	MCJ249	MS-368	
C92	.0015 600V 10%		BE6D15	DD-152	PM6S11	6DP-2-103	GEM611	6PS-S10	
C93	.01 600V		P688N-01	DD-103	PM6S1	6DP-4-104	GEM601	6TM-P10	
C94	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM601	6TM-P10	
C95	.047 600V		P688N-047	DD-503	CUB6S47	6DP-3-473	GEM6147	6TM-S47	
C96	68 N1500 4KV 10%	#80X0098-014							
C97	130 N2200 6KV	#80X0098-012							
C98	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C99	.01 1.4KV		ADP-27	DD16-103	HVE16S1	16DP-3-103	UAC110	BL-S10	
C100	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM601	6TM-P10	
C101	22 1KV		BPD-000022	DD-220	LA10Q22-SL	CCD-220	GP422	5GA-Q22	
C102	.068 600V 10%	#46X0532-004							
C103	.082 600V ±0 -10%	#46X0532-002							
C104	.01 1.4KV		DAC-27	DD16-103	HVE16S1	16DP-3-103	UAC110	BL-S10	
C105	27 N750		N750-DI 25	DTN-27	C10Q25U	CCTN-270	CN7427	10TCU-Q27	
C106	120 N750 10%		N750-DI 220	DTN-220	C10T22U	CCD-102	B210	5HK-D10	
C107	.001		BPD-001	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C108	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C109	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C110	120 N2200 10%	#80X0099-044							
C111	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333		
C112	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333		
C113	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333		
C114	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333		
C115	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO410	10TCC-Q10	
C116	.047 200V		P288N-047	DD-503	CUB2847	4DP-3-473	GEM2147	2TM-S47	
C117	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C118	820 10%		DI-820	DD-821	JB6T8	CCD-821	GP382	10TS-T82	
C119	.001		BPD-001	DD-102	BYA10D1	CCD-102	B210	5HK-D10	
C120	150 10%		DI-150	DD-151	LA10T15-S3	CCD-151	GP315	10TS-T15	
C121	470 N750 5%								
C122	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C123	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C124	1.3 10%	#47X0776-001							
C125	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C126	.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM201	2TM-P10	
C127	4 NPO ±.5pf	#80X0096-013							
C128	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C129	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C130	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO410	10TCC-Q10	
C131	220 N750 10%		N750-DI 220	DTN-220	C10T22U	CCTN-221	CN7-322	10TCU-T22	
C132	6 NPO 5%								
C133	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C134	82 NPO 10%								
C135	150 5%		ADM-15-151	CPR-150J	CD15F151J	DM-15-151J	MCE236	MS-315	
C136	.047 200V		P288N-047	DD-503	CUB2847	4DP-3-473	GEM2147	2TM-S47	
C137	33 N150	#80X0096-011							
C138	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C139	.01 600V		P688N-01	DD-103	PM6S1	6DP-1-103	GEM611	6PS-S10	
C140	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C141	33 N150	#80X0096-011							
C142	.01 600V		P688N-01	DD-103	PM6S1	6DP-2-103	GEM611	6PS-S10	
C143	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C144	.22 400V		P488N-22	DD-103	PM4P22	4DP-5-224	GEM4022	4PS-P22	
C145	.01 600V		P688N-01	DD-103	PM6S1	6DP-2-103	GEM611	6PS-S10	
C146	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C147	.056 400V 10%		BE6S56		PM4S56	4DP-3-563	PVC4156	4PS-S56	

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.
C148	.1 400V		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM401	4TM-P10
C149	.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM201	2TM-P10
C150	.12 200V 10%				PM4P12			
C151	.082 200V 10%				PM4S82	6DP-4-823	PVC6182	6PS-S82
C152	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C153	.47 N2200 4KV 10%	#80X0098-015						
C154	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C155	220 N1500 10%	#80X0096-006						

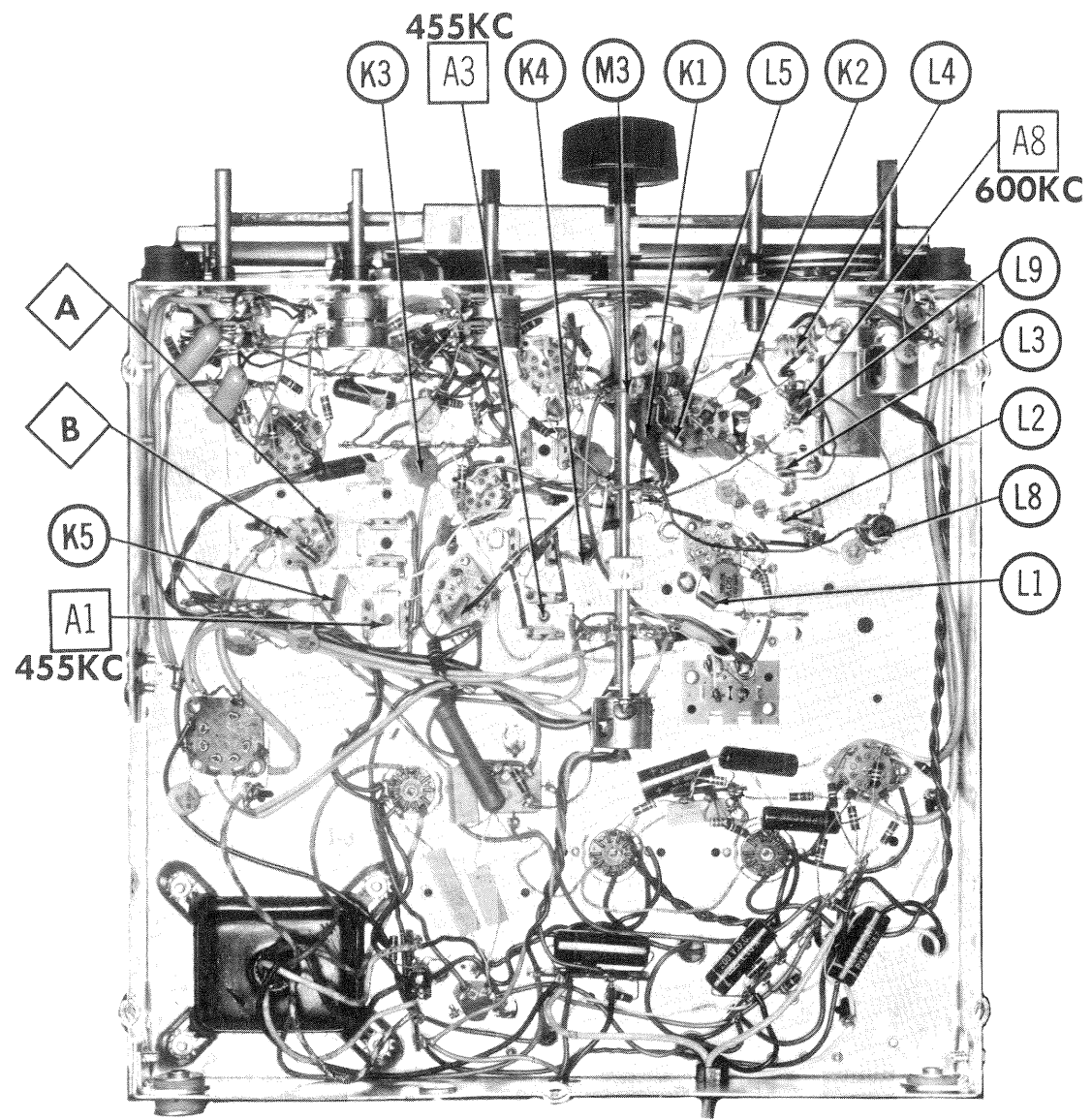
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
① Matched Pair ② Not used in some versions. # Catalina Part Number

