

CABINET-REAR VIEW DISASSEMBLY INSTRUCTIONS

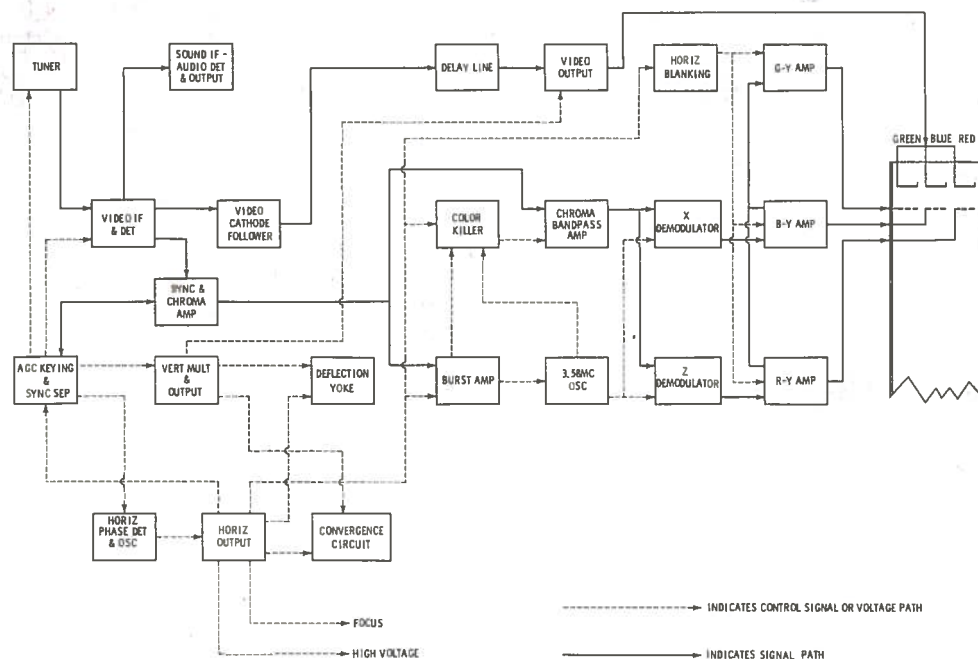
TV CHASSIS REMOVAL

1. Remove 6 screws holding back cover and remove back cover. Disconnect antenna leads and remove all knobs.
2. Remove antenna terminal assembly, and unplug yoke, convergence assembly, and picture tube socket. Disconnect speaker leads and ground wire.
3. Remove 2 screws at ends of handle. Remove 5 Hex nuts directly behind front panel. Remove 4 screws from bottom. Slide chassis back several inches and remove anode lead at top of picture tube. Remove chassis.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" procedure. Lay set face down on a soft protective surface.
2. Loosen convergence assembly retaining clamp and slide convergence assembly from picture tube neck.
3. Loosen yoke retaining nut and screw and slide yoke off picture tube.
4. Remove 4 springs holding yoke retaining assembly and slide assembly off picture tube.
5. Loosen retaining clamp screw until all four "U" brackets can be unhooked and picture tube lifted out. Do not lift out by the neck of tube.

NOTE: When removing convergence assembly, unlock magnets. Lock is nylon cam that releases magnets.



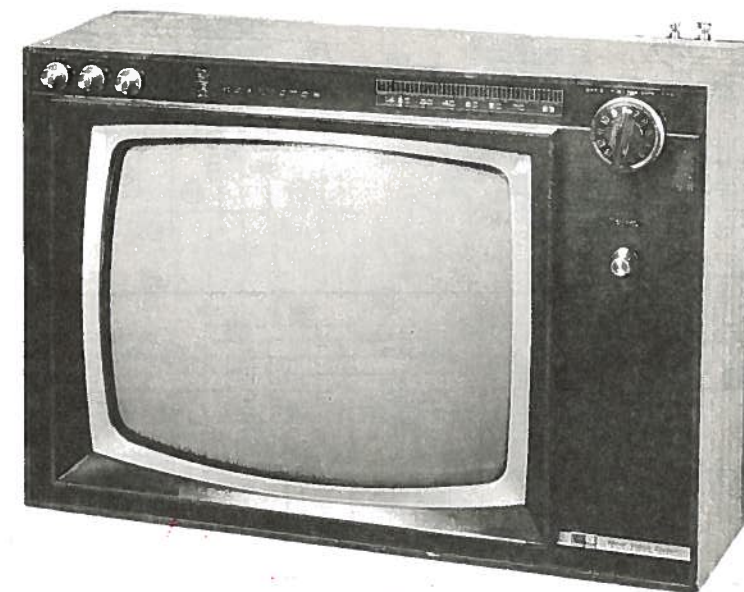
BLOCK DIAGRAM

PHOTOFACT® Folder

with CIRCUITRACE™

RCA VICTOR
CHASSIS CTC22B/C

COLOR TV



MODEL EJ507W

TRADE NAME	RCA Victor Model EJ507W, Y.. Chassis CTC22B, Model EJ513WK.. Chassis CTC22C
SUPPLIER	For current address, see Annual Index.
TYPE SET	Color Television Receiver
TUBES	VHF: Twenty-One, 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)

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A 7-amp. fuse is used for low voltage power supply protection. (See photo "Chassis - Bottom View" for location.)

A Circuit Breaker is used for low voltage power supply protection and may be reset by depressing the reset button. (See photo "Cabinet - Rear View" for location.)

VHF OSCILLATOR ADJUSTMENT

The Fine Tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

AGC

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

FOCUS

The focus may be varied by connecting the lead from pin 9 of the picture tube to various voltage points. (For location, see photo "Cabinet - Rear View".)

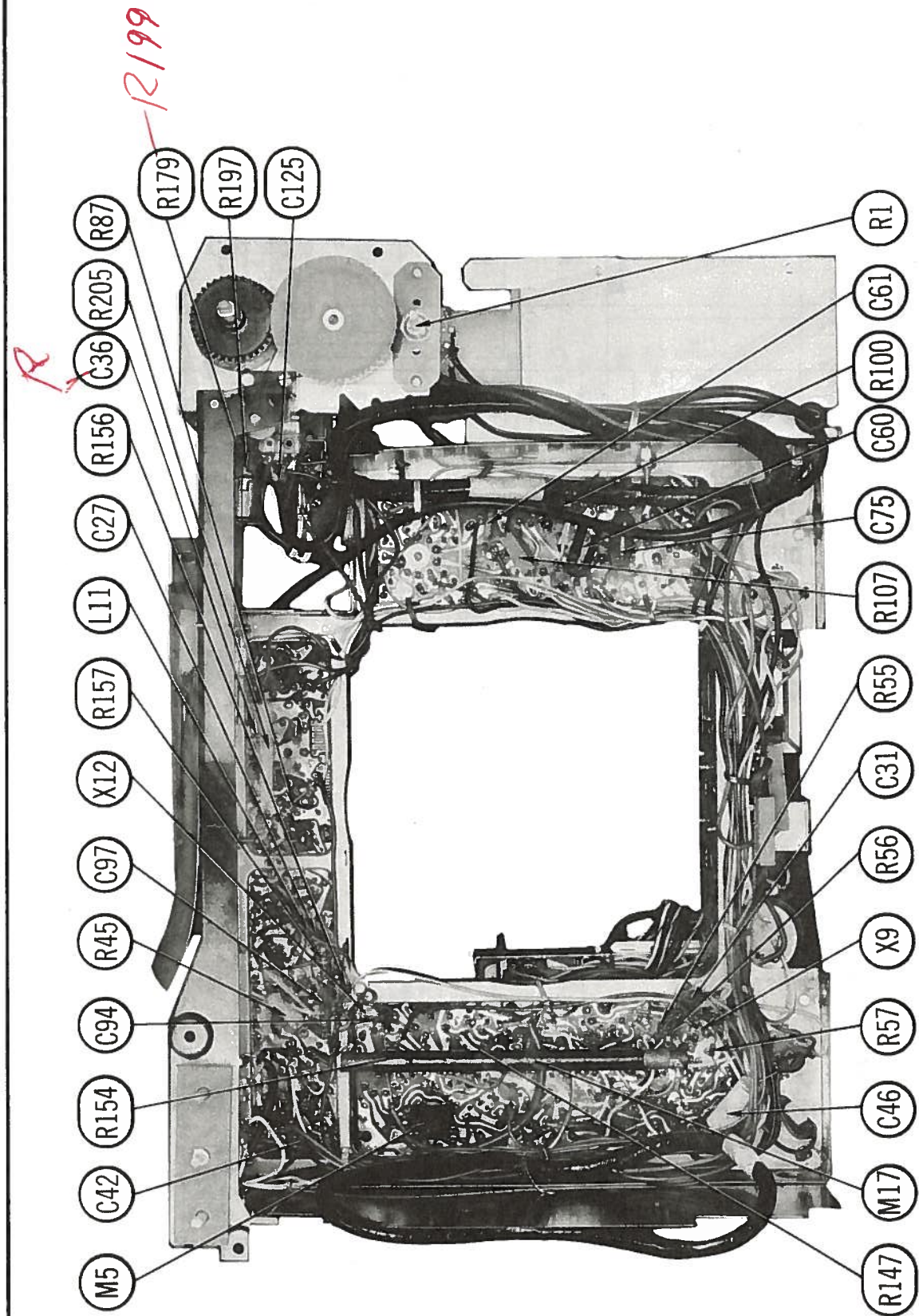
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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. SB351 10 9 8 7 6 5 4 3 2 1 0

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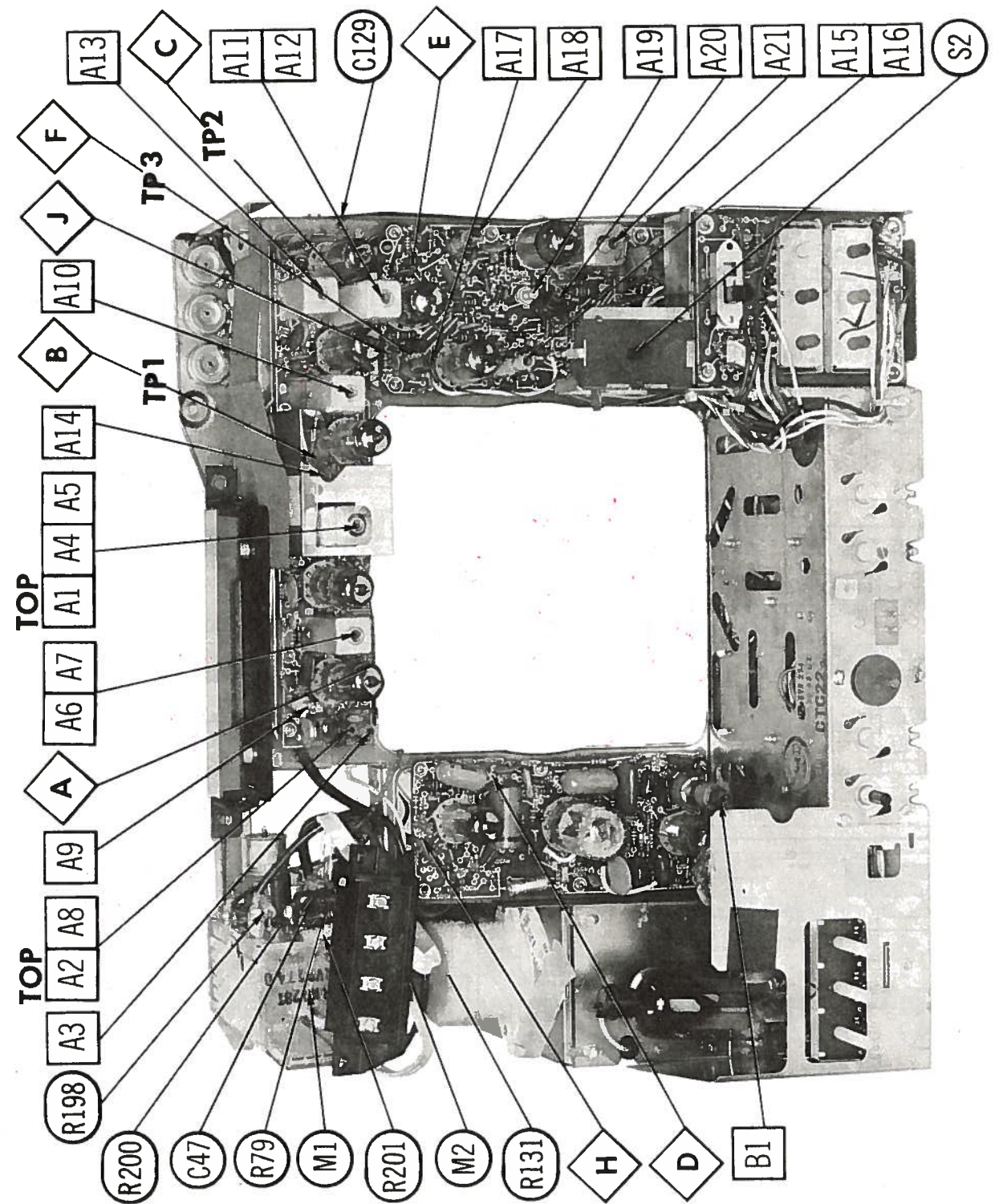
SET 917 FOLDER 1



