

**CABINET-REAR VIEW
DISASSEMBLY INSTRUCTIONS**

CHASSIS REMOVAL

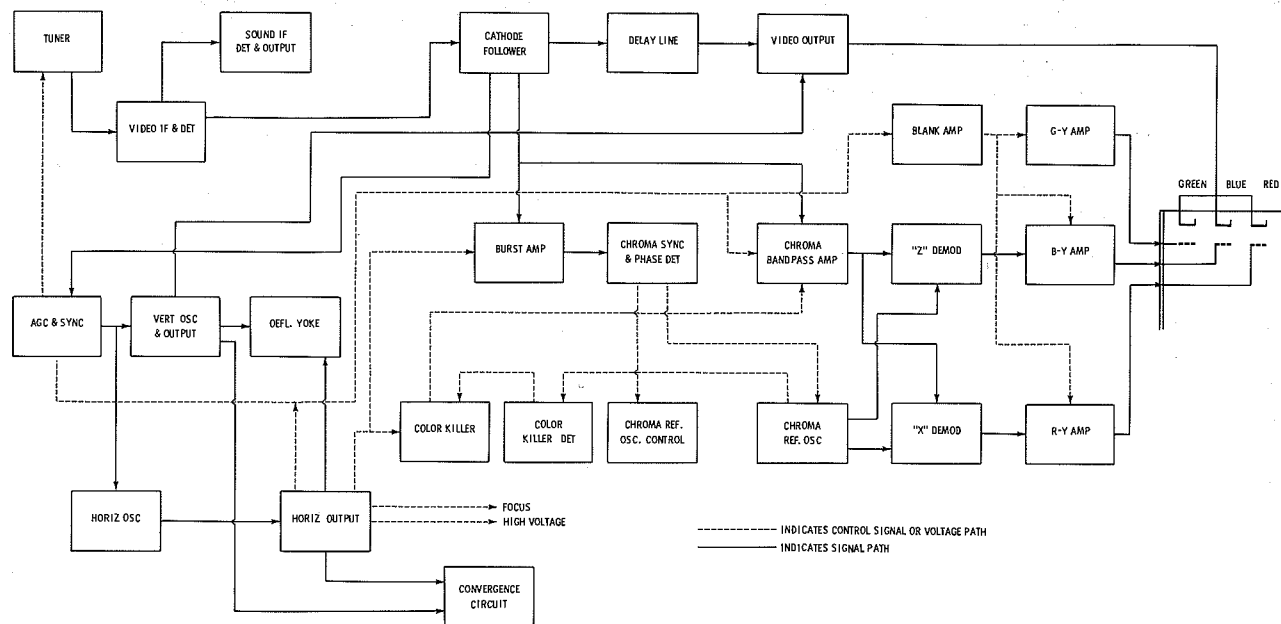
Service Note: Two screws adjacent to interlock are used to hold tuner for servicing.

1. Remove rear cover (5 screws and 2 clips). Remove 8 knobs from front.
2. Disconnect degaussing coils, speaker, picture tube socket, yoke, convergence board, and high voltage lead.
3. Loosen 4 screws holding tuner assembly and lift assembly from screws.
4. Remove VHF and UHF Pilot Light assemblies by pushing forward.
5. Remove color indication light and pull remote microphone out of rubber mounting.

6. Remove 4 bolts from bottom of chassis and remove chassis.

PICTURE TUBE REMOVAL

1. Remove chassis and lay cabinet face down on a soft protective surface.
2. Remove degaussing assembly held by 4 screws.
3. Remove 8 screws from corner brackets and lift picture tube and mounting band assembly from cabinet.
4. Place band on a soft surface, remove retaining screws, and remove band assembly from picture tube.

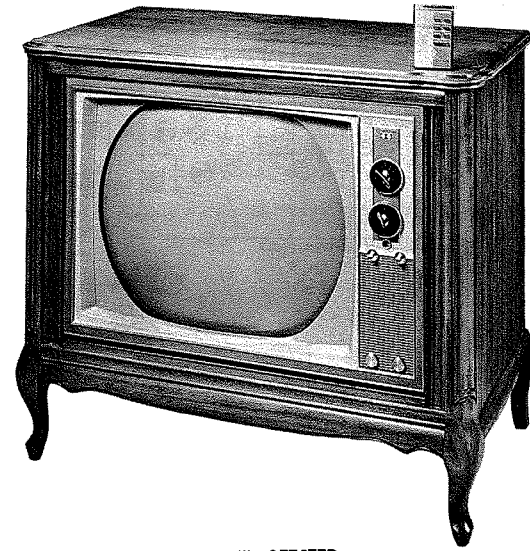


BLOCK DIAGRAM

SET 736 FOLDER 4

RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

PHOTOFACT® Folder with CIRCUITRACE™



MODEL GF707FR

**RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH**

IMPORTANT FILING NOTICE

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

INDEX

- Remote Control Receiver CTP10E,
Transmitter CRK6A ... SET 736, FOLDER 4-A
- Power Amp Chassis RS-203C SET 736, FOLDER 4-B

TRADE NAME	RCA Victor	Models	Chassis
		FF567E/M/W/Y, GF611M/W	CTC16A
		FF567MR/WR	CTC16B
		GF631M/W/Y, GF641M/W, GF681M/W, GF701W, GF703L, GF705V/W, GF707C/F/V, GF711M/W, GF713M	CTC16E
		GF631MR/WR/YR, GF701WR, GF703LR, GF705VR/WR, GF707FR/VR, GF711MR/WR	CTC16F
		GF731M/W, GF737W, GF739C/L, GF741V/W, GF743F/V	CTC16L
		HF861M, HF863L, HF865V/W, HF867F/V	CTC16AB
		HF861WR, HF863LR, HF865VR/WR, HF867FR/VR	CTC16AC
		HF853M/W, HF854M/W	CTC16AF
		HF857M/W	CTC16AH
SUPPLIER	For current address, see Master Index.		
TYPE SET	Color Television Receiver		
TUBES	VHF: Twenty-Seven, UHF: One Transistor		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	328 Watts, 3.33 Amps. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

FOR TV COMBINATION MODELS USING AM-FM RADIO SEE FOLDER 7 IN THIS SET

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

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

A Circuit Breaker is used for low voltage power supply protection and may be reset by depressing the reset button. (See "Tube Placement Chart" for location.)

VHF OSCILLATOR ADJUSTMENT

For VHF Tuner oscillator adjustment, see "Oscillator Adjustment" under VHF Tuner Alignment.

AGC

The AGC may be varied by means of an AGC Control. (See "Tube Placement Chart" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horiz. Oscillator Coil (Waveform Slug, B1). (See "Tube Placement Chart" for location.)

HORIZONTAL LINEARITY

The linearity may be varied by a Horizontal Efficiency Coil.