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			CATALINA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	1meg 200K Tap	36X0450-000A (36X0450-001)	F12-1meg, SP212, KR-8 or (APL-72, AK-33)	C478F1-1meg RS-3/16	B13-137X, SK8 or (PPQ13-137X, SK8) or (BU1, CF44T, SS11, K)*	PP16T25, DS37 or (RUP16T254, SL35)
R2	Color	500Ω	40X0579-001	F1-500, SFS212 or (AB-4, AK-33)	A47-500-S RS-3/16	UA521, SD3500 or (RU521, SL35, IS1825) or (U2, DS37)	UA521, SD3500 or (RU521, SL35, IS1825) or (U2, DS37)
R3	Brightness	250K	40X0579-002	F1-250K, SFS212 or (AB-50, AK-33)	A47-250K-S RS-3/16	B11-130, SK9 or (BU2, CF15, SS4, DC1) *	UA

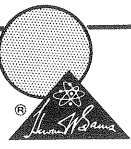
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CHASSIS-BOTTOM VIEW, ALIGN, MISC IDENT.

SET 749 FOLDER 1-A

PHOTOFACT® Folder

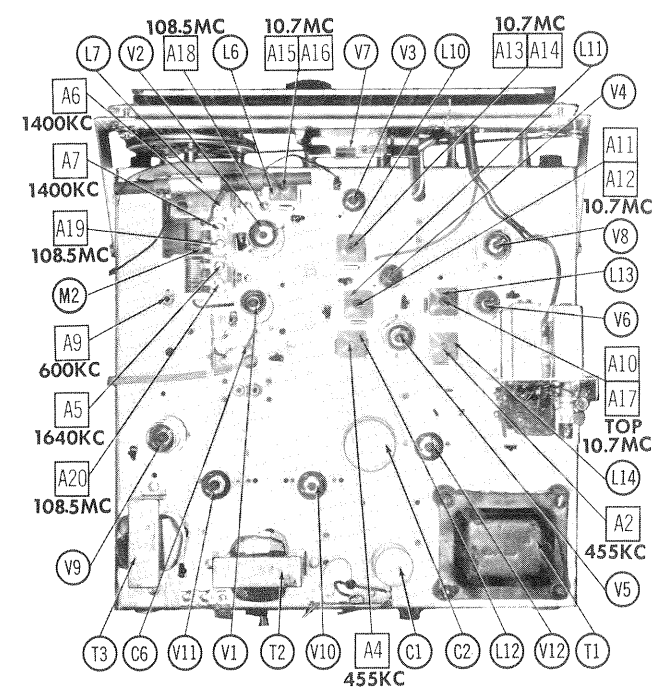


CATALINA AM-FM RADIO used in MODEL 122-578A

CATALINA AM-FM RADIO used in MODEL 122-578A

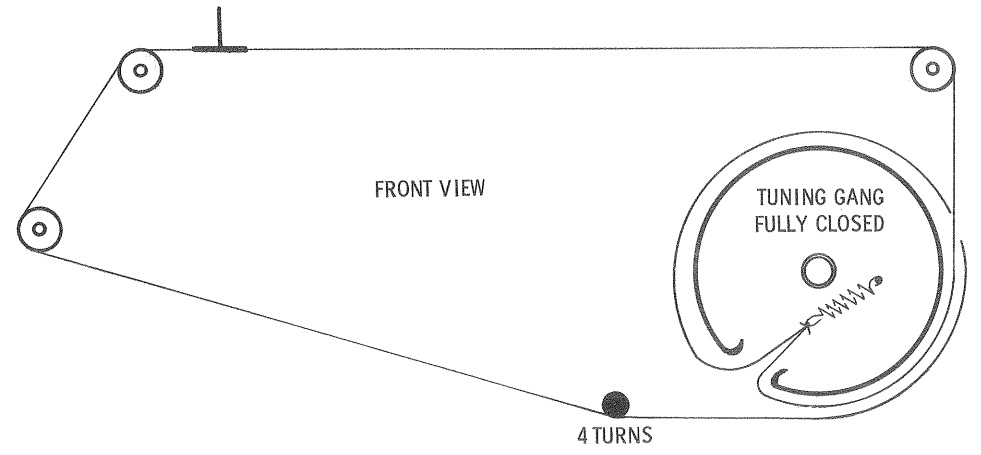
IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 749 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.



TRADE NAME	Catalina
SUPPLIER	For current address, see Master Index.
TYPE SET	AM-FM Radio
TUBES	Twelve
POWER SUPPLY	110-120 Volts AC, 60 Cycles
TUNING RANGE	AM: 535KC-1640KC (IF 455KC) FM: 88-108.5MC (IF 10.7MC)
RATING	85 Watts, .85 Amps. @ 117 Volts AC

DIAL CORD STRINGING



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. NB191

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DATE 4-65 SET 749 FOLDER 1-A

CATALINA AM-FM RADIO used in MODEL 122-578A

SET 749 FOLDER 1-A

ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment. CAUTION: Use isolation transformer, if available. If not, observe polarity when connecting test equipment. Suggested Alignment Tools: A1 thru A7, A18, A19, A20 ... GENERAL CEMENT #8868, 8987, 9089 ... WALSCO #2531-X, 2541, 2587 A8 thru A ... GENERAL CEMENT #8606, 8606L, 8869 .. WALSCO #2543, 2544, 2588

AM ALIGNMENT — SELECTOR IN AM POSITION

Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.				
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (400v Mod.)	Tuning gang fully open.	Output Meter across Voice coil.	A1, A2, A3, A4	Adjust for maximum. Repeat until no further improvement can be made.
2. 1640KC	"	"	A5	Adjust for maximum.
3. 1400KC	Tune to signal.	"	A6, A7	"
4. 600KC	"	"	A8, A9	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

FM ALIGNMENT USING AM SIGNAL GENERATOR — SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter tube, low side to ground.				
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point A; common to ground.	A10, A11, A12, A13, A14, A15, A16	Adjust for maximum.
6. "	"	DC probe to point B; common to ground.	A17	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR — SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter, low side to ground. Use only enough marker signal to obtain indication. Use 60v frequency modulated signal with 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.				
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (450KC Swp.)	Point of non-interference	Vert. amp. of Scope to point A; low side to ground.	A10, A11, A12, A13, A14, A15, A16	Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown.
6. "	"	Vert. amp. to point B; low side to	A17	Adjust A17 (Secondary) to place marker at center of crossover lines similar to Fig. 2. Adjust A10 (Primary) for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.				
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 108.5MC	Set at high end.	DC probe of VTVM to point A; common to ground.	A18, A19, A20	Adjust for maximum.