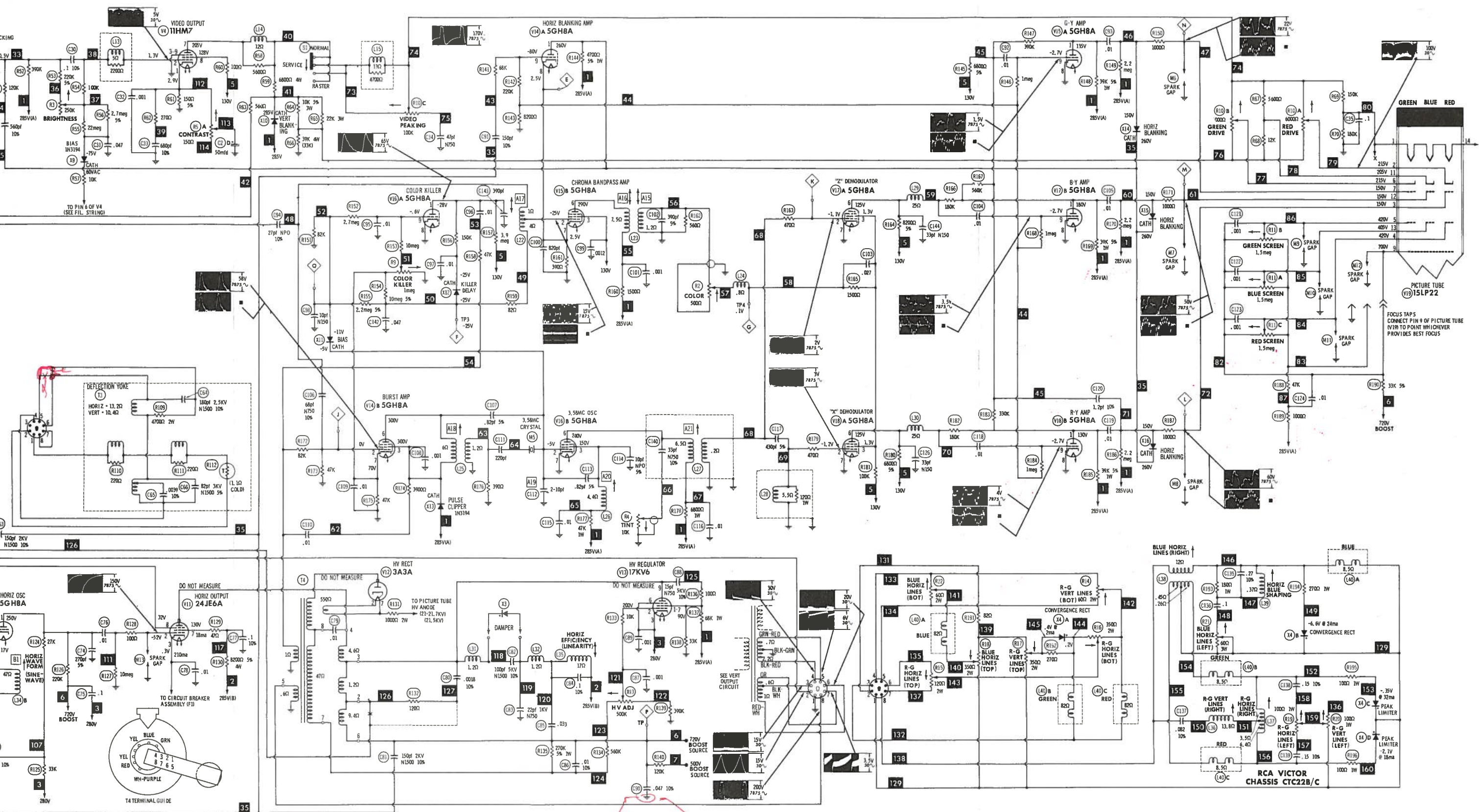
CHASSIS - FRONT VIEW

TP1 -.2V VIDEO DETECTOR OUTPUT
TP2 0V AUDIO DETECTOR INPUT

TP3 -25V COLOR KILLER
TP4 .1V DEMODULATOR



CHASSIS - REAR VIEW

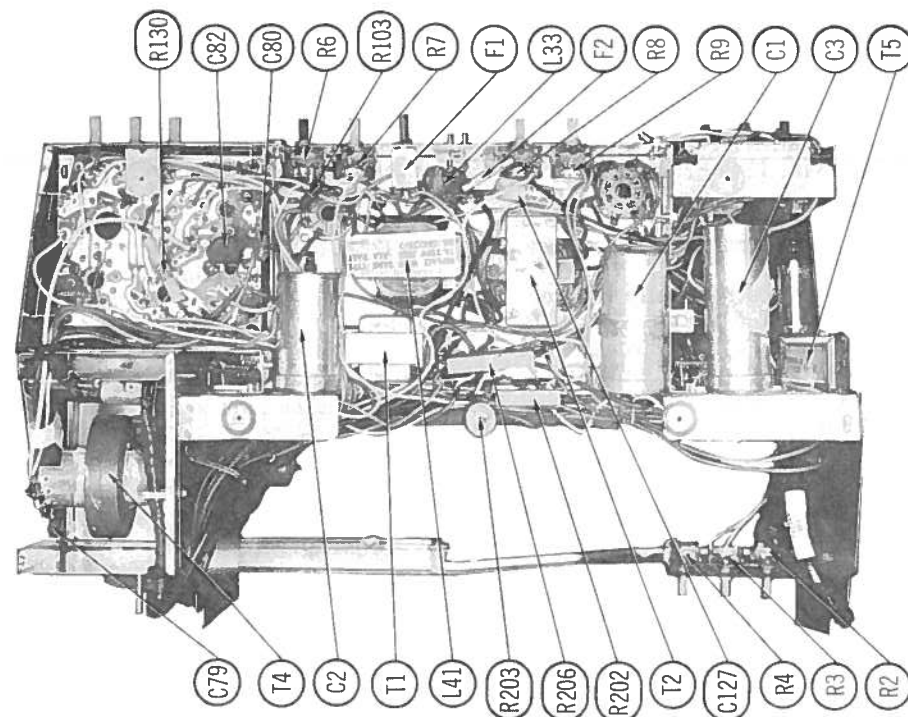


2
285V goes to CT 2
285V not ground

RESISTANCE MEASUREMENTS

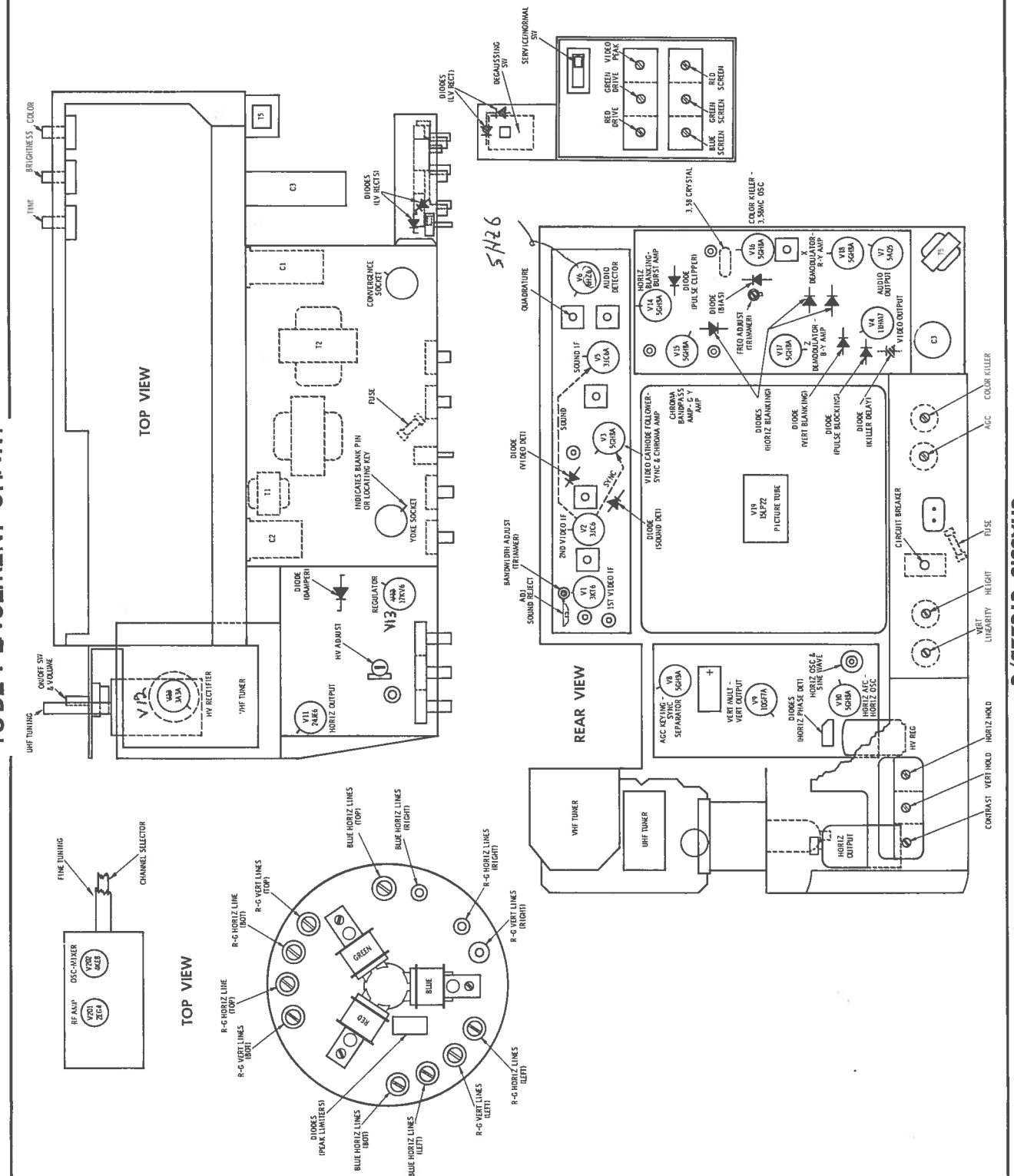
ITEM	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	TOP CAP
V1	3KT6	56Ω	460K	56Ω	2Ω	4Ω	0Ω	23K ↑	23K ↑	0Ω				
V2	3JC6	150Ω	.2Ω	150Ω	4Ω	6Ω	0Ω	10K ↑	10K ↑	0Ω				
V3	5GH8A	3500Ω ↑	5000Ω	6300Ω ↑	4Ω	6Ω	11K ↑	0Ω	750Ω	200K				
V4	11HM7	150Ω	400K ●	0Ω	19Ω	19Ω	21Ω	4500Ω ↑	4000Ω ↑	0Ω				
V5	3JC6A	270Ω	6Ω	270Ω	9Ω	12Ω	0Ω	12K ↑	12K ↑	0Ω				
V6	5HZ6	5.5Ω	270Ω	13Ω	12Ω	820K ‡	7200Ω ↑	470K						
V7	5AQ5	300K	270Ω	14Ω	13Ω	700Ω ↑	3900Ω ↑	NC						
V8	5GH8A	36K	39K	2500Ω ↑	21Ω	22Ω	530K	20K	0Ω	3meg				
V9	10GF7A	0Ω	2.5meg	1100Ω	28Ω	22Ω	440Ω ↑	NC	2.4meg ‡	640K				
V10	5GH8A	60K	950K	65K	28Ω	29Ω	120K ↑	1200Ω	78Ω	90K				
V11	24JE6	NC	10meg	1.3Ω	44Ω	30Ω	NC	8500Ω ↑	1100Ω	NC				7Ω ‡
V12	3A3A	NC	1000Ω ▲	NC	NC	TP	NC	1000Ω ▲	NC					260K ‡
V13	17KV6	24K	500K	700Ω ↑	30Ω	29Ω	700Ω ↑	24K	NC	1.2Ω ‡				
V14	5GH8A	4200Ω ↑	34K	1N ↑ ●	17Ω	16Ω	6Ω ↑↑	47K	390Ω	230K				
V15	5GH8A	39K ↑	1.4meg	3900Ω ↑	17Ω	18Ω	1500Ω ↑	390Ω	0Ω	1meg				
V16	5GH8A	3.9meg ↑ ▲	600K ●	47K ↑	15Ω	16Ω	7500Ω ↑	0Ω	0Ω	2.4meg				
V17	5GH8A	34K ↑	470Ω	1700Ω	19Ω	18Ω	12K ↑	0Ω	0Ω	1meg				
V18	5GH8A	34K ↑	480Ω	1700Ω	15Ω	14Ω	11K ↑	0Ω	0Ω	1meg				
V19	15LP22	FIL	4600Ω ↑	12K ↑	450K ‡	460K ‡	4600Ω ↑	13K ↑	NC	33K ‡	NC	8700Ω ↑	12K ↑	
												PIN 13 440K ‡	PIN 14 FIL	
V201	2EG4	NC	17K ↑	NC	1.5meg	NC	NC	NC	0Ω	NC	0Ω	NC	.8Ω	
V202	4KE8	8000Ω ↑	82K	69K ↑	.8Ω	2Ω	70K ↑	0Ω	70K ↑	77K ↑				
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	TOP CAP

- READING DEPENDS ON POLARITY OF METER CONNECTIONS.
- ▲ MEASURED FROM ANODE LEAD OF V19.
- †† MEASURED FROM PIN 3 OF V14.



