

## CABINET--REAR VIEW DISASSEMBLY INSTRUCTIONS

### CHASSIS REMOVAL

Remove five screws, a quick-on knob, turn seven plastic retainers, and press down on spring clips to remove back cover. Remove all knobs from the cabinet.

Note: Bottom of chassis can be serviced by removing 10 screws holding cabinet bottom cover.

Disconnect picture-tube socket, convergence plug, yoke plug, degaussing-coil plug, high-voltage anode lead, tuner IF cable and plug, control plug, ground wire, speaker leads and antenna leads.

Remove six screws holding chassis. Remove six screws holding tuner assembly to cabinet. Remove chassis and tuner assembly from cabinet.

### PICTURE TUBE REMOVAL

Follow "Chassis Removal" procedure and lay set face down on a soft protective surface.

Remove blue lateral and purity magnet, convergence yoke, and deflection yoke from the picture-tube neck.

Remove four springs holding yoke clamp and degaussing shield and remove yoke clamp and degaussing shield. Remove bolt holding picture-tube retaining wire.

Remove eight screws holding picture-tube mounting bracket to cabinet front. Remove picture tube from the cabinet. Do not lift picture tube by the neck.

## SERVICING IN THE FIELD

### CRT IMPLOSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

### FUSE DEVICES

A circuit breaker is used for low-voltage power-supply protection. (See photo "Cabinet--Rear View".)

A 2" length of #22 gauge fuse wire is used for filament protection. (See photo "Chassis--Bottom View".)

A 2" length of #26 gauge fuse wire is used for filament protection. (See photo "Chassis--Bottom View".)

A 3.1-amp fuse is used for AC line protection. (See photo "Cabinet--Rear View".)

### VHF TUNER

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

### HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horizontal hold coil. (See photo "Cabinet--Rear View".)

### WIDTH

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

### FOCUS

The focus may be varied by means of an Focus control. (See photo "Cabinet--Rear View".)

### AGC

The AGC may be varied by means of an AGC control. (See "Cabinet--Rear View" photo.)

### CENTERING

Vertical centering is accomplished by proper adjustment of the vertical centering control. (See photo "Cabinet--Rear View".)

## PHOTOFACT® Folder

with CIRCUITRACE®

For Supplier Address See PHOTOFACT Index

ADMIRAL CHASSIS 15K1673-33/73-36/  
80-1/86-1/86-5/86-7/87-1/87-2/94-1

COLOR TV



MODEL 5L5151

MODEL	CHASSIS	MODEL	CHASSIS
3L1381	15K1673-33 ✓	5L5151	15K1686-1 ✓
3L1385	15K1673-33 ✓	5L5155	15K1686-1 ✓
3L1388	15K1673-33 ✓	5L5188	15K1686-1 ✓
3L1391	15K1673-33 ✓	5L5161	15K1686-5 ✓
3L1395	15K1673-33 ✓	5L5253	15K1687-1 ✓
3L1398	15K1673-33 ✓	5L5338	15K1687-1 ✓
5AL5141	15K1686-1 ✓	5TS313	15K1687-1 ✓
5AL5145	15K1686-1 ✓	5TSS323	15K1694-1 ✓
5AL5148	15K1686-1 ✓	21T701C	15K1687-2 ✓
5AL5301	15K1686-7 ✓	21T738	15K1673-36 ✓
5AL5305	15K1686-7 ✓	** 21TS711C	15K1680-1 ✓
5AL5308	15K1686-7 ✓	SK5241	15K1686-1 ✓
		SK5245	15K1686-1 ✓
		SK5248	15K1686-1 ✓

\* Use Remote Receiver R200R and Transmitter R200TA.  
\*\* Use Remote Receiver R300R and Transmitter R300TA.

Covering Chassis  
Run 13 thru 20

## SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set. Check high-voltage regulation and adjust to correct value.  
Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

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REMEMBER TO ASK— "What else needs fixing?"

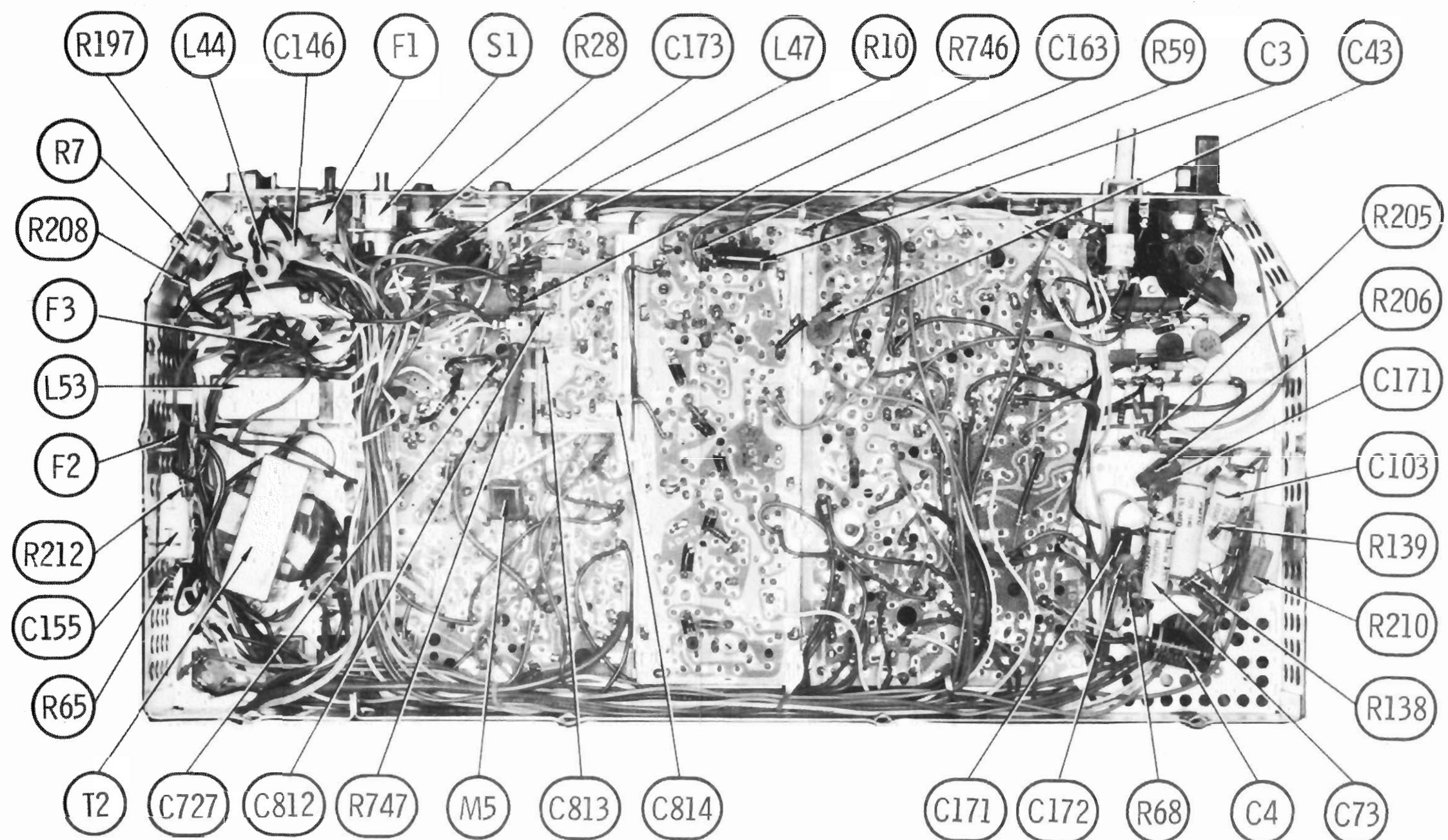
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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. 2PB537  
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DATE 9-72

SET 1267 FOLDER 1



CHASSIS-BOTTOM VIEW

ADMIRAL CHASSIS 15K1 673-33/73-36/  
80-1/85-1/86-5/86-7/87-1/87-2/94-1

FOLDER 1

#### CHASSIS REMOVAL

Remove five screws, a quick plastic retainers, and pre clips to remove back cover from the cabinet.

Note: Bottom of chassis c moving 10 screws ho cover.

Disconnect picture-tube so plug, yoke plug, degaussing voltage anode lead, tuner control plug, ground wire, antenna leads.

Remove six screws holding screws holding tuner assembly move chassis and tuner assembly.

#### CRT IMPLSION PROTECTION

Implsion protection is an picture tube, cleaning acc removal.

#### FUSE DEVICES

A circuit breaker is used power-supply protection. ("Cabinet--Rear View".)

A 2" length of #22 gauge filament protection. (See Bottom View".)

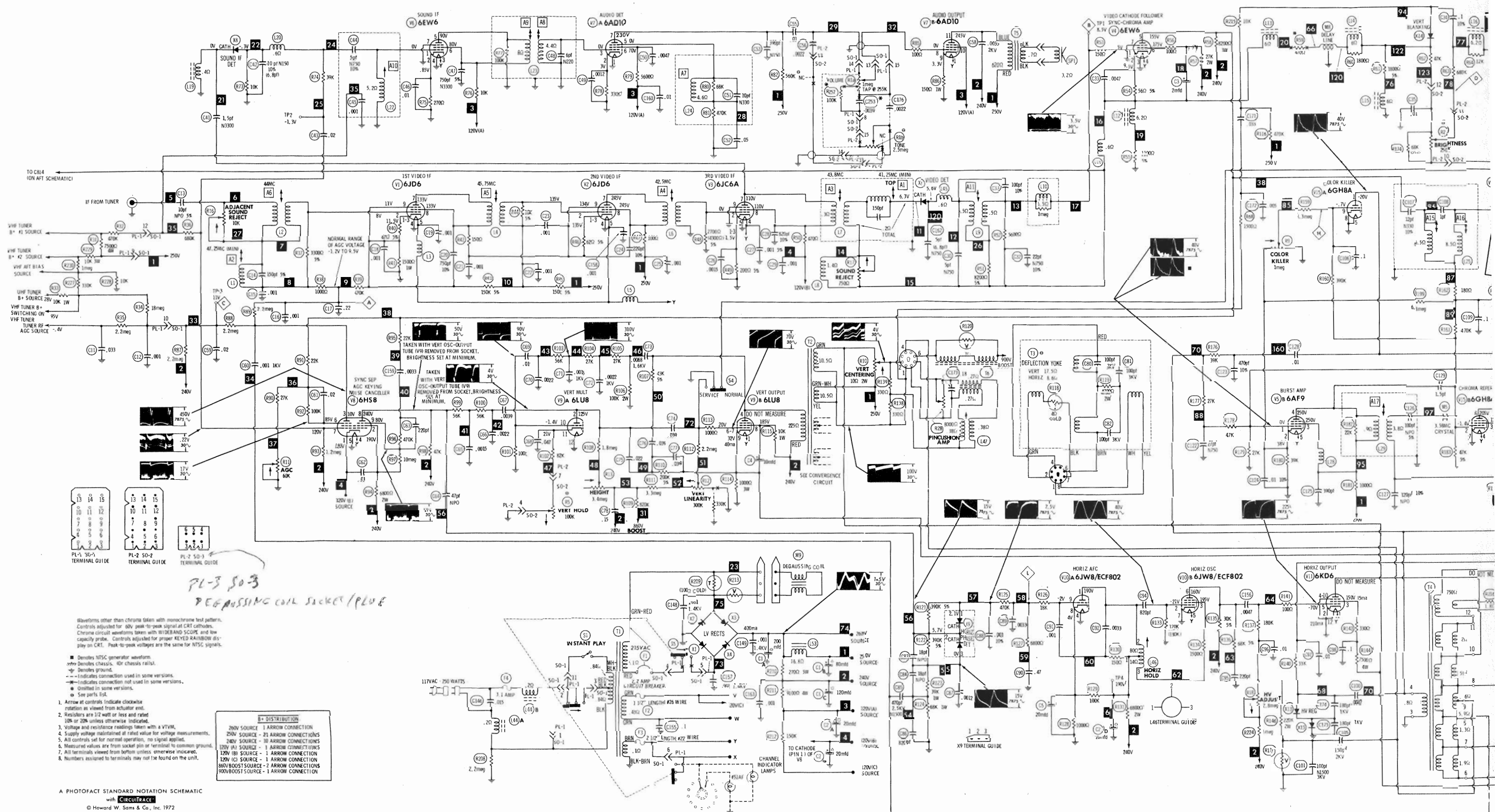
A 2" length of #26 gauge filament protection. (See bottom view".)

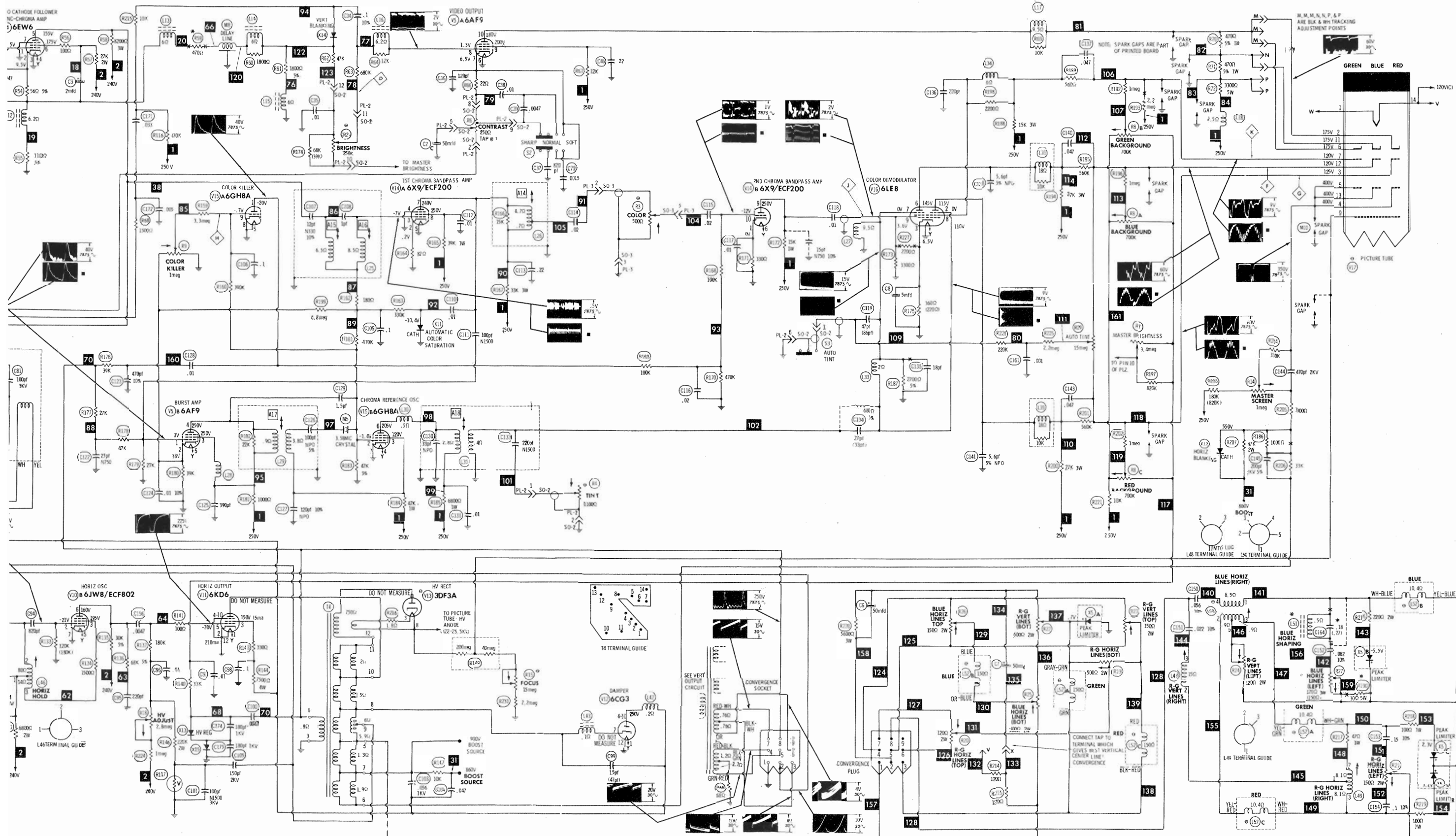
A 3.1-amp fuse is used for (See photo "Cabinet--Rear View".)

#### VHF TUNER

The fine tuning mechanical slug for adjustment (one s



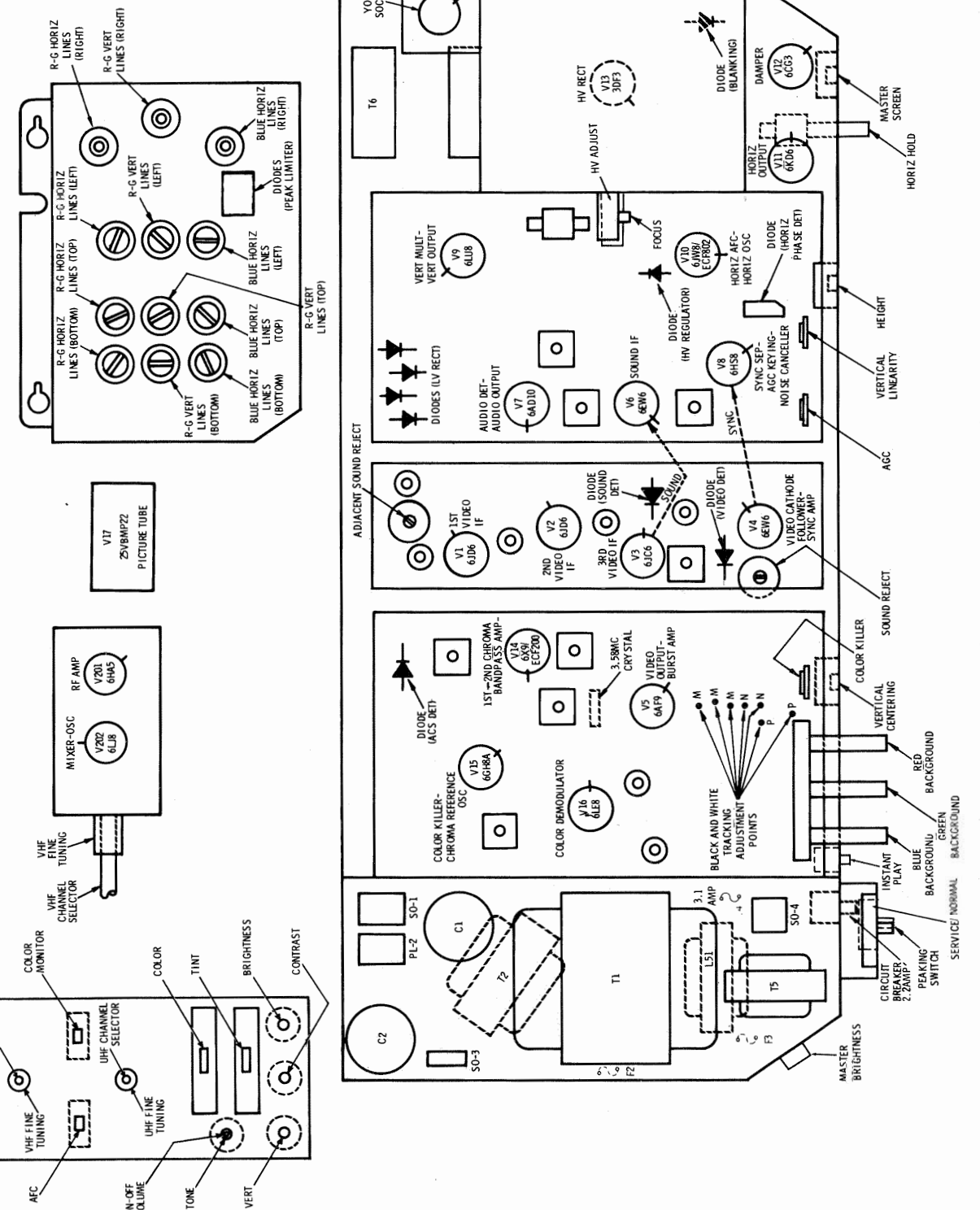






ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	TOP CAP
V1	1550Ω	460K	1550Ω	FIL	FIL	0Ω	220Ω ■	220Ω ■	1500Ω					
V2	INFINITE	90K	INFINITE	FIL	FIL	0Ω	120Ω †	120Ω†	65Ω ■					
V3	180Ω	0Ω	180Ω	FIL	FIL	0Ω	470Ω▲	470Ω▲	0Ω					
V4	2200Ω°	810Ω	FIL	FIL	8500Ω†	27K †	0Ω							
V5	18K	35K	1000Ω†	1000Ω†	FIL	FIL	330Ω	750K	12K†	4000Ω†				
V6	6.2Ω	270Ω	FIL	FIL	15K†	15K†	0Ω							
V7	FIL	330Ω	5.5Ω	0Ω	470K	12K†	1meg‡	250K	150Ω	6500Ω†	600Ω†	FIL		
V8	INFINITE	10K†	2.2meg	FIL	FIL	130K	650K	47K†	10meg†					
V9	FIL	4meg‡	NC	510Ω†	NC	2.8meg	2.8meg	11K†	910Ω	100K	130K	FIL		
V10	7100Ω†	170K	8600Ω†	FIL	FIL	30K†	0Ω	1000Ω	1.5meg					
V11	FIL	0Ω	5300Ω†	0Ω	300K	NC	NC	NC	NC	0Ω	NC	FIL		9.3Ω‡
V12	FIL	NC	NC	24Ω †	NC	NC	1.5meg†	NC	NC	24Ω†	NC	FIL		
V13		PINS 1 THRU 12 HAVE INFINITE RESISTANCE												1meg‡
V14	330Ω	82Ω	240K°	FIL	FIL	FIL	33K†	39K†	15K†	570K				
V15	570K	47K	47K†	FIL	FIL	7400Ω†	0Ω	0Ω	430K					
V16	27K†	11.5Ω	360Ω	FIL	FIL	27K†	9.5Ω	15K†	1400Ω					
V17	FIL	4600Ω†	430K†	1.1meg‡	1.1meg‡	4600Ω†	350K†	NC	60meg	NC	4600Ω†	410K†	1.1meg‡	PIN 14 FIL
VHF V201	6.2meg	0Ω	FIL	FIL	8800Ω†	0Ω	0Ω							
VHF V202	15K	10K†	0Ω	FIL	FIL	6400Ω†	24K†	0Ω	220K					

## TROUBLESHOOTING CHECK CHART



TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 117VAC. Allow a 20-minute warm-up period for the receiver and test equipment.

Suggested Alignment Tools:

A1 thru A16 ..... GC ELECTRONICS: 8606, 8606L, 8869  
Mixer Plate Coil .. GC ELECTRONICS: 9296, 9297, 9300

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 that shown. Connect a variable bias supply to the IF AGC line (Point A) and adjust to obtain a response curve which shows no indication of overload. Disable oscillator section of mixer-oscillator. Set the channel selector to any non-interfering channel.

INDICATOR	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
Vertical input of scope to Point B, low side to ground.	High side to ungrounded tube shield over Mixer-Osc., low side to ground.	44MC (10MC Sweep)	41.25MC 42.17MC 44.00MC 45.75MC 47.25MC	A1,R17 A2,R16 A3,A4, A5,A6, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 1. To obtain a proper response, it may be necessary to slightly retouch A3,A4,A5,A6 and Mixer Plate Coil.