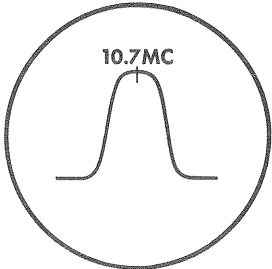


FIG. 1

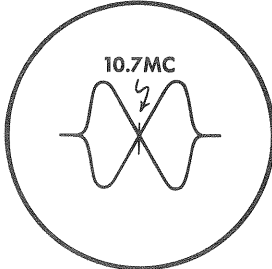
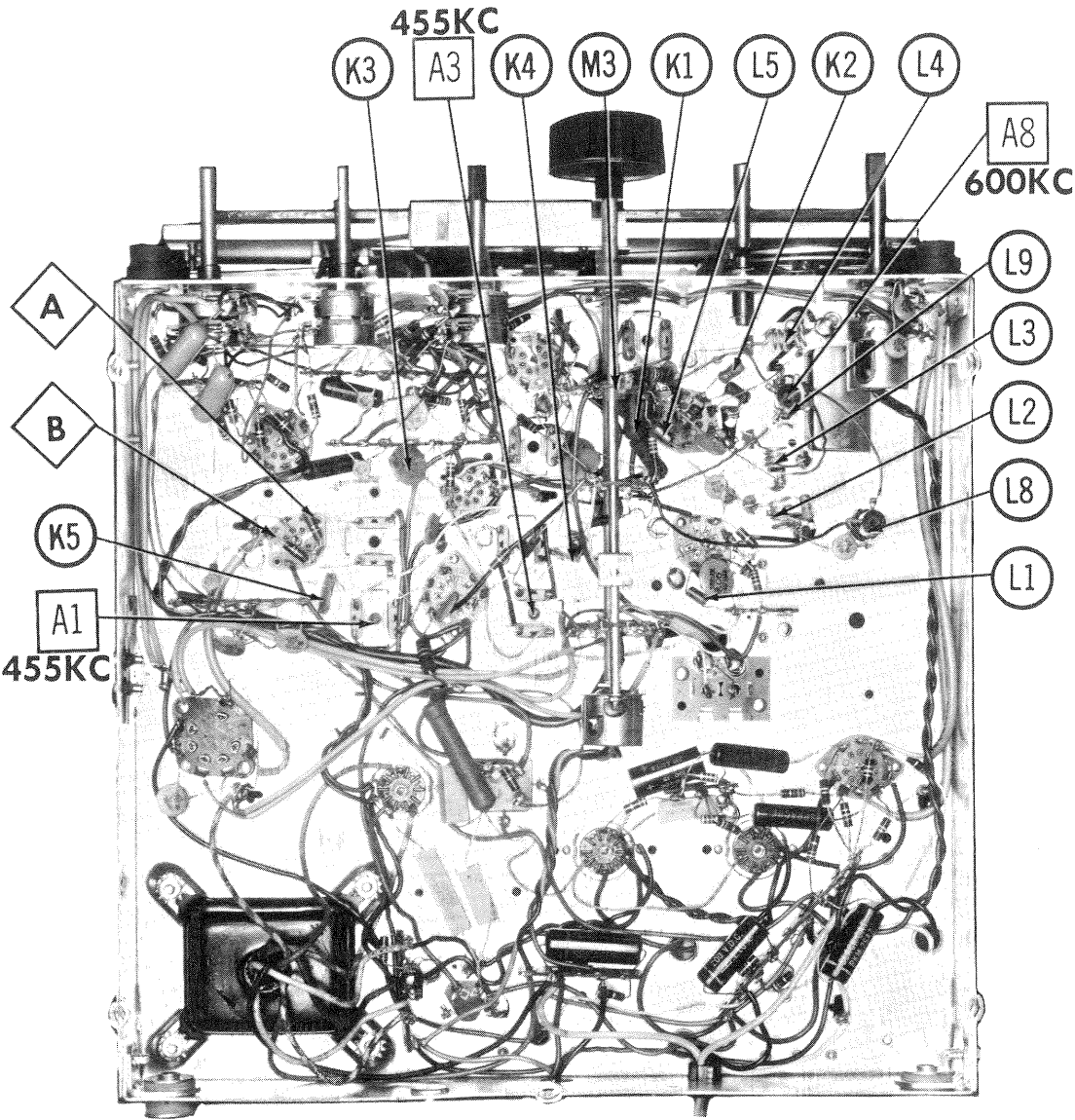


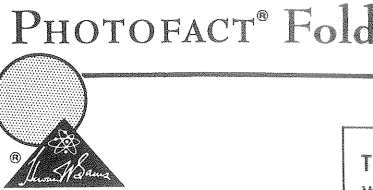
FIG. 2



CHASSIS-BOTTOM VIEW, ALIGN, MISC IDENT.