CENTERING

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

FOCUS

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

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been provided from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MA998

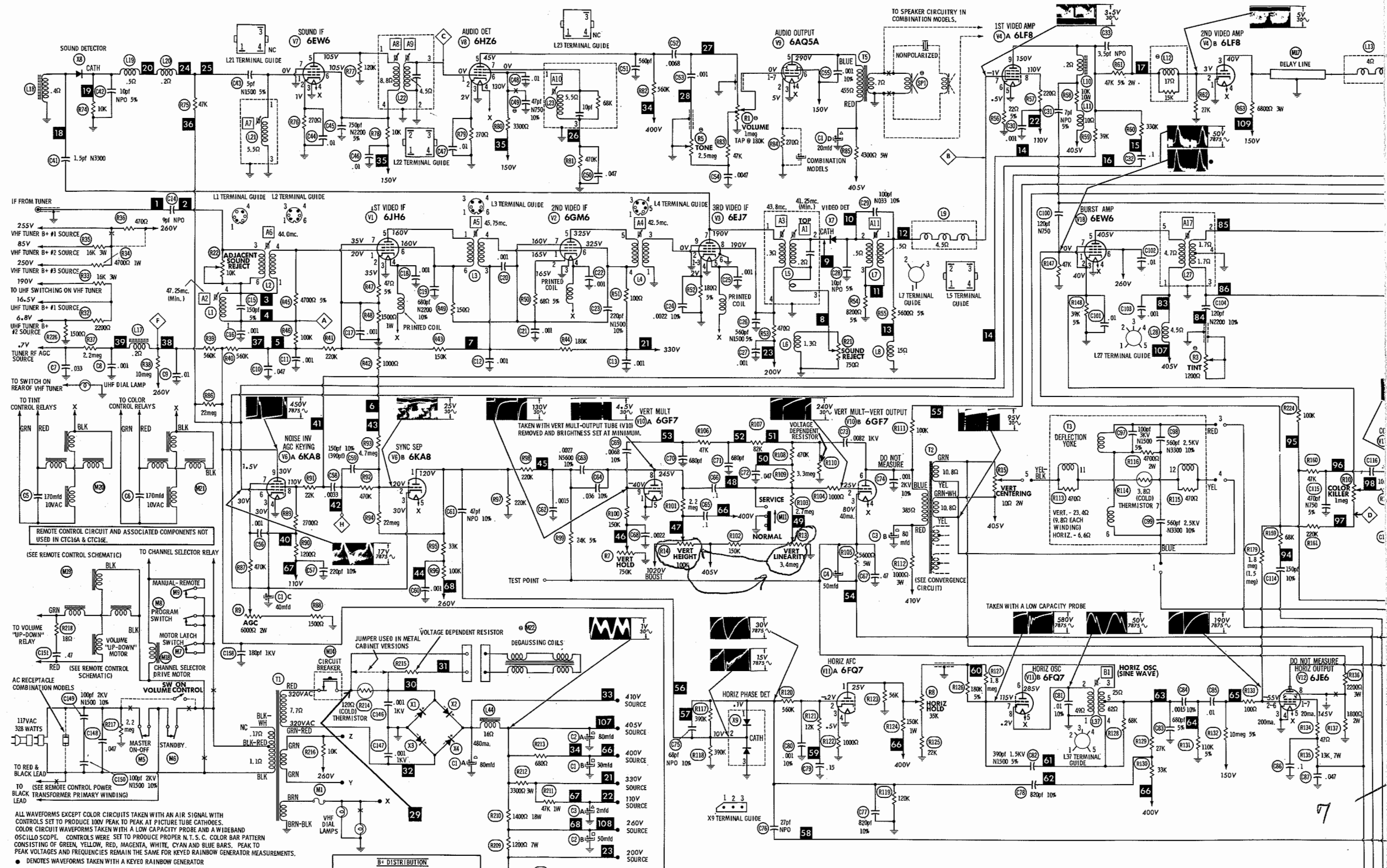
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DATE 1-65

SET 736 FOLDER 4 28

RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

SET 736 FOLDER 4



ALL WAVEFORMS EXCEPT COLOR CIRCUITS TAKEN WITH AN AIR SIGNAL WITH CONTROLS SET TO PRODUCE 100V PEAK TO PEAK AT PICTURE TUBE CATHODES. COLOR CIRCUIT WAVEFORMS TAKEN WITH A LOW CAPACITY PROBE AND A WIDEBAND OSCILLOSCOPE. CONTROLS WERE SET TO PRODUCE PROPER N.T.S.C. COLOR BAR PATTERN CONSISTING OF GREEN, YELLOW, RED, MAGENTA, WHITE, CYAN AND BLUE BARS. PEAK TO PEAK VOLTAGES AND FREQUENCIES REMAIN THE SAME FOR KEYED RAINBOW GENERATOR MEASUREMENTS.

● DENOTES WAVEFORMS TAKEN WITH A KEYED RAINBOW GENERATOR.

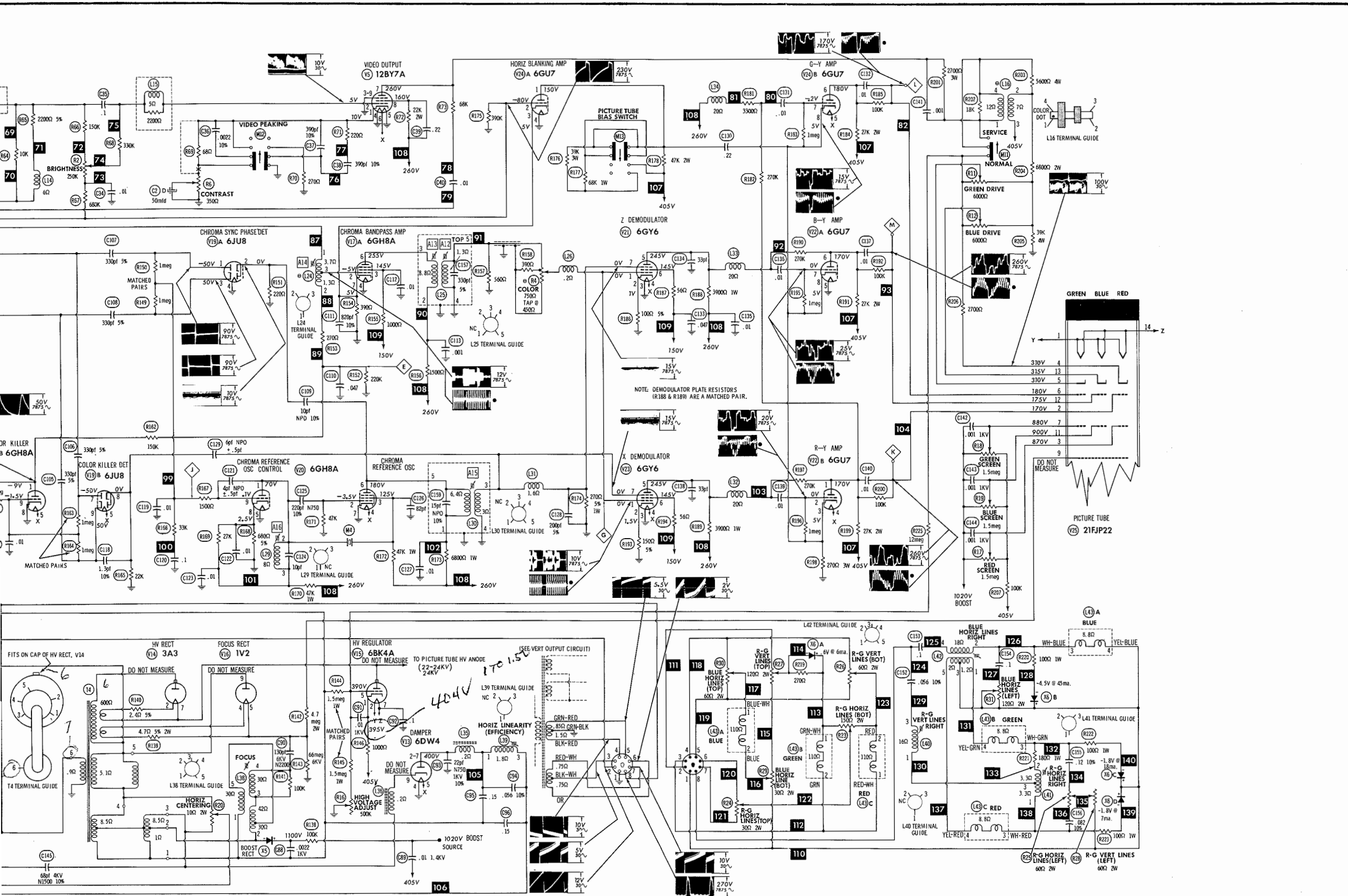
- ⊕ DENOTES CHASSIS GROUND
 - ⊙ See parts list for alternate value or application.
 - 1. Voltage measurements taken with vacuum tube voltmeter.
 - 2. All controls set for normal operation, no signal applied.
 - 3. Measured values are from socket pin or terminal to common ground.
 - 4. All terminals viewed from bottom unless otherwise designated.
 - 5. Numbers assigned to terminals may not be found on the unit.
 - 6. Supply voltage maintained at rated value for voltage readings.
- * NOT USED IN SOME VERSIONS.
Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