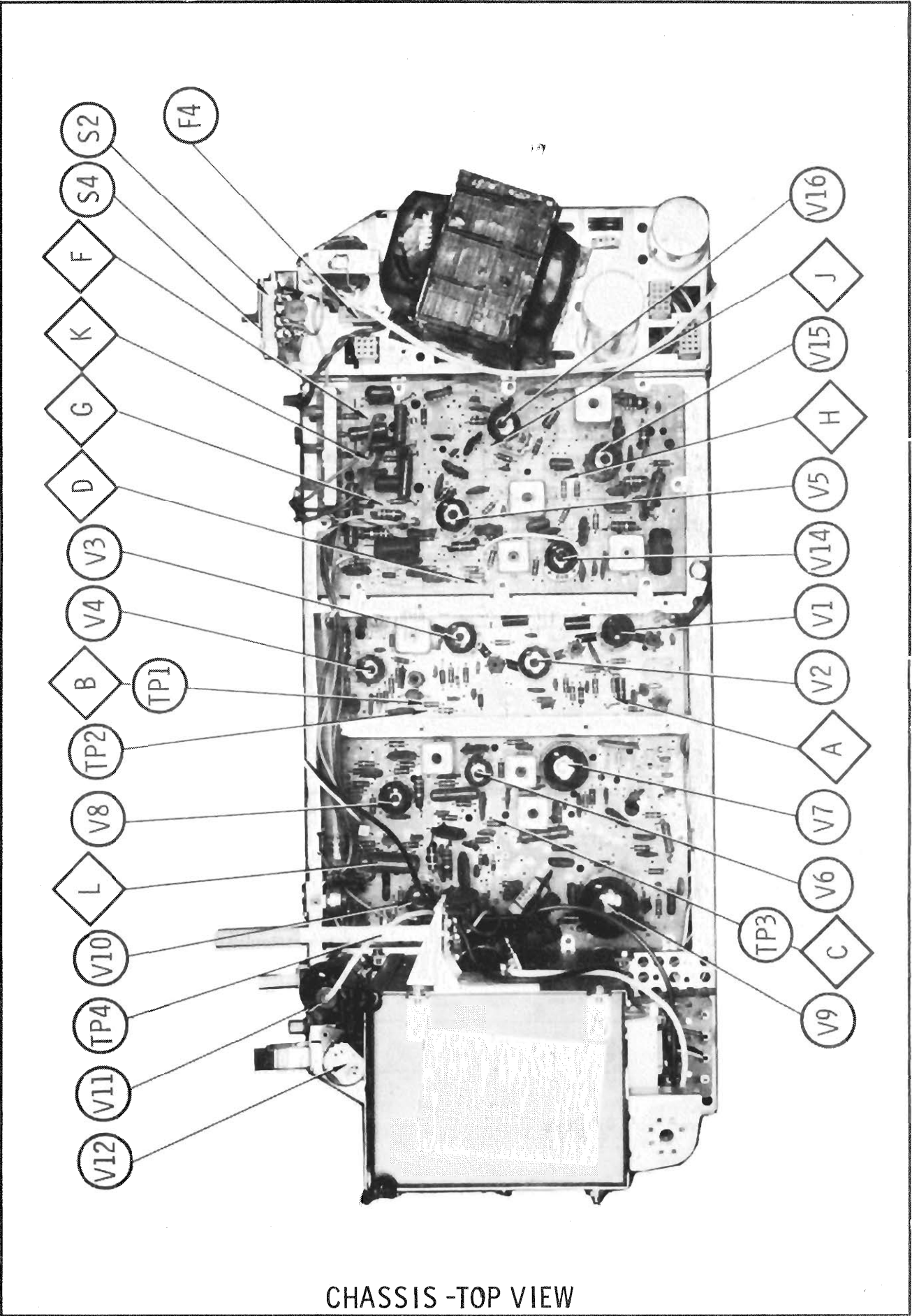
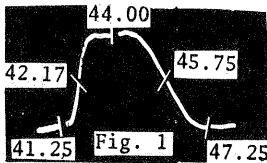
SOUND IF ALIGNMENT

Tune in a station and adjust A7 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting A8, A9, and A10.

4.5MC TRAP ALIGNMENT

To align 4.5MC trap, the Chroma Input Bandpass amp must be detuned. Realign Chroma Bandpass after 4.5MC trap alignment. Connect a jumper from Point A to ground, a -15V supply to Point C (RF AGC), a -15V supply to Point D (off pin 8 of video output), positive of supplies to ground. Disable horizontal sweep by removing horizontal output tube.

GENERATOR COUPLING	GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
High side to mixer grid test point on tuner, low side to ground.	45.75MC (Crystal Calibrated) 4.5MC (Modulation)	High side thru a detector probe to Point B, low side to ground.	A11	Adjust for MINIMUM.



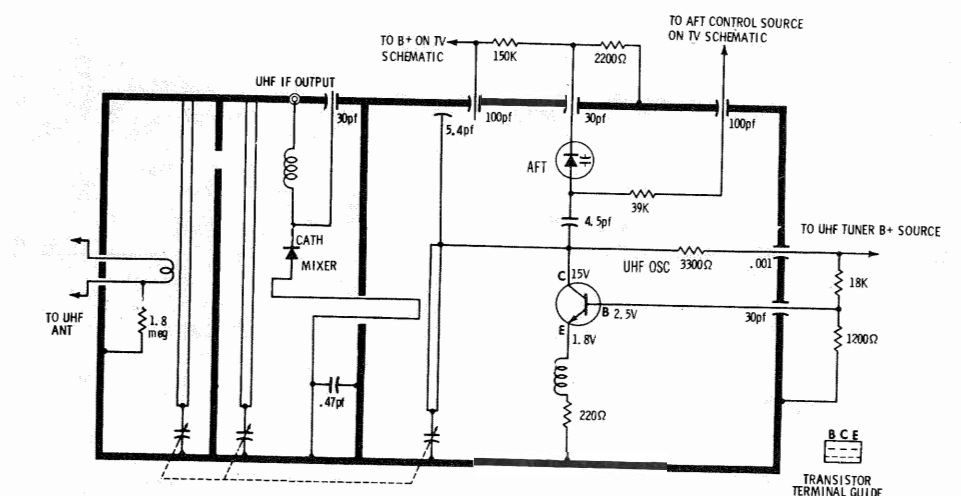
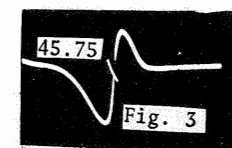
CHASSIS -TOP VIEW





4. SMC Trap Alignment should be done before Chroma Alignment. The following alignment requires the use of an RF Modulator (RCA WG304B or equivalent). Connect a jumper from Point **A** to ground, a -15V supply to Point **C** (RF AGC), a -15V supply to Point **D** (off pin 8 of video output), a -3V supply to Point **H** (pin 9 of color killer tube), positive of all supplies to ground. Set color control at 75% open. Disable horizontal sweep by removing horizontal output tube.

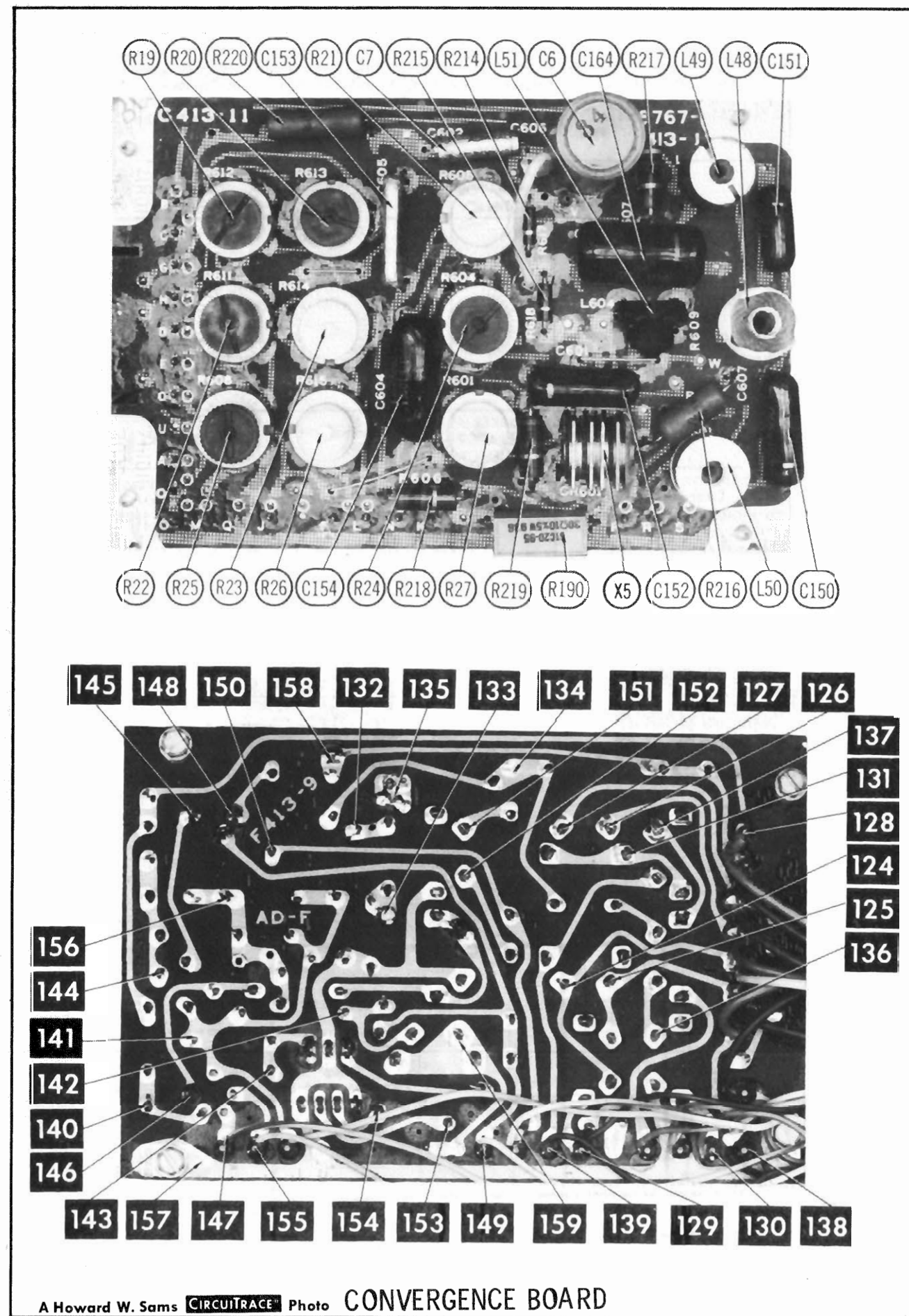
### AFT ALIGNMENT



A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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ADMIRAL CHASSIS 15K1673-33/73-36/  
801/861/845/867/871/872/941

## FOUNDER

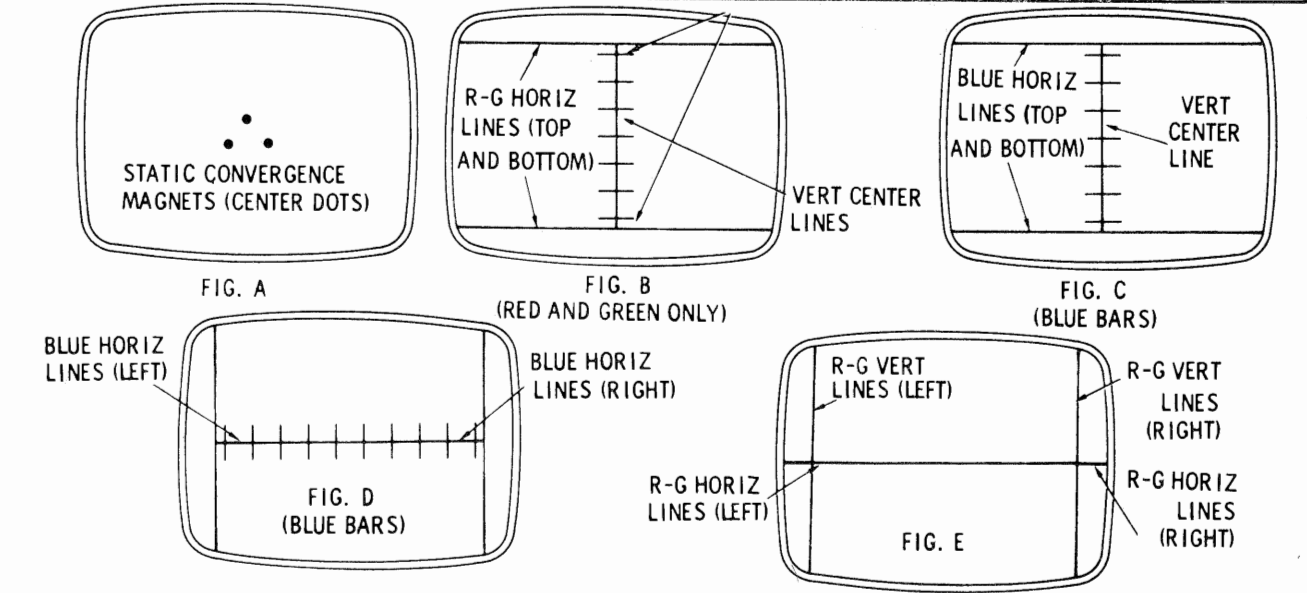


A Howard W. Sams **CIRCUITRACE** Photo CONVERGENCE BOARD

# CONVERGENCE ADJUSTMENTS

Step	Control	Use to Converge (or Straighten)	Remarks
1.			Perform Center Dot Convergence using convergence magnets. See Fig. A.
2.	R-G Vertical Lines, Top R23	Red and Green Vertical bars at top of screen.	Touch up both controls for best convergence from top to bottom along vertical center line (Fig. B). See Note
3.	R-G Vertical Lines, Bottom R22	Red and Green Vertical bars at bottom of screen.	
4.	R-G Horizontal Lines, Top R20	Red and Green Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. B).
5.	R-G Horizontal Lines, Bottom R19	Red and Green Horizontal bars at bottom of screen.	
6.	Blue Horizontal Lines, Bottom R25		Adjust for displacement of horizontal blue lines from red-green at top and bottom of screen (Fig. C).
7.	Blue Horizontal Lines, Top R26		Adjust for equal displacement of horizontal lines from red-green lines at center of screen. Readjust blue horizontal lines bottom control as required to maintain spacing of horizontal blue lines (Fig. C).
8.			Perform center dot static convergence (Fig. A). If necessary, readjust blue horizontal lines top and bottom controls for best vertical convergence at center of screen (Fig. A).
9.	Blue Horizontal Lines, Right L50		Adjust for a straight horizontal blue line from center of screen to right side (Fig. D).
10.	Blue Horizontal Lines, Left R27		Adjust for a straight horizontal blue line from center of screen to left side (Fig. D).
11.	R-G Vertical Lines, Right L48	Red and Green Vertical lines at right side of screen.	Disable blue gun by connecting a 100K resistor from the blue control grid of picture tube to ground. Touch up both controls for best convergence of red and green horizontal and vertical lines on right side of screen (Fig. E).
12.	R-G Horizontal Lines, Right L49	Red and Green Horizontal lines at right side of screen.	
13.	R-G Vertical Lines, Left R24	Red and Green Vertical lines at left side of screen.	Touch up both controls for best convergence of red and green horizontal and vertical lines on left side of screen (Fig. E).
14.	R-G Horizontal Lines, Left R21	Red and Green Horizontal lines at left side of screen.	
15.			Remove 100K resistor from the blue control grid of the picture tube. Check overall convergence. Any vertical or horizontal adjustments may be touched up individually for correction of any slight irregularities in convergence.

Note: Jumper from CircuitTrace #135 (C7) may be connected to CircuitTrace #132 or 133 to provide best center vertical line convergence.



ADMIRAL CHASSIS 15K1673-33/73-36/  
80-1/86-1/86-5/86-7/87-1/87-2/94-1

FOlder 1



## MISCELLANEOUS ADJUSTMENTS

### HORIZONTAL OUTPUT TUBE CURRENT

Connect a 0-500ma meter in series with the cathode of the horizontal output tube. Connect a .47mfd capacitor across the meter. Horizontal-output tube current should be approximately 280ma. (Current should not exceed 300ma.) If current is high, check "High Voltage Adjustments" and "Grey Scale Adjustments".

### HORIZONTAL HOLD ADJUSTMENT

Tune in a TV station and set all controls for normal operation. Use a low-level signal with AGC control correctly set. Disconnect antenna, if necessary, to get a weak picture. Connect a clip lead from Point  $\diamond$  to ground. Adjust horizontal hold control (oscillator coil) for most stable picture. Remove clip lead from Point  $\diamond$  and check set with antenna connected and AGC control set properly.

### HIGH VOLTAGE ADJUSTMENTS

Connect high side of a VTVM through a high-voltage probe to picture-tube anode connector, low side to ground. Set the Brightness control, R2B, and the Contrast control, R6, to MINIMUM. Adjust the High Voltage control, R18, for a reading of 25.5KV on the VTVM. (Do not exceed 25.5KV.)

### FOCUS ADJUSTMENTS

With controls set for a picture with normal contrast and brightness, adjust the Focus control, R15, for best overall definition and picture detail. Alternately adjust the vertical height and linearity controls to produce a linear picture with about 1/2" overscan at top and bottom of the picture.

### COLOR AFC ALIGNMENT

Suggested Alignment Tools: GC ELECTRONICS:  
A17, A18 ..... 8606, 8606L, 8859

Connect a color bar-generator to the antenna terminals or tune in a color program. Set the tint control to the center of its range. Set the color (intensity) controls to maximum. Turn the color killer control fully clockwise.

Attenuate the strength of the signal by adjusting the fine tuning control for a weak signal having a loss of color sync (barber poling). Adjust A17 until the color bars (if using a color-bar generator) or the color portion of the picture (if observing a color program) stand still or drift slowly. A17 will peak at two different settings. The correct peak is the one with the slug nearest the chassis.

Connect a color-bar generator to the antenna terminals. Set the tint control to the center of its range. Set the color control for normal amount of color. Connect the vertical input of a scope to Point  $\diamond$ , pin 12 of picture tube, low side to ground.

Check for proper waveform with the color-bar generator being used. See waveform on schematic for pattern obtained from a standard NTSC signal.

### COLOR AFC ALIGNMENT (CONTINUED)

Check the range of the tint control. The bars should move 30° either side of proper signal. If necessary, adjust A18 for proper range of control. A18 will peak at two separate positions. Use the peak with slug nearest the chassis. Check for proper waveform at R-Y output, Point  $\diamond$  (pin 3) and G-Y output, Point  $\diamond$  (pin 7) of picture tube.

Tune in a weak signal or reduce the signal at the antenna terminals to obtain a snowy picture. Turn the color killer control fully clockwise. Then very slowly turn the control counterclockwise until the color in the snow just disappears. 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 through individual 100K resistors 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 assembly until a red spot appears at center of picture-tube screen. Slide deflection yoke forward to obtain a uniform red over entire picture-tube face. A low-power microscope is useful to observe the beam landings.

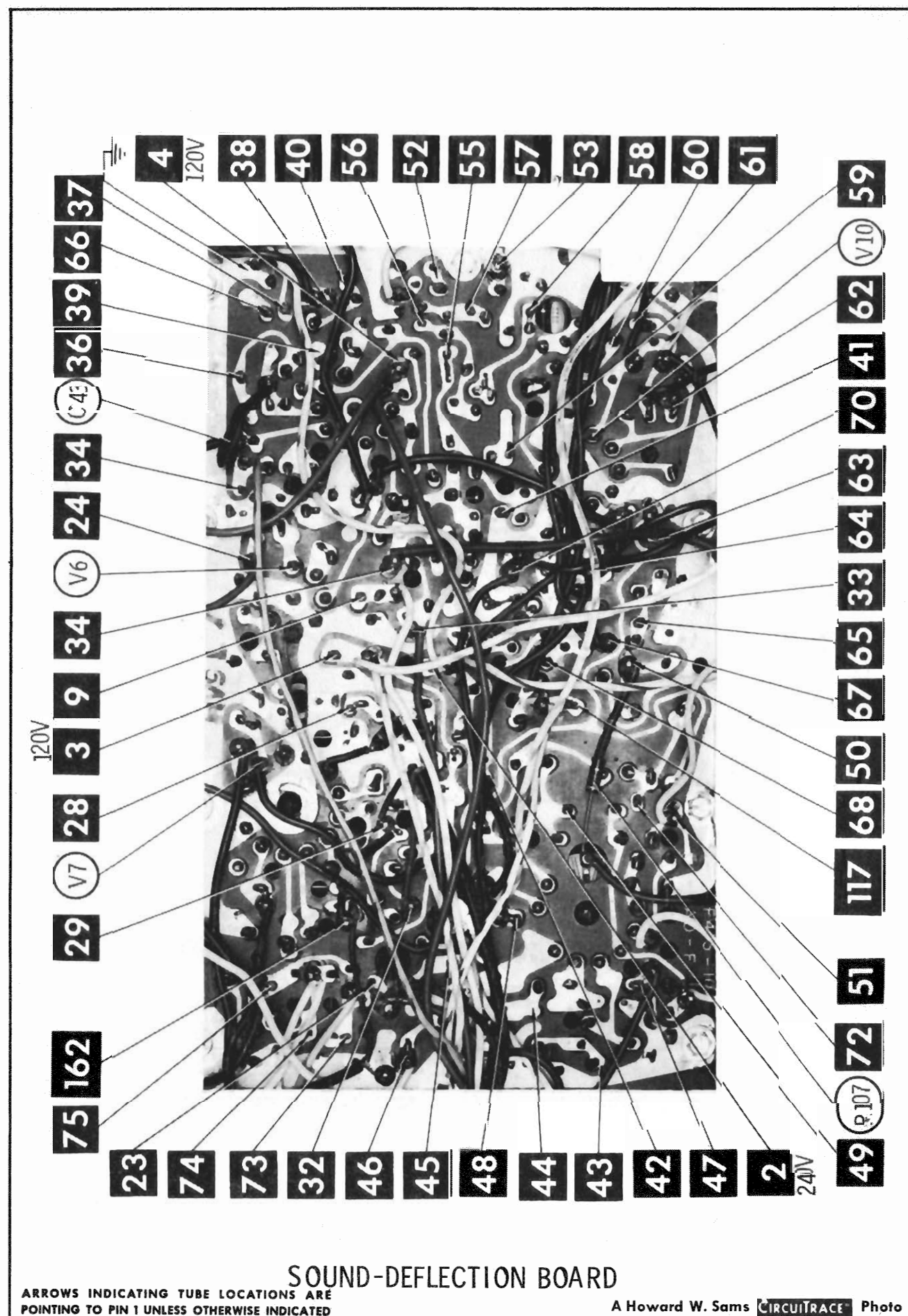
### GREY SCALE ADJUSTMENTS

Tune in a black and white picture, set the tint control to midrange, and set the color control to MINIMUM.

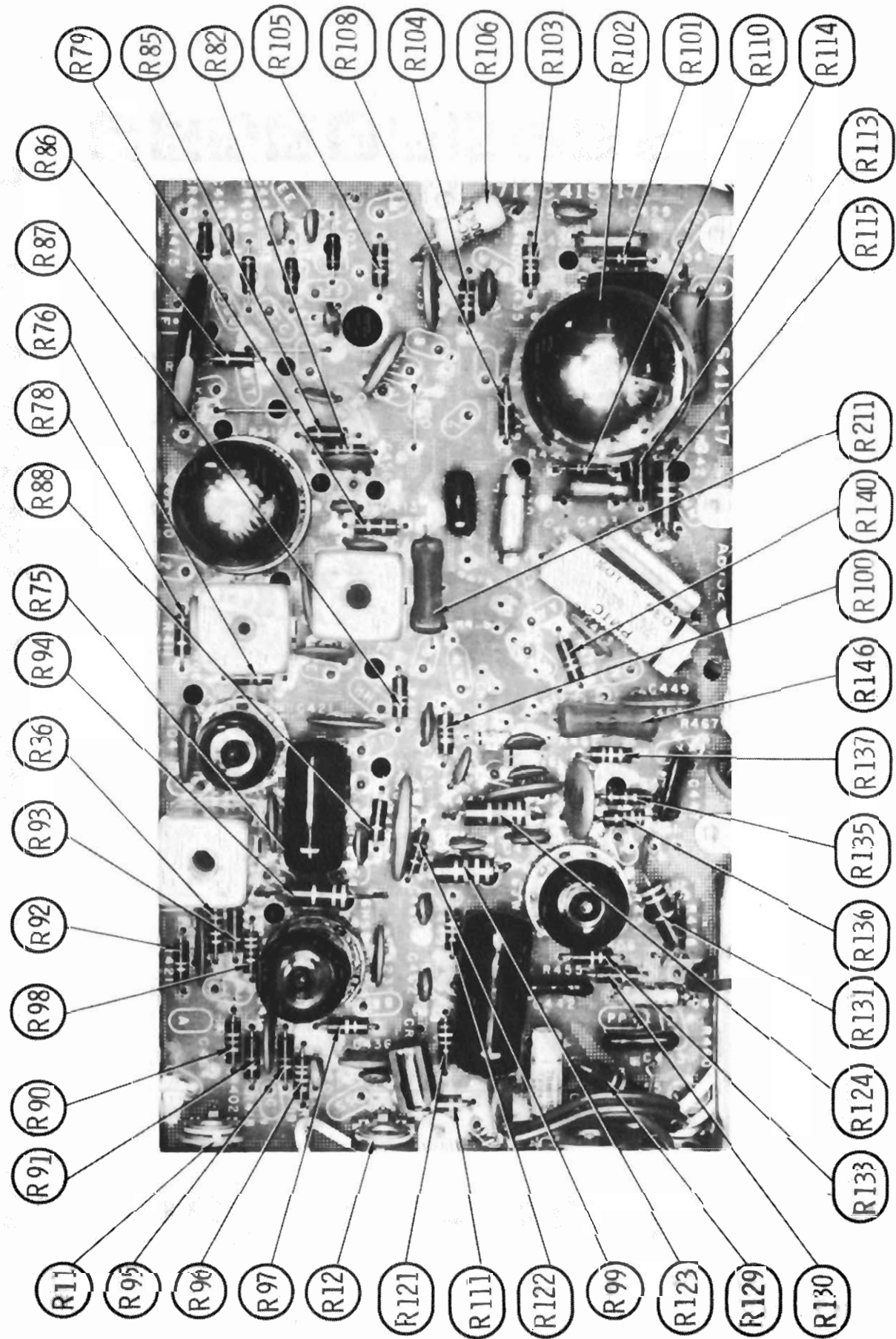
Turn the brightness control to 90% of full rotation and the contrast control to produce a normal picture. Turn master screen control to 75% of full rotation and raster brightness to MINIMUM. Alternately adjust blue, red, and green background controls to produce a black and white picture with maximum brightness, but without blooming.