SET 749 FOLDER 1-A

CATALINA AM-FM RADIO used in MODEL 122-578A

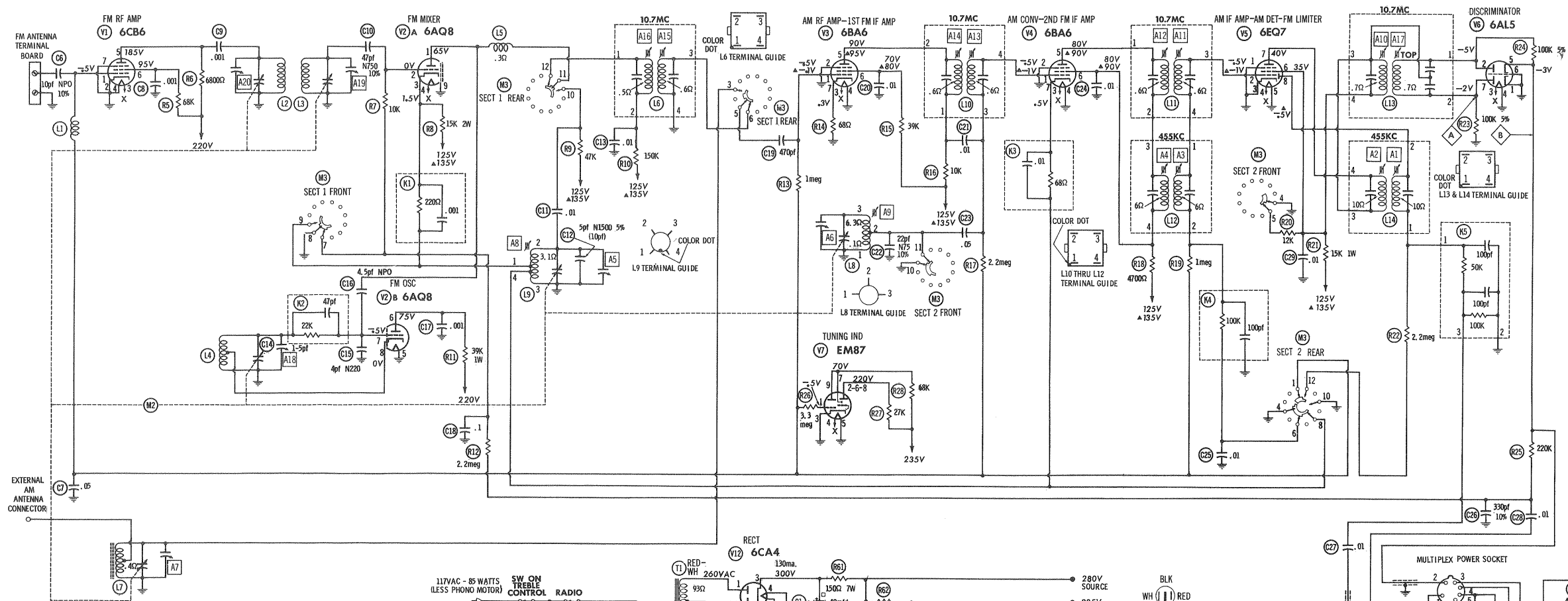


TRADE NAME	Catalina
SUPPLIER	For cu
TYPE SET	AM-FM
TUBES	Twelve
POWER SUPPLY	110-12
TUNING RANGE	AM: 5

HOWARD



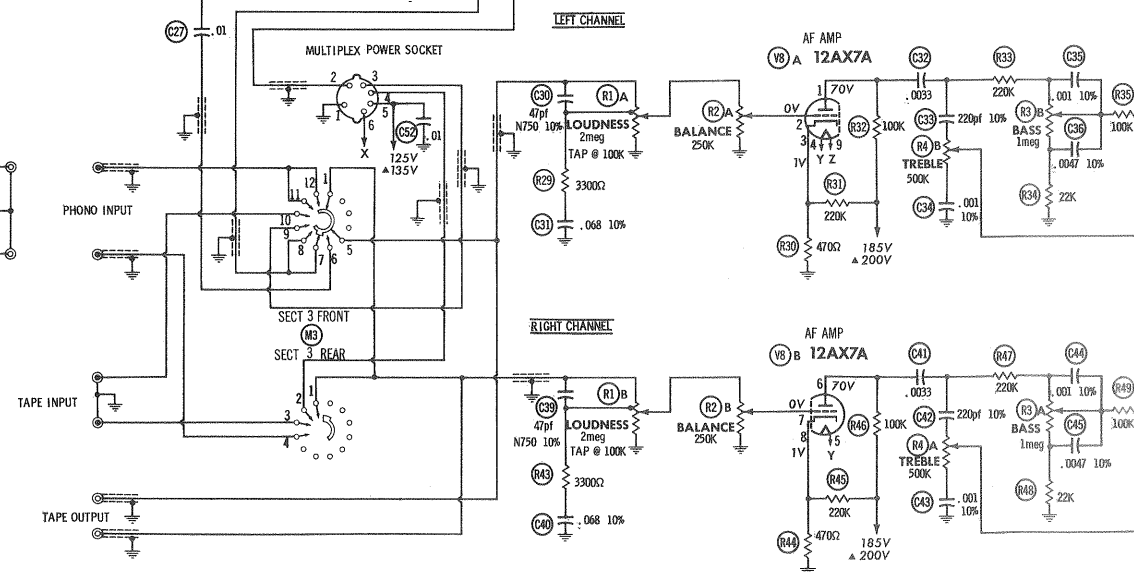
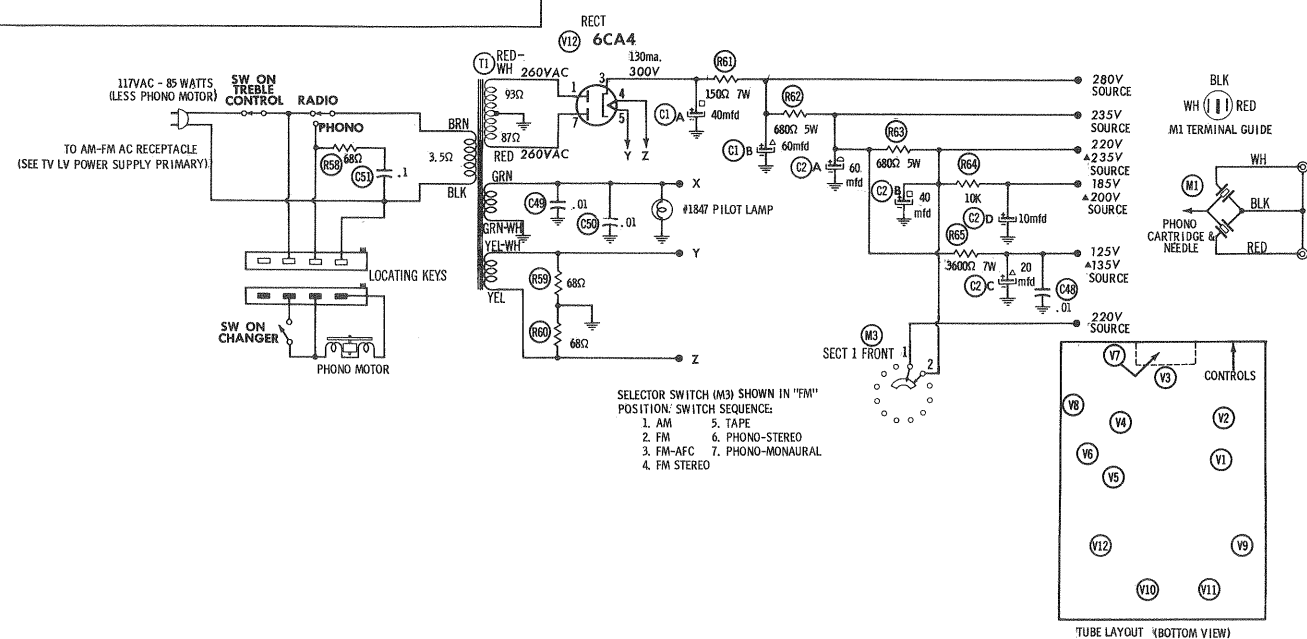
The listing of any available replacer in any case a recommendation, warra & Co., Inc., as to the quality and sui numbers of these parts have been co Howard W. Sams & Co., Inc., by the of replacement part listed. NB191