CHASSIS—BOTTOM VIEW

TUBE PLACEMENT CHART



RCA VICTOR
CHASSIS CTC32B/C

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 A8, A10 thru A17 GENERAL CEMENT #8606, 8606L, 8869 .. WALSCO #2543, 2544, 2588
Mixer Plate Coil..... GENERAL CEMENT #9296, 9297, 9300WALSCO #2510, 2546, 2547
A9GENERAL CEMENT #8868, 8987, 9089WALSCO #2531-X, 2541, 2587

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown.
Connect a variable bias supply to the IF AGC line (point \diamond) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1.	Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	41.25MC 41.25MC 47.25MC	A1, Top A2, Top A3, R12	Adjust for MINIMUM.
2.	Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep) 42.17MC 45.75MC 44.00MC	A4, A5	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3.	Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep) 41.25MC 42.17MC 42.75MC 45.00MC 45.75MC 47.25MC	A6, A7, A8, A9, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A 4 and A 5.

SOUND IF ALIGNMENT

Connect a VTVM thru a detector probe to point \diamond . Tune in a TV station and adjust A10, A11 and A12 for maximum deflection. Remove VTVM. Adjust A13 clockwise from fully-out position to the second peak for maximum sound. Continue to reduce the signal and adjust A13 for MINIMUM distortion and maximum sound until no further improvement can be made.

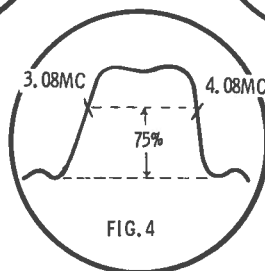
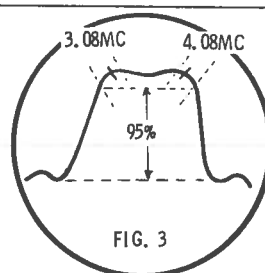
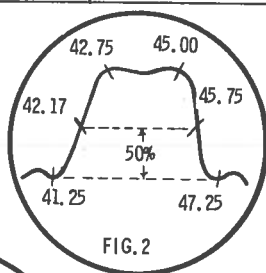
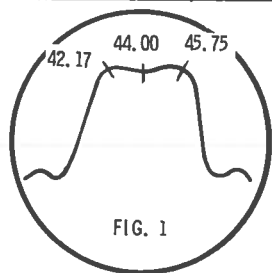
4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A14 for MINIMUM beat interference.

CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RF Modulator (RCA WG304A or equivalent). Connect a -2 volt supply to point \diamond . Connect a -13 volt supply to point \diamond . Connect a -15 volt supply to point \diamond . Positive of all supplies to ground. Connect a jumper from point \diamond to ground. Turn the color intensity to maximum.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. High side thru .1 mfd to grid of Bandpass Amp. Low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC		Vert. Amp. thru Detector Probe to pin 3 of demodulators point \diamond . Low side to ground.	A15, A16	Adjust for response curve similar to Fig. 3.
5. High side of sweep gen. to Video Sweep input of RF modulator. 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)			"	A17	Adjust for response curve similar to Fig. 4. If necessary, retouch A15 to flatten top of response.



MISCELLANEOUS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect:

A 0-500 ma meter in series with the cathode lead of the horizontal output tube.
A .47 mfd capacitor across meter.
A VTVM through a high voltage probe to picture tube anode connector.
Point \diamond to ground.
A VTVM to Point \diamond , low side to ground.
A short across the Horizontal Sine Wave coil, L34 (Pin 8 of V10) to ground.

Tune in a TV station and set all controls for normal operation. Adjust the Horizontal Hold control until picture "floats" with the blanking bars vertical. Remove the short from L34 to ground and adjust "B1" until the picture floats horizontally. Remove the short from Point \diamond . Adjust the Horizontal Linearity coil for MINIMUM current in the horizontal output tube.

Advance core into coil to increase the current by 1 or 2 ma (should not exceed 235 ma). When increasing the current, the boost voltage must increase. If not, the Linearity coil is adjusted to the wrong dip. Core should be set to dip nearest the chassis.

Adjust High Voltage control, R13, for 21.5KV with normal brightness. Adjust Focus, Height, and Vertical controls.

AGC ADJUSTMENT

Tune in a strong TV station and advance 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

Suggested Alignment Tools:

A18 thru A20. GENERAL CEMENT #8868, 8987, 9089
WALSCO #2531-X, 2541, 2587
A21 GENERAL CEMENT #8606, 8606L, 8869
WALSCO #2543, 2544, 2588

Connect a color bar generator to the antenna terminals. Adjust the receiver for normal color reception.

Set the Color Killer and Tint controls fully counter-clockwise. Place a clip lead from Points \diamond and \diamond to ground. Connect DC probe of VTVM through 470K resistor to Point \diamond , low side to ground. Adjust A18 for MINIMUM DC voltage. Adjust A19 until color bars stand still or drift slowly.

Adjust A20 for -10V, \pm .5V on meter. Remove jumpers from Points \diamond and \diamond . Move DC probe to Point \diamond . Adjust A21 for equal voltage at both extremes of the Tint control. Correct position of the core is peak nearest mounting end. Remove VTVM.

COLOR AFC ALIGNMENT (CONTINUED)

Connect the vertical input of scope through a low capacity probe to Point \diamond . 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 the proper signal. If necessary, retouch A21 for proper range of control.

With Tint control at midrange at the B-Y and G-Y outputs \diamond and \diamond , tune in a weak signal, or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the Color Killer control to eliminate the color in the snow. Check with a color signal to make sure 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.

Move the Normal-Service-Raster switch to the Raster position. 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 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.

GREY SCALE ADJUSTMENTS

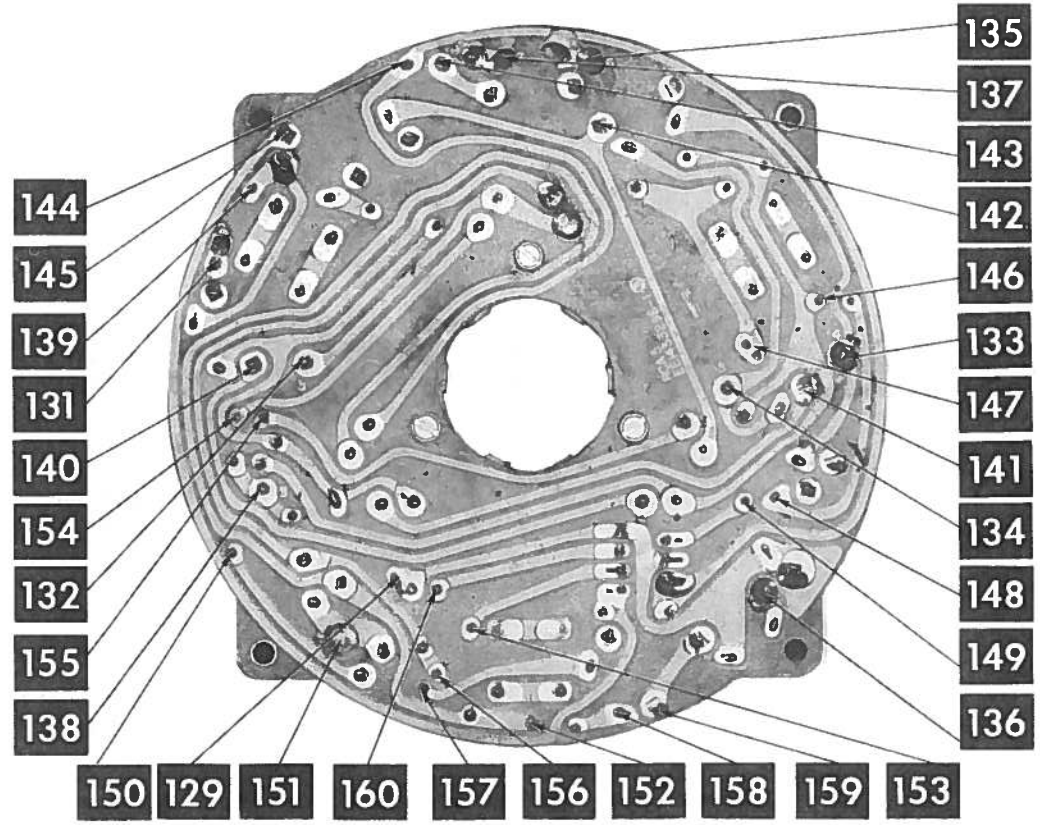
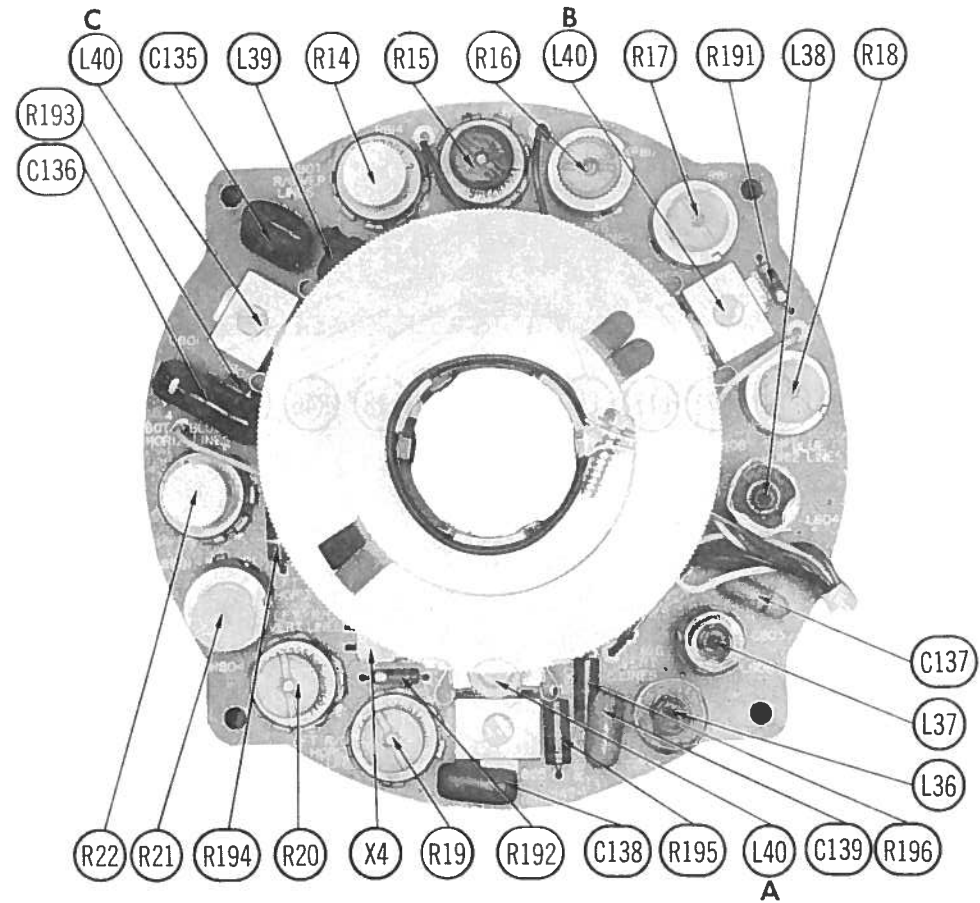
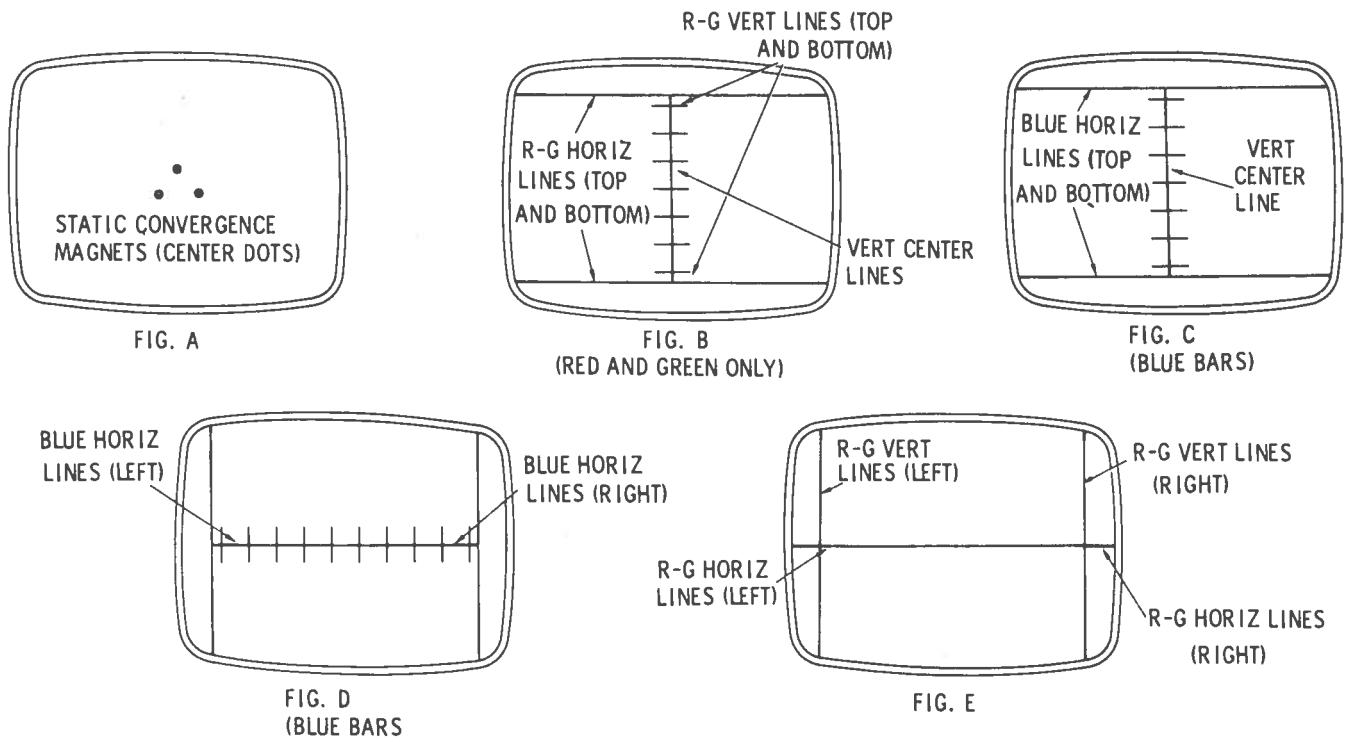
Tune in a black and white picture or a color picture with the color control set at MINIMUM. Set the Tint, Contrast, and Brightness controls to midrange. Turn the Red, Blue and Green screen controls to MINIMUM. Move the Normal-Service-Raster switch to Service position. Advance the screen controls one at a time until each produces a barely visible line.