Check for black and white picture at various settings of the brightness control. If picture lacks detail at high brightness levels, increase the master screen control slightly. If retrace lines appear, reduce master screen control slightly. Reduce brightness slightly below normal. If any one color is predominate, reduce that background control slightly.

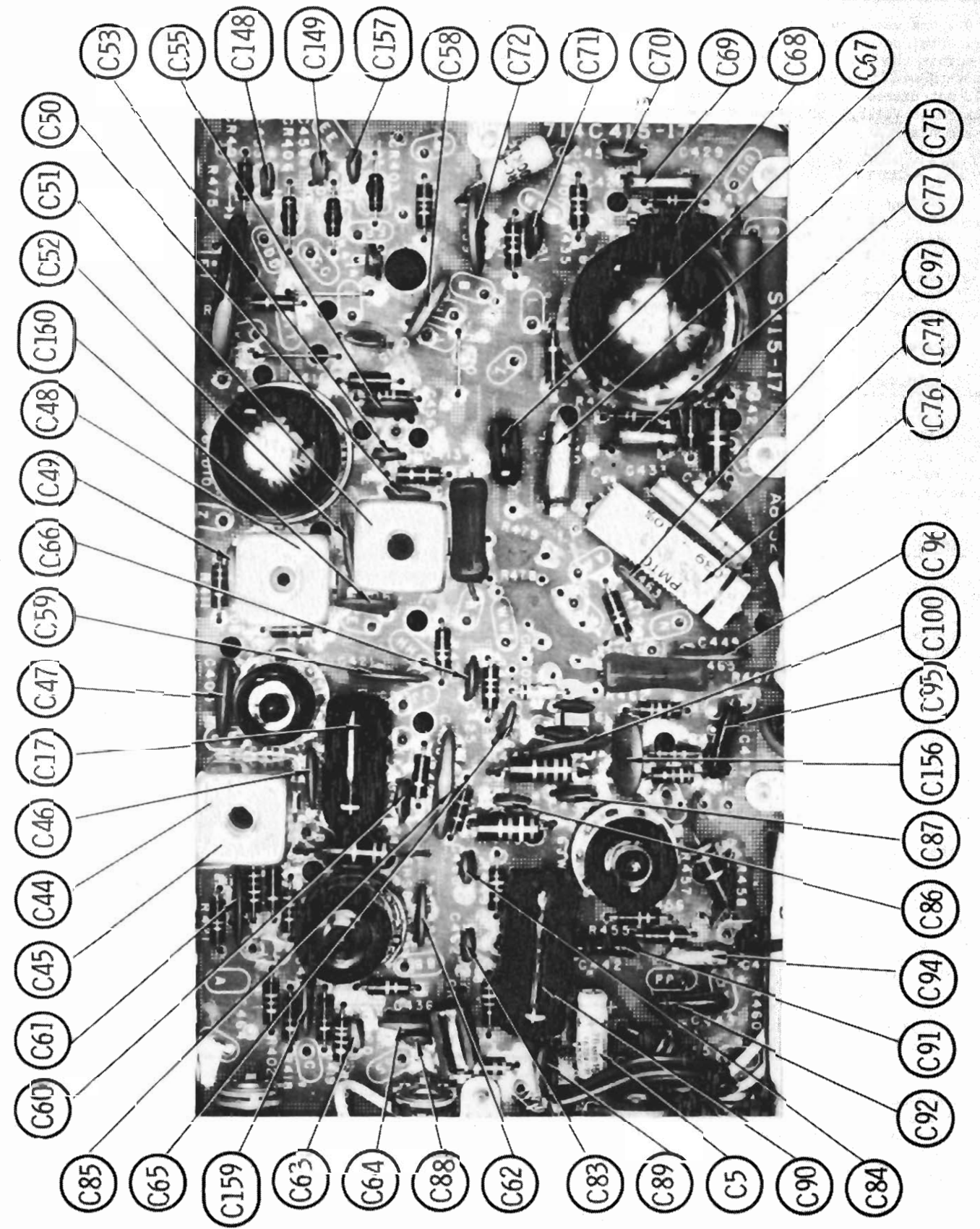
If proper tracking cannot be accomplished, it may be necessary to relocate the picture-tube cathode wires on the pins provided on top of the printed-circuit board. The cathode wires are identified by the red, green, or blue tracer on a yellow wire. If one color is predominate, its cathode wire should be connected to pin "P" (low drive). The other two wires should be connected to either of the "N" (medium drive) or "M" (high drive) positions which give the best black and white picture at all usable settings of the brightness control.



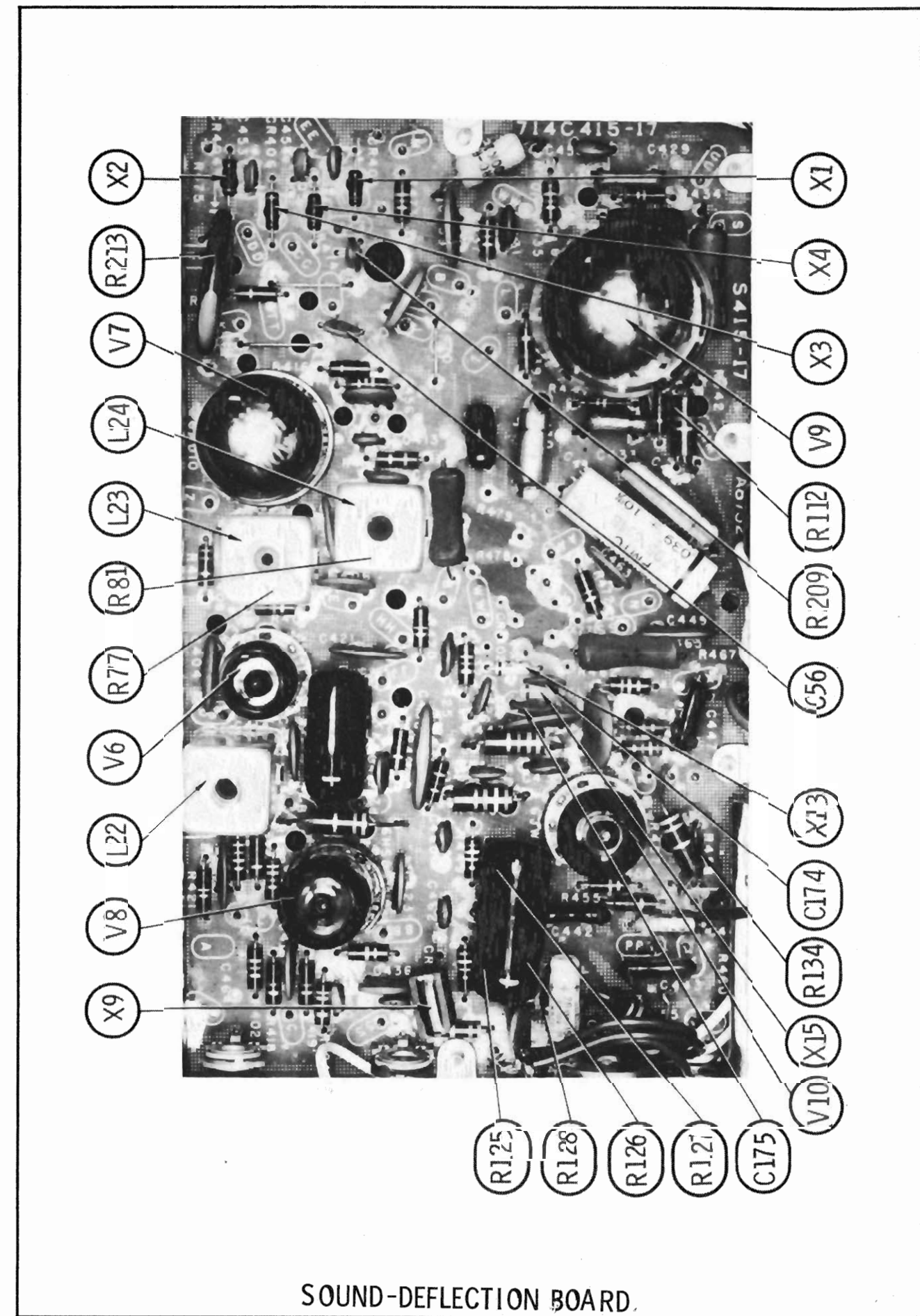
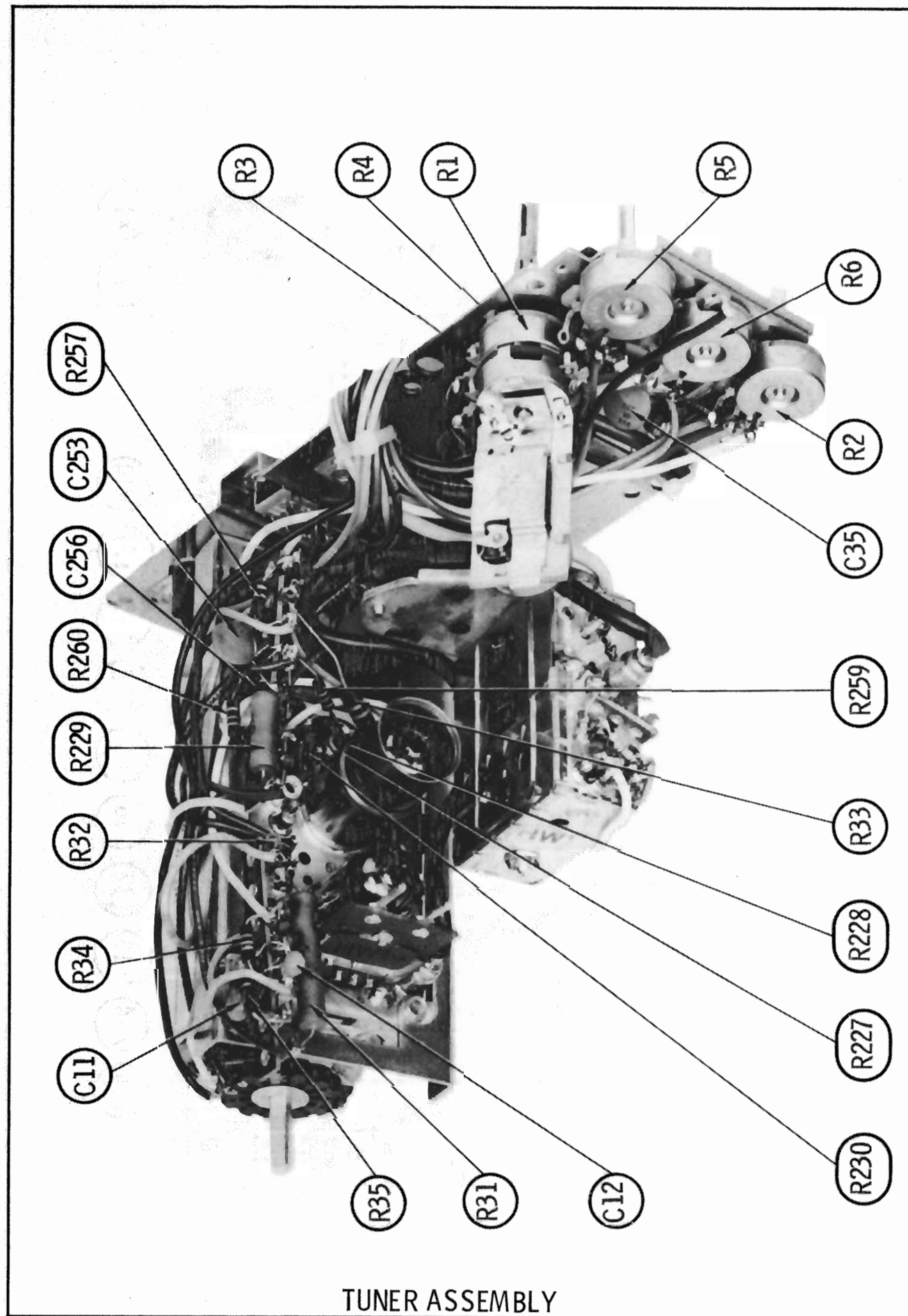


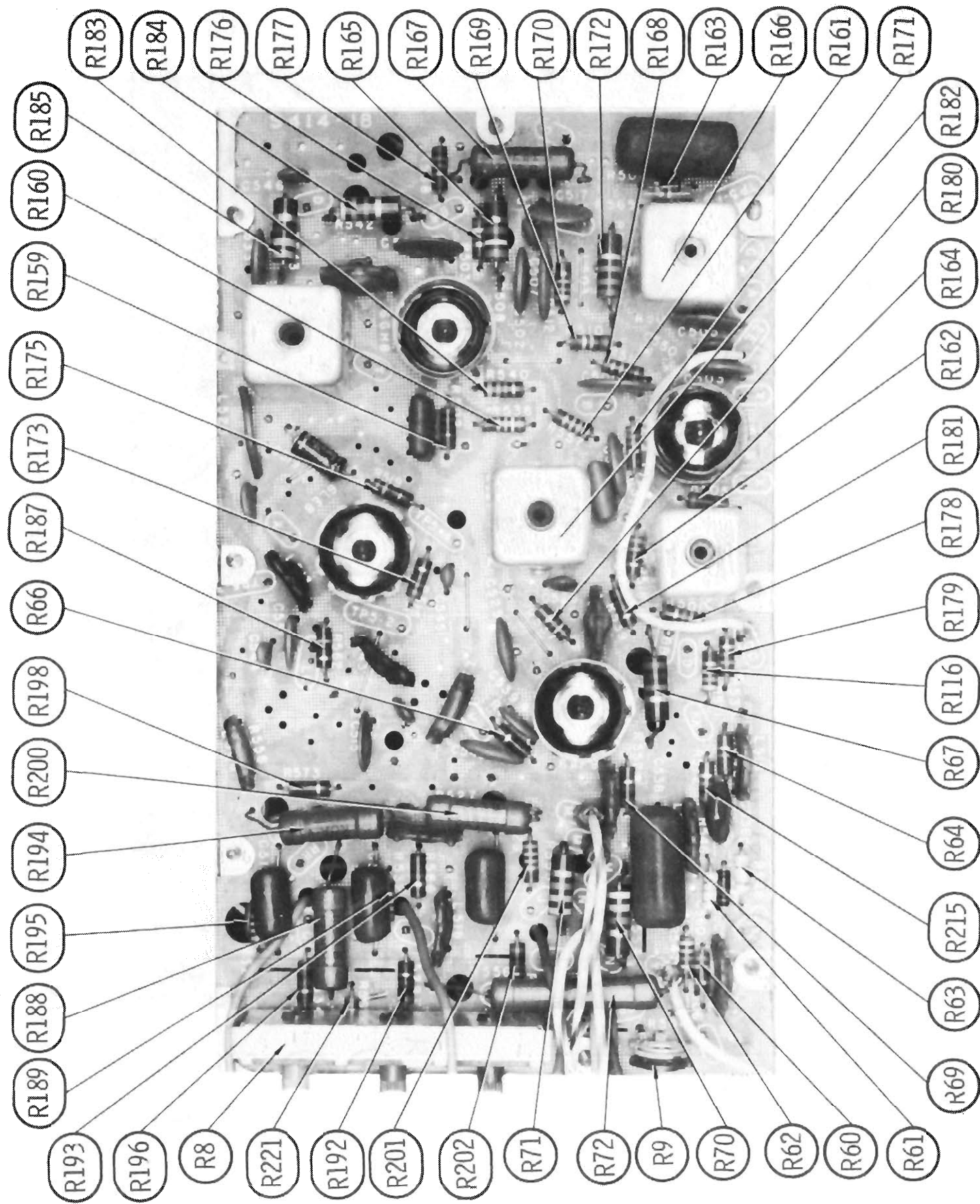


SOUND-DEFLECTION BOARD

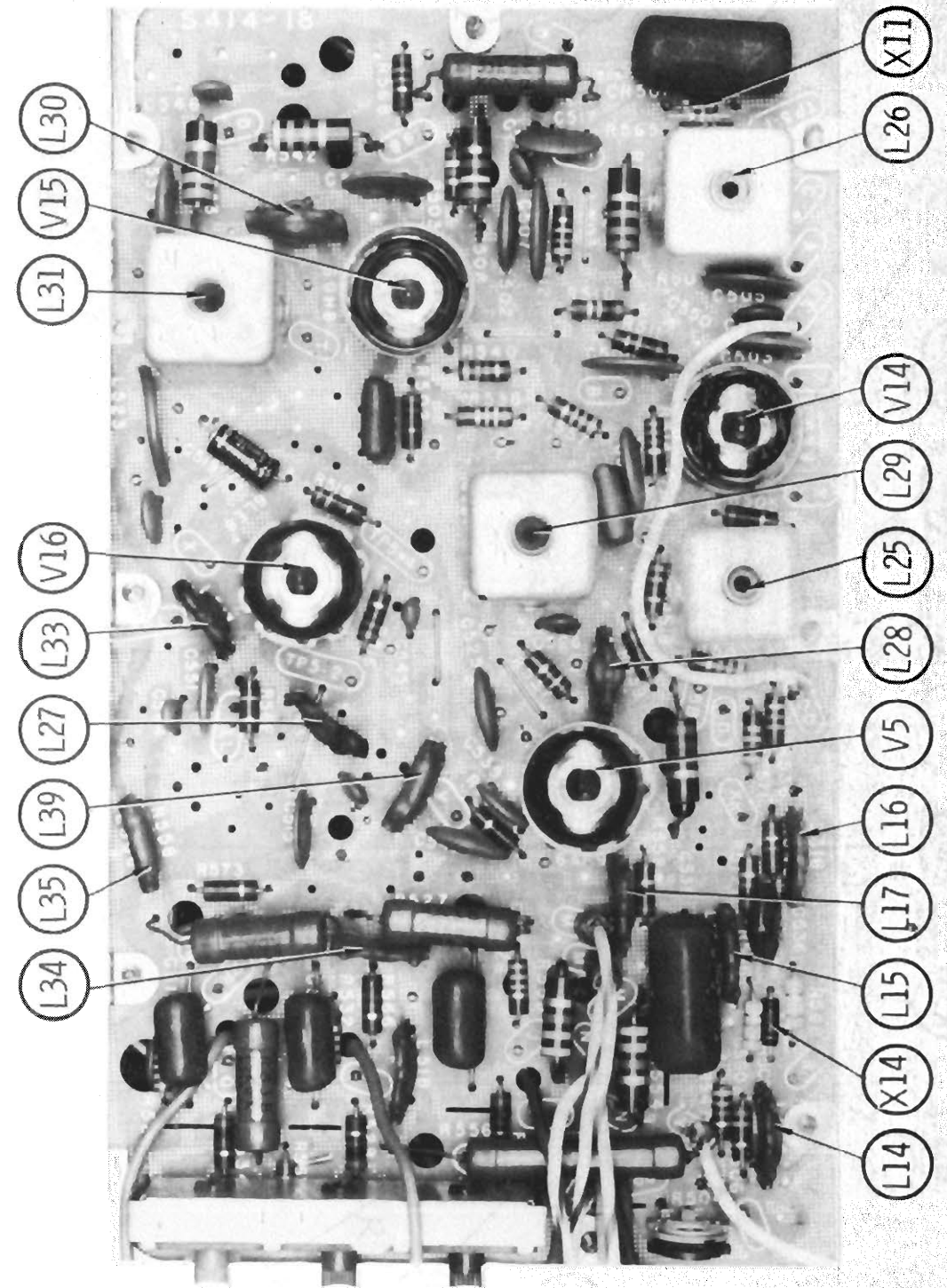




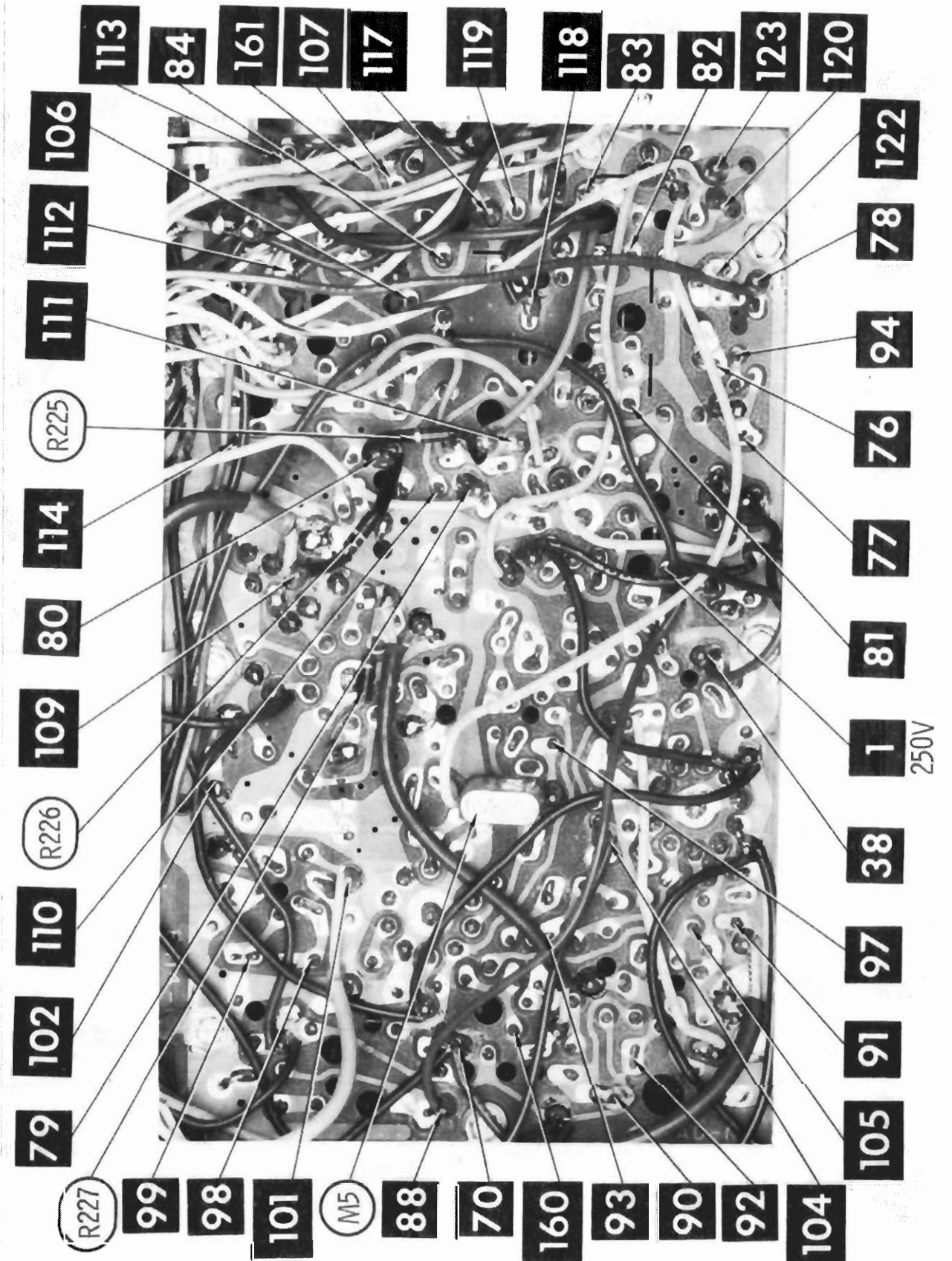
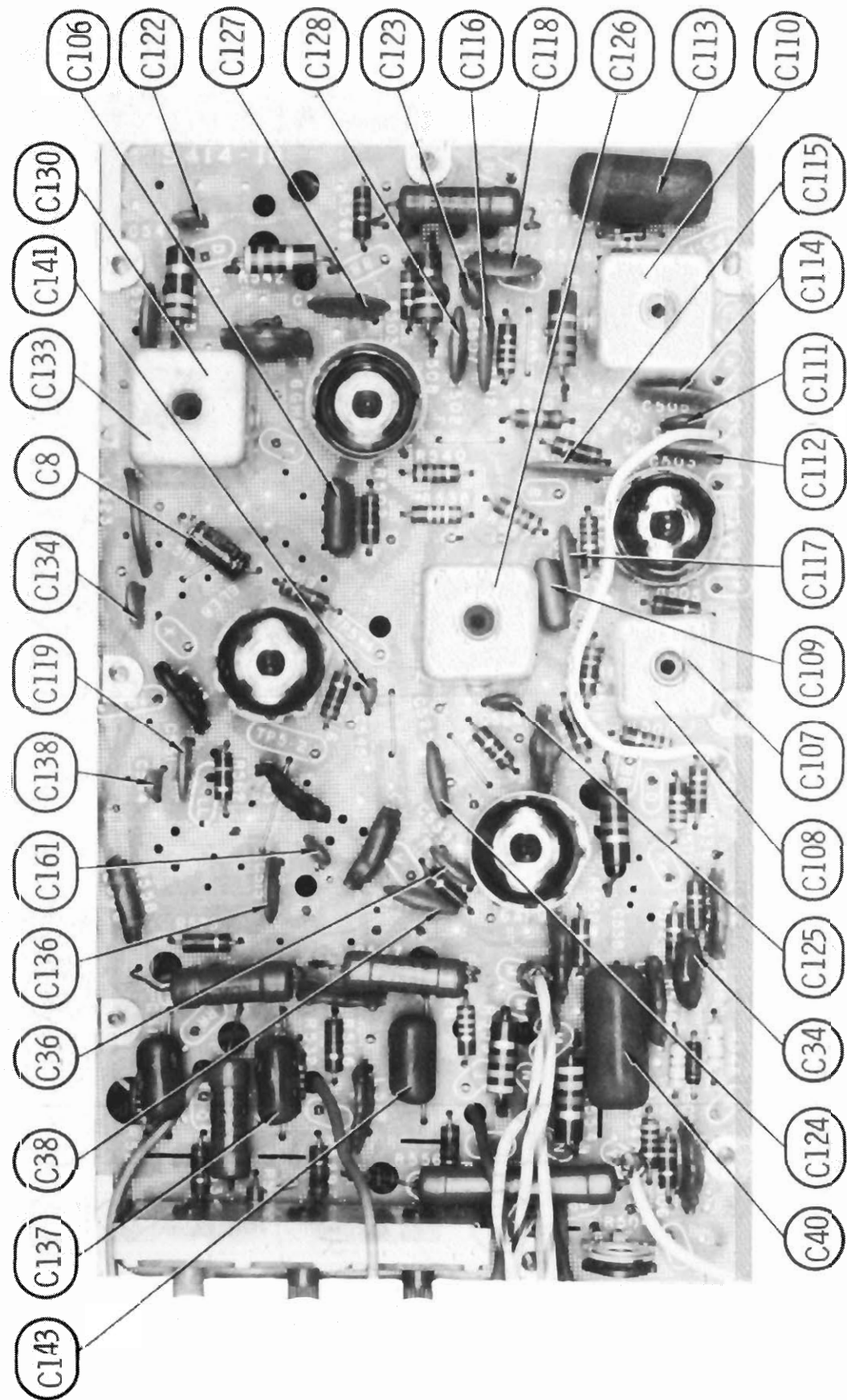