RESISTANCE MEASUREMENTS

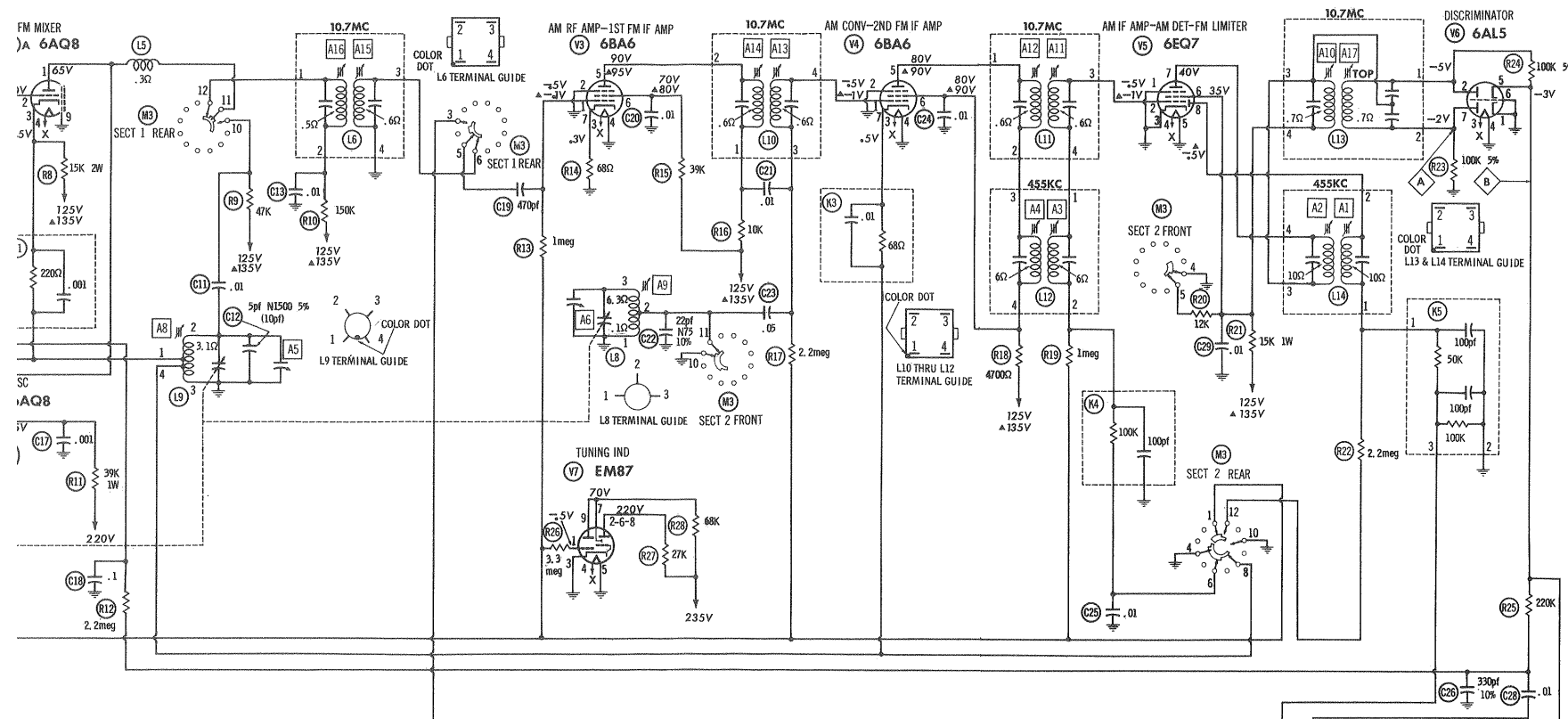
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	6CB6	3meg	0Ω	FIL	FIL	† 8310Ω	† 69K	0Ω
V2	6AQ8	† 50K 150K	10K	220Ω	FIL	FIL	† 42K	22K
V3	6BA6	0Ω	0Ω	FIL	FIL	† 14K	† 43K	68Ω
V4	6BA6	0Ω	0Ω	FIL	FIL	† 9130Ω	† 9130Ω	68Ω
V5	6EQ7	0Ω	† 4meg 100K	0Ω	FIL	FIL	† 18K 13K	† 18K 13K
V6	6AL5	0Ω	100K	FIL	FIL	200K	0Ω	100K
V7	EM87	5meg	NC	0Ω	FIL	FIL	† 27K	† 68K
V8	12AX7A	† 111K	60K	470Ω	FIL	FIL	† 111K	60K
V9	12AX7A	† 221K	1meg	680Ω	FIL	FIL	† 221K	1meg
V10	6BQ5	NC	51K	100Ω	FIL	FIL	NC	† 665Ω
V11	6BQ5	NC	51K	100Ω	FIL	FIL	NC	† 665Ω
V12	6CA4	93Ω	NC	† 15K	FIL	FIL	NC	87Ω
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7

ALL MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED. NC
THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN
† MEASURED IN "AM" POSITION. † MEASURED FROM PIN 3



- 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.