⊕ DISTRIBUTION

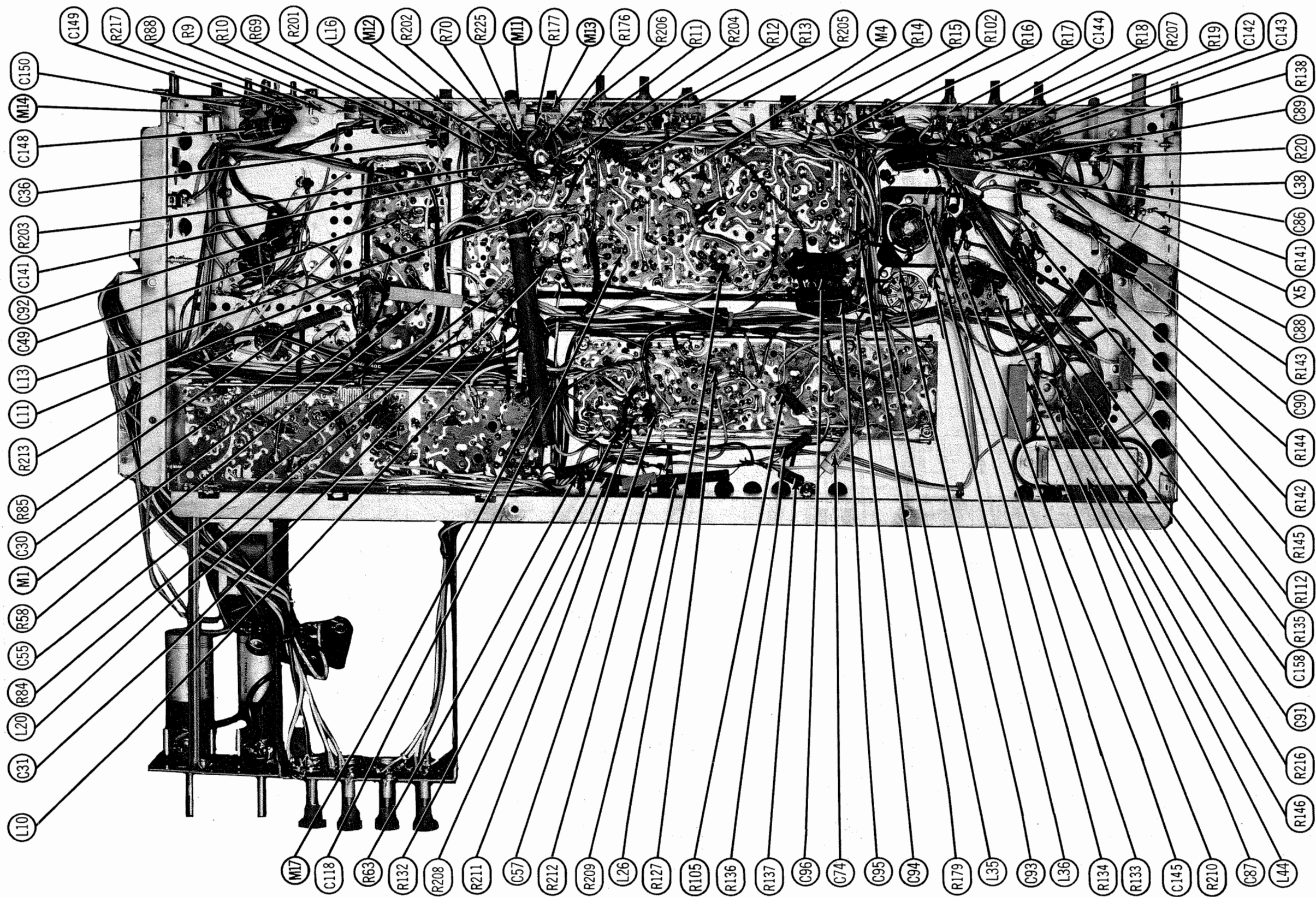
410V SOURCE	- 1 ARROW CONNECTION
405V SOURCE	- 13 ARROW CONNECTIONS
400V SOURCE	- 4 ARROW CONNECTIONS
330V SOURCE	- 1 ARROW CONNECTION
110V SOURCE	- 2 ARROW CONNECTIONS
200V SOURCE	- 12 ARROW CONNECTIONS
200V SOURCE	- 1 ARROW CONNECTION
150V SOURCE	- 8 ARROW CONNECTIONS
102V BOOST SOURCE	- 2 ARROW CONNECTIONS

A PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITRACE

VHF TUNER PAGE 9
UHF TUNER PAGE 10
ALT SPEAKER CIRCUIT, PAGE 3



RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

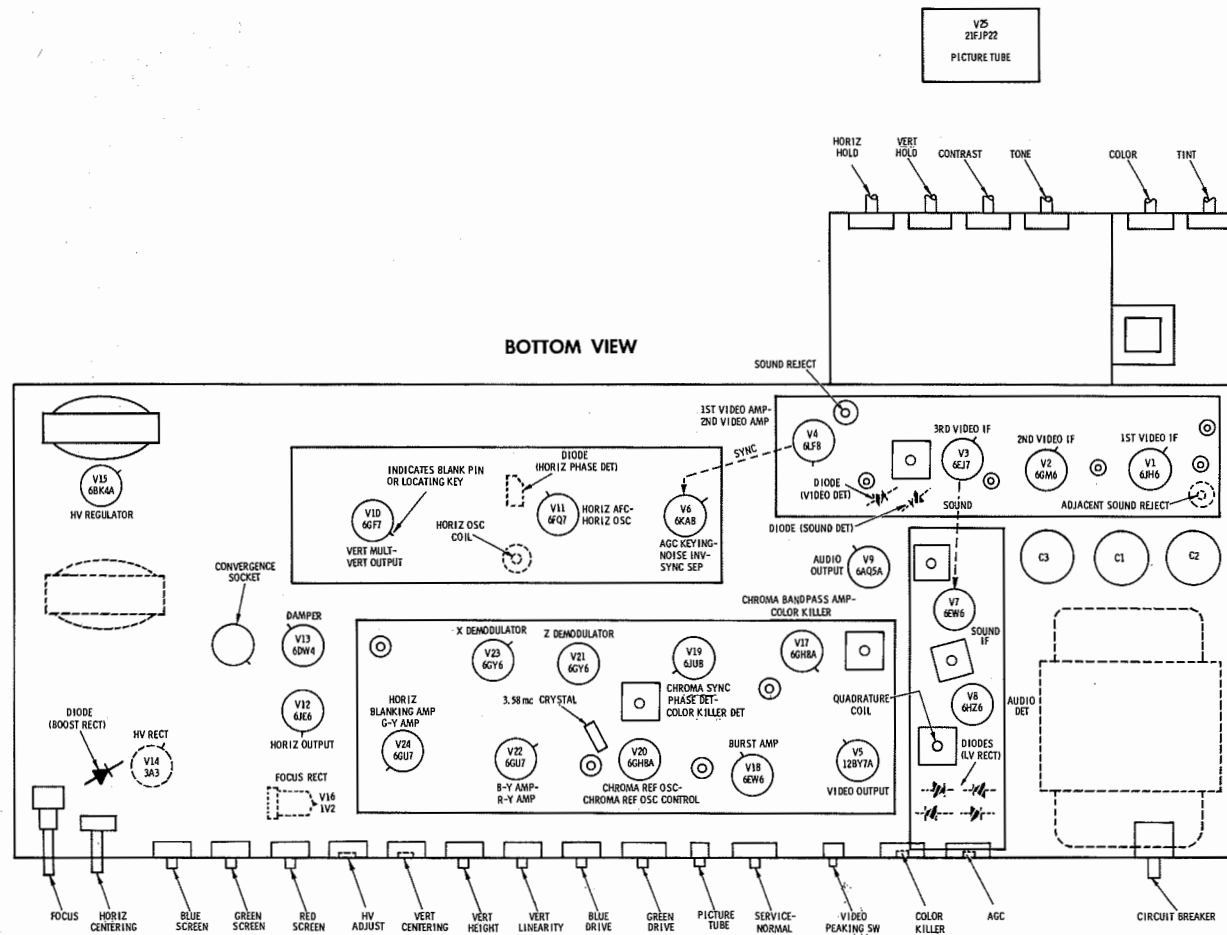


CHASSIS — BOTTOM VIEW

RCA VICTOR CHASSIS
 C1C16A/B/E/F/L/AB/AC/AF/AH

FOLDER 4

TUBE PLACEMENT CHART

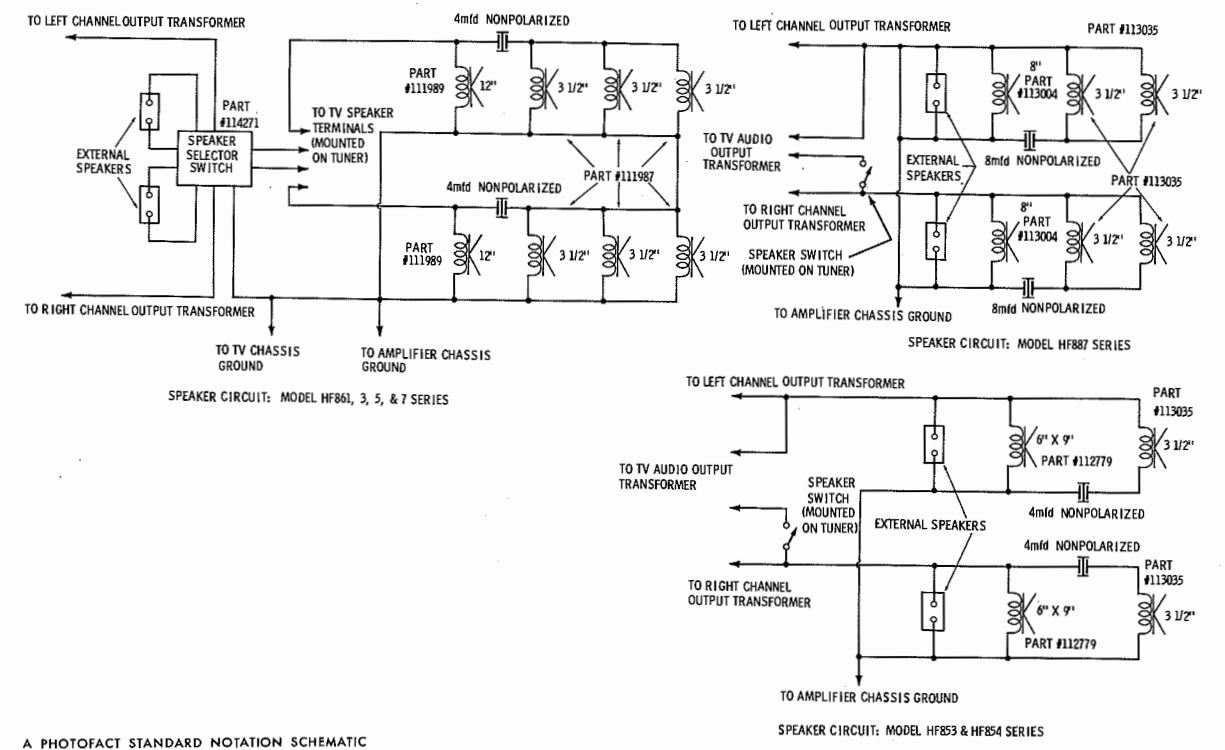
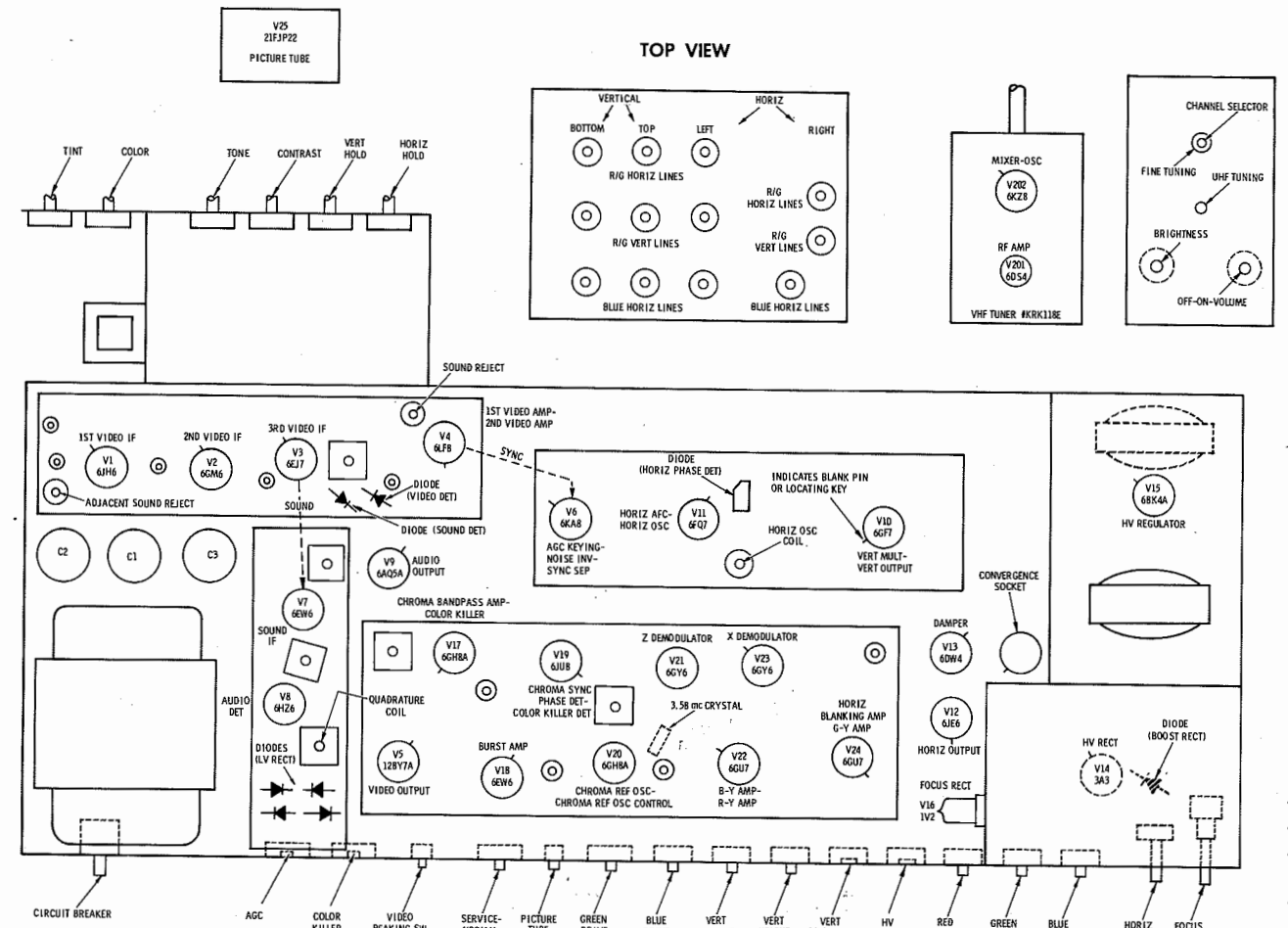


CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

PART NUMBER	MODELS																															
		FF56FE	FF56FM	FF56FR	FF56FW	FF56FY	GF631M	GF631R	GF631W	GF631Y	GF631Z	GF631A	GF631B	GF631C	GF631D	GF631E	GF631F	GF631G	GF631H	GF631I	GF631J	GF631K	GF631L	GF631M	GF631N	GF631O	GF631P	GF631Q	GF631R			
MASK	114026	X																														
MASK	114034		X	X	X	X	X																									
MASK	114249			X	X																											
MASK	114250							X	X	X																						
MASK	114251										X	X	X																			
MASK	114052													X	X	X																
MASK	113922																X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MASK	114252																															
MASK	114253																															
MASK	114254																															
MASK	113901																															
KNOB, VHF CHANNEL SEL.	114037	X																														
KNOB, VHF CHANNEL SEL.	113923		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, VHF CHANNEL SEL.	113926																															
KNOB, UHF CHANNEL SEL.	114038		X																													
KNOB, UHF CHANNEL SEL.	113924		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, UHF CHANNEL SEL.	113925																															
KNOB, VHF FINE TUNING	114030		X																													
KNOB, VHF FINE TUNING	113918		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, VHF FINE TUNING	113912																															
KNOB, VOLUME, BRIGHTNESS	114033		X																													
KNOB, VOLUME, BRIGHTNESS	113853		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, BRIGHTNESS	113909																															
KNOB, VOLUME	113320																															
KNOB, COLOR	114040		X																													
KNOB, COLOR	113906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, COLOR	113908																															
KNOB, TINT	114041		X																													
KNOB, TINT	113907		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KNOB, TINT	113910																															
KNOB, CONTRAST, TONE	114032		X																													
KNOB, CONTRAST, TONE	113921		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

TUBE PLACEMENT CHART

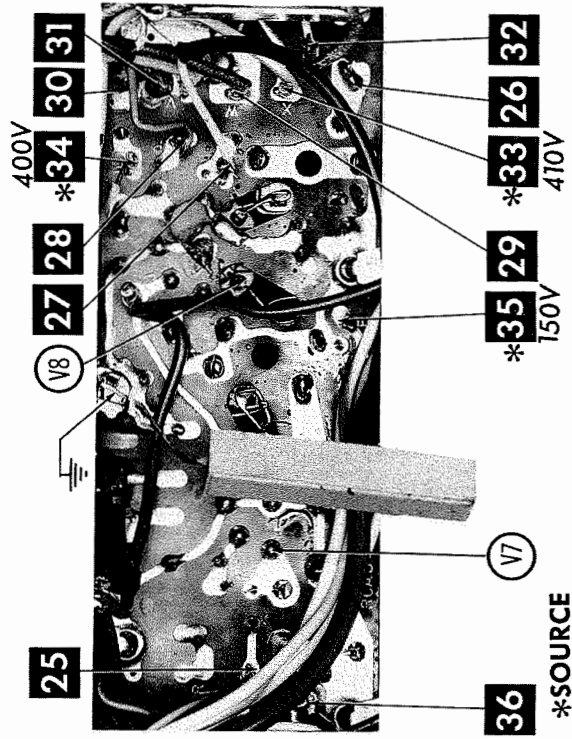


A PHOTOFACT STANDARD NOTATION SCHEMATIC
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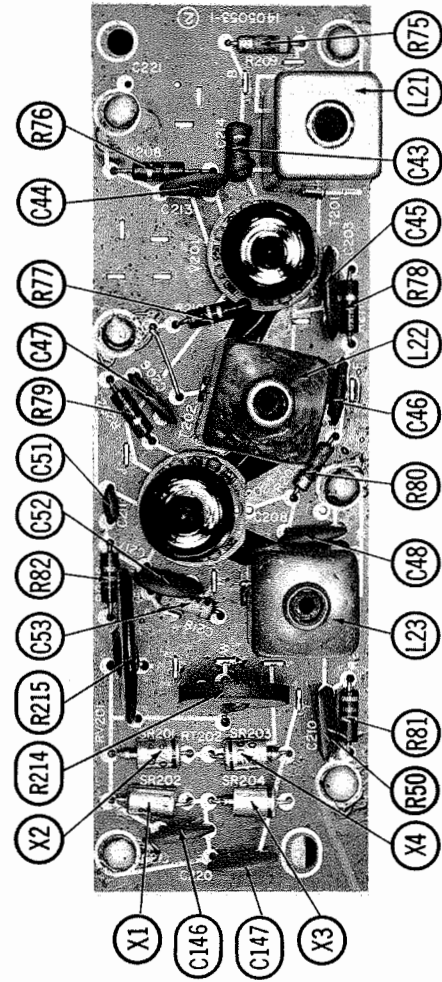
ALTERNATE SPEAKER CIRCUIT SET 736 FOLDER 4