CHROMA BOARD

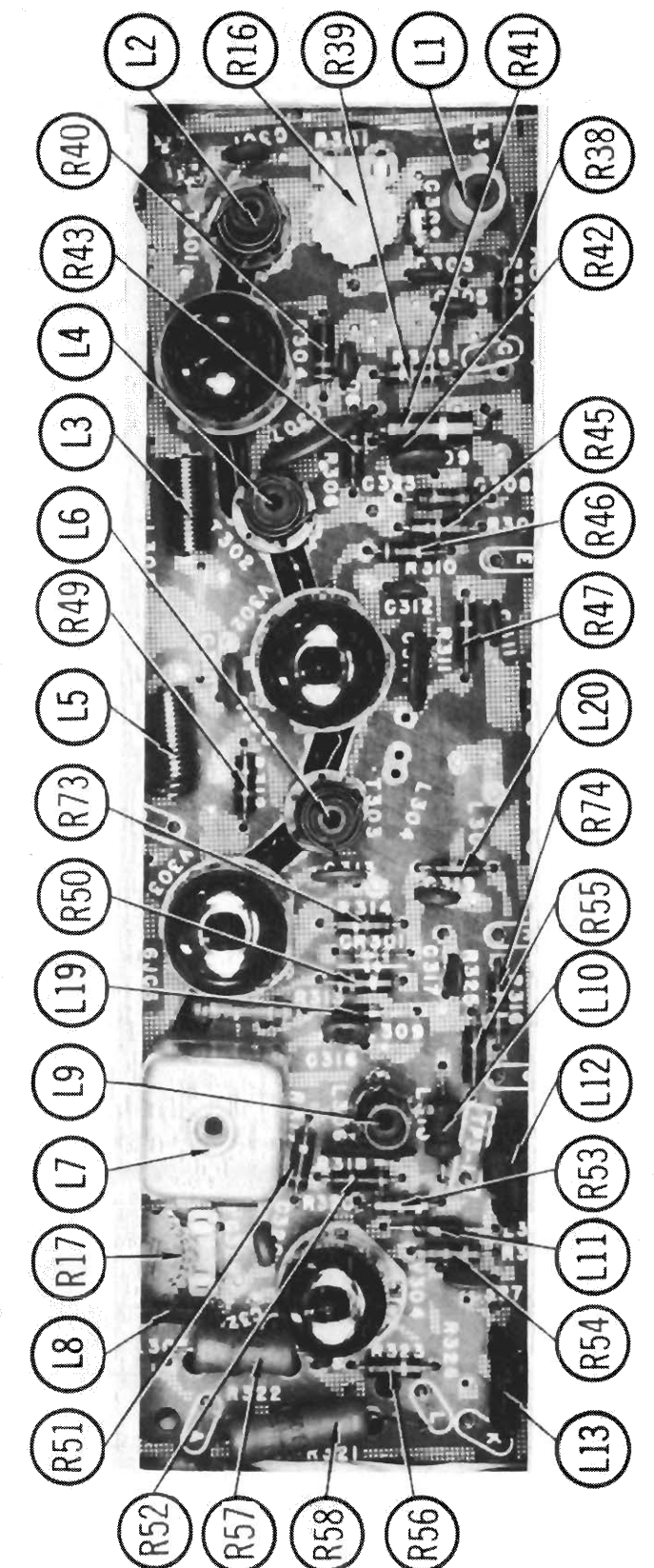
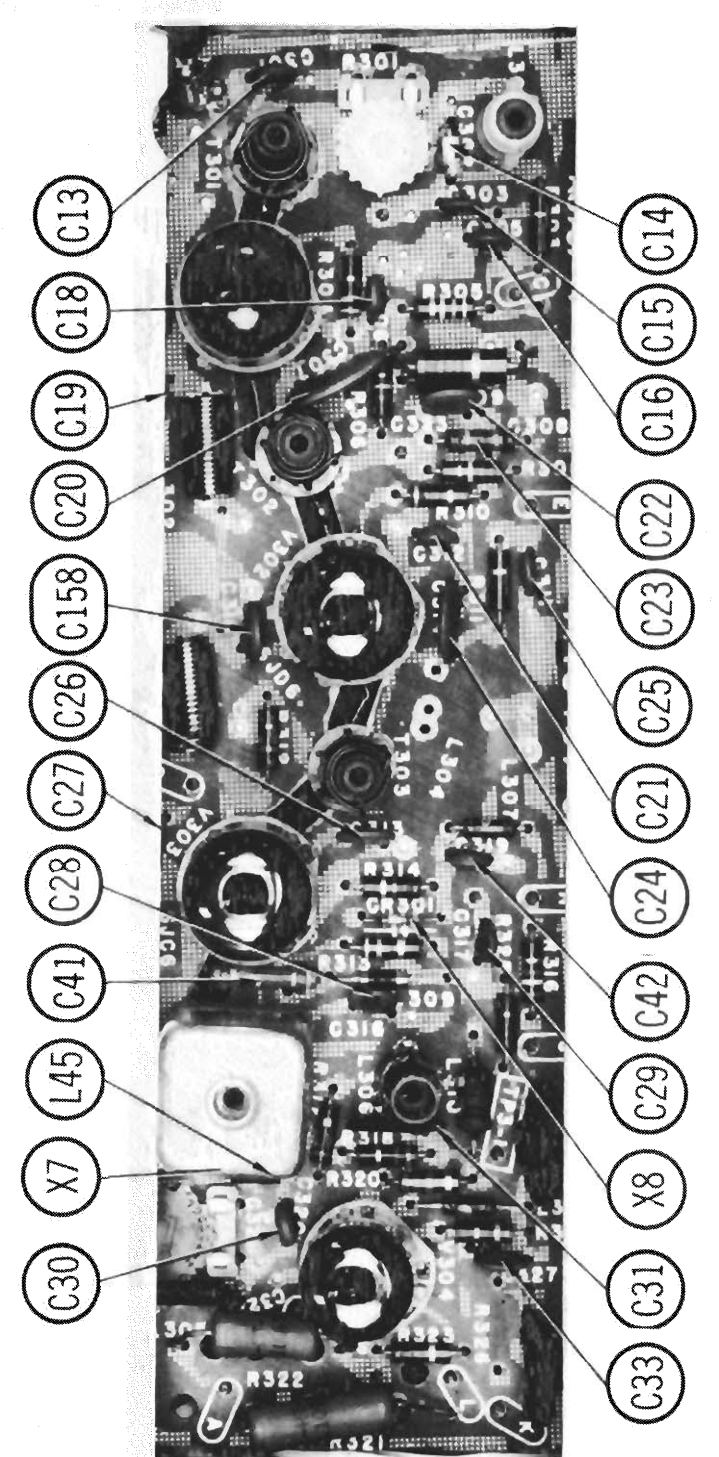
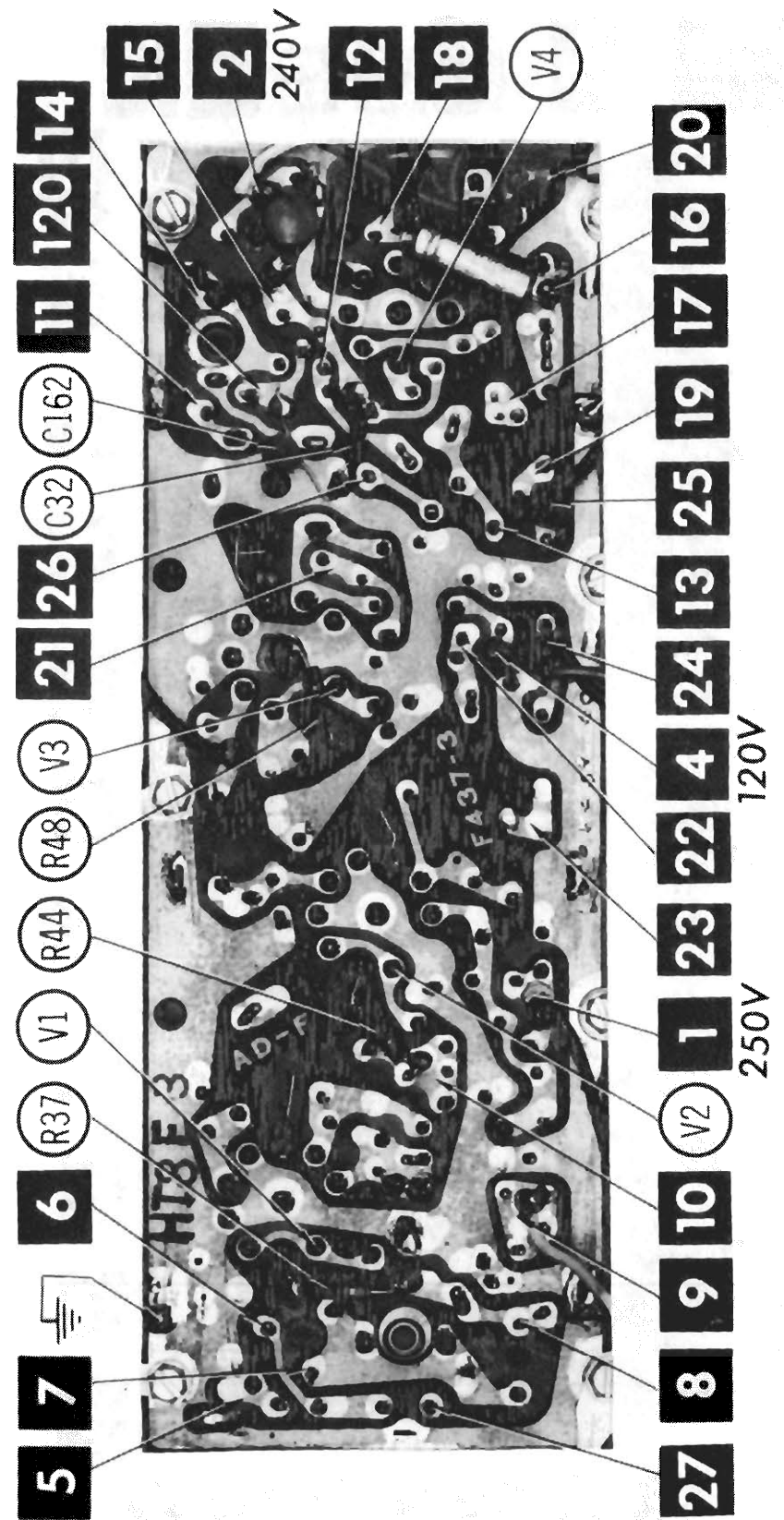






CHROMA BOARD

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

A Howard W. Sams CIRCUITRACE Photo

# VIDEO BOARD



VHF TUNER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

TUBES

AMPEREX			GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE		TYPE		ITEM No.	USE		TYPE
V201	RF Amp		6HA5		V202	Mixer - Oscillator		6LJ8

SEMICONDUCTORS

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	MOTOROLA PART No.
Q201		57A21-8(1)						

(1) Transistor used as a diode.

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMenco PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C201A	27	#970536		CCT0-270	TCZ-27	NP027	CN0427	10TCC-Q27
B	27			CCT0-270	TCZ-27	NP027	CN0427	10TCC-Q27
C	27			CCT0-270	TCZ-27	NP027	CN0427	10TCC-Q27
D	27			CCT0-270	TCZ-27	NP027	CN0427	10TCC-Q27
C202	7.7 N470 5%			*			*	10TS-Q27
C203	2.2		GPD C0J2R2K		DTZ-2R2	NP02P2	CN0522	10TCC-V22
C204	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C205	15			CCT0-150	DTZ-15	NP015	CN0415	10TCC-Q15
C206	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C207	33 N750		N750-DI 33	CCTN-330	DTN-33	CZ601UJ330K	CN7433	10TCU-Q33
C208	.001							
C209	8.2		GPD COH8R2K			NP08P2		10TCC-V82
C210	8.2		GPD COH8R2K			NP08P2		10TCC-V82
C211	.001							
C212	.001							
C213	.001							
C214	.001							
C215	.001							
C216	.001							
C217	.001							
C218	47							

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

COILS (RF-IF)

ITEM No.	USE	MFR. PART No.	NOTES	ITEM No.	USE	MFR. PART No.	NOTES
L201	UFF Strip	970552	Channel 1	L208	Ant., RF, Mixer, Osc	971498	Channel 8
L202	Ant., RF, Mixer, Osc	971492	Channel 2	L209	Ant., RF, Mixer, Osc	971495	Channel 9
L203	Ant., RF, Mixer, Osc	971493	Channel 3	L210	Ant., RF, Mixer, Osc	971500	Channel 10
L204	Ant., RF, Mixer, Osc	971494	Channel 4	L211	Ant., RF, Mixer, Osc	971501	Channel 11
L205	Ant., RF, Mixer, Osc	971495	Channel 5	L212	Ant., RF, Mixer, Osc	971502	Channel 12
L206	Ant., RF, Mixer, Osc	971496	Channel 6	L203	Ant., RF, Mixer, Osc	971503	Channel 13
L206	Ant., RF, Mixer, Osc	971497	Channel 7				

UHF TUNER PARTS LIST AND DESCRIPTION

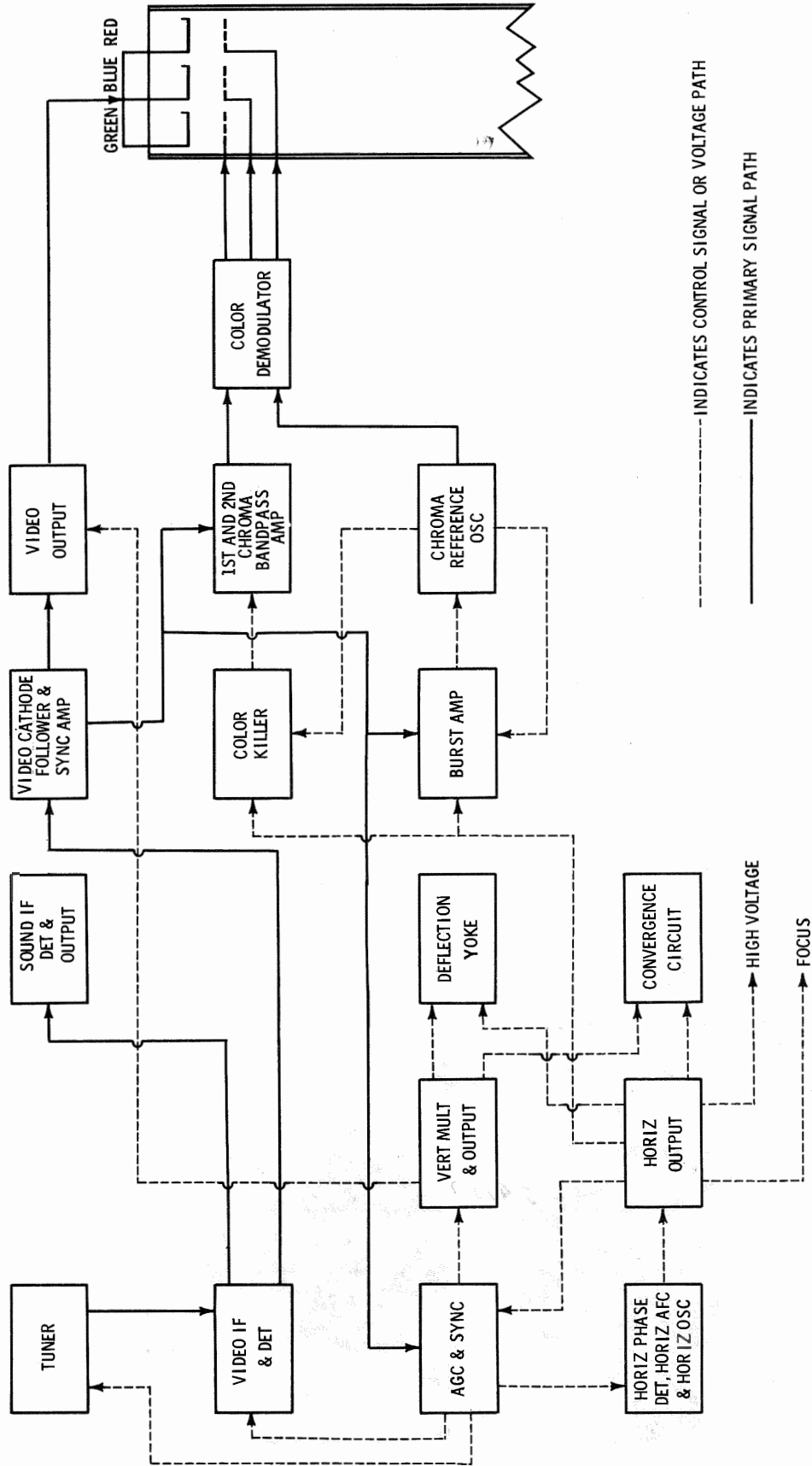
(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	MOTOROLA PART No.
Q301		970332	GE-11	TR-24	PTC132	SK3019	ECG 108	HEP56
X301	1N82AG	970759	1N82A	1N82AG		SK3089	ECG 112	
X302		970787						

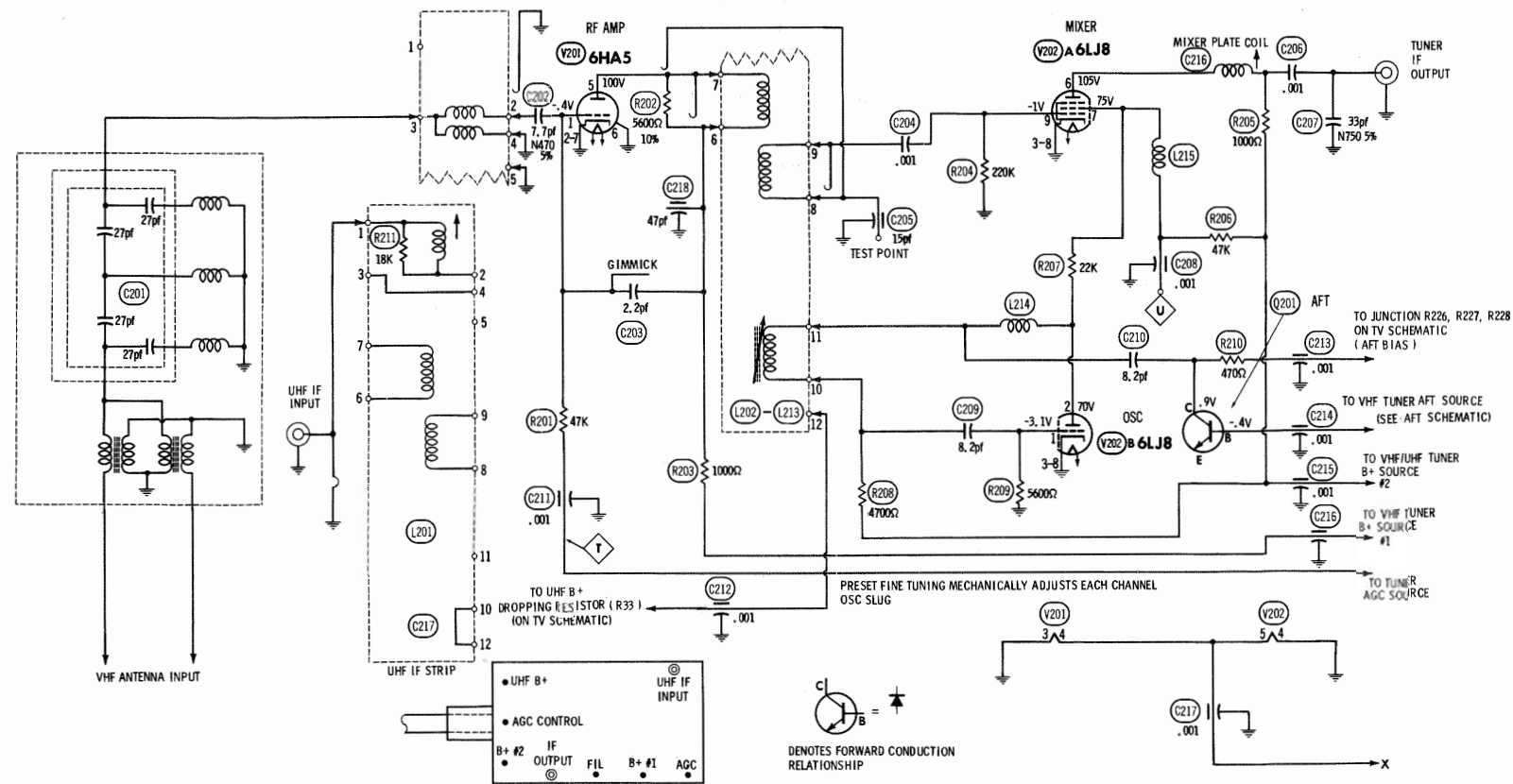
CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMenco PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C301	30							
C302	5		DI-5	CCD-050	DD-050		GP550	10TS-V50
C303	4.5		HVD-15-45	3CCD-4R5	DD30-4R5			
C304	100							
C305	100							
C306	100							
C307	30		DI-30	CCD-330	DD-300		GP433	10TS-Q33

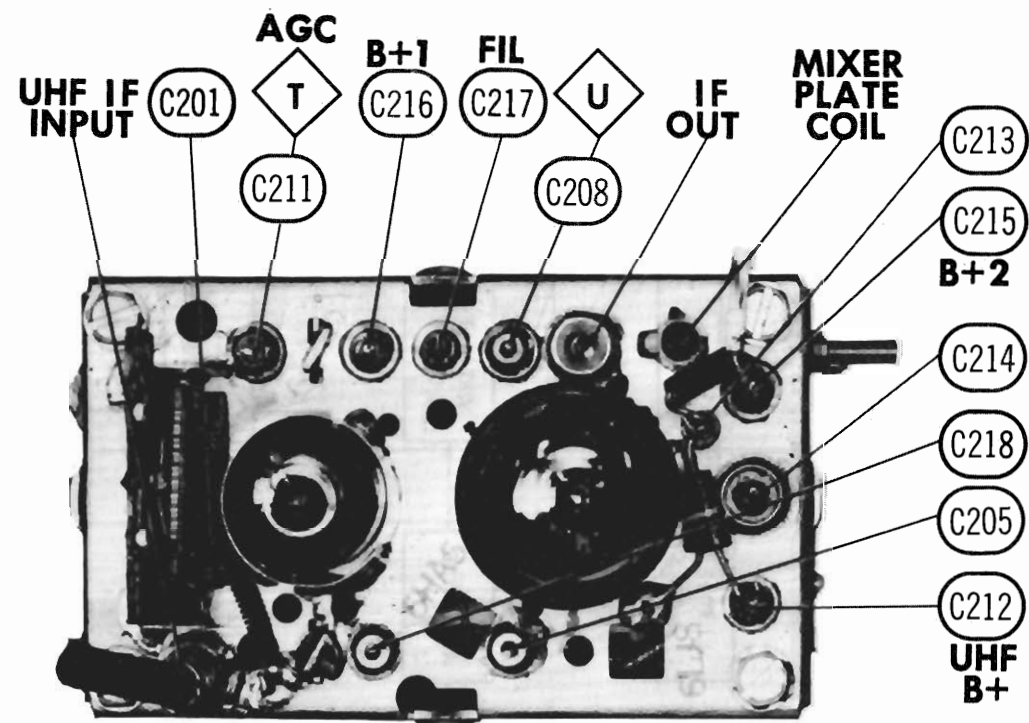


BLOCK DIAGRAM





A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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VHF TUNER 94A330-9, 94A330-10, 94A330-11, 94A331-5

## VHF TUNER ALIGNMENT INSTRUCTIONS

### OSCILLATOR ADJUSTMENTS

The oscillator slug for each channel is preset with the fine tuning control. Adjust the fine tuning for best picture and sound.