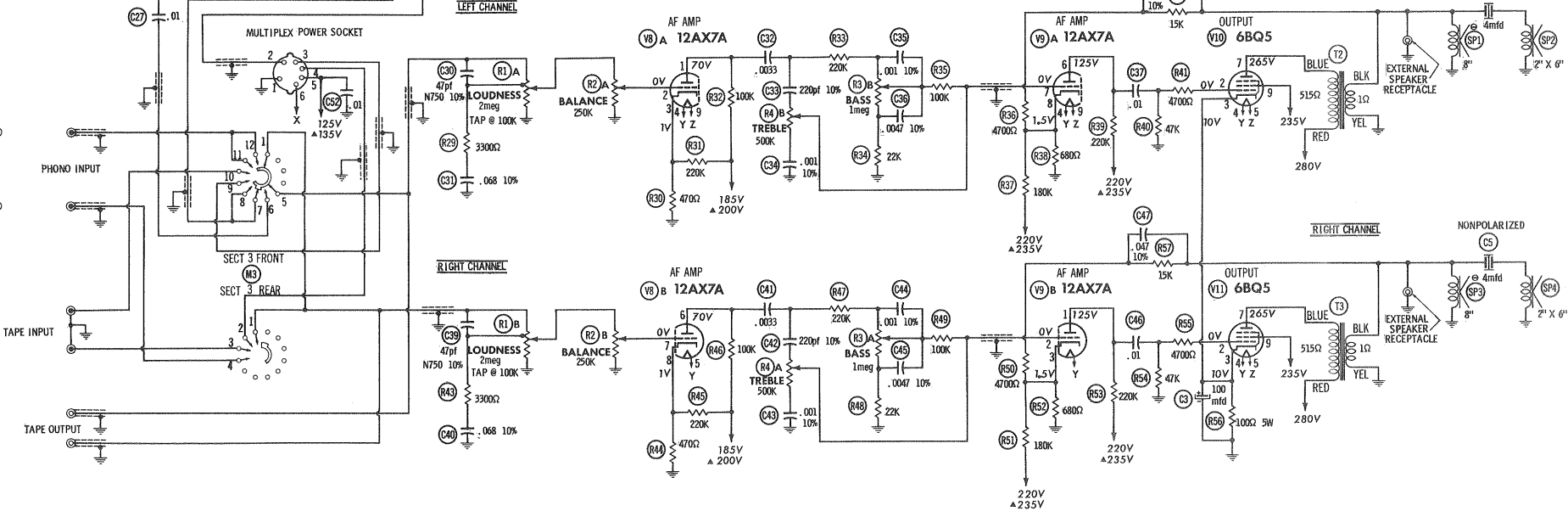
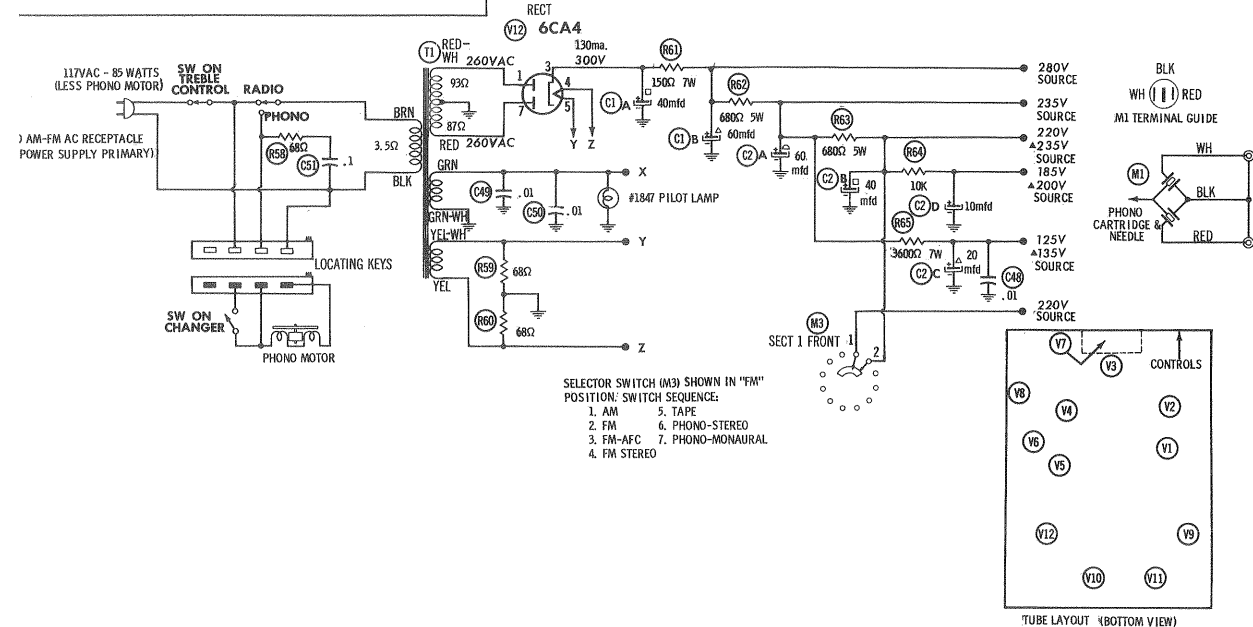
A PHOTOFACT STANDARD NOTATION SCHEMATIC
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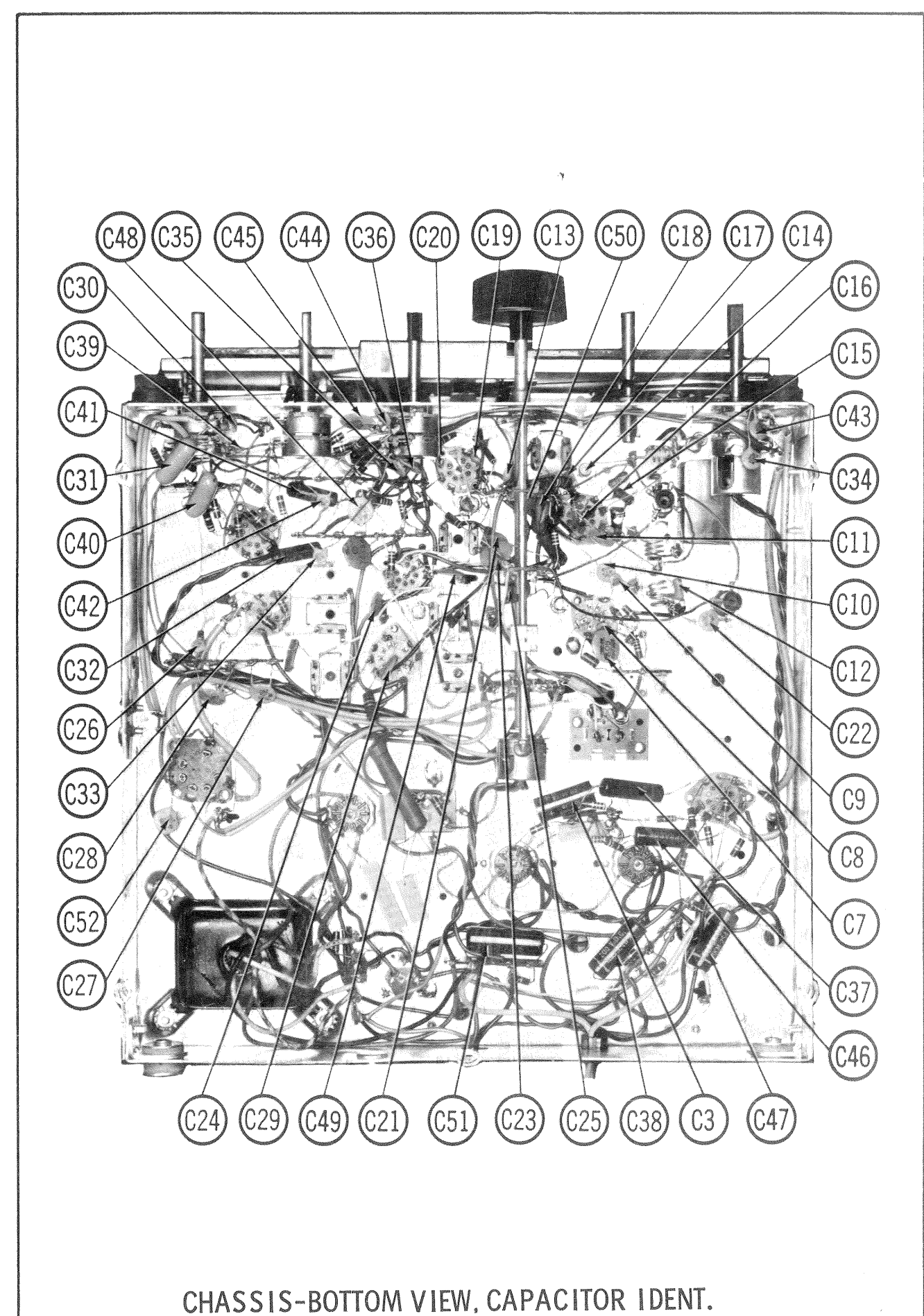
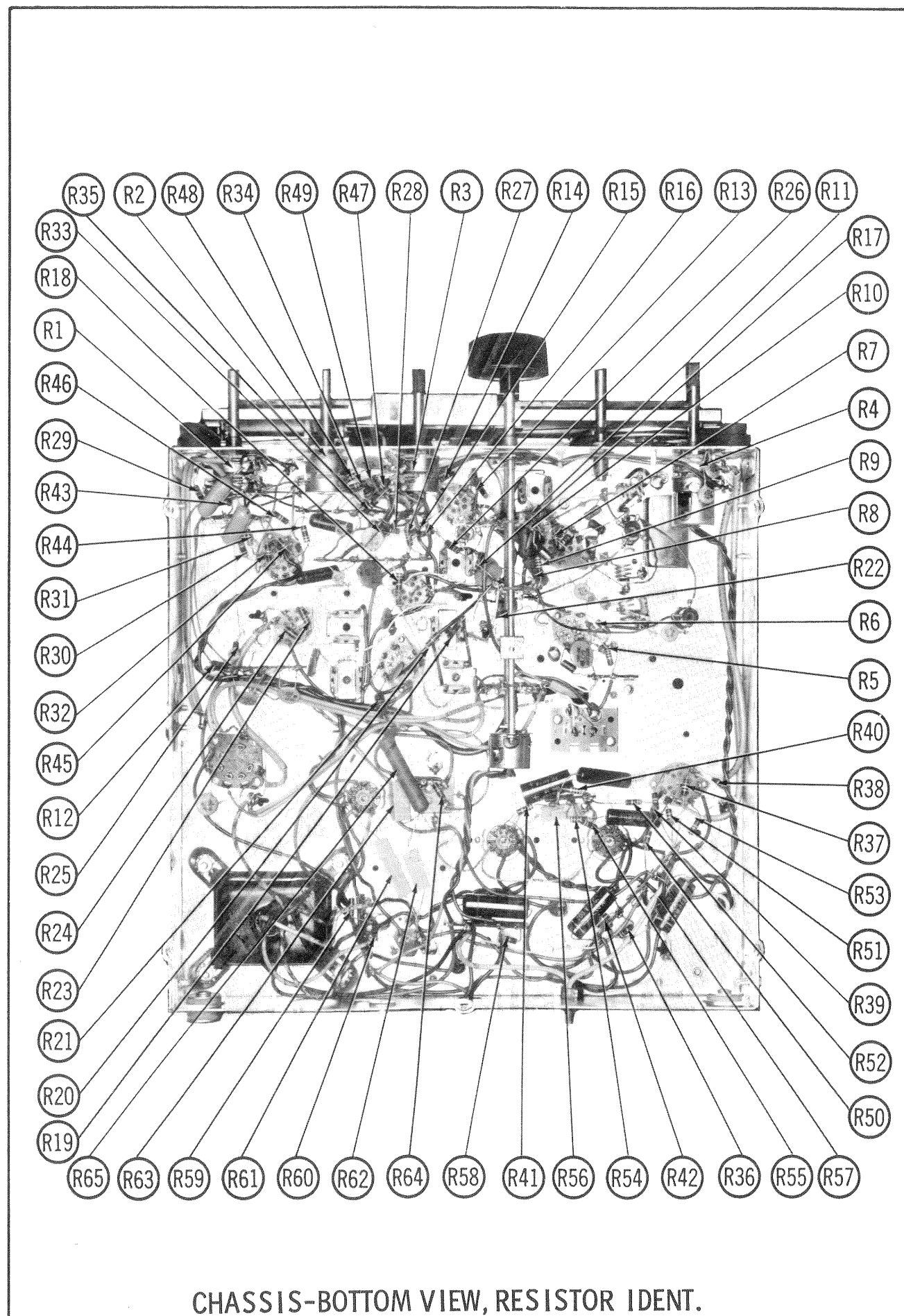
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6CB6	3meg	0Ω	FIL	FIL	† 8310Ω	† 69K	0Ω		
V2	6AQ8	† 150K	10K	220Ω	FIL	FIL	† 42K	22K	0Ω	0Ω
V3	6BA6	† 4meg	0Ω	FIL	FIL	† 14K	† 43K	68Ω		
V4	6BA6	† 5meg	0Ω	FIL	FIL	† 9130Ω	† 9130Ω	68Ω		
V5	6EQ7	0Ω	† 4meg	0Ω	FIL	FIL	† 18K	† 18K	150K	0Ω
V6	6AL5	0Ω	100K	FIL	FIL	200K	0Ω	100K		
V7	EM87	5meg	NC	0Ω	FIL	FIL	† 27K	† 68K	NC	† 68K
V8	12AX7A	† 111K	60K	470Ω	FIL	FIL	† 111K	60K	470Ω	FIL
V9	12AX7A	† 221K	1meg	680Ω	FIL	FIL	† 221K	1meg	680Ω	FIL
V10	6BQ5	NC	51K	100Ω	FIL	FIL	NC	† 665Ω	NC	† 830Ω
V11	6BQ5	NC	51K	100Ω	FIL	FIL	NC	† 665Ω	NC	† 830Ω
V12	6CA4	95Ω	NC	† 15K	FIL	FIL	NC	87Ω	NC	NC
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