If one or more controls fail to produce a line, remove R65 (22K, 3W) from the circuit and repeat the above procedure. If it is impossible to extinguish a line with its screen control, install R65 if it is not in the circuit.

Adjust the Red and Green Drive controls to eliminate coloring in the light and dark areas of the picture.

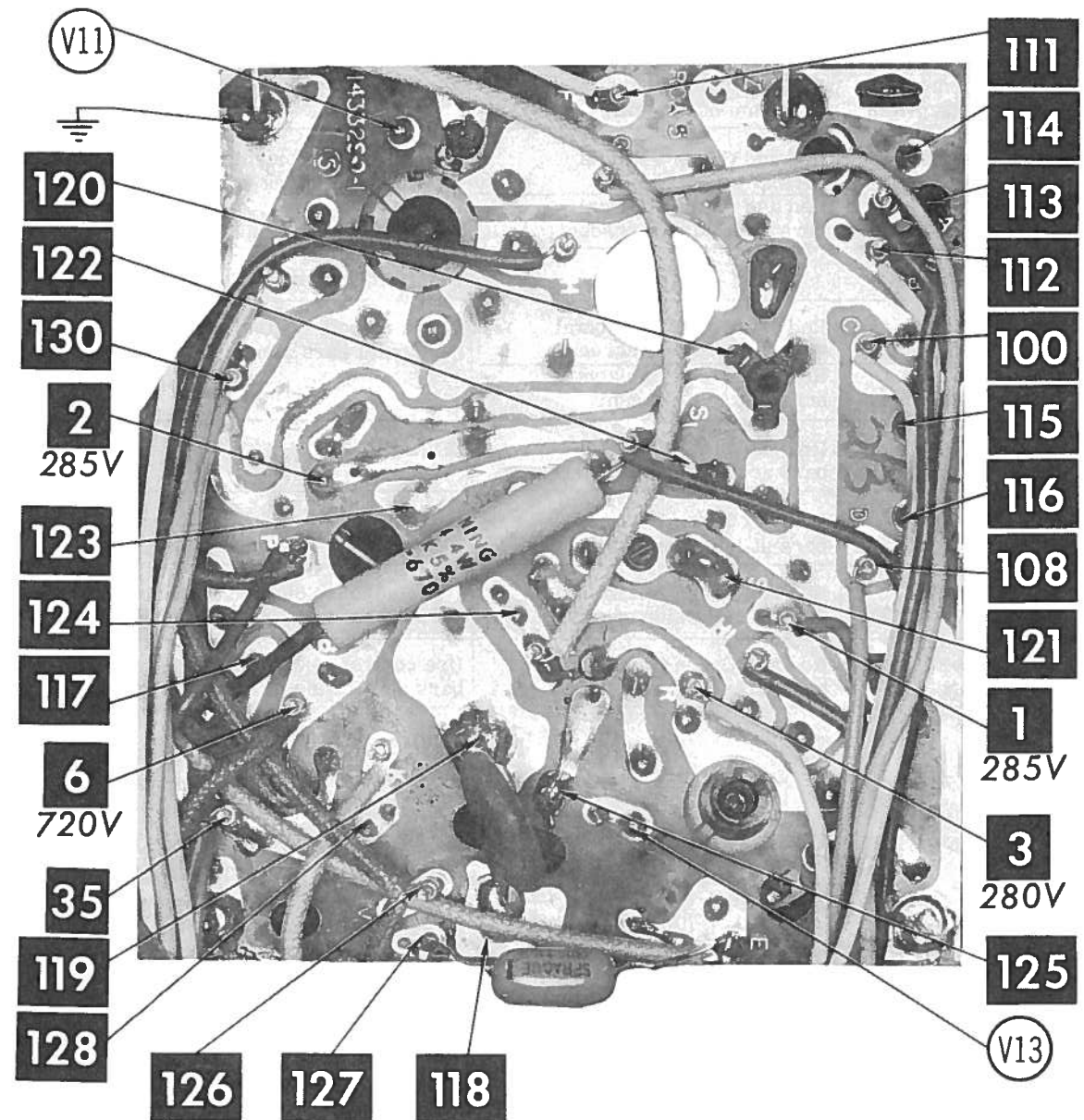
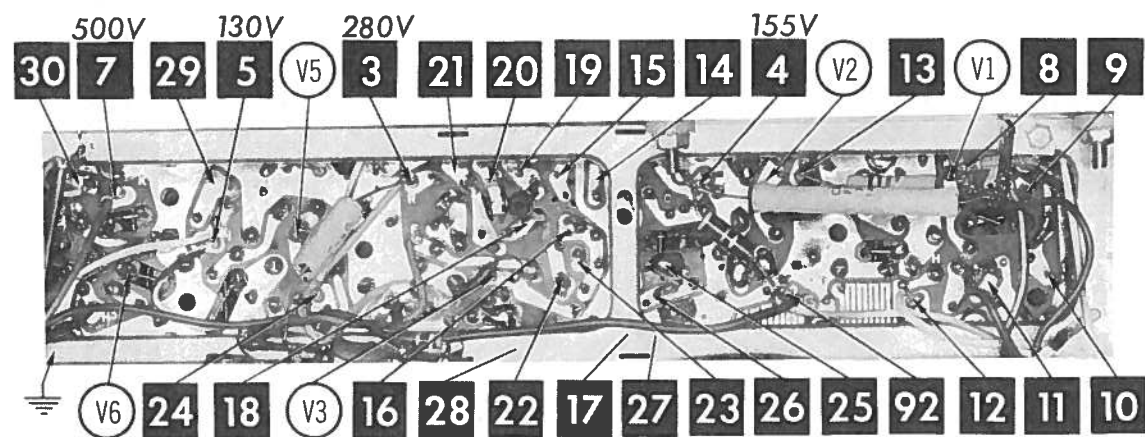
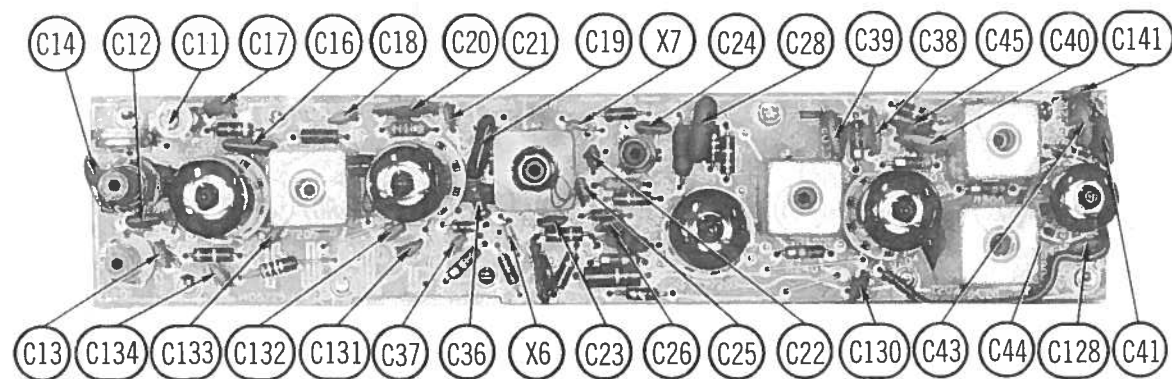
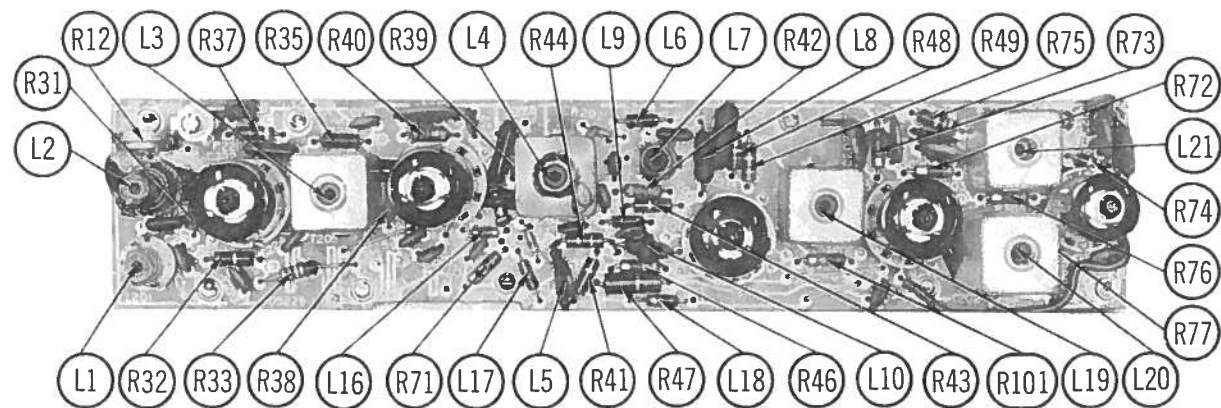
CONVERGENCE ADJUSTMENTS

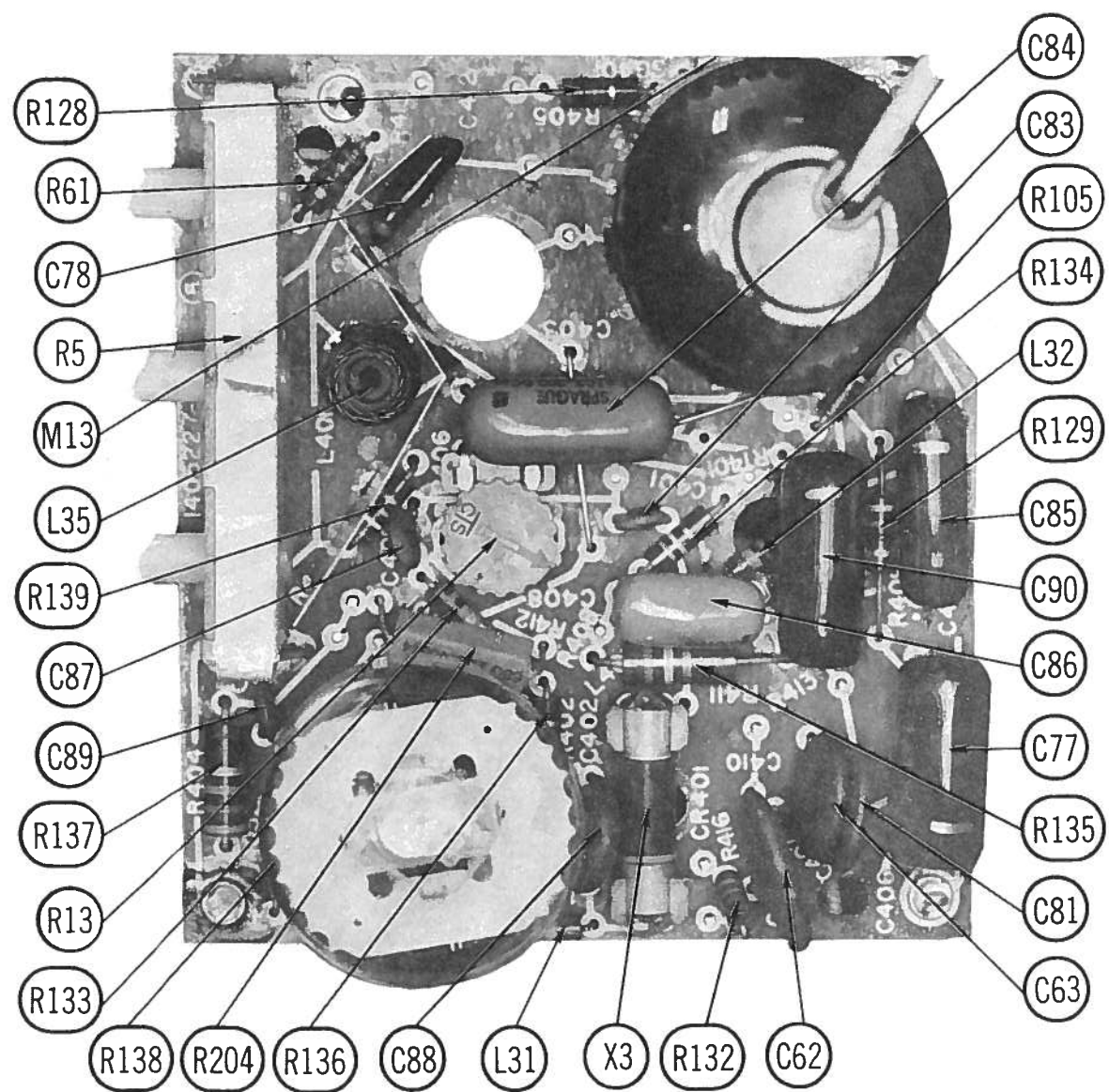
Step	Control	Use to Converge (or Straighten)	Remarks
1.			Perform Center Dot Convergence using convergence magnets. See Fig. A.
2.	Blue Horizontal Lines, Left R21	Blue Horizontal bars at left side of screen.	Touch up both controls for best convergence along horizontal center line (Fig. D).
3.	Blue Horizontal Lines, Right L38	Blue Horizontal bars at right side of screen.	
4.	Blue Horizontal Lines, Top R18	Blue Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. C).
5.	Blue Horizontal Lines, Bottom R22	Blue Horizontal bars at bottom of screen.	
6.	R-G Vertical Lines, Top R17	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).
7.	R-G Vertical Lines, Bottom R14	Red and Green Vertical bars at bottom of screen.	
8.			Perform Center Dot Static Convergence (Fig. A).
9.	R-G Horizontal Lines, Bottom R16	Red and Green Horizontal bars at bottom of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. B).
10.	R-G Horizontal Lines, Top R15	Red and Green Horizontal bars at top of screen.	
11.	R-G Vertical Lines, Right L36	Red and Green Vertical bars at right side of screen.	(Fig. E)
12.	R-G Vertical Lines, Left R20	Red and Green Vertical bars at left side of screen.	(Fig. E)
13.	R-G Horizontal Lines, Right L37	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).
14.	R-G Horizontal Lines, Left R19	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).