### RF AND MIXER ADJUSTMENTS

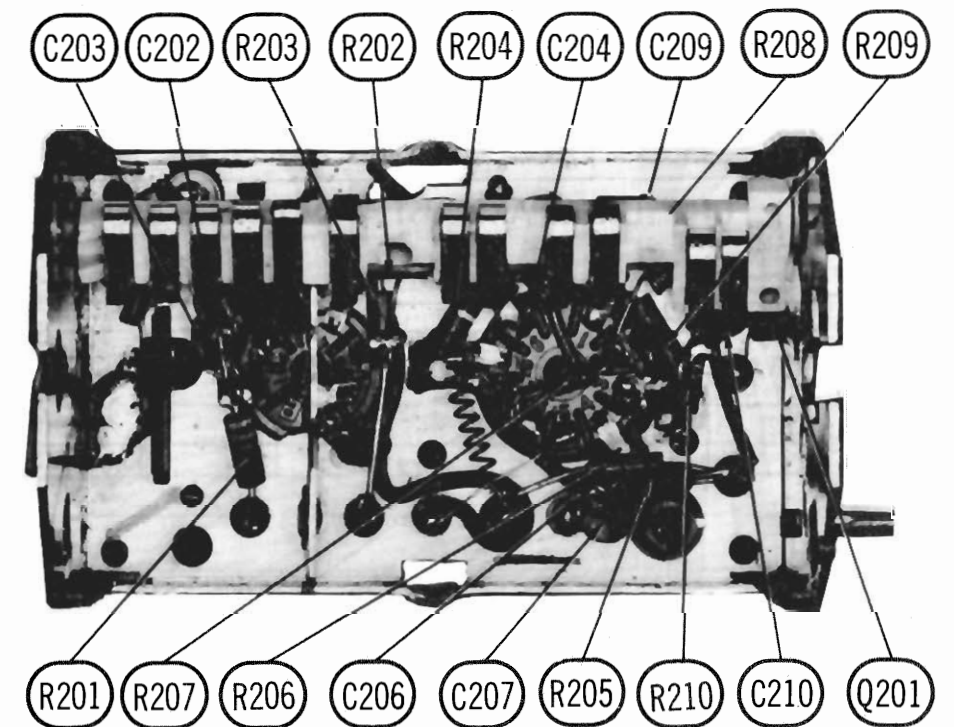
Connect the sweep generator across antenna terminals with 120-ohm carbon resistor in each lead. Refer to chart below for generator frequencies. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the scope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at Point T. Adjust bias to obtain response curve showing no overload.

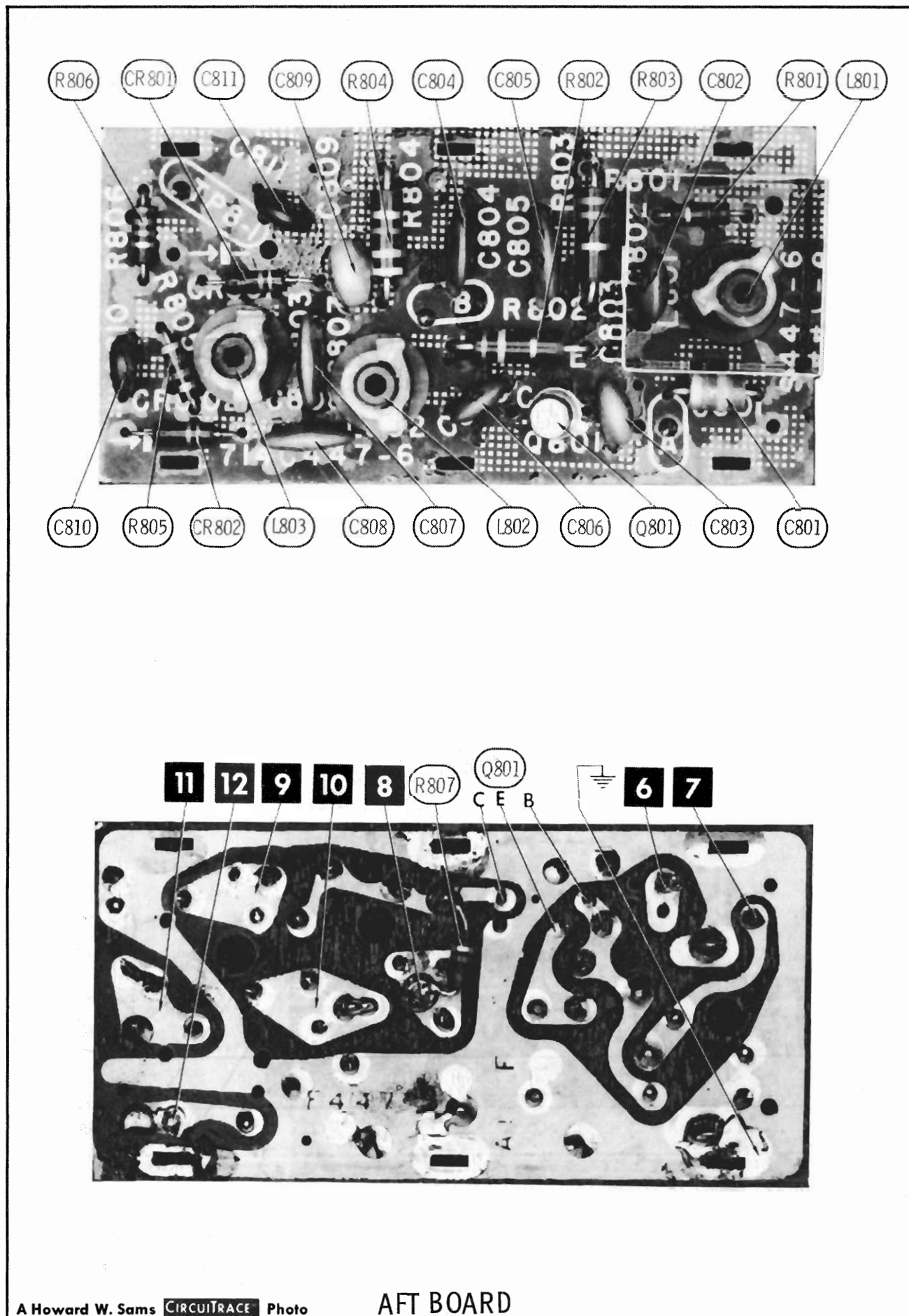
CHANNEL	CONNECT SCOPE	REMARKS
13	Vertical input to Point U, low side to ground.	Expand or compress appropriate coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
12 thru 2	Vertical input to Point U, low side to ground.	Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.

GENERATOR FREQUENCY Numbers in ( ) indicate channel number					
SWEEP	MARKER	SWEEP	MARKER	SWEEP	MARKER
(2) 57MC	55.25MC	(6) 85MC	83.25MC	(10) 195MC	193.25MC
	59.75MC		87.75MC		197.75MC
(3) 63MC	61.25MC	(7) 177MC	175.25MC	(11) 201MC	199.25MC
	65.75MC		179.75MC		203.75MC
(4) 69MC	67.25MC	(8) 183MC	181.25MC	(12) 207MC	205.25MC
	71.75MC		185.75MC		209.75MC
(5) 79MC	77.25MC	(9) 189MC	187.25MC	(13) 213MC	211.25MC
	81.75MC		191.75MC		215.75MC

FIG. 201

SOUND VIDEO





## AFT PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

### SEMICONDUCTORS

ITEM No.	TYPE / MFG. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	MOTOROLA PART No.
CR801	93A8-1	1N60	1N60	PTC206	SK3088		ECG 109	
CR802	93A8-1	1N60	1N60	PTC206	SK3088		ECG 109	
Q801	57A142-4	GE-17	TR-24	PTC132	SK3014	RT-107	ECG 108	HEP50

### CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMENCOR PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C801	.56							
C802	20 NPO 10%							
C803	220							
C804	.0015							
C805	.0015							
C806	20 NPO 10%							
C807	27 NPO 5%							
C808	27 NPO 5%							
C809	2.2 N750 ±.5							
C810	.001							
C811	.001							
C812	.001	#65A26-16						
C813	.001	#65A26-16						
C814	2	#65A26-17						

### RESISTORS (Power and Special)

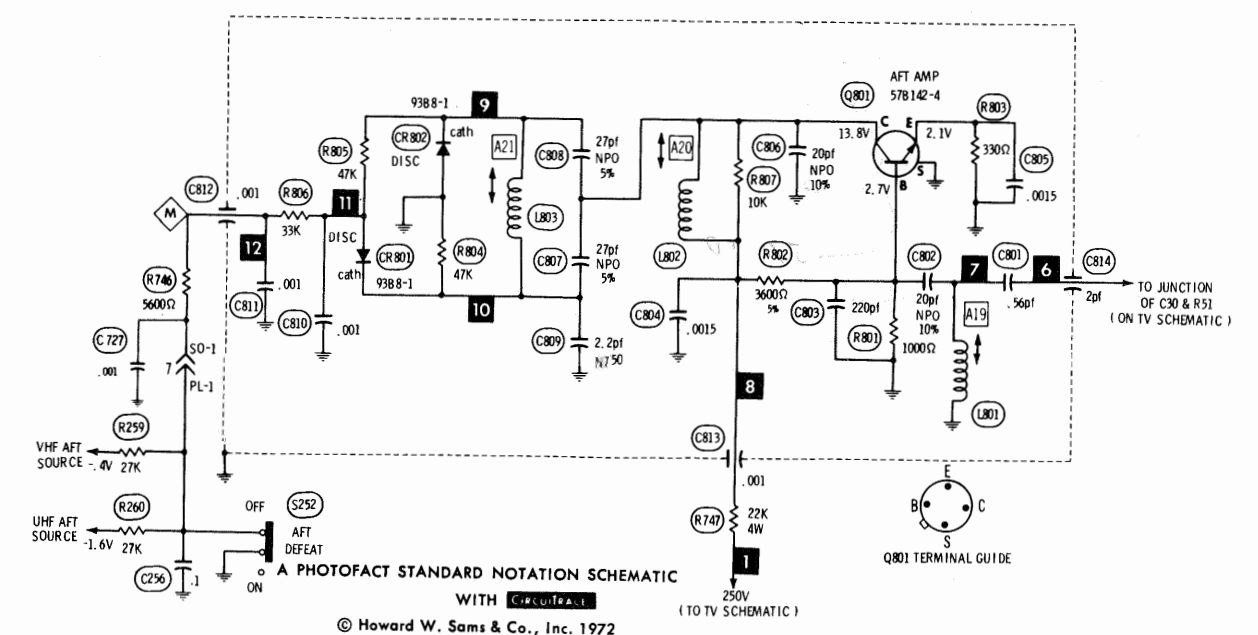
ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFG. PART No.			WORKMAN PART No.	MFG. PART No.
R747	22K 4W		61A23-457				

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L801	AFT Input	72A337-10			
L802	AFT Interstage	72A337-8			
L803	AFT Discriminator	72A337-14			

### MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
S252	Switch	77A161-6	AFT Defeat (On-Off)





## PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, 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

AMPEREX			GENERAL ELECTRIC			RCA			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF	6JD6	V9	Vert Mult - Vert Output	6L8	V13	HV Rectifier	3DF3A	V15	Color Reference Oscillator	6GH8A
V2	2nd Video IF	6JD6	V10	Horiz AFC - Horiz Oscillator	6JW8/ECF802	V14	1st Bandpass Amp -	6X9/ECF200	V16	Color Demodulator	6LE8
V3	3rd Video IF	6JC6A	V11	Horiz Output	6KD6						
V4	Chroma Amp -		V12	Damper	6CG3						
V5	Video Cathode Follower	6EW6									
V6	Video Output - Burst Amp	6AF9									
V7	Sound IF	6EW6									
V8	Audio Detector - Audio Output	6AD10									
	AGC Keying - Sync Separator -										
	Noise Canceller	6HS8									

### PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V17	25VBMP22		H-25VABP22 (1)		(1) Hi-Lite Matrix (2) Hi-Lite (3) Color Bright "85"  Models 3L Series  Models 21T Series
	25VBHP22		H-25VABP22 (1)	XR25VAEP22 (3)	
	23VANP22		H-23VALP22/ (1) H-23VAMP22 (2)		
	21VAUP22		H-21VAKP22 (1)		

### SEMICONDUCTORS

ITEM No.	TYPE / MFGR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	MOTOROLA PART No.
X1	93A52-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X2	93A52-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X3	93A52-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X4	93A52-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X5	93A53-2	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X7	93A8-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X8	93A8-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X9	93A5-10	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X11	93A8-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X12	93A71-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X13	93A69-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X14	93A42-7	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	
X15	93A69-1	GE-504A	8D6 or 5A6D	PTC202	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117 (1)	

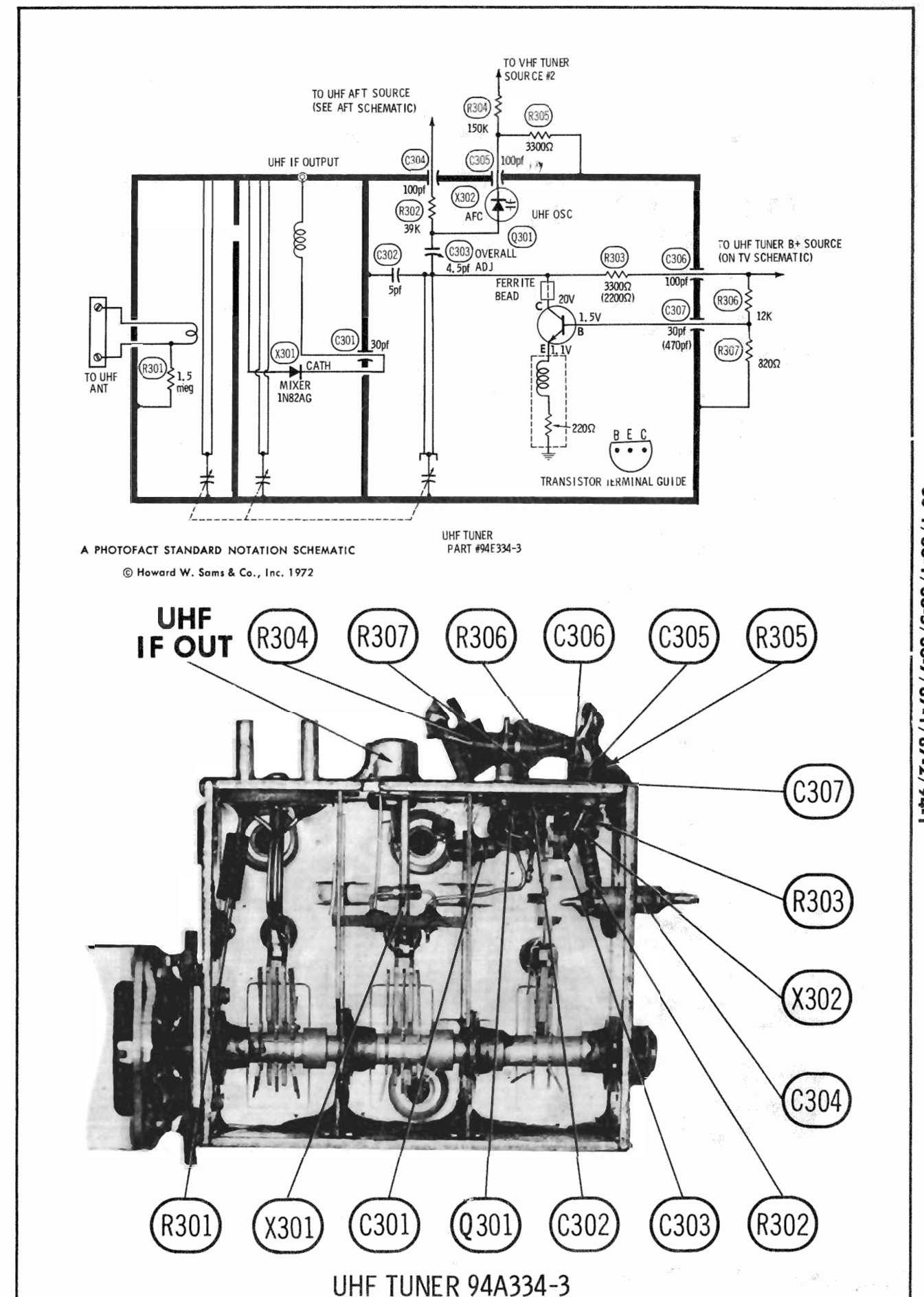
(1) A single unit replacement for all four bridge circuit rectifiers.

(4) Four required.

### ELECTROLYTIC CAPACITORS

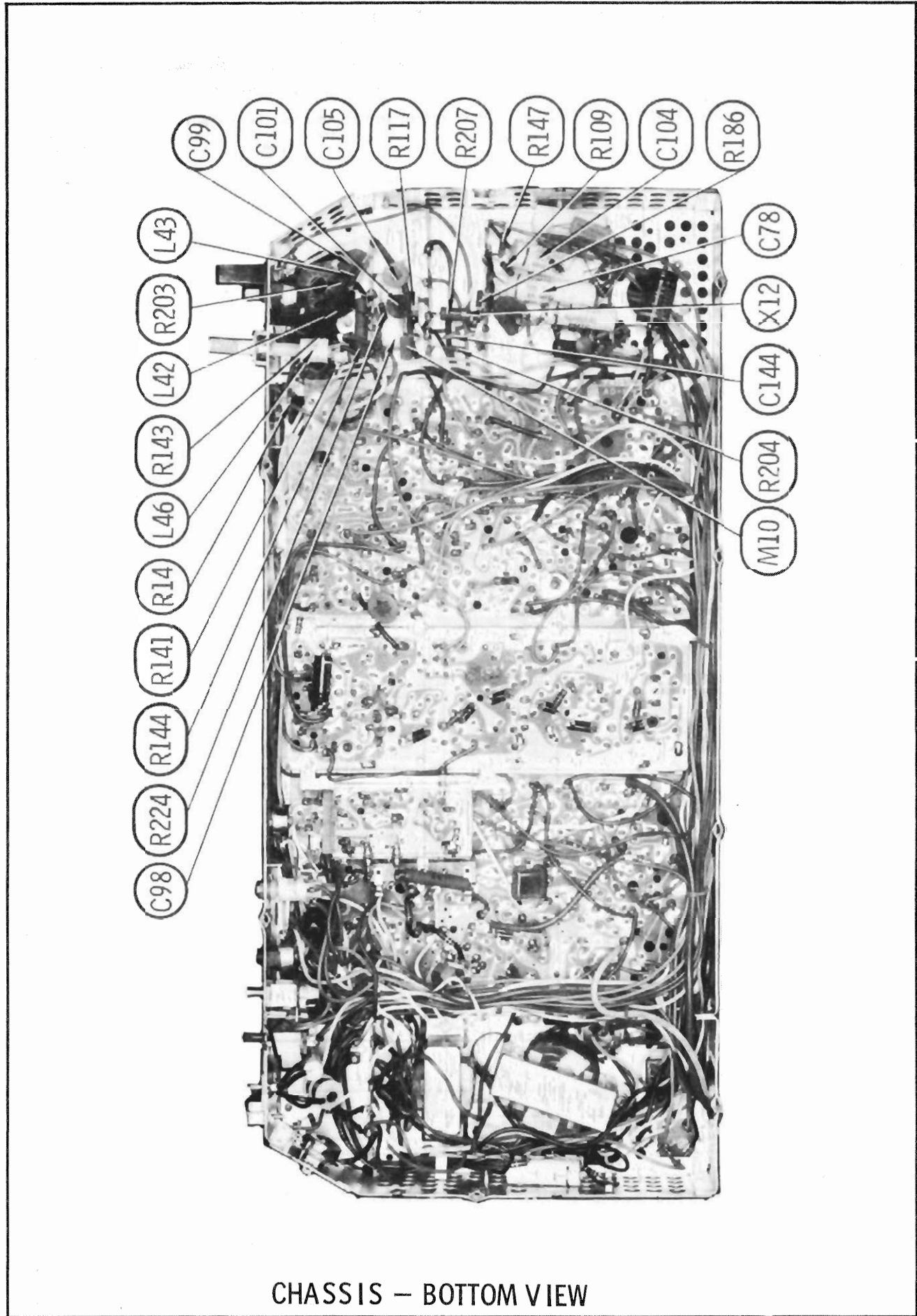
ITEM No.	RATING	REPLACEMENT DATA							
		MFGR. PART No.	AEROVOX PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1a	200 350V	67A15-392	AFH3-29-99.5			CC0238.7A	XC3-45.2	FP331.9	TVL-3648.6
C2a	80 350V								
C2b	120 350V								
C2c	20 200V	67A15-394 (1)	AFH4-04			DD0032A	XC4-13	FP420.35A	TVL-4603.16
C2d	20 200V								
C3	50 50V								
C4	10 350V	67A4-59	PRS1705	ME-5-T-002		WBR3-500	QT1-1	TC595	TVA-1701
C5	2 350V	67A4-68	PRS1620	CTA-1370		WBR10-500	QT1-6	TC62A	TVA-1604
C6	20 15V	67A4-71	MCD90	ME-2-E-020	EA15-25	WBR20-25	MT1-10	MTA20D30	TE-1157
C7	50 100V	67A4-91	PRS1480	CTA-1250		WBR60-150	QT1-17	TC49A	TVA-1414
C8	50 10V	67A4-78	CRE457A	ME-3-D-050	EA15-50	WBR50-25	MT1-16	MTA50E15	TE-1133
	5 10V	67A4-73	CRE604A	ME-1-D-005	EA15-5	WBR5-50	MT1-3	MTA5050	TE-1127

(1) Some versions may use 4mfd @ 350V, 20mfd @ 450V, 50mfd @ 450V, Part #67A15-381; and 50mfd @ 35V, Part #67A72-11 for C2a, b, c, d (Late Production).