ALL MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED. NC NO CONNECTION
 † THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 ‡ MEASURED IN "AM" POSITION. † MEASURED FROM PIN 3 OF V12.



CATALINA AM-FM
RADIO used in MODEL 122-578A



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.

AMPEREX			GENERAL ELECTRIC			RCA			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE						
V1	FM RF Amp.	6CB6	V6	Discriminator	6AL5						
V2	FM Mixer - FM Osc. - AM Osc. - AFC	6AQ8	V7	Tuning Indicator	EM87						
V3	AM RF Amp. - 1st FM IF Amp.	6BA6	V8	AF Amp.	12AX7A						
V4	AM Converter - 2nd FM IF Amp.	6BA6	V9	AF Amp.	12AX7A						
V5	AM IF Amp. - AM Det. - FM Limiter	6EQ7	V10	AF Output	6BQ5						
			V11	AF Output	6BQ5						
			V12	Rectifier	6CA4						

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	CATALINA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	40	350	45X0474-001	AFH2-40-50	AA0390	XC1-5	TMS-1640	FP227. 33	TVLS2631.5 *
B	60	350			BR60-350	QT1-18	TD-40-350		
C2A	60	350	45X0486-001	AFH4-94-75	DD0178. 8	XC4-22	TMT-3709	FP454. 2	TVL-4803. 7
B	40	350					TD-10-450		
C	20	350							
D	10	350							
C3	100	15	45X0487-001	CRE473A	NLW100-15	MT1-19	MLV100-15	TT15X100	TL-1162
C4	4	10NP	45X0503-001	PR87405	BRNP4-50	NPQT-1	BL1230	TCN504	TVANS1150 *
							BL1230		
C5	4	10NP	45X0503-001	PR87405	BRNP4-50	NPQT-1	BL1230	TCN504	TVANS1150 *
							BL1230		