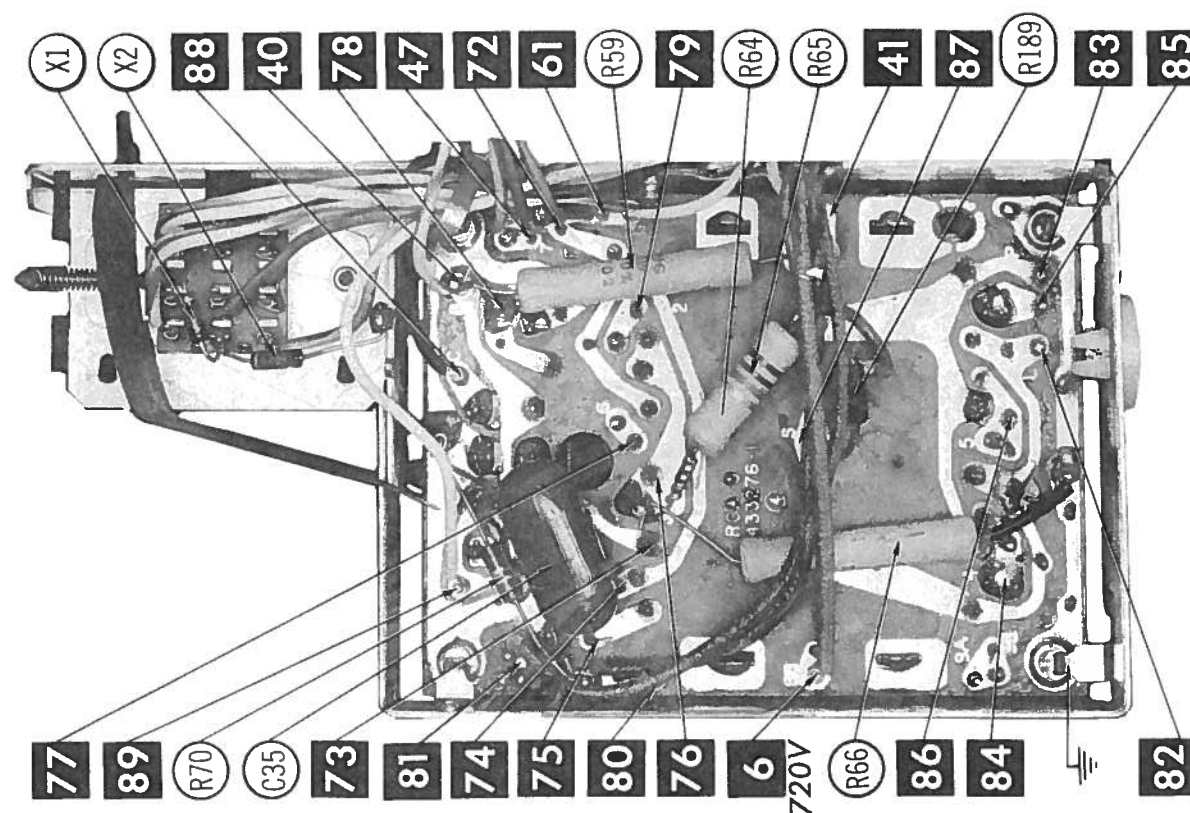
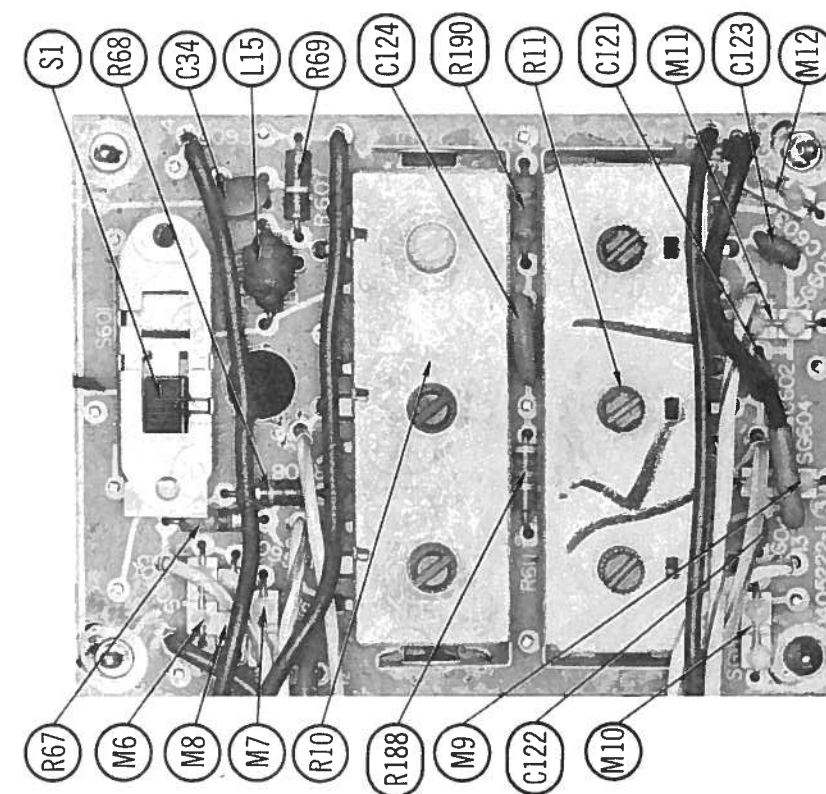
A Howard W. Sams CIRCUITRACE® Photo CONVERGENCE BOARD

RCA VICTOR
CHASSIS CTC228/C
FOLDER 1

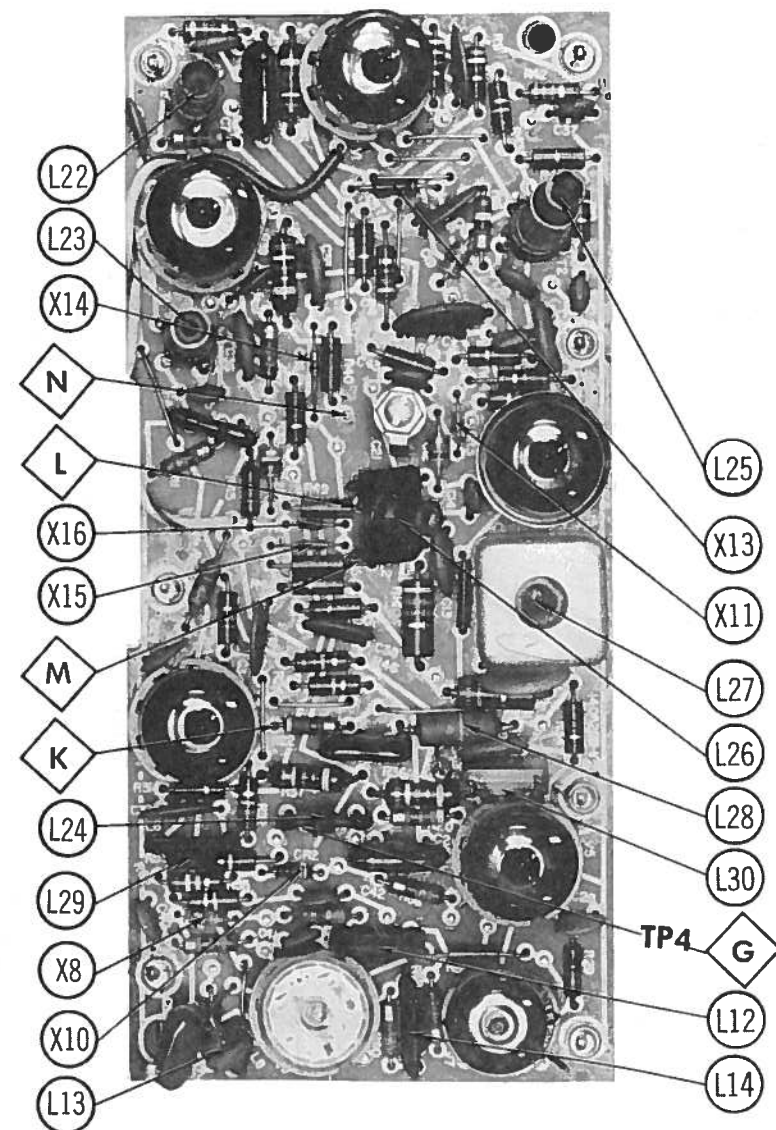
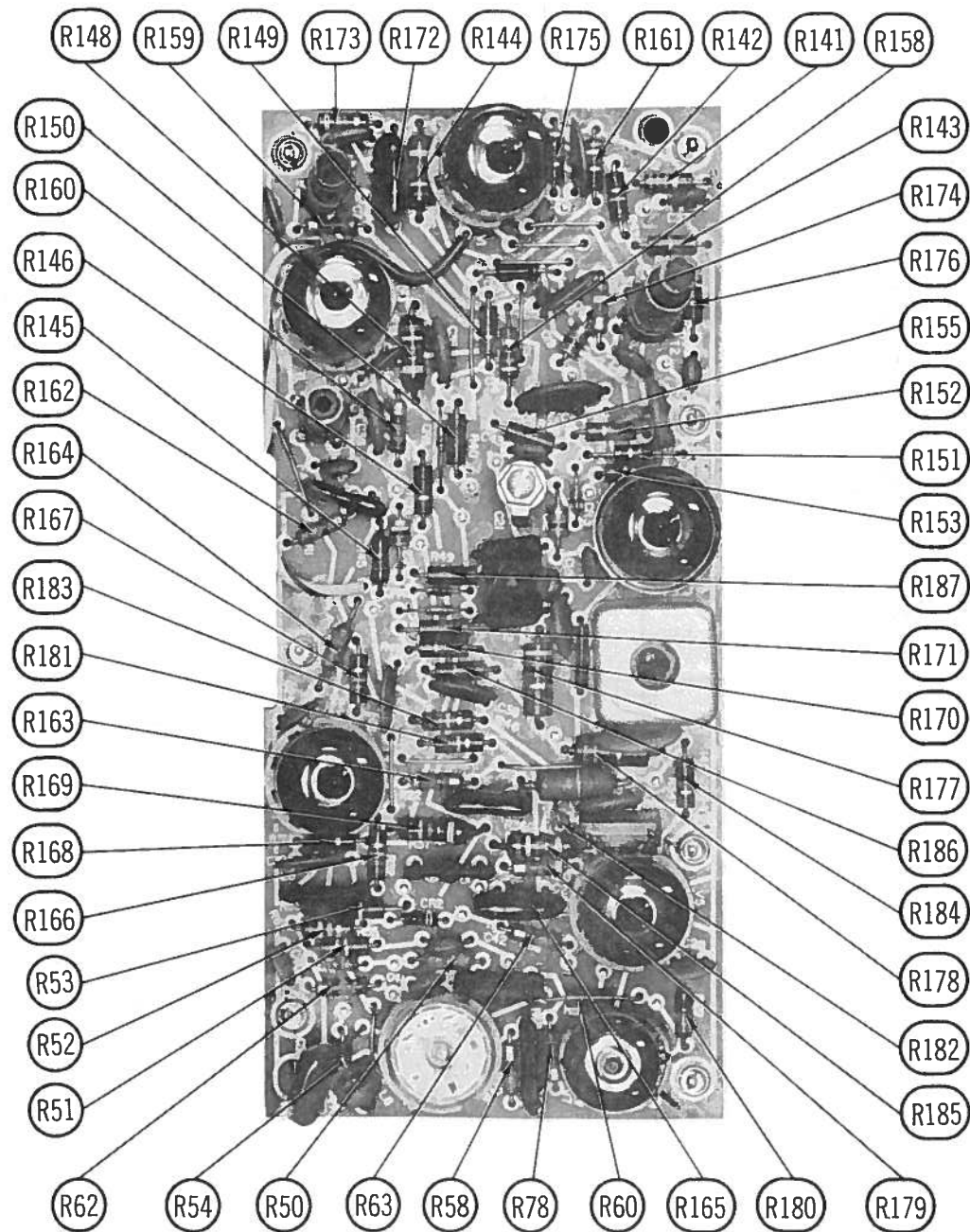
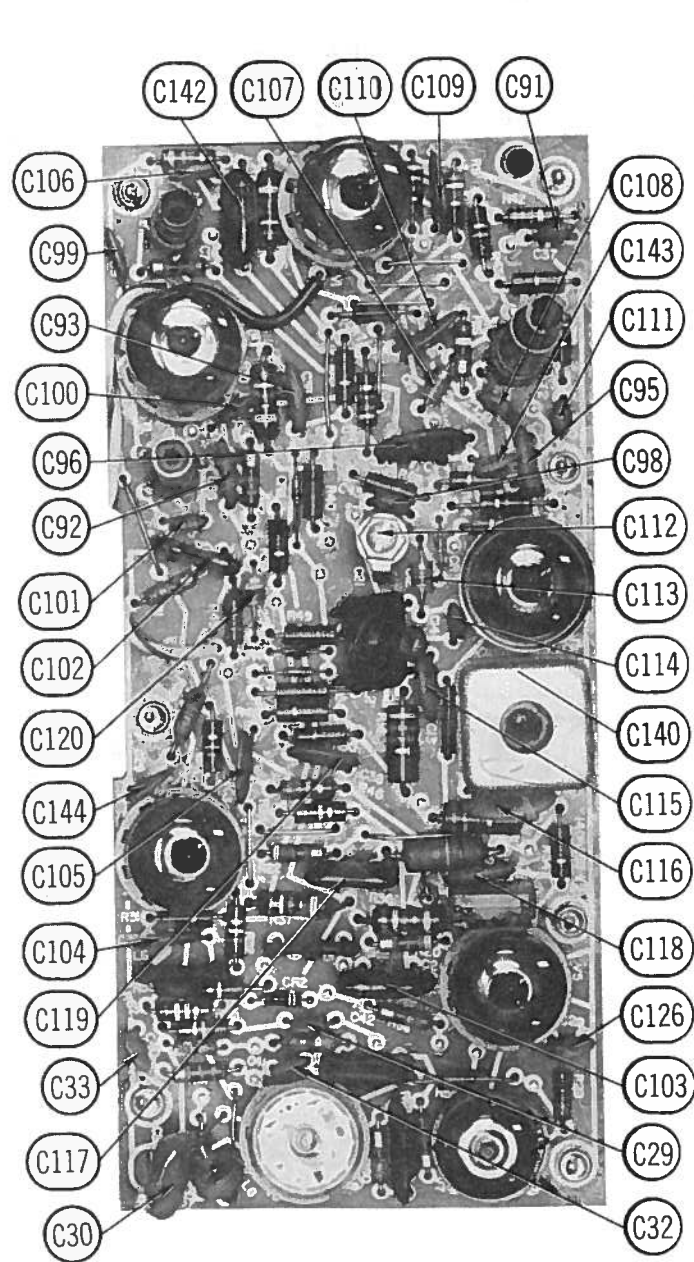