ADMIRAL CHASSIS 15K1673-33/73-36/  
80-1/86-1/86-5/86-7/87-1/87-2/94-1

FOLDER 1



CHASSIS – BOTTOM VIEW

# PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.

## CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMENC PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C11	.033 200V		DBE6S33	4DP-2-333		DPMS6S33	PVC6133	4PS-S33
C12	.001 25V		GPD X5F102K	CCD-102	DM-102	GP1000	SM210	2SS-D10
C13	10 NPO	5%		CCTO-100	DTZ-10	NP010	CN0410	10TCC-Q10
C14	150 125V	5%	ADM-15-151	DM-15-151J	CPR-150J	CD15F151J500	SX315	MS-315
C15	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C16	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C17	.22 100V		DBE2P22	2DP-4-224		DMF2P22	PVC2022	2PS-P22
C18	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C19	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C20	750 N2200	5%	#65A10-368				*	
C21	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C22	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C23	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C24	.220	5%	#65A10-330				*	
C25	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C26	.0015		GPD X5F152K	CCD-152	DD-102	GP1000	GP215	10TS-D15
C27	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C28	.820	10%	GPD X5F102K	CCD-821	DD-821	GP820	GP382	10TS-T82
C29	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C30	5 N750	10%	#65A10-22				*	
C31	100 N033	10%	#65A10-297				*	
C32	22 N150	10%	#65A10-300				*	
C33	.0047		GPD X5R472K	CCD-472	DD-472G	GP4700	JF247	10TS-D47
C34	.01 200V		DBE2P1	2DP-3-104		DPMS2P1	PVC201	2PS-P10
C35	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C36	120 N750	10%	CCTN-121		TCN-120	CN7312	CN7312	10TCU-12
C37	.820	10%	GPD X5F821K	CCD-821	DD-821	GP820	GP382	10TS-T82
C38	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C39	.0047	10%	GPD X5R472K	CCD-472	DD-472G	GP4700	JF247	10TS-D47
C40	.22 400V		V1614P22	4DP-5-224		DPMS4P22	PVC4022	4PS-P22
C41	1.5 N3300			*			*	
C42	10 N150	10%	#65A10-299				*	10TCP-Q22
C43	.02		GPD Z5U203P	CCD-203	DD-203	CZ601UJ5R0D	GP120	10TS-S20
C44	5 N750	10%		CCTN-050	DTN-5	CN7550	CN7550	10TCU-V50
C45	.001		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C46	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C47	750 N2200	5%	#65A10-368				*	
C48	6 N220	±.5		*			*	10TCR-V56
C49	.0012		DI-1200	CCD-122	DD-122G	JBS601YP122K	GP212	10TS-D12
C50	.0047	10%	GPD X5R472K	CCD-472	DD-472G	GP4700	JF247	10TS-D47
C51	10 N330	10%		*			*	10TCS-010
C52	.05 50V	10%	TTP-05	CCD-503	CK-503	MGP05	TA150	TGL-S50
C53	.390		GPD X5F391K	CCD-391	DD-391	GP390	GP390	10TS-T39
C54	.01 1KV		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C55	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C56	.0022		GPD X5F222K	CCD-222	DD-222	GP2200	GP222	10TS-D22
C57	.0033		GPD X5R332K	CCD-332	DD-332	GP3300	JF233	10TS-D33
C58	.02		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C59	.001 1KV		GPD Z5U203P	CCD-203	DD-203	GP1000	GP120	10TS-S20
C60	.02		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C61	.01		GPD X5F221K	CCD-221	DD-221	GP220	GP322	10TS-T22
C62	.220			CCTO-470	DTZ-47	NP047	CN0447	10TCC-Q47
C63	.47 NPO	10%		CCD-152	DD-152		GP215	10TS-D15
C64	.0015		GPD X5F152K	CCD-152	DD-222	GP2200	GP222	10TS-D22
C65	.0022		GPD X5F222K	CCD-222		DPMS6P39	PVC6239	6PS-D33
C66	.0039 400V	10%	DBE6D39	6DP-1-392		DPMS6S47	PVC4147	4PS-S47
C67	.047 200V	10%	V1614S47	4DP-3-473		DPMS6S1	PVC411	4PS-S10
C68	.01 400V	10%	V1614S1	4DP-1-103	CPR-10000J	DPMS6S1	GP222	10TS-D22
C69	.0022		GPD X5F222K	CCD-222	DD-222	GP2200	GP215	10TS-D15
C70	.0015 1KV		GPD X5F152K	CCD-152	DD-152	GP2200	GP222	10TS-D22
C71	.0022 1KV		GPD X5F222K	CCD-222	DD-222	GP2200	GP215	10TS-D15
C72	.0068 1.6KV						GP222	10TS-D22
C73	.039 600V	10%	DBE6S39	6DP-3-393		DPMS6S39	PVC6139	6PS-S39
C74	.022 600V	10%	DBE6S22	6DP-2-223		DMF6S22	PVC6122	6PS-S22
C75	.039 600V	10%	DBE6S39	6DP-3-393		DPMS6S39	PVC6139	6PS-S39
C76	.039 600V	10%	DBE6S39	6DP-3-393		DPMS6S39	PVC6139	6PS-S39
C77	.039 600V	10%	DBE6S39	6DP-3-393		DPMS6S39	PVC6139	6PS-S39
C78	.15 600V		DBE6P15	6DP-5-154		DPMS6P15	PVC6015	6PS-P15
C79	.0015		GPD X5F152K	CCD-152	DD-152		GP215	10TS-D15
C80	100 N1500/3KV/5%		#65A10-77	*			3DY310	
C81	100 N1500/3KV/5%		#65A10-77	*			3DY310	
C82	100 N1500/3KV/5%		#65A10-77	*			3DY310	
C83	18 NPO	5%		CCTO-180	TCZ-18	NP018	CN0418	10TCC-Q18
C84	18 NPO	5%		CCTO-180	TCZ-18	NP018	CN0418	10TCC-Q18
C85	470 2.5KV	10%	#65A10-372				3HV347	
C86	.820	10%	GPD X5F821K	CCD-821	DD-821	GP820	GP382	10TS-T82
C87	.0012		GPD X5F102K	CCD-102	DD-102	GP1000	GP210	10TS-D10
C88	.001		GPD X5R332K	CCD-332	DD-332	GP3300	JF233	10TS-D33
C89	.0033	10%	DBE2P47	2DP-5-474		DPMS2P47	PVC2047	2PS-P47
C90	.47 200V		DBE6D1	6DP-1-102	DD-102	DPMS6D1	PVC621	6PS-D10
C91	.001 500V	10%	DBE6D33	6DP-1-332		DMF6D33	PVC6233	6PS-D33
C92	.0033 500V	5%	GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C93	.01		GPD X5F821K	CCD-821	DD-821	GP820	GP382	10TS-T82
C94	.820	10%						
C95	.220 500V	5%						
C96	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C97	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10



## PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

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## CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C98	.1	400V	DBE4P1	4DP-3-104	DTZ-15	DPMS4P1	PVC401	4PS-P10
C99	15pf			CCTO-150		NP015	CN0415	10TCC-Q15
C100	.0047	10%	GPD X5R472K	CCD-472	DD-472G	GP4700	JF247	10TS-D47
C101	100pf	10%			TCL-100		2HV310	
C102	.001	1.4KV	HVD-1510000	3CCD-102	DD30-102	HVX162XP102M		
C103	.056	1KV	BE10S56					
C104	.047	600V	DBE6S47	6DP-3-473		DMF6S47	PVC6147	6PS-S47
C105	150pf	2KV						
C106	.1	100V	DBE2P1	1DP-2-104	TCZ-10	DPMS2P1	PVC101	225P10491W03
C107	12	N330			TCZ-1			10TCC-Q12
C108	1	100V	GPD C0J1R0D	1DP-2-104	DD-103	DPMS2P1	PVC101	225P10491W03
C109	.1	100V	DBE2P1	CCD-103	DD-103	GP10000	JF110	10TS-S10
C110	.01		GPD X5S103K	CCD-103	TCL-200			
C111	100	N1500			DD-103	GP10000	2HV310	10TS-S10
C112	.01	400V	GPD X5S103K	CCD-103	DD-103	DPMS4P22	PVC4022	4PS-P22
C113	.22		V1614P22	4DP-5-224	DD-203		GP120	10TS-S20
C114	.02		GPD Z5U203P	CCD-203	DD-203		GP120	10TS-S20
C115	.02		GPD Z5U203P	CCD-203	DD-203		GP120	10TS-S20
C116	.02		GPD Z5U203P	CCD-203	DD-103	GP10000	JF110	10TS-S10
C117	.01		GPD X5S103K	CCD-103	DD-103	GP10000	JF110	10TS-S10
C118	.01		GPD X5S103K	CCD-103	DD-103	NP047	CN0447	10TCC-Q47
C119	47			CCTO-470	DTZ-47		CN7427	10TCU-Q27
C122	27	N750		CCTN-270	TCN-27		GP470	10TS-T47
C123	470		GPD X5F471K	CCD-471	DD-471	GP10000	GP347	10TS-S10
C124	.01		GPD X5S103K	CCD-103	DD-391	GP390	GP339	10TS-T39
C125	390		GPD X5F391K	CCD-391	DTZ-100	NP0100	CN0310	10TCC-T10
C126	100	NPO	NP0-DI 100	CCTQ-101	DTZ-120		CN0312	10TCC-T12
C127	120	NPO	NP0-DI 120	CCTQ-121	DD-103	GP10000	JF110	10TS-S10
C128	.01		GPD X5S103K	CCD-103	DTZ-1R5	NP01P5	CN0515	10TCC-V15
C129	1.5		GPD C0J1R5D		DD-103	GP10000	JF110	10TS-S10
C131	.01		GPD X5S103K	CCD-103	DTN-47	CY601UJ470K	CN7447	10TCU-Q47
C132	47	N750	N750-DI 47	CCTN-470			2HV332	
C133	220	N2200			TCZ-27	NP027	CN0427	10TCC-Q27
C134	27	NPO			TCZ-18	NP018	CN0418	10TCC-Q18
C135	18	NPO			DD-221	GP220	GP322	10TS-T22
C136	220		GPD X5F221K	CCD-221		DPMS6S47	PVC4147	4PS-S47
C137	.047	400V	V1614S47	4DP-3-473				10TCC-V56
C138	5.6	NPO			DD30-471	DPMS6S47	PVC4147	4PS-S47
C140	.047	400V	DBE6S47	4DP-3-473				10TCC-V56
C141	5.6	NPO				DPMS6S47	PVC4147	4PS-S47
C143	.047	400V	V1614S47	4DP-3-473				30GA-T47
C144	470	2.5KV	HVD-30-470	3CCD-471		HVX202XP471M	2HV347	
C145	200pf	2KV						
C146	.015	150VAC			DD30-102	HVX162P102M	2HV210	30GA-D10
C148	.001	1.4KV	HVD-15-1000	3CCD-102	DD30-102	HVX162P102M	2HV210	30GA-D10
C149	.001	1.4KV	HVD-15-1000	3CCD-102		DPMS6S56	PVC6156	4PS-S56
C150	.056	400V	DBE6S56	4DP-3-563		DPMS6S22	PVC6122	4PS-S22
C151	.022	400V	DBE6S22	4DP-2-223		DPMS6S82		6PS-S82
C152	.082	200V	DBE6S82	6DP-4-823		DPMS4P15	PVC6015	4PS-P16
C153	.15	200V	V1614P15	4DP-4-154		DPMS2P1	PVC201	2PS-P10
C154	.1	200V	DBE2P1	2DP-3-104		DMF6P1	PVC601	6PS-P10
C155	.1	500V	DBE6P1	6DP-4-104	DD-472G	GP4700	JF247	10TS-D47
C156	.0047		GPD X5R472K	CCD-472	DD30-102	HVX162P102M	2HV210	30GA-D10
C157	.001	1.4KV	HVD-15-1000	3CCD-102	DD-102	GP1000	GP210	10TS-P10
C158	.001		GPD X5F102K	CCD-102	DD-332	GP3300	JF233	10TS-D33
C159	.0033		GPD X5R332K	CCD-332	DD-103	GP10000	JF110	10TS-S10
C160	.01		GPD X5S103K	CCD-103	DD-103	GP1000	GP210	10TS-D10
C161	.001		GPD X5F102K	CCD-102	DTN-5	CZ601UJ5R0D	CN7550	10TCU-V50
C162	5	N750		CCTN-050	DD-102	GP1000	GP210	10TS-D10
C163	.001		GPD X5F102K	CCD-102				
C164	.27	200V		CCD-102				
C171	.033	400V		4DP-5-274				
C172	.005		GPD X5R502K	CCD-502	DD-502	GP5000	JF250	10TS-D50
C173	.18	200V						
C174	180pf	1KV	GPD X5F181K	CCD-181	DD-181	GP180	GP318	10TS-T18
C175	180pf	1KV	GPD X5F181K	CCD-181	DD-181	GP180	GP318	10TS-T18
C176	.0022		GPD X5F222K	CCD-222	DD-222	GP2200	GP222	10TS-D22

# Admiral Part Number (1) May not be 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 listed)

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA					
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS—IRC PART No.	MALLORY PART No.	
R1a  b	Volume/Switch/Sw (Rear)	1meg, 275K 1ap	75A173-1 (75C173-1)					
	Tone (Front)	2.5meg						
	Volume (Slider Type)	1meg	75A149-20 (6) (75D149-20)					
			75A151-10 (11) (75D151-10)					
	Volume/Switch	1meg	75A175-4 (8) (75D175-4)					
	Volume/Switch	1meg	75A179-13 (12) (75D179-13)					
	Volume/Switch	1meg	75A179-16 (13) (75D179-16)					
	Tone	200K	75A127-31 (9) (75D127-31)					
	Tone	2.5meg	75A134-12 (8) (75D134-12)					
	Tone	200K	75A134-14 (10) (75C134-14)	F2-250K, SFS212	A47-250K-Z, RS-3/16 or NP-250K-S, SE-F-400	B13-130,SK9 or [BU1,CF23, SS4,DC1] *	RU25A,SL35,IS875 or [UA254A,SD3500] or [P254A,3014,SF3062]	
Tone	2.5meg	75A139-3 (75C139-3)	F1-2.5meg, R1-250K, FFS109,RK-114	NP-2.5meg-S, NR-250K-S, UPC-B-109, UR-D-114	(16) QJ-2615	P255L,3014,R254L, OX1562A,IK1875		
Brightness	250K	75A139-3 (75C139-3)						
R2	Brightness	250K	75A134-5 (75C134-5)	F1-250K, SFS212	A47-250K-S, RS-3/16 or [NP-250K-S, SE-F-400]	B11-130,SK9 or [BU1,CF15, SS4,DC1] *	UA254L,SD3500 or [RU254L,SL35,IS875] [P254L,3014,SF3062]	

## PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

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## CABINETS &amp; CABINET PARTS (When ordering specify model, chassis &amp; color)

ITEM	PART No.	ITEM	PART No.
MODELS 3L1381/85/88		MODEL 5L5253	
Cabinet Back	43A627-24	Cabinet Back	43A661-15
Knob - On/Off-Volume	20A63-38	Knob - VHF/UHF Selector	33A1552-1
Vacation Switch	33A392-40	AFC/Color Monitor	33A1567-2
Tone	33A912-1	Color	33A1554-2
Fine Tuning, VHF	33A933-6	Volume	33A1554-1
VHF/UHF Selector	33A1177-5	Tint	33A1554-3
Tint	33A1012-5	On-Off	33A1567-1
AFC-Color Monitor	33A929-8	Contrast, Vertical, Brightness, Tone	33A1556-1
Color	33A1012-6	UHF Indicator Disc	21A267-1
VHF Indicator Disc	33A1045-21	VHF Indicator Disc	21A268-2
UHF Indicator Disc	33A1046-10	Vacation Switch	33A392-40
MODELS 3L1391/95/98		MODEL 5L5338	
Cabinet Back	43A627-30	Cabinet Back	43A627-31
Knob - On/Off-Volume	20A63-38	UHF Selector	33A1548-2
Vacation Switch	33A392-40	VHF Selector	33A1548-1
Tone	33A912-1	AFC/Color Monitor	33A1555-3
Fine Tuning, VHF	33A933-6	Volume, Color, Tint	33A1372-1
VHF/UHF Selector	33A1177-5	VHF Fine Tuning	33A1549-1
Tint	33A1012-5	On-Off	33A1555-2
AFC/Monitor	33A929-8	Contrast, Vertical, Brightness, Tone	33A1556-1
Color	33A1012-6	UHF Indicator Disc	21A258-2
VHF Indicator Disc	33A1045-21	VHF Indicator Disc	21A257-9
UHF Indicator Disc	33A1046-18	Vacation Switch	33A392-40
MODELS 5AL5141/45/48		MODELS 5T5313, 5T5323	
Cabinet Back	43A661-8	Cabinet Back	43A700-1
Knob - UHF/VHF Selector	33A1373-5	Knob - VHF Selector	33A1548-1
Volume, Color, Tint	33A1372-1	UHF Selector	33A1548-2
Tone	33A576-20	AFC/Color Monitor	33A1555-3
On-Off	20A66-17	Color, Tint, Volume	33A1372-1
Vacation Switch	33A392-40	On-Off	33A1555-2
Vertical, Contrast, Brightness	33A1393-3	Contrast, Vertical, Brightness, Tone	33A1556-1
AFC/Monitor	33A1642-3	UHF Indicator Disc	21A258-2
Indicator Disc, UHF	21A246-5	VHF Indicator Disc	21A257-9
Indicator Disc, VHF	21A247-5	Vacation Switch	33A392-40
MODELS 5AL5301/05/08		MODELS 21T701C, 21T5711C	
Cabinet Back	43A661-8	Cabinet Back	15A3340-12
Knob - UHF/VHF Selector	33A1373-5	Knob - AFC	33A1555-3
Volume, Color, Tint	33A1372-1	On-Off	33A1555-2
Tone	33A576-20	VHF Selector	33A1548-1
On-Off	20A66-17	UHF Selector	33A1548-2
Vacation Switch	33A392-40	VHF Fine Tuning	33A1549-1
Vertical, Contrast, Brightness	33A1393-3	Volume, Color, Tint	33A1372-1
AFC/Color Monitor	33A1642-3	Vertical, Contrast, Brightness, Tone	33A425-20
Indicator Disc, UHF	21A246-5	Vacation Switch	33A392-40
Indicator Disc, VHF	21A247-5	VHF Indicator Disc	21A257-2
MODEL 5L5151/55/58, SK5241/45/48		MODEL 21T738	
Cabinet Back (SK5241)	43A661-12	Cabinet Back	43A701-1
Cabinet Back (SK5245/48)	43A661-4	Knob - AFC/Color Monitor	33A1555-3
Cabinet Back (5L5151/55/58)	43A661-9	On-Off	33A1555-2
Knob - UHF/VHF Selector	33A1371-1	VHF Selector	33A1548-1
Volume, Color, Tint	33A1372-1	UHF Selector	33A1548-2
On-Off	20A66-17	VHF Fine Tuning	33A1549-1
VHF/UHF Selector	33A1373-5	Volume, Color, Tint	33A1372-1
Color, Tint	33A1372-1	Vertical, Contrast, Brightness, Tone	33A425-20
Vertical, Contrast, Brightness	33A1393-3	Vacation Switch	33A392-40
Tone	33A576-20	VHF Indicator Disc	21A257-2
Vacation Switch	33A392-40	UHF Indicator Disc	21A258-2
UHF Indicator Disc	21A246-5		
VHF Indicator Disc	21A247-5		
MODEL 5L5161			
Cabinet Back	43A661-10		
Knob - UHF Channel Selector	33A1548-2		
VHF Channel Selector	33A1548-1		
AFC/Color Monitor	33A1555-3		
Volume, Color, Tint	33A1372-1		
VHF Fine Tuning	33A1549-1		
On-Off	33A1555-2		
Contrast, Vertical, Brightness, Tone	33A1556-1		
UHF Indicator Disc	21A258-2		
VHF Indicator Disc	21A257-2		
Vacation Switch	33A392-40		

## WIRING DATA

High Voltage Lead	Use BELDEN No. 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8738 (Two Conductor)
300-Ohm Tuner Input Lead	Use BELDEN No. 8530 (Solid) Available in 12 Colors
300-Ohm Antenna Lead-in	Use BELDEN No. 8524 (Stranded) Available in 12 Colors
Antenna Rotor Cable	Use BELDEN No. 8225 (Foam Core) or 8235 (Foam Jacketed)
	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor
	8485 (Round) - 5 Conductor
	8488 (Round) - 8 Conductor

## PARTS LIST AND DESCRIPTION (CONTINUED)

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## TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	13,940	3.2	79A33-112 (79D33-112)	A-3881	24S54	S-38X (1)	(1) Drill new mounting holes.

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				MFGR. PART No.	QUAM PART No.	
SP1	4"	PM	6.4 ohms	78A216-4	4A126.4	Used in Models: 3L1381/85/88, 5AL5141/45/48, 5L5253, 5AL5301/05/08, 5L5151/55/58.
SP2	4"	PM	6.4 ohms	78A216-4	4A126.4	
	4"	PM	3.2 ohms	78A216-3	4C25	Used in Models: 3L1391/95/98, 5L5161, 5L5338, 5L5313, 5TS5323, SK5241/45/48.
	3" x 5"	PM	3.2 ohms	78A158-12	35A05	Used in Models: 21T701C, 21T738, 21TS711C.

## FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	Circuit Breaker 2.2A	84A17-11				8152. 25		FA 2.5
F2	2-1/2" length #26 wire	94A136-4						F26
F3	2-1/2" length #22 wire	98A136-2						
F4	Bel Fuse 3.1 AMP	84A28-11	84A27-11					

## MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
	VHF Antenna	69A316-4	Used in Models 21T701C, 21TS711C; JFD Replacement TA-464.
	UHF Antenna	69A304-2	
	VHF Tuner	94A330-9	Used in Models 21T701C, 21TS711C, 21T738; JFD Replacement TA-544.
	VHF Tuner	94A330-11	
	VHF Tuner	94A330-11	
	VHF Tuner	94A331-5	
	VHF Tuner	94A331-3	
	UHF Tuner	94A334-3	
M5	Crystal	93A89-1	3.58MC
M8	Delay Line	72A217-3	
M9	Degaussing Coil	700A1446-1	Used in Models 5AL5141/45/48, 5AL5301/05/08, 5L5151/55/58/61, 5L5253, 5TS538, 5TS513, 5TS5323, SK5241/45/48.
	Degaussing Coil	700A1365-3	Used in Models 21T701C, 21TS711C, 21T738
	Spark Gap	700A1365-5	Used in Models 3L1381/85/88/91/95/98.
M10	Spark Gap	62A2-2	
M11	Spark Gap	62A2-2	
S1	Magnet	94A287-4	Purity and Blue Lateral Assembly
S2	Switch	77A203-1	
S3	Switch	77A1-69	Instant-Play
S4	Switch		Peaking
S5	Switch	77A1-50	Automatic Tint
	Switch	75A173-1	Service-Normal
	Switch	77A214-1	On-Off (Tuner Cluster NC2586-1)
	Switch	77A210-2	On-Off (Tuner Cluster NC2587-1/-2, NC2586-5, NC2573-36)
	Switch	75A179-16	On-Off (Tuner Cluster NC2080-1, NC2587-1, NC2594-1)
	Socket	87A84-8	On-Off (Tuner Cluster NC2586-7)
			High Voltage Rectifier

## PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

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## CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
	Brightness	250K	75A127-8 (9)	F1-250K, SN100	B47-250K-S or [NP-250K-S, NML-A-300, TT-2]	B11-130, TM4 or [BU11, CF15, SS6A] *	RU254L, SL37, SN875 or [UA254L, SN875] or PTA35L
R3	Color (Slider Type)	500	75A149-3 (75D149-3)				
	Color	500	75A118-10 (75D118-10) (7)	TT-4 or [F1-500, SNK010]	B47-500-S or [NP-500-S, NML-A-300, TT-2]	B11-103, TM4 or [BU11, CF4, SS6A] *	PTA52L or [RU52L, SL37, SN1000] or [UA52L, SN1000]
R4	Color	500	75A175-1 (8)				
	Tint (Slider Type)	1100	75A149-4 (75D149-4)				
	Tint	1100	75A118-11 (75D118-11) (7)	F5-1500, SNK010	NP-1200-V, NML-A-300, TT-2	B17-208, TM4 or [BU11, CF53, SS6A] *	RU122R, SL37, SN1000 or [UA152R, SN1000] or U5
R5	Tint	1100	75A175-2 (8)				
	Vert Hold	100K	75A134-6 (75C134-6)	F1-100K, SF5212	A47-100K-S or RS-3/16 or [NP-100K-S, SE-F-4001]	B11-128, SK9 or [BU1, CF13, SS4, DC1] *	UA15L, SD3500 or [RU15L, SL35, IS875] or [P15L, 3014, SF3062]
	Vert Hold	100K	75A127-9 (75C127-9)	F1-100K, SN100	B47-100K-S or [NP-100K-S, NML-A-300, TT-2]	B11-128, TM4 or [BU1, CF13, SS6A] *	PTA15L or [RU15L, SL37, SN875] or [UA15L, SN875]
	Vert Hold	100K	75A139-1 (7)	F1-100K, SNK200	A47-100K-S, RN-3, TT-2 or [NP-100K-S, NML-A-300, TT-2]	B11-128, TM5 or [BU1, CF13, SS6A] *	RU15L, SL37, SN2000 or [UA15L, SN2000] or PTA15L (1)
R6	Contrast	250, 175 Tap	75A134-4 (75C134-4)			BU1, CF99T, SS4, DC1 *	
	Contrast	250	75A127-10 (9)			BU1, CF99T, SS6A *	
	Contrast	150 Tap	75A139-4 (7)			BU11, CF99T, SS6A *	
	Contrast	250	75A135-24 (75C135-24)				
R7	Master Brightness	175 Tap	75A135-24 (75D135-24)	TT-86 or [F1-4meg, SNK010]	NP-4meg-S, NML-A-300, TT-2	B11-120, TM4 or [BU11, CF21, SS6A] *	PTA355L or [RU46L, SL37, SN1000] or [UA36L, SN1000]
R8a	Blue Background	700K	75A95-9 (75C95-9)			H4 (2), [A-E18, A1]	
b	Green Background	700K				[C-E18, A1]	
c	Red Background	700K				X201R105B	MTC16L1
R9	Color Killer	1meg	75A101-11 (75C101-11)	TSV-1M or T-1meg			
R10	Vert Centering	10 2W	75A64-17 (75D64-17)	WT-10 or WB-10 or V-10 (3)	U39-15 (3) or [NPW-10, NML-A-300, TT-2]	P115R100A or [W11-010, CWS] or [BU1, WF16, SS5A] *	MR10T or MR10B or W10
R11	AGC	60K	75A101-9 (75C101-9)	TSV-50K or T-50K		X201R503B	MTC54L1
R12	Vertical Linearity	300K	75A101-10 (75C101-10)	TSV-250K or T-250K		X201R254B	MTC3253L1
R13	Height	3.4meg	75A96-20 or (75C96-20)	F1-4meg, SNK010		HLC4	HVC355L
R14	Master Screen	1meg	75A136-1 (75C136-1)	F1-1meg (4), SNK012 or [F1-1meg, SNK104, AK-45]		B11-137, TM4 (4)	RU16L (4), SN1000 or [UA16L (4), SN1000]
R15	Focus	15meg	75A108-2 (75C108-2)	F1-15meg (4), SNK012 or [F1-15meg, SNK104, AK-45]		FC-1	FC1156L
R16	Adjacent Sound Reject	10K	75A101-8 (75C108-8)	TSV-10K (5) or T-10K (5)		U201R103B	MTC14L4
R17	Sound Reject	750	75A101-3 (75C101-3)	T-750 (5) or TSV-1K (5)		U201R751B	MTC751L4
R18	High Voltage Adjust	2.8meg	75A135-26 (75D135-26)	TT-84 or [F1-3meg-S, SNK010]	B47-3meg-S or [NP-3meg-S, NML-A-300, TT-2]	B11-140, TM4 or [BU11, CF21, SS6A] *	RU36L, SL37, SN1000 or [UA36L, SN1000] or PTA355L
R19	R/G Horiz Lines, Bottom	500 2W	75A64-31 (75D64-31)	WP-600, WSK104 or V-500	U39-500	110-600	MR600P, MRS1250
R20	R/G Horiz Lines, Top	120 2W	75A64-5 (75D64-5)	WCP-120 or V-120	U39-125	110C120	MRC120P
R21	R/G Horiz Lines, Left	150 2W	75A64-7 (75D64-7)	WCP-150 or V-150	U39-150	110C150	MRC150P
R22	R/G Vert Lines, Bottom	500 2W	75A64-31 (75D64-31)	WP-600, WSK104 or V-500	U39-500	110-600	MR600P, MRS1250
R23	R/G Vert Lines, Top	150 2W	75A64-7 (75D64-7)	WCP-150 or V-150	U39-150	110C150	MRC150P
R24	R/G Vert Lines, Left	120 2W	75A64-5 (75D64-5)	WCP-120 or V-120	U39-125	110C120	MRC120P
R25	Blue Horiz Lines, Bottom	300 2W	75A64-31 (75D64-31)	WP-600, WSK104 or V-500	U39-300	110-300	
R26	Blue Horiz Lines, Top	150 2W	75A64-7 (75D64-7)	WCP-150 or V-150	U39-150	110C150	MRC150P
R27	Blue Horiz Lines, Left	120 3W	75A64-5 (75D64-5)	WCP-120 or V-120	U39-125	110C120	MRC120P
R28	Pincushion Amplitude	8000	75A136-2 (75C136-2)	TT-14 or [F1-10K, SNK010]	B47-10K-S or [NP-10K-S, NML-A-300, TT-2]	B11-110, TM4 or [BU11, CF9, SS6A] *	RU14L, SN281 or [UA14L, SN281] or SU20
R29	Auto. Tint (Background Compensation)	15meg	75A108-2 (14)	FTT-15meg		FC-1	FC1156L
	Auto. Tint	15meg	75A135-37 (15)				

- (1) Use portion of original shaft to obtain desired length.  
(2) To establish section identification of side-by-side controls, view controls with shaft ends facing you, terminals down. On 3-section controls, left-hand section is "A", middle section is "B", right-hand section is "C". On 2-section controls, left-hand section is "A", right-hand section is "B".  
(3) Insulate control from chassis and solder original center terminal lead to metal case of control.  
(4) Use original nylon tab mount.  
(5) For horizontal mounting, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC board.  
(6) Used in Models 5L5161, 5L5338, 5TS513, 5TS5323, 21T701C, 21T738 and 21TS711C.  
(7) Used in Models 3L1381, 3L1385, 3L1388, 3L1931, 3L1395 and 3L1398.  
(8) Used in Model 5L5253.  
(9) Used in Models 21T701C, 21T738 and 21TS711C.  
(10) Used in Models 5L5161, 5L5338, 5TS513 and 5TS5323.  
(11) Used in Models 3L1381, 3L1385 and 3L1388.  
(12) Used in Models 3L1391, 3L1395 and 3L1398.  
(13) Used in Models 5AL5301, 5AL5305 and 5AL5308.  
(14) Used, starting with Run #19.  
(15) Alternate Part, may be used in some versions.  
(16) "CONCENTRIKIT" Equivalent: K-15 Kit with base elements and shafts: B11-239, P17-118 (Panel), B11-130, R11-124 (Rear).  
"SNAPTROL" Equivalent: BU4, CF20, CR10, SF12, SR70, DC1.



PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.  
**RESISTORS (Power and Special)**

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
R31	7500 4W	4G-7.5K	61A24-446
R72	3300 5W	5G-3.3K	61A23-537
R114	1000 3W	3G-1K	61A24-325
R117	VDR *		61A46-13
R118	Thermistor (4 Cold)	FR-3.8	61A27-1
R120	VDR *		61A46-2
R144	7500 4W	4G-7.5K	61A24-446
R149	200meg/40meg		61A66-1
R167	33K 3W	5G-33K	61A24-361
R188	15K 3W	3G-15K	61A24-353

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
R190	30 5W		61A20-95
R194	27K 3W	3G-27K	61A24-359
R200	27K 3W	3G-27K	61A24-359
R209	Thermistor (100 Cold)	FR-922	61A50-3
R210	270 5W	5W-SQ-250	61A20-93
R211	9100 4W 5%	4G-9.1K	61A23-448
R213	VDR *		61A51-1
R216	1.8 1W 5%	WS-1.8	60A28-110
R229	10K 3W	3G-10K	61A24-349

\* Voltage Dependent Resistor

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	47.25MC Trap	72A251-1		7553	TA260
L2	1st Video IF	72A251-2		7554	
L3	Filament Choke (19 Turns)	73A37-21			
L4	2nd Video IF	72A251-11	17-3419	7550	TB644
L5	Filament Choke (19 Turns)	73A37-21			
L6	3rd Video IF	72A251-11	17-3419	7550	TB644
L7	4th Video IF	72A220-2		6037	TF278
L8	RF Choke (12uh)	73A55-32		72F125AP	TA823
L9	4.5MC Trap	72A216-5		7142	TA264
L10	Peaking (62uh)	73A46-21 (1)	19-3060 *	6110 *	T302 *
L11	RF Choke (1.8uh)	73A53-231	19-1001	74F186AP	TA819
L12	Peaking (62uh)	73A55-29	19-3060	6110	T302
L13	Peaking (120uh)	73A55-12		6110	T307
L14	Peaking (120uh)	73A55-12		6110	T307
L15	Peaking (62uh)	73A55-29	19-3060	6110	T302
L16	Peaking (62uh)	73A55-29	19-3060	6110	T302
L17	Peaking (220uh)	73A55-15	19-2027	72F224AP	T312
L18	Peaking (220uh)	73A55-15	19-2027	72F224AP	T312
L19	RF Choke (12uh)	73A53-251	19-2016	72F125AP	TA820
L20	RF Choke (1.8uh)	73A53-231	19-1001	74F186AP	TA819
L22	1st Sound IF	72A287-4		7168	
L23	2nd Sound IF	72A314-2		7171	
L24	Quadrature	72A287-3		7169 #	
L25	Chroma Takeoff	72A302-1			
L26	Chroma Bandpass	72A269-4		6050	
L27	Peaking (220uh)	73A55-15	19-2027	72F224AP	T312
L28	RF Choke (.47uh)	73A55-31	19-2005	4588	T958
L29	Burst Amp	72A284-4		6051	
L30	RF Choke (5.6uh)	73A55-27	19-1008	4609	T820
L31	3.58MC Oscillator	72A285-2		6052	
L33	Peaking (82uh) 5%	73A55-49 (3)			
L34	Peaking (120uh)	73A55-12		6110	T307
L35	Peaking (620uh)	73A55-21 (2)	19-2030 **	6146 **	T326 **
L37	Peaking (120uh)	73A55-12		72F124AP	T307
L39	Peaking (620uh)	73A55-21 (2)	19-2030 **	6146 **	T326 **
L42	Damper Choke (5.6uh)	73A45-243	19-2013	74F566AP	T820
L43	Damper Choke (5.6uh)	73A55-18	19-2013	4609	T820
L44a	Line Choke	73A31-16		5250	
L45	Line Choke			5250	
L45b	RF Choke (1.8uh)	73A53-231	19-1001	74F186AP	TA819

(1) Wound on 1 meg Resistor.      \* Shunt with 1 meg Resistor.      # Shunt with original capacitor and resistor.  
(2) Molded with 10K Resistor.      \*\* Shunt with 10K Resistor.      (3) Some versions may use 39uh, Part #73A55-41 in this application.

COILS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA					
		MFGR. PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	WORKMAN PART No.
L46	Horiz Hold (Oscillator)	94A268-4 (94D268-4)	6333 (1)				TA167 (1)
L47	Pincushion Phase	94A277-2 (94C277-2)	H-178		HS-7 (1)		
L48	Right R/G Vert Lines	94A305-7 (94D305-7)	6364				
L49	Right R/G Horiz Lines	94A305-8 (94D305-8)	6362				
L50	Right Blue Horiz Lines	94A305-9 (94D305-9)	6365				
L51	Blue Shaping	73A55-33					
L52	Convergence Yoke Assembly	94C303-5TC					
a	Section Blue						
b	Section Green						
c	Section Red						
a	Convergence Yoke Ass'y,Alt						
a	Section Blue	94A303-60					
b	Section Green	94A303-59					
c	Section Red	94A303-61					
a	Convergence Yoke Ass'y,Alt						
a	Section Blue	94A303-81					
b	Section Green	94A303-80					
c	Section Red	94A303-82					
a	Convergence Yoke Ass'y,Alt						
a	Section Blue	94A303-65					
b	Section Green	94A303-64					
c	Section Red	94A303-66					

(1) Install Plastic Sleeve over Adjustment Screw.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L53	.315A DC	16.8	.3H	74A18-62 (74C18-62)	C2343	26C77	C-34X	

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ 2.5A AC (1)	215VAC @ .4ADC	80A104-4 (80C104-4H)				(1) Primary has standby tap.
	SEC. 2	SEC. 3					
	6.3VAC @ 1.7A AC	6.3VAC @ 9.5A AC					

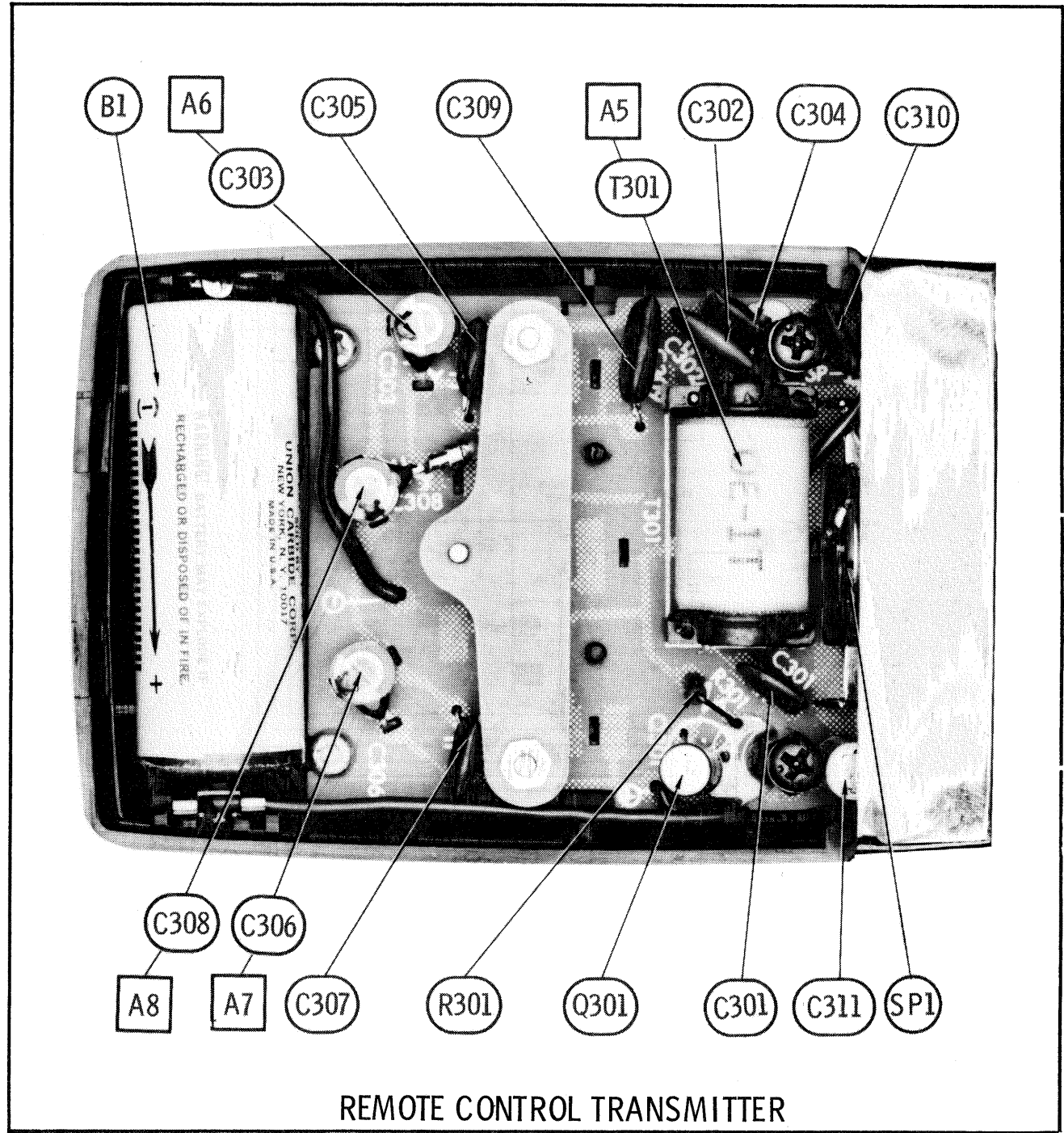
TRANSFORMERS (Sweep Circuits)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vertical Output	79A106-5 (79D106-5)(-AA)	VO-700C (1)	26S86 (1)	A-304X (1)	(1) Extend Leads if necessary.
T3	Yoke (Horiz.) (12MH) 90° (Vert.) (25.2MH) Yoke Alternate	94A377-4 (94D377-4) 94A377-8 (3)	DY-95AC	Y-109	YC-312-2	(2) Exact Replacement
T4	Horiz Output	79D146-3G (79A146-3)	HO-658CF (2)			(3) Used in Models: 21T701C, 21TS711C, 21T738.
T6	Pincushion Correction	79A127-1 (79C127-1)				

SWEEP COMPONENT CONNECTION DATA

ORIGINAL →	VERTICAL OUTPUT	YOKE	YOKE PLUG
REPLACEMENT ↓	Original Connections	Original Connections	
			TO YOKE TERMINAL
STANCOR	EXACT REPLACEMENT	EXACT REPLACEMENT (1) (3)	
THORDARSON	EXACT REPLACEMENT	EXACT REPLACEMENT (1) (2)	
TRIAD	EXACT REPLACEMENT	EXACT REPLACEMENT (3)	

(1) Remove Pin 3 from Yoke Plug  
(2) Rotate Yoke 180°, Leads At Top  
(3) Extend Yoke Leads If Necessary



**IMPORTANT FILING NOTICE**

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 1267 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.

**REMOTE CONTROL RECEIVER ALIGNMENT**

Suggested Alignment Tools: A1-A4.....GC ELECTRONICS #8868, 8987, 9089  
Use an Isolation Transformer and maintain line voltage at 117VAC. Turn Sensitivity Control, R1, to MINIMUM (Counterclockwise). A Transmitter, known to be operating correctly, may be substituted for signal generator.

GENERATOR COUPLING	GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
Connect High side thru .1mf to point $\diamond$ , low side to chassis.	41KC	DC probe to point $\diamond$ , low side to chassis.	A1	Check for MINIMUM voltage on VTVM. Adjust if necessary.
"	35.5KC	DC probe to point $\diamond$ , low side to chassis.	A2	Adjust for MINIMUM indication on VTVM.
"	38.5KC	DC probe to point $\diamond$ , low side to chassis.	A3	"
"	41.5KC	DC probe to point $\diamond$ , low side to chassis.	A4	"

**REMOTE CONTROL TRANSMITTER ALIGNMENT**

Suggested Alignment Tools: A5-A8.....GC ELECTRONICS #8868, 8987, 9089  
Use a fresh battery in Transmitter, use a Receiver known to be aligned correctly and operating properly. Turn Receiver sensitivity control, R1, To MINIMUM (counterclockwise). Test points given are on receiver. Maintain VTVM low side to Receiver Chassis. Tape over Transmitter Transducer so as not to saturate Receiver.

CONNECT VTVM (ON RECEIVER)	TRANSMITTER BUTTON	ADJUST	REMARKS
-DC Probe to point $\diamond$ .	VHF Channel Selector	A5, A6	Adjust A6 for MINIMUM indication on VTVM. If A6 does not peak, set to Midposition and adjust A5 for MINIMUM indication on VTVM.
DC Probe to point $\diamond$ .	Power On-Off	A7	Adjust for maximum indication on VTVM.
DC Probe to point $\diamond$ .	Volume Selector	A8	"

**REMEMBER TO ASK— "What else needs fixing?"**

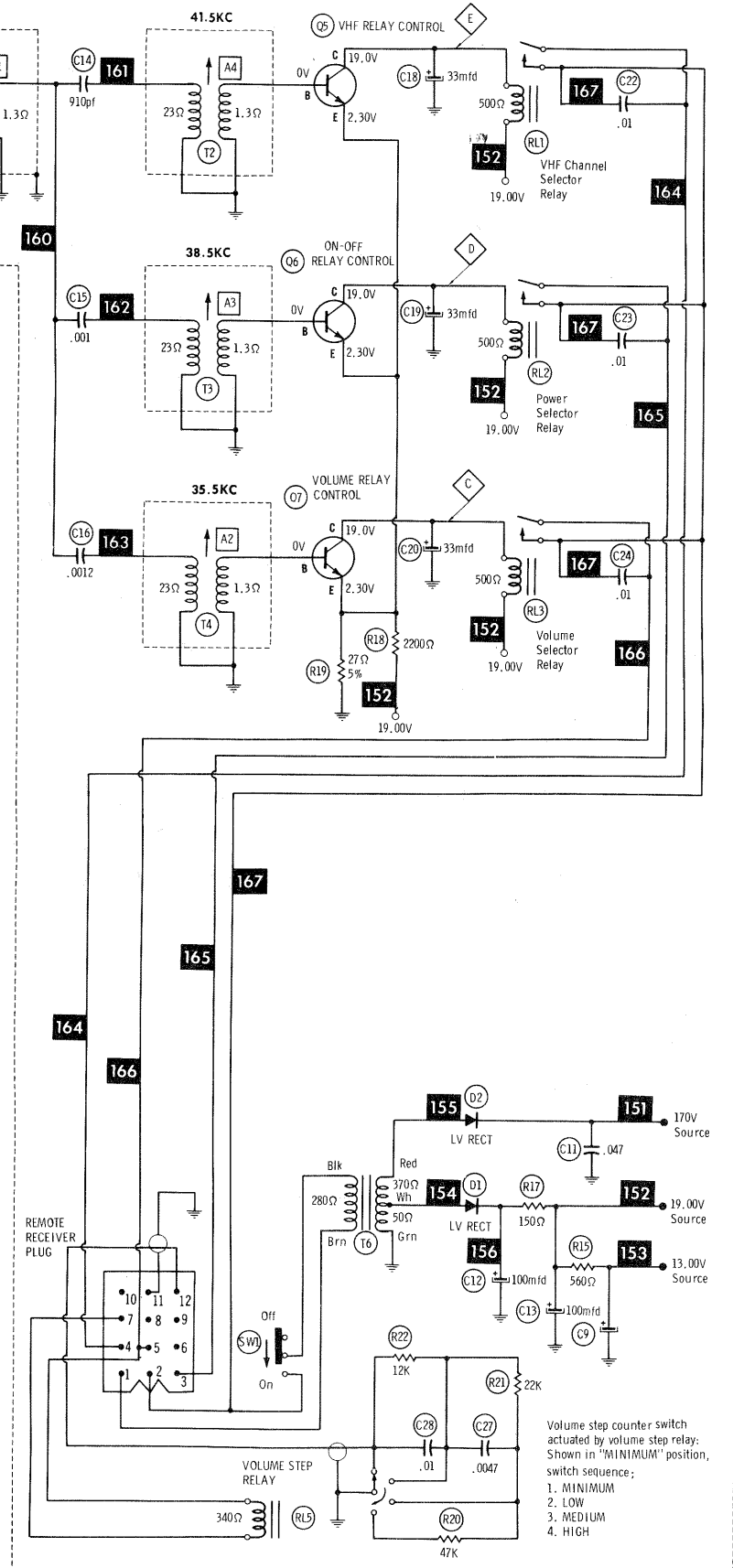
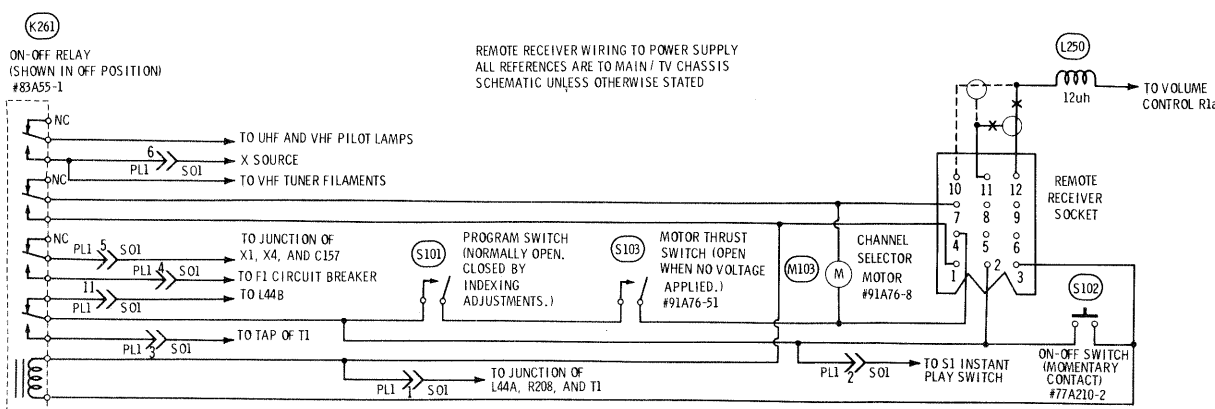
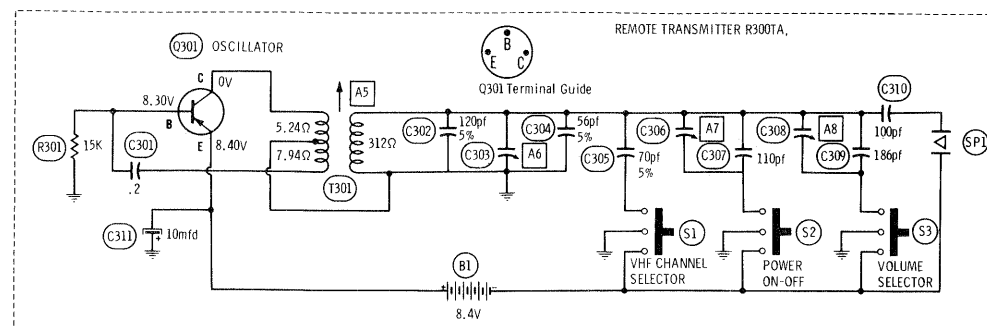
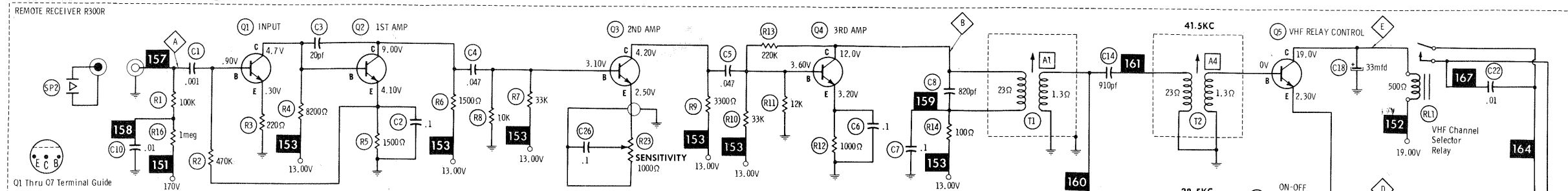
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The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been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