FIXED CAPACITORS									
ITEM No.	RATING		REMARKS	REPLACEMENT DATA					
				AEROVOX PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	ELMCON PART No.	MALLORY PART No.	SPRAGUE PART No.
C6	10	NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO410	10TCC-Q10
C7	.05	100V		TTD-.05				TA150	TH-S50
C8	.001			BPD-.001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C9	.001			BPD-.001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C10	.47	N750 10%		N750-DI 47	DTN-47	C10Q47U	CCTN-470	CN7447	10TCU-Q47
C11	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C12	5	N1500 5%	(10) †				*		
C13	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C14	1-5				829-6		CV-3	CT552	
C15	4	N220	#47X0629-001				*		10TCR-V39
C16	4.5	NPO			DTZ-4R7	C10V47C	CCTO-4R7	CNO547	10TCC-V47
C17	.001			BPD-.001	DD-102	BYA10D1	CCD-102	B210	5HK-D10
C18	.1	100V		TTD-.1	DF-104	WMF1D1	CCD-1-104	TA010	TH-S10
C19	.470			BPD-.00047	DD-471	BYA10T47	CCD-471	B347	10TS-T47
C20	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C21	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C22	.22	N75 10%	#80X0032-001						
C23	.05	100V		TTD-.05				TA150	TH-S50
C24	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C25	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C26	.330	10%		DD-.330	DD-331	LA10T33-C4	CCD-331	GP333	10TS-T33
C27	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C28	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C29	.01			BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C30	.47	N750 10%		N750-DI 47	DTN-47	C10Q47U	CCTN-470	CN7447	10TCU-Q47
C31	.088	200V 10%		DE4588				PVC2168	4TM-S68
C32	.220	300V 10%		P488N-0033	CPR-3300J	WMF4D33	6DP-1-332	PVC4233	6TM-D33
C33	.220	400V 10%		DI-.220	DD-221	LA10T22-S3	CCD-221	GP322	10TS-T22
C34	.001	10%		DI-1000	DD-102	J8BD1	CCD-102	GP210	10TS-D10
C35	.001	10%		DI-1000	DD-102	J8BD1	CCD-102	GP210	10TS-D10
C36	.0047	10%		DI-4700	CF-472	J8BD47	CCD-472	JF-247	10TS-D47
C37	.01	400V		P488N-01	CPR-10000J	PM4S1	4DP-1-103	PVC411	4TM-S10
C38	.047	200V 10%		DE2S47		PM2S47	4DP-3-473	PVC2147	2TM-S47
C39	.47	N750 10%		N750-DI 47	DTN-47	C10Q47U	CCTN-470	CN7447	10TCU-Q47
C40	.088	200V 10%		DE6S88		WMF2368	4DP-3-683	PVC2168	4TM-S88
C41	.0633	400V		P488N-0033	CPR-3300J	WMF4D33	6DP-1-332	PVC4233	6TM-D33
C42	.220	10%		DI-.220	DD-221	LA10T22-S3	CCD-221	GP322	10TS-T22
C43	.001	10%		BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C44	.001	10%		BPD-.01	DD-103	BYA10S1	CCD-103	B110	5HK-S10

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ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			CATALINA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1A	Loudness, Left	2meg	36X0445-000	F17-2meg		B17-139X,	
B	Loudness, Right	100K Tap	(36X00445-001)	R17-2meg		B17-139X,	
R2A	Balance, Left	2meg		SF114, CPL-2		SK1, QCM	
B	Balance, Right	100K Tap					
R3A	Bass, Right	250K	36X0451-000	F2-250K,			
B	Bass, Left	250K	(36X0451-001)	R3-250K,			
R3A	Bass, Right	1meg	40X0545-000	SF114, CPL-2	DA-1meg-Z	B13-137,	FA16A, RU16A,
B	Bass, Left	1meg	(40X0545-001)	F2-1meg	R-1meg-Z	B13-137, SK1,	CS3500
				R2-1meg	FS-3	QCM or (BU2, CF26, CR21,	
				SF114, CPL-2		SS1, SS7A, DC1)*	
				or (B-70, SR-70)			
R4A	Treble, Right	500K	40X0544-000	TPL-105			UE2502S ①
B	Treble, Left, Switch	500K	(40X0544-001)				

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS
R56	100Ω 5W	PW5-100	5W-SQ-100	#43X0401-010
R61	150Ω 7W	PW10-150	10W-SQ-150	#43X0401-008
R62	680Ω 5W	PW5-700	5W-SQ-700	#43X0395-001

ITEM No.	USE	REPLACEMENT DATA					NOTES
		CATALINA PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	FM Ant. (12 turns)	9A2448-001					
L2	1st FM RF (4 turns)	9A2511-001					
L3	2nd FM RF (4 turns)	9A2592-001					
L4	FM Osc. (5 turns)	9A2593-001					
L5	RF Choke (3.3uh)	9A2518-001		74F336AP			
L6	1st FM IF	9A2510-001	BC-564	1457	RTC-8518	TB294	
L7	Loopstick	9A2587-001	FM-254	2007	RTC-8599	T633	
L8	AM RF	9A2521-001		71- RF *		TC576	
L9	AM Osc.	9A2520-001	BC-394	71-OSC ♦	RTC-8648 ♦	T504	* Short Primary leads.
L10	2nd FM IF	9A2492-001	FM-254	1457	RTC-8599	T633	♦ Disregard Primary.
L11	3rd FM IF	9A2492-001	FM-254	1457	RTC-8599	T633	
L12	1st AM IF	9A2508-001	BC-352	14-C1	RTC-8632	T607	
L13	FM Discriminator	9A2519-001		7710			
L14	2nd AM IF	9A2491-001	BC-353	14-C2	RTC-8633	T608	

ITEM No.	USE	DESCRIPTION	CATALINA PART NO.	REPLACEMENT DATA
K1 K2 K3	AM Oscillator Network FM Oscillator Network IF Cathode Network	220 Ω , .001mfd 22K, 47pf 68 Ω , .01mfd	76X0024-001 76X0038-001 76X0054-001	Aerovox Centralab Sprague PA-739 PC-352 PRC-18
K4 K5	Diode Filter De-Emphasis Network	100K, 100pf 50K, 100K, 100pf, 100pf	76X0040-001 76X0041-001	Aerovox Centralab Sprague PA-97 PC-50 D-1 ① ①

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	CATALINA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .85A	520VCT @ .13A DC	6.3VAC @ 2.6A	53X0407-001 (53X0407-000-B)					
	SEC. 3	SEC. 4	SEC. 5						
	6.3VAC @ 2.85A								

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			CATALINA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T2	5500Ω	6-8Ω	51X0220-005	A-2901 ①	A-3337 ①	24S92	5-53X ①	① Drill new mounting hole(s).
T3	5500Ω	6-8Ω	51X0220-005	A-2901 ①	A-3337 ①	24S92	5-53X ①	

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		CATALINA PART No.	QUAM PART No.	
SP1	8" PM 7-80	12A0627	8A1PA	
SP2	2" x 6" Horn 7-80	12A0618		
SP3	8" PM 7-80	12A0627	8A1PA	
SP4	2" x 6" Horn 7-80	12A0618		

ITEM No.	REPLACEMENT DATA								NOTES
	CATALINA PART No.		ASTATIC PART No.		ELECTRO-VOICE PART No.		SONOTONE PART No.		
	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	
M1	U13	427					24TS	N21TS	

ITEM No.	PART NAME	CATALINA PART No.	NOTES
M2 M3	Tuning Capacitor Switch	14A0249-001 2A0585-001	6 Gang, AM-FM Function

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 8895 (Plastic)
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8420 or 8421
Phone Pick-up Arm Cable	Use BELDEN No. 8430 (Two Conductor-Unshielded)
	8429 (Two Conductor-Shielded)
	8419 (Three Conductor-Shielded)