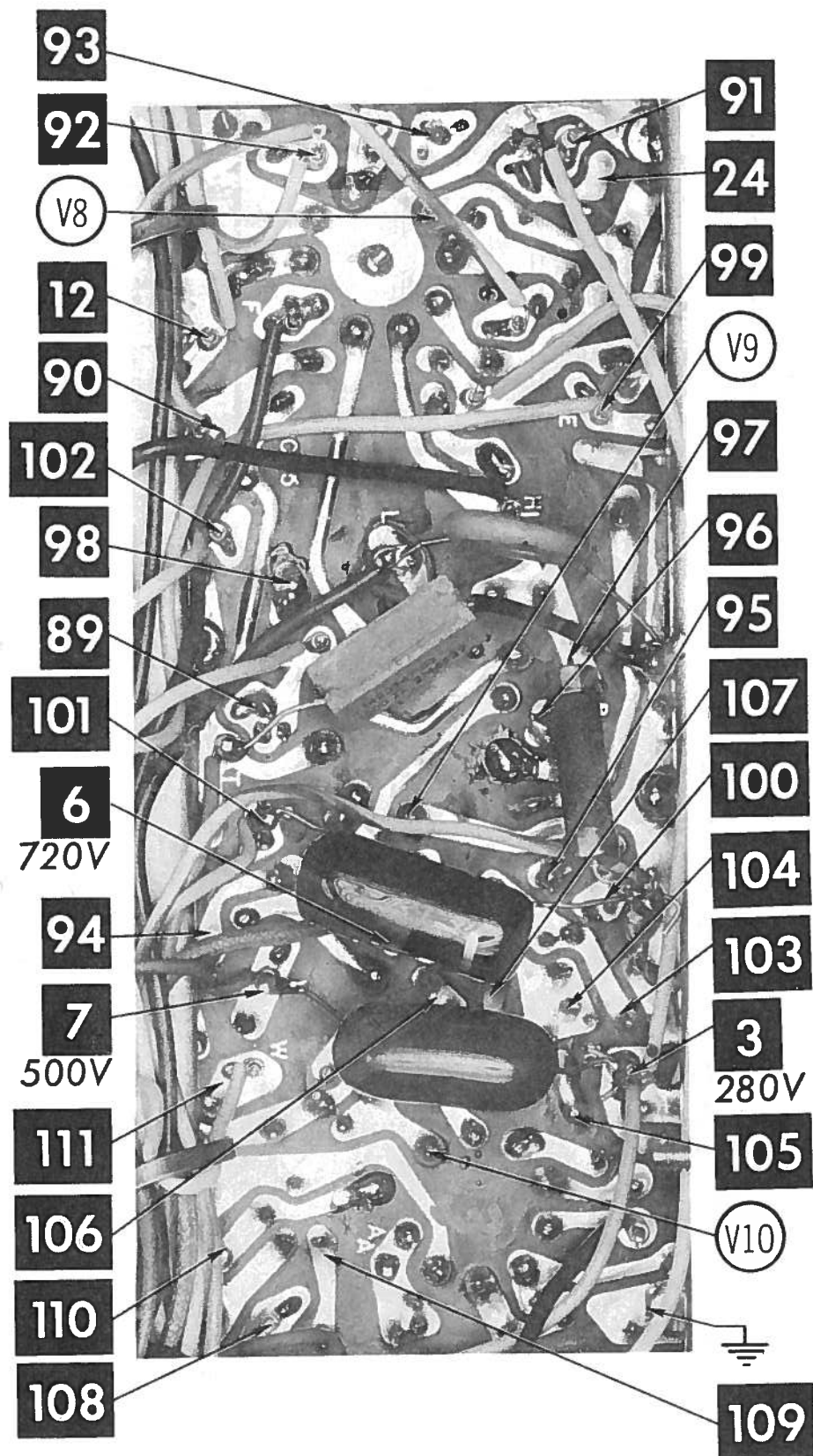
HORIZ OUTPUT BOARD



KINESCOPE SET-UP BOARD

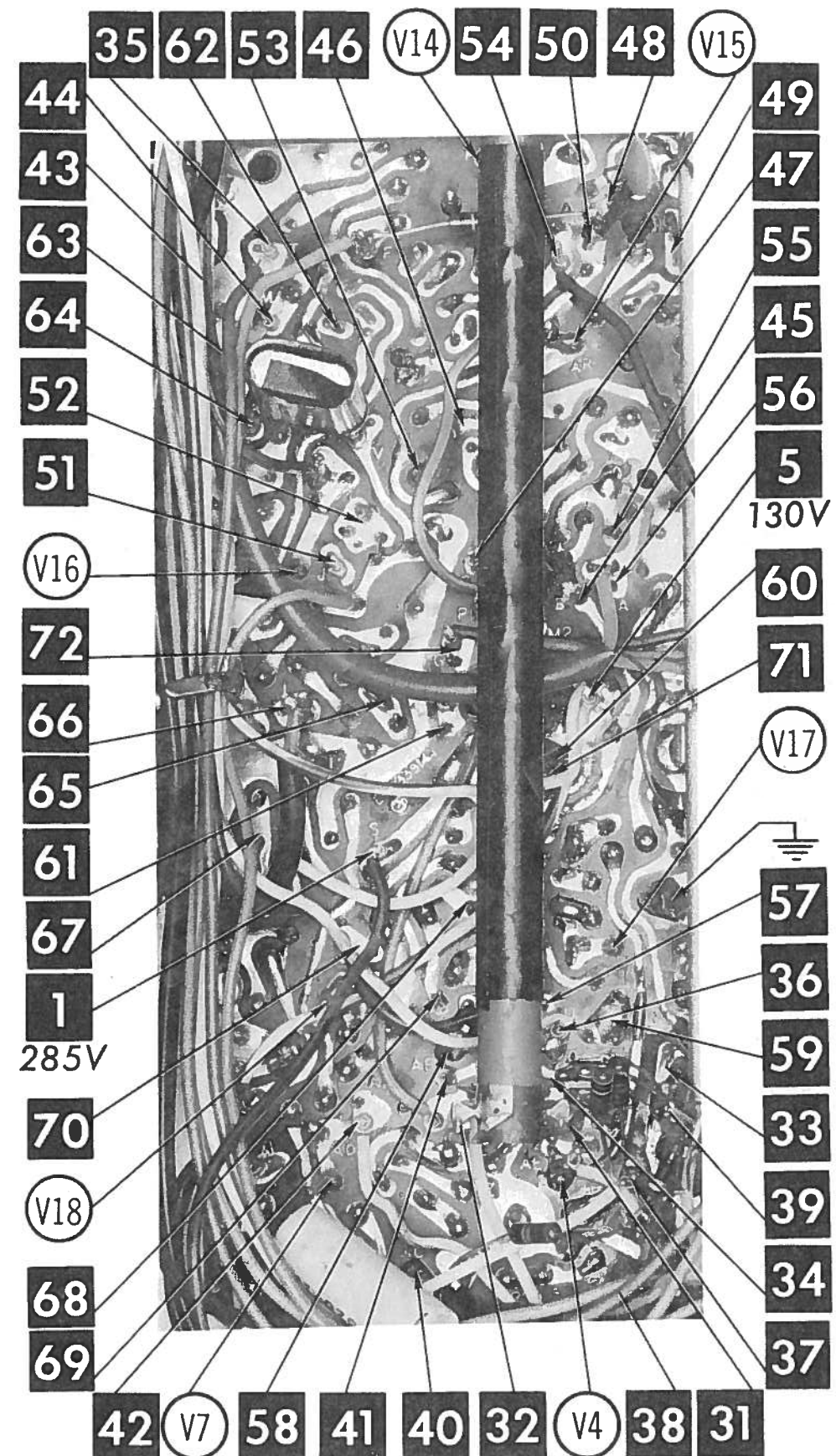


CHROMA BOARD



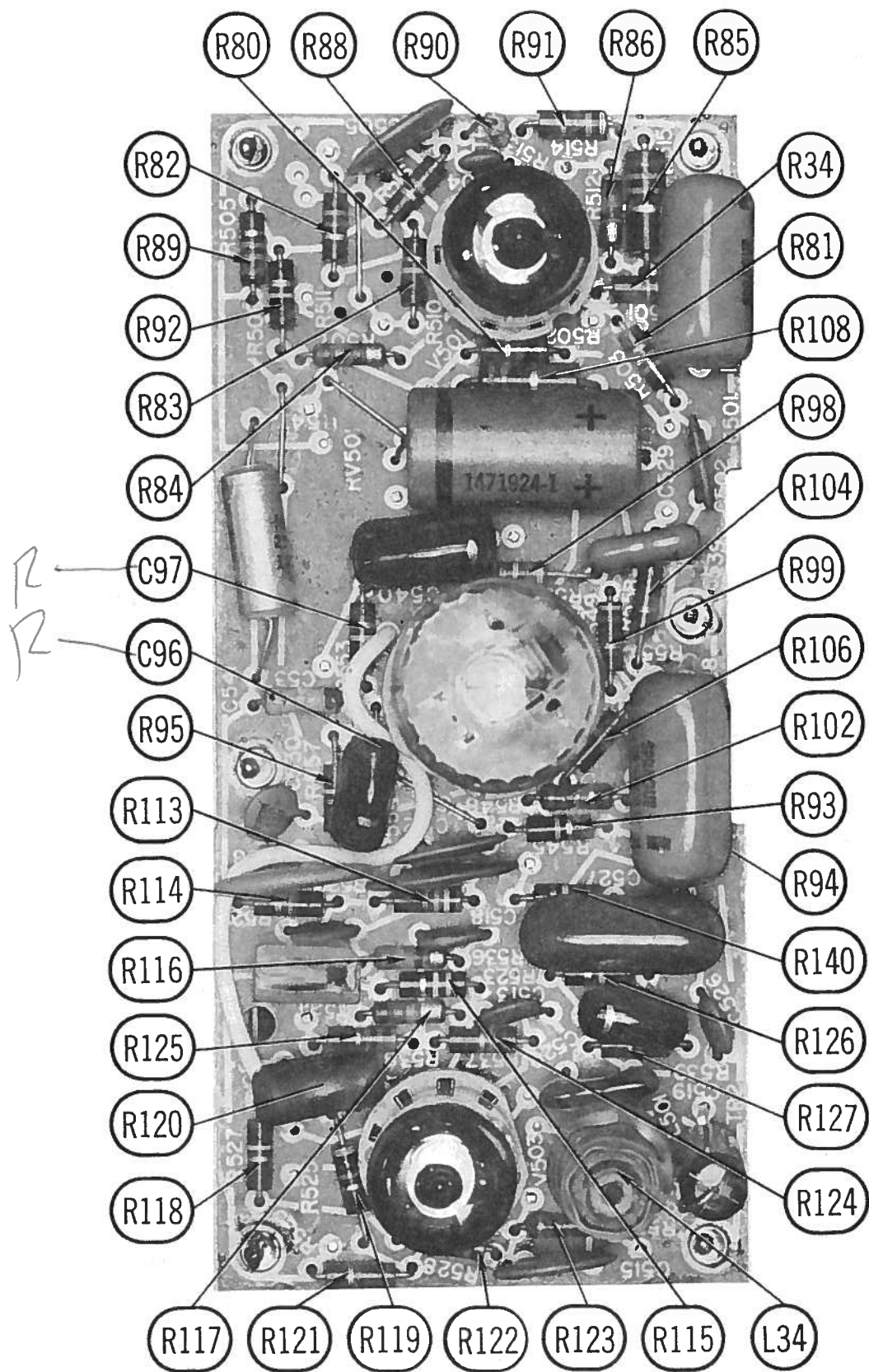
DEFLECTION BOARD

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

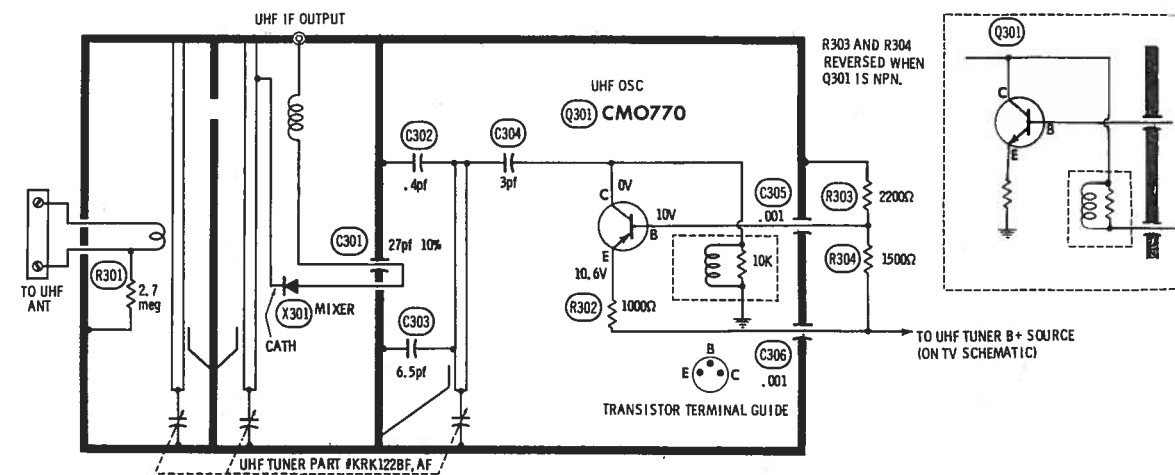


CHROMA BOARD

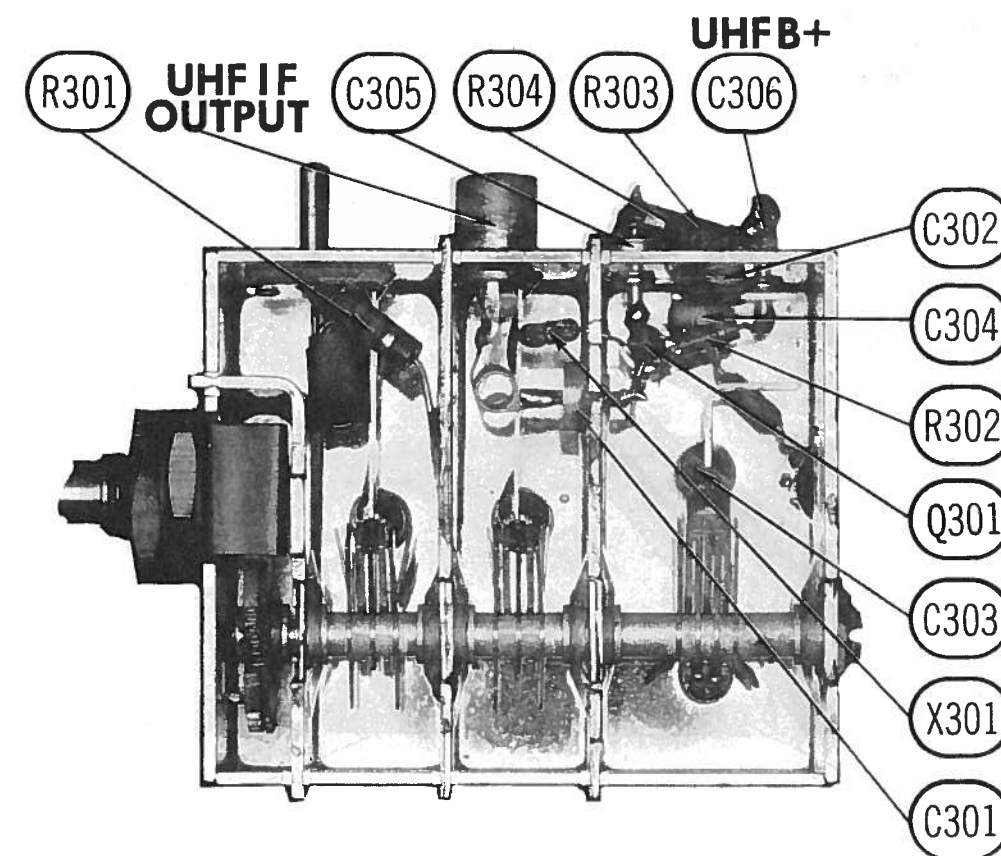
ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



DEFLECTION BOARD



A PHOTOFAC STANDARD NOTATION SCHEMATIC
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UHF TUNER KKR122BF, AF

VHF TUNER PARTS LIST

VHF TUNER
KRK128T, AA

TUBES

• AMPEREX •		• GENERAL ELECTRIC •		• RCA •		• SYLVANIA •	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
V201	RF Amp.	2EG4		V202	Mixer - Oscillator	4KE8	

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	27	N470 5%	#109348				*	*	10TCT-Q27	
C202	27	N470 5%	#109348				*	*	10TCT-Q27	
C203	27	N470 5%	#109348				*	*	10TCT-Q27	
C204	27	N470 5%	#109348				*	*	10TCT-Q27	
C205	47	N750 5%		N750-DI 47	DTN-47	CY601UJ470K	CCTN-470	CN7447	10TCU-Q47	
C206	680			DI-680	DD-681	JBY601YP681K	CCD-681	GP368	10TS-T68	
C207	33	N750		N750-DI 33	DTN-33	CZ601UJ330K	CCTN-330	CN7433	10TCU-Q33	
C208	27	N750 5%			TCN-27		CCTN-270	CN7427	10TCU-Q27	
C209	2.7	10%	#78443						10TCC-V27	
C210	4.7			NPO-DI 5	DTZ-4R7		CCTO-4R7	CN0547	10TCC-V47	
C211	2-10		#112038							
C212	.001			EF-001	MFT-1000		CCF-102	CT280A		
C213	47		#112039				*	*		
C214	62	N1500 5%	#120089							
C215	39		#112040							
C216	2	10%		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CN0522	10TCC-V22	
C217	27			DI-27	DD-270		CCD-270	GP427	10TS-Q27	
C218	27			DI-27	DD-270		CCD-270	GP427	10TS-Q27	
C219	5.6		#114912						10TCC-V56	
C220	.001			EF-001	MFT-1000		CCF-102	CT280A		
C221	.001			EF-001	MFT-1000		CCF-102	CT280A		