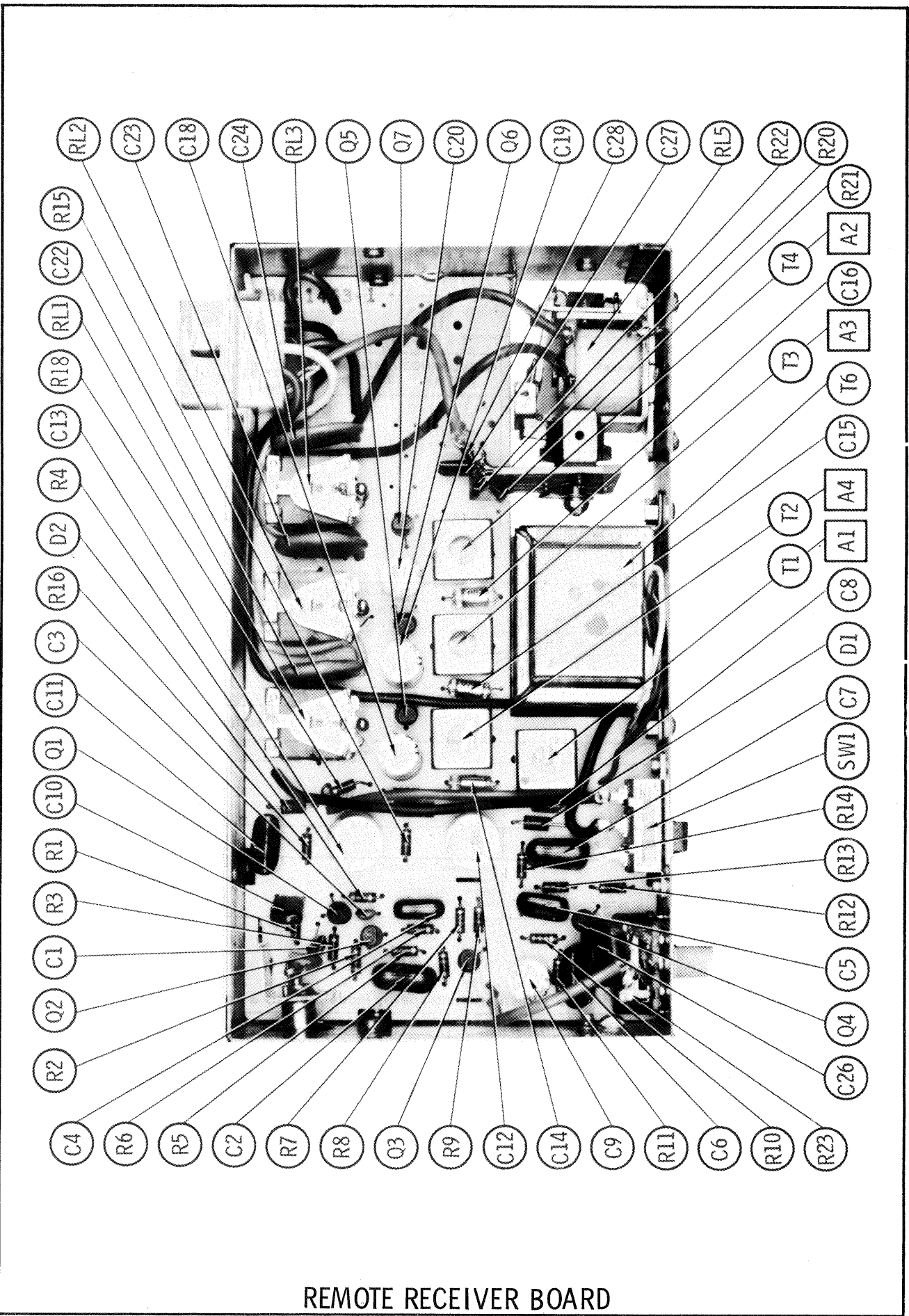
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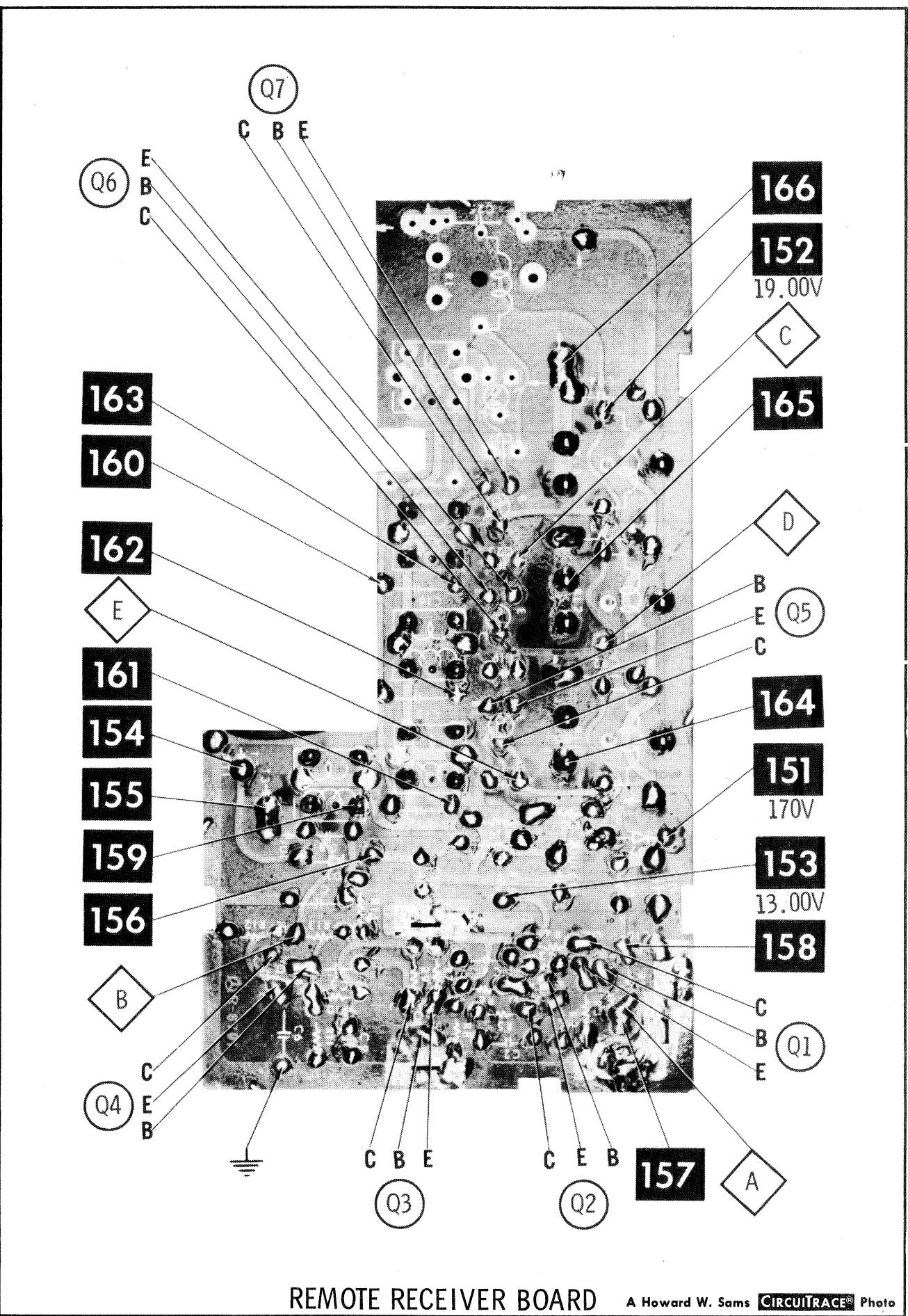


⚡ Denotes ground. (Voltage reference unless otherwise indicated).  
 --- Indicates connection used in some versions.  
 \* Indicates connection not used in some versions.  
 \* Omitted in some versions.  
 ⦿ See parts list.  
 Values shown in ( ) are used in some applications.  
 Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.  
 Supply voltage maintained at rated value for measurements.  
 Voltage and resistance measured with VTVM or equivalent meter, no signal applied and controls adjusted for normal operation.  
 Arrow on control indicates direction of advance.  
 Numbers assigned to terminals may not be found on the unit.

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
 with **CIRCUITRACE**  
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REMOTE RECEIVER BOARD



REMOTE RECEIVER BOARD

A Howard W. Sams **CIRCUITRACE** Photo



REMOTE CONTROL RECEIVER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS

ITEM No.	TYPE No.	MFRG. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	MOTOROLA PART No.
D1	1S1941	2093A41-65	GE-504A	8D4 or 5A4D	PTC201 or PTC202	SK3030 or SK3031	ECG 116 or ECG 117	
D2	1S1944	2093A41-77	GE-504A	8D4 or 5A4D	PTC201 or PTC202	SK3030 or SK3031	ECG 116 or ECG 117	
Q1	2SC372	2057A2-289	GE-17	TR-21	PTC101	SK3018	ECG 123A	HEP55
Q2	2SC372	2057A2-289	GE-17	TR-21	PTC101	SK3018	ECG 123A	HEP55
Q3	2SC372	2057A2-289	GE-17	TR-21	PTC101	SK3018	ECG 123A	HEP55
Q4	2SC372	2057A2-289	GE-17	TR-21	PTC101	SK3018	ECG 123A	HEP55
Q5	2SC373	2057A2-249	GE-17	TR-22	PTC101	SK3122	ECG 123A	HEP55
Q6	2SC373	2057A2-249	GE-17	TR-22	PTC101	SK3122	ECG 123A	HEP55
Q7	2SC373	2057A2-249	GE-17	TR-22	PTC101	SK3122	ECG 123A	HEP55

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA							
		MFRG. PART No.	AEROVOX PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C9	33 35V	2067A64-162	MCD-120	ME-7-J-035	EP50-25	WBR35-50	MT1-14	MTV35CD50	TE-1306
C12	100 35V	2067A64-163	CRE900A	RME-J-H-100	EA50-100	WBR100-35	MT1-20	MTV100DB35	TE-1309
C13	100 35V	2067A64-163	CRE900A	RME-J-H-100	EA50-100	WBR100-35	MT1-20	MTV100DB35	TE-1309
C18	33 35V	2067A64-162	MCD-120	ME-7-J-035	EP50-25	WBR35-50	MT1-14	MTV35CD50	TE-1306
C19	33 35V	2067A64-162	MCD-120	ME-7-J-035	EP50-25	WBR35-50	MT1-14	MTV35CD50	TE-1306
C20	33 35	2067A64-162	MCD-120	ME-7-J-035	EP50-25	WBR35-50	MT1-14	MTV35CD50	TE-1306

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	.001 400V	#2065A91-51	DBE6D1	6DP-1-102	DD-102	DPMS6D1	PVC621	6PS-D10
C2	.1 50V		DBE2P1	1DP-2-104		DPMS2P1	PVC101	225P10491WD3
C3	20 50V			CCT0-200	DTZ-20	NPO20	CNO420	10TCC-Q20
C4	.047 50V		V1612S47	1DP-2-473		DPMS6S47	PVC1147	225P47391WD3
C5	.047 50V		V1612S47	1DP-2-473		DPMS6S47	PVC1147	225P47391WD3
C6	.1 50V		DBE2P1	1DP-2-104		DPMS2P1	PVC101	225P10491WD3
C7	.1 50V		DBE2P1	1DP-2-104		DPMS2P1	PVC101	225P10491WD3
C8	820 50V							
C10	.01 400V		V1614S1	4DP-1-103	CPR-10000J	DPMS6S1	PVC411	4PS-S10
C11	.047 400V		V1614S47	4DP-3-473		DPMS6S47	PVC4147	4PS-S47
C14	910 50V	#2065A91-48						
C15	.001 50V			DM-19-102	CPR-1000J	CD19F102J500	SX210	MS-21
C16	.0012 50V			DM-19-122	CPR-1200J	CD19F112J500	SX212	MS-212
C22	.01 1.4KVDC				CI-103	AC-10000	UAC110	125L-S10
C23	.01 1.4KVDC				CI-103	AC-10000	UAC110	125L-S10
C24	.01 1.4KVDC				CI-103	AC-10000	UAC110	125L-S10
C27	.0047 50V		DBE6D47	6DP-1-472		DMS6D47	PVC6247	6PS-D47
C28	.01 50V		V1614S1	4DP-1-103	CPR-10000J	DPMS6S1	PVC411	4PS-S10

# Admiral Part Number

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFRG. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R23	Remote Sensitivity	1000	2075A89-145	F1-1000, SNK010	B47-1000-S or [NP-1000-S, NML-A-300, TT-2]	B11-108, TM4 or [BU11, CF6, SS6A]*	RU13L, SL37, SN1000 or [UA13L, SN1000]

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
T1	Bandpass	2072A254-283			
T2	41.5KC	2072A254-284			
T3	38.5KC	2072A254-284			
T4	35.5KC	2072A254-284			

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	MFRG. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T6	117VAC @15ma	118VAC Tap @ 15VAC @ less than 1ma	2080A1-31				

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
RL1	Relay	2083A1-18	VHF Channel Selector (UHF, 2,3,4,5,6,7,8,9,10,11,12,13)
RL2	Relay	2083A1-18	Power Selector (On-Off)
RL3	Relay	2083A1-18	Volume Selector (MINIMUM, Low, Medium, High)
RL5	Relay	2083A1-19	Volume Step (MINIMUM, Low, Medium, High)
SP2	Transducer	2078A1-10	Receiving
SW1	Switch	2077A151-106	Power, Remote Receiver (On-Off)

REMOTE CONTROL TRANSMITTER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS

ITEM No.	TYPE No.	MFRG. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	MOTOROLA PART No.
Q301	2SB56	2057A2-288	GE-2	TR-05	PTC102	SK3004	ECG 102A	HEP632

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA							
		MFRG. PART No.	AEROVOX PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C311	10 16V	2067A64-161	MCD-70	RME-B-E-010	EP15-10	WBR10-25	MT1-5	MTV10CB50	TE-1155

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C301	.2 12V	#2065A112-189 #2065A112-190 #2066A48-24 #2065A112-191 #2065A112-199 #2066A48-24 #2065A112-193 #2066A48-24 #2065A112-198 #2065A112-195						
C302	120 5%							
C303	Trimmer							
C304	56 5%							
C305	70 5%							
C306	Trimmer							
C307	110 2%							
C308	Trimmer							
C309	186 2%							
C310	100 2%							

# Admiral Part Number

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
T301	Oscillator	2072A254-282			

BATTERIES

ITEM No.	VOLTAGE	MFRG. PART No.	EVEREADY PART No.	NOTES
B1	8.4		E126	Mercury Type

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
S1	Switch	2078A203-67	VHF Channel Selector
S2	Switch		Power On-Off
S3	Switch		Volume Selector
SP1	Transducer		Transmitting

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

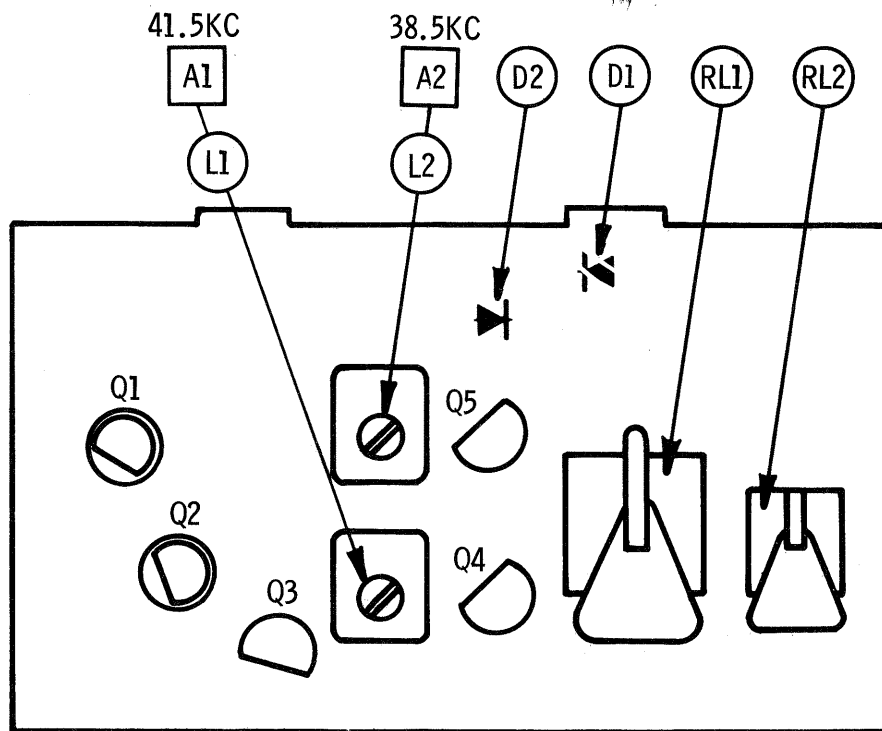
ITEM	PART No.	ITEM	PART No.
Nose Cover, Case	2034A3-7	Pushbutton Spring Contact	2018A1-17
Top Half Case with Insert	2034A3-10	Pushbutton Return Spring	2019A225-27
Pushbutton Guide	2033A642-80	Transducer	2078A203-67
Pushbutton	2033A642-74	Bottom Half Case	2034A3-6

## PHOTOFACT® Folder

ADMIRAL REMOTE CONTROL  
RECEIVER R200R, TRANSMITTER R200TA

## IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 1267 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.

ADMIRAL REMOTE CONTROL  
RECEIVER R200R, TRANSMITTER R200TA

## REMOTE CONTROL RECEIVER ALIGNMENT

Use only enough generator for usable indication.

GENERATOR COUPLING	GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
High side thru .01mfd to point $\diamond$ A, low side to ground; or operate transmitter approx. 8 feet from receiver.	41.5MC	point $\diamond$ B	A1	Adjust for maximum.
"	38.5MC	point $\diamond$ C	A2	Adjust for maximum.

## REMOTE CONTROL TRANSMITTER

ITEM	PART No.
Insert, Black Unit	2023A606-32
Insert, Brown Unit	2023A606-33
Cast Top with Insert, Black	2034A3-19
Cast Top with Insert, Brown	2034A3-18
Grille Black	2015A2840-67
Grille Brown	2015A2840-68

ITEM	PART No.
Resonant Bar Assembly, 41.50KC, Black	799A9002
Resonant Bar Assembly, 41.50KC, Brown	799A9001
Base Bottom, Black	2034A3-14
Base Bottom, Brown	2034A3-12
Pushbutton, Black	2033A642-103
Pushbutton, Brown	2033A642-97

**REMEMBER TO ASK— "What else needs fixing?"**

**HOWARD W. SAMS & CO., INC.** Indianapolis, Indiana 46206

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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DATE 9-72

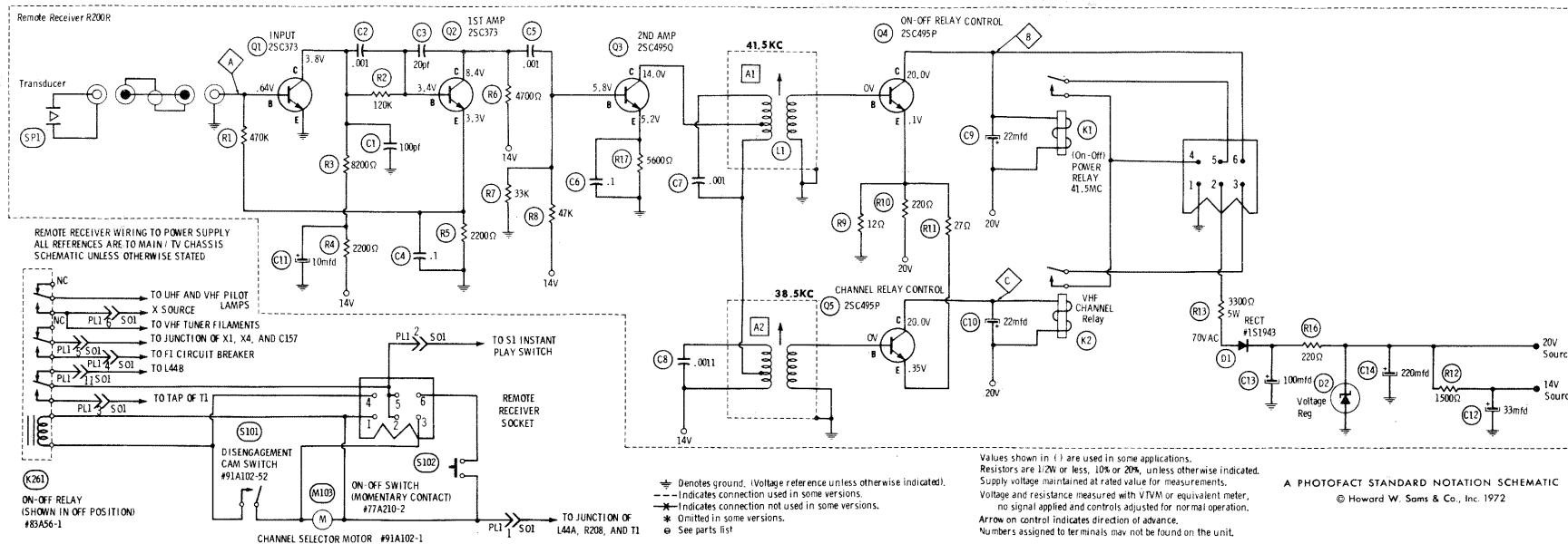
SET 1267 FOLDER 1-B

ADMIRAL REMOTE CONTROL  
RECEIVER R200R, TRANSMITTER R200TA

SET 1267 FOLDER 1-B







A PHOTOFACT STANDARD NOTATION SCHEMATIC

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## SEMICONDUCTORS

ITEM	PART NO.	TYPE
D1	2093A41-84	Zener
D2	2093A41-85	
Q1	2057A2-249	
Q2	2057A2-249	
Q3	2057A2-300	
Q4	2057A2-301	
Q5	2057A2-301	

## ELECTROLYTIC

ITEM	PART NO.	VALUE
C9	2067A64-181	22mfd 25V
C10	2067A64-181	22mfd 25V
C11	2067A64-116	10mfd 25V
C12	2067A64-134	33mfd 25V
C13	2067A64-111	100mfd 25V
C14	2067A64-108	220mfd 25V

## COILS/TRANSFORMERS

ITEM	PART NO.
L1	2072A254-309
L2	2072A254-309

## MISCELLANEOUS

ITEM	NAME	PART NO.
RL1	On-Off Relay	2083A1-24
RL2	Channel Relay	2083A1-23
SP1	Transducer	2078A1-11
	Chassis Top Cover	2015A2840-69