RCA VICTOR CHASSIS CT16A/B/E/F/L/AB/AC/AF/AH

FOLDER 4

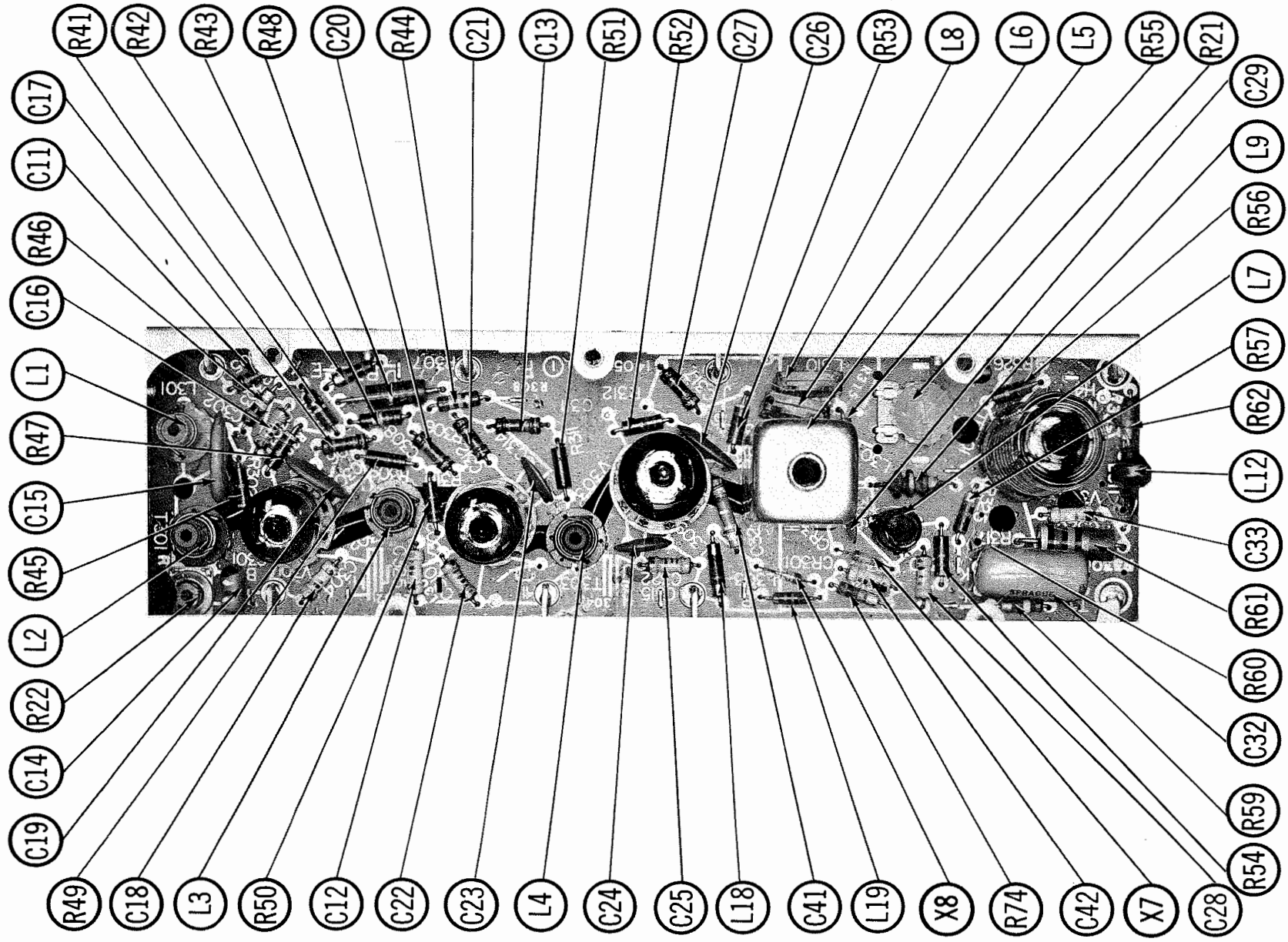
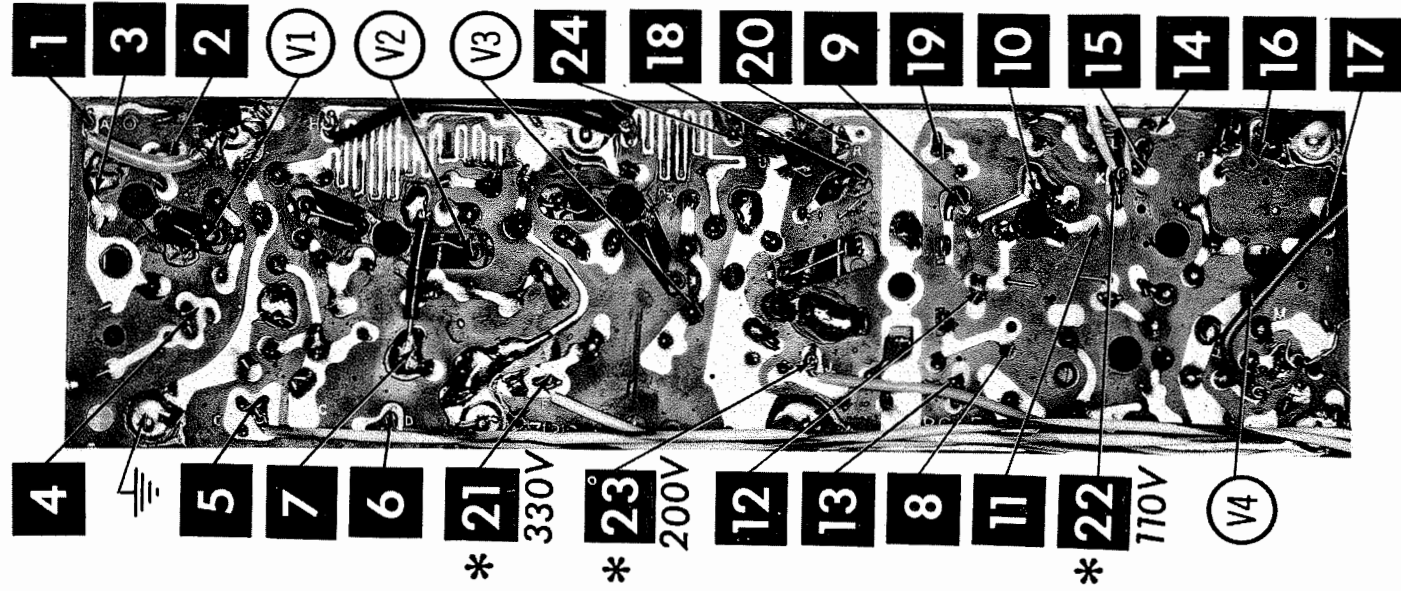


ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



SOUND IF PRINTED BOARD

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



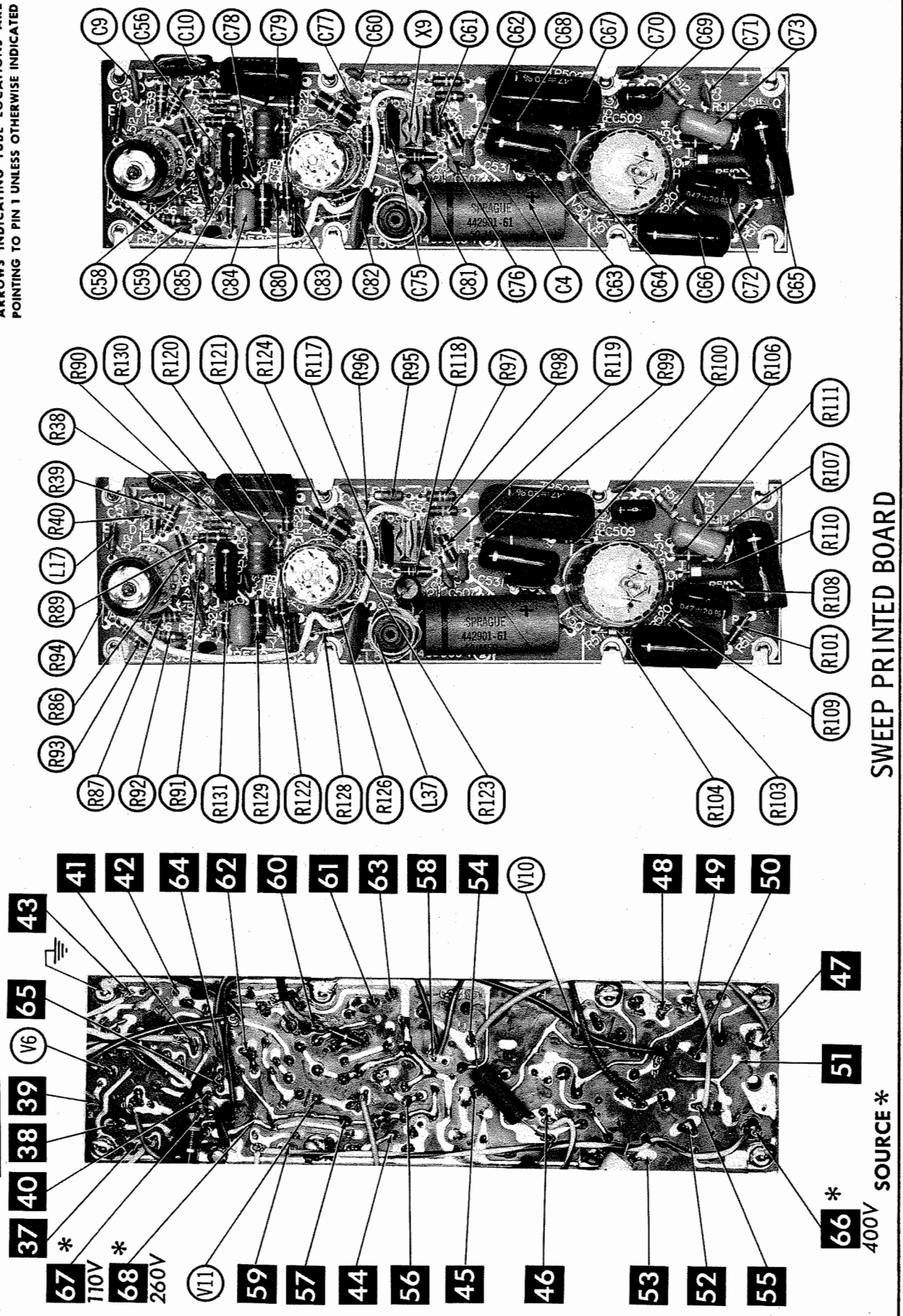
* SOURCE

VIDEO IF PRINTED BOARD

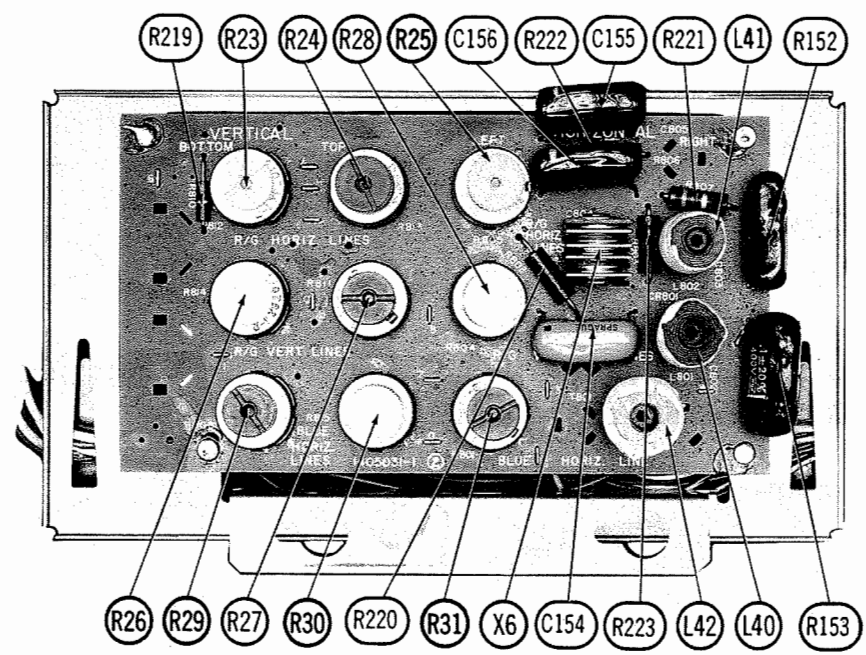
RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

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

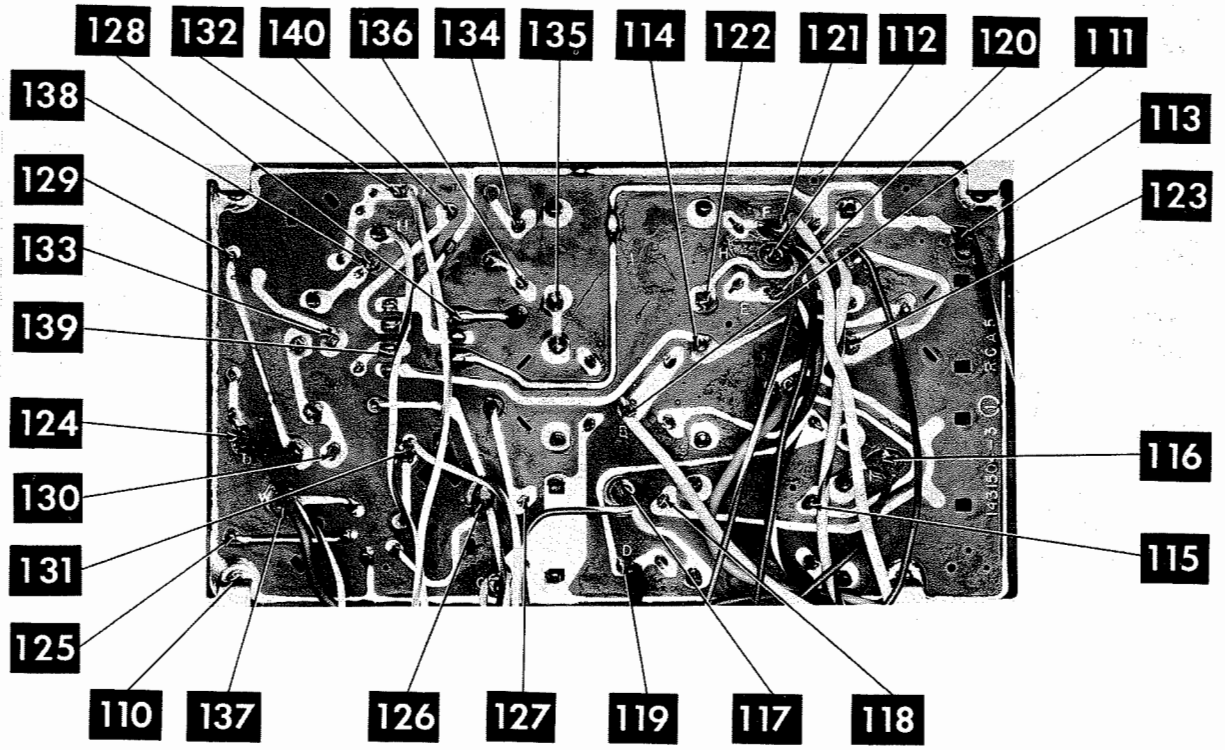
A Howard W. Sams CIRCUITRACE® Photo



SWEEP PRINTED BOARD



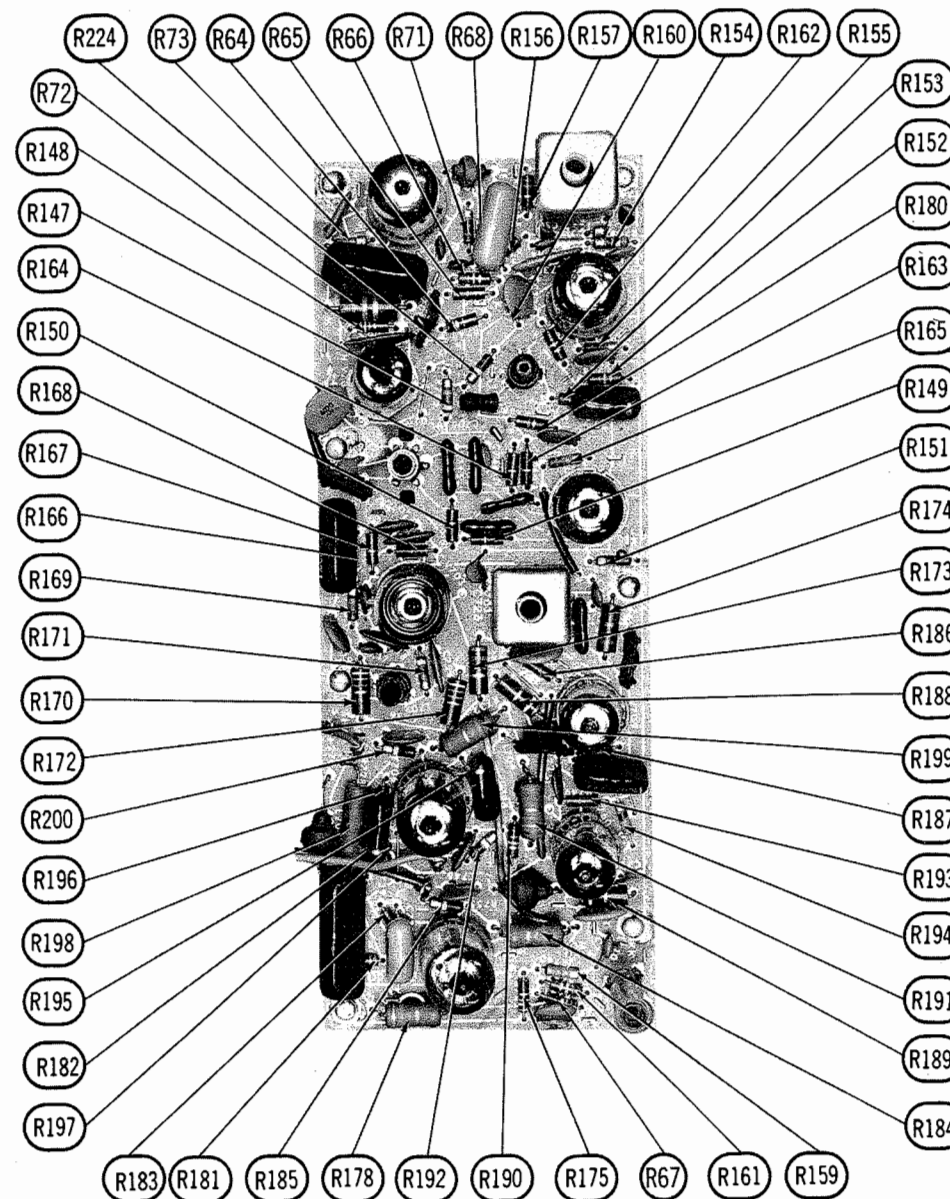
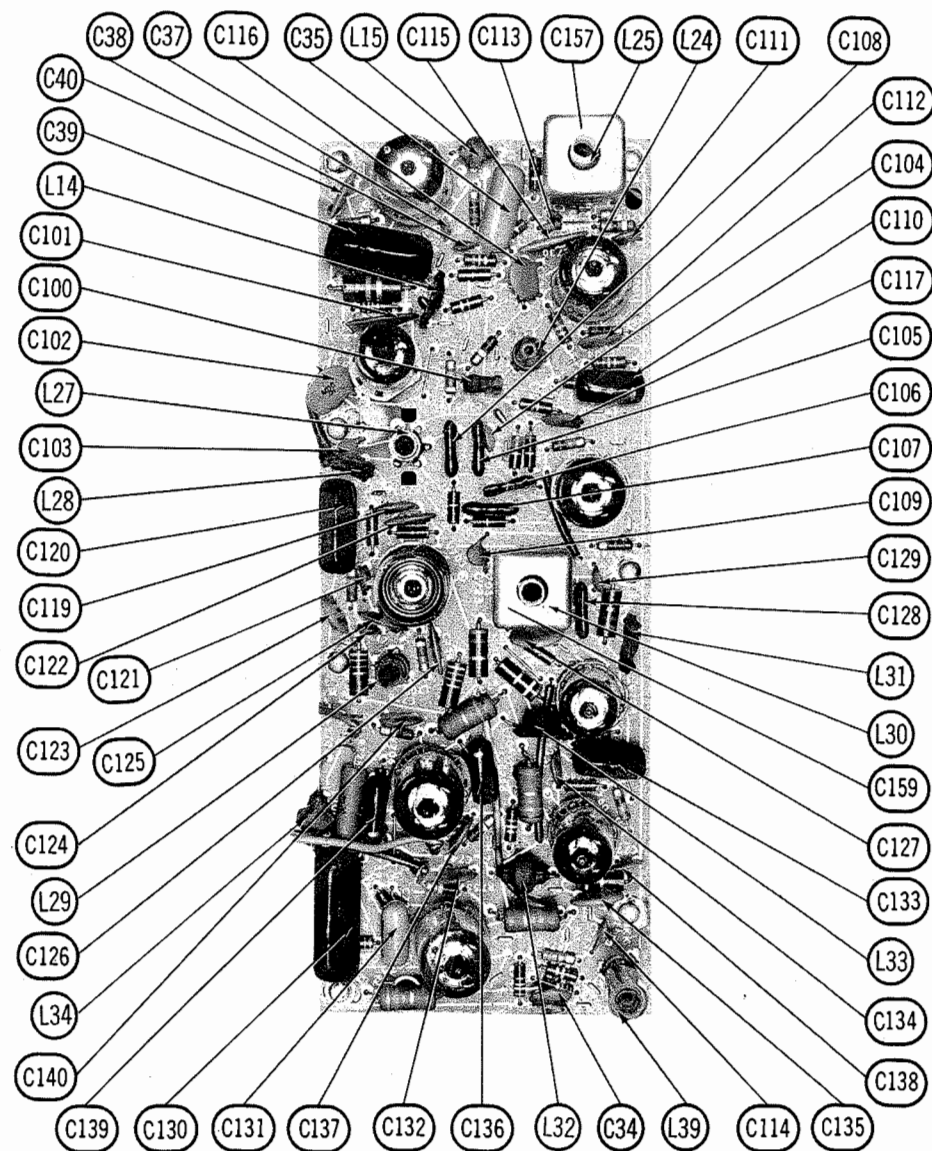