C222	.001			EF-001	MFT-1000		CCF-102	CT280A		
C223	680			DI-680	DD-681	JBY601YP681K	CCD-681	GP368	10TS-T68	
C224	680			DI-680	DD-681	JBY601YP681K	CCD-681	GP368	10TS-T68	
C225	680			DI-680	DD-681	JBY601YP681K	CCD-681	GP368	10TS-T68	
C226	.001			EF-001	MFT-1000		CCF-102	CT280A		

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
RCA Victor Part Number

UHF TUNER PARTS LIST

UHF TUNER KRK122BF, AF

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				RCA Victor PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q301	CM0770 35449	UHF Oscillator		GE-11	TR-24	SK-3019	114525 114267 A	NPN

▲ Used in Tuner KRK122AF.

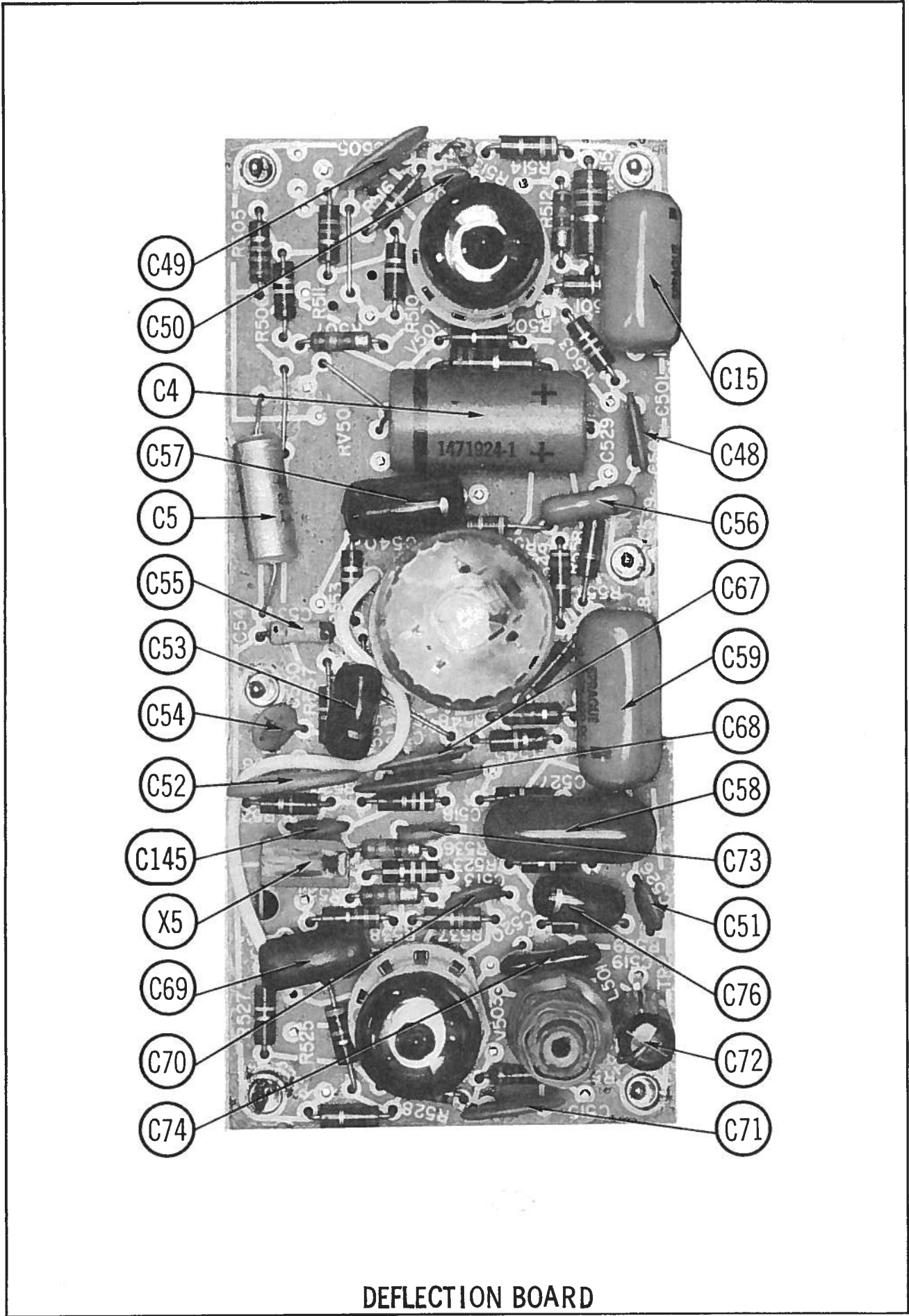
POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X301		116314 (G182AG)	1N82A	1N82AG			

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	27	500V 10%	#116315							
C302	.4pf									
C303	6.5			NPO-DI 6.5	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CN0568	10TCC-V68	
C304	3			NPO-DI 3					10TCC-V30	
C305	.001			EF-001	MFT-1000		CCF-102	CT280A		
C306	.001			EF-001	MFT-1000		CCF-102	CT280A		

RCA Victor Part Number



DEFLECTION BOARD

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 ~)	RCA Victor PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L41	.42A DC	12Ω	.53 H	120792 (1104665-5)	C-4133	C-2708	26C81	C-40X	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	RCA Victor PART NO.	REPLACEMENT DATA
PC1	Antenna Isolation	2.2meg, 470pf (With Spark Gap)		Centralab DA650
PC2	Antenna Isolation	2.2meg, 470pf (With Spark Gap)		Centralab DA650

FUSE 7A
F1 CAPACITOR BREAKER #120784

TRANSFORMER (FILAMENT)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	RCA Victor PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VACA @ .07A AC	6.3VAC @ .82A AC		120823 (1482068-1)					▲ Primary has 128VAC Tap.

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		RCA Victor PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output	120821 (1482088-1)					
T3	Yoke (Horiz. 15.5mh) 90° (Vert. 14.5mh)	120890 (908214-501)					
T4	Horiz. Output	120820 (908220-501)					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	RCA Victor PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	15,000Ω	3-4Ω	120822 (1471920-1)					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		RCA Victor PART No.	JENSEN PART No.	QUAM PART No.	
SP1	3" x 5" PM 3-4Ω	112713	P3X5X3	35A05	

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors 8874 (Rubber) or 8895 (Plastic)
Power Cord (Interlock Type)	Use BELDEN No. 8225
300Ω Tuner Input Lead	Use BELDEN No. 8275 (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 8486 (Round) - 8 Conductor

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
Q301	UHF Osc. (Transistor)	CM0770	V9	Vert. Mult. - Vert. Output	10GF7A		
V201	RF Amp.	2EG4	V10	Horiz. AFC - Horiz. Osc.	5GH8A		
V202	Mixer - Osc.	4KE8	V11	Horiz. Output	24J6		
V1	1st Video IF	3KT6	V12	HV Rectifier	3A3A		
V2	2nd Video IF	3JC6	V13	HV Regulator	17KV6		
V3	Video Cathode Follower - Sync & Chroma Amp.	5GH8A	V14	Horiz. Blanking - Burst Amp.	5GH8A		
V4	Video Output	11HM7	V15	Chroma Bandpass Amp. - G-Y Amp.	5GH8A		
V5	Sound IF	3JC6A	V16	Color Killer - 3.58MC Amp.	5GH8A		
V6	Audio Detector	5H26	V17	Z Demodulator - B-Y Amp.	5GH8A		
V7	Audio Output	5AQ5	V18	X Demodulator - R-Y Amp.	5GH8A		
V8	AGC Keying - Sync Sep.	5GH8A					

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	RCA Victor PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V19	15LP22		15LP22 ①		① Hi-Lite

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.420A	113998 (1N3194)	GE-504A	8D6 or 9DD6A ①	1N2071 or VB600 ①	SK-3017A	60C or S-5980-2 ①
X2	.420A	113998 (1N3194)	GE-504A	8D6 or 9DD6A ①	1N2071 or VB600 ①	SK-3017A	60C or S-5980-2 ①
X3	.180A	120818					
X4		120058 (1470990-2)	GE-3 or GE-504A ②	CD-07 or 8D4 ②	A50 ② or 1N536 ②		S-5482 or E1 ②
X5		109474 (6CG1BY1)	6GC1	DD04			
X6		112524 (1N80)	1N80	1N80			
X7		112524 (1N80)	1N80	1N80			
X8		112524 (1N80)	1N80	1N80			
X9		113998 (1N3194)	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X10		115887	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X11		112524 (1N80)	1N80	1N80			
X12		119596	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X13		113998 (1N3194)	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X14		119596	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X15		119596	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4
X16		119596	GE-504A	8D4 or 5A4-D	1N2070 or 1N540		40C or E4

① A single unit replacement for X1 and X2.

② Four (4) required.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.
C1A	50 175V		AFH2-24-90 ①		CC0129.5 ①②		FP318.85A ①②
B	250 175V	(1443907-1)					TVL-2449.5 ① ②
C2A	100 300V	120789	AFH4-103-60				FP418
B	40 350V	(974576-37)					
C	2 175V						
D	50 50V						
C3A	150 350V	120790	AFH2-41-70		CC0734.3		FP227.9
B	100 350V	(974576-38)					TVL-2642.4
C4	50 75V	120791	PRS1480		BR50-150	MT1-17	TC49
C5	25 25V	219039	CRE512A	EA30-25	NLW25-25	MT1-14	TT25X25

† Some versions may use 250mfd @ 175V, 50mfd @ 250V, Part #120787 in this application.

① Use insulating sleeve.
② Connect can to AC line.

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.
C11	3-15		ADM-15-151	CPR-150J	CD15 F151J500	DM-15-151J	SK315	MS-315
C12	150	5%	DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C13	.001		NPO-DI 47	DTZ-47	CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C14	47	NPO 5%			CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C15	.18	200V 10%			CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C16	330	10%			CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C17	24	NPO 10%			CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C18	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C19	430	5%	ADM-15-471	CPR-430J	CD15 F151J500	DM-15-431J	SK343	MS-343
C20	.0047	10%	DI-4700	DD-472	JBS801Y P102K	CCD-472	GP247	10TS-D47
C21	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C22	10	5%	NPO-DI 10	DTZ-10	CZ601CG100J	CCD-100	CNO410	10TCC-Q10
C23	39	N750 10%			CZ601CG100J	CCD-100	CNO410	10TCC-Q10
C24	150	5%	ADM-15-151	CPR-150J	CD15 F151J500	DM-15-151J	SK315	MS-315
C25	220	10%	DI-220	DD-221	JBS801Y P221K	CCD-221	GP322	10TS-T22
C26	24	NPO 10%			CD15 F151J500	CCD-102	CNO447	10TCC-Q47
C27	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C28	.047	100V 10%	DBE2547		DMF1S47	1DP-2-473	PVC1147	225 P47391
C29	560	10%	DI-560	DD-561	JBY601Y P561K	CCD-561	GP356	10TS-T56
C30	.1	100V 10%	DBE2P1		DMF1P1	1DP-2-104	PVC101	225 P10491
C31	.047	100V	BPD-05	DD-503	JBS801Y P102K	CCD-503	GP150	5HK-S50
C32	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C33	680	10%	DI-680	DD-681	JBY601Y P681K	CCD-681	GP368	10TS-T68
C34	47	N750	N750-DI 47	DTN-47	CY601UJ470K	CCD-470	CNT447	10TCU-Q47
C35	.1	400V	DBE4P1		DMF4P1	4DP-3-104	PVC601	4PS-P10
C36	1.5		DTZ-1R5	DTZ-1R5	CZ601CG100J	CCD-100	CNO410	10TCC-Q10
C37	10	NPO 5%			CZ601CG100J	CCD-100	CNO410	10TCC-Q10
C38	.001	5%			CZ601CG100J	CCD-100	CNO410	10TCC-Q10
C39	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C40	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C41	.0068		DI-6800	DD-682	BYX601ZU682P	CCD-682	GP268	10TS-D68
C42	560		DI-560	DD-561	JBY601Y P561K	CCD-561	GP356	10TS-T56
C43	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C44	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C45	.047	100V	BPD-05	DD-503	JBS801Y P102K	CCD-503	GP150	5HK-S50
C46	.0033	1.6KV			DPMS16D33	16DP-2-332	PVC201	2PS-P10
C47	.1	200V 10%	DBE2P1		DMF2P1	2DP-3-104	PVC201	2PS-P10
C48	.01		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C49	.0033		DI-3300	DD-332	JBY601Y P332K	CCD-332	GP233	10TS-D33
C50	470	10%	DI-470	DD-471	JBS801Y P471K	CCD-471	GP347	10TS-T47
C51	.0015		DI-1500	DD-152	BYX601ZU103M	CCD-152	GP215	10TS-D15
C52	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C53	.0056	100V 10%			WMF1D56	16PS-D80	PVC613	6PS-S33
C54	680		DI-680	DD-681	JBY601Y P681K	CCD-681	GP368	10TS-T68
C55	680		DI-680	DD-681	JBY601Y P681K	CCD-681	GP368	10TS-T68
C56	.047	100V 10%	DBE2547		DMF1S47	1DP-2-473	PVC1147	225 P47391
C57	.0082	1KV			DMF1S47	1DP-2-473	PVC1147	225 P47391
C58	.033	600V 10%	DBE8S33		DMF8S33	6DP-2-333	PVC613	6PS-S33
C59	.1	600V	DBE6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C60	.1	600V	DBE6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C61	.001	3KV 10%	#120686					
C62	270	N1500 10%	#114802					
C63	150	N1500 10%	#115425					
C64	180	N1500 10%	#120893					
C65	.0039	10%						
C66	82	N1500 3KV 5%	#120046					
C67	82	NPO 10%						
C68	150	NPO 10%						
C69	.15	75V						
C70	.0012	10%						
C71	270	N750 5%						
C72	.01	400V 10%						
C73	.0012	10%						
C74	270	5%						
C75	.1	600V						
C76	.01	400V						
C77	.01	400V 10%						
C78	.01	100V						
C79	.01	600V						
C80	.0018	1KV 10%						
C81	150	N1500 2KV 10%	#115425					
C82	100	N1500 5KV 10%	#120834					
C83	22	N750/1KV						
C84	.1	200V 10%						
C85	.033	600V 10%						
C86	.01	600V 10%						
C87	.001							
C88	15	N750 5KV 10%	#120833					
C89	.001							
C90	.047	600V 10%						
C91	150	10%						
C92	.01							
C93	.01							
C94	27	NPO 10%						
C95	.01							
C96	.01							
C97	.01							
C98	10	N150	#105303					
C99	.0012							
C100	820							
C101	.001							
C102	390	5%						
C103	.027	100V						
C104	.01							
C105	.01							
C106	68	N750 10%	#116500					
C107	.82pf							
C108	.001							
C109	.01							
C110	.01							
C111	.01							
C112	220		#116501					
C113	2-10	5%	#116500					
C114	10	NPO 5%						
C115	.01							
C116	.01							
C117	430	5%						
C118	.01							
C119	.01							
C120	1.2	10%						

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.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C121	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C122	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C123	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C124	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C125	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C126	33	N150						
C127	.047	600V						
C128	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C129	.47	N750						
C130	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C131	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C132	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C133	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C134	.001		DI-1000	DD-102	JBS801Y P102K	CCD-102	GP210	10TS-D10
C135	.27	75V 10%						
C136	.1	200V						
C137	.082	100V 10%						
C138	.15	75V 10%						
C139	.15	74V 10%						
C140	33	N750 10%						
C141	47	N750						
C142	.047	100V						
C143	390							
C144	33	N150						
C145	.0012	10%						

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
† Alternate Value used in some versions. # RCA Victor Part Number
① Matched Pair, Part #119838.

CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			RCA Victor PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume/Switch	1meg	120773 (1472207-29)	F2-1meg, SP212, KR-8	C475-1meg-Z, RS-3/16 or (NP-1meg-Z, UPP-H-300, PPAP, NWG-18)	B13-137, SK8 or (PPQ13-137) or (BU1, CF26, SS11, K) *	RU16A, SL35 or (PPI6A, DS37)
R2	Color	500Ω	120776 (1472200-79)	F1-500, SNF100	QC8-2, B11-103 (RU52L, SL38, CF4, SS16, DC1)*	UA52L, SD1000 or (RU52L, SL38, SD1000)	
R3	Brightness	250K	120775 (1472200-80)	F1-250K, SNF100	NP-250K-S①, NMS-A-300	QC8-2, B11-130 TM10 or (BU1, * (RU254L, SL38, CF15, SS16, DC1) SD1000)	
R4	Tint	10K	120774 (1472200-81)	F5-10K, SNF100	NP-10K-V①, NMS-A-300	QC8-2, B17-116 TM10 or (BU1, * (RU14R, SL38, CF35, SS16, DC1) SD1000)	
R5A	Contrast	150Ω	120809 (1471856-5)				
B	Vert. Hold	750K					
C	Horiz. Hold	50K					
R6	Vert. Linearity	3.4meg	120807 (1472268-13)	F1-4meg①, SNK014		HLC3 ③	HVC355L
R7	Vert. Height	1meg	120805 (1472268-12)	F1-1meg①, SNK014	B47-1meg-S①, or (NP-1meg-S①, NML-A-300)	B11-137, TM4③ or (BU11, CF17, SS8) *	UA16L③, SN875 or (RU16L③, SN875) or (PTA16L③)
R8	AGC	50K	120804 (1472268-11)	F1-50K①, SNK014	B47-50K-S①, (NP-50K-S①, NML-A-300)	B11-123, TM4③ or (BU11, CF12, SS8) *	UA54L③, SN875 or (RU54L③, SN875) or (PTA54L③)
R9	Color Killer	1meg	120805 (1472268-12)	F1-1meg①, SNK014	B47-1meg-S①, or (NP-1meg-S①, NML-A-300)	B11-137, TM4③ or (BU11, CF17, SS8) *	UA16L③, SN875 or (RU16L③, SN875) or (PTA16L③)
R10A	Red Drive	6000Ω	120811 (1473306-2)				
B	Green Drive	6000Ω					
C	Video Peaking	100K					
R11A	Blue Screen	1.5meg	120812 (1473306-1)				
B	Green Screen	1.5meg					
C	Red Screen	1.5meg					
R12	Adjacent Sound Reject	7500Ω	120808 (1472272-12)	T-10K		X201Q103B	MTC14L1
R13	High Voltage Adjust	500K	120806 (1472271-2)	TH-500K①		U201R504B	MTC55L4
R14	R/G Vert. Lines (Bottom)	60Ω 2W	106059 (1107821-2)	V-60	U39-75	110C60	MRC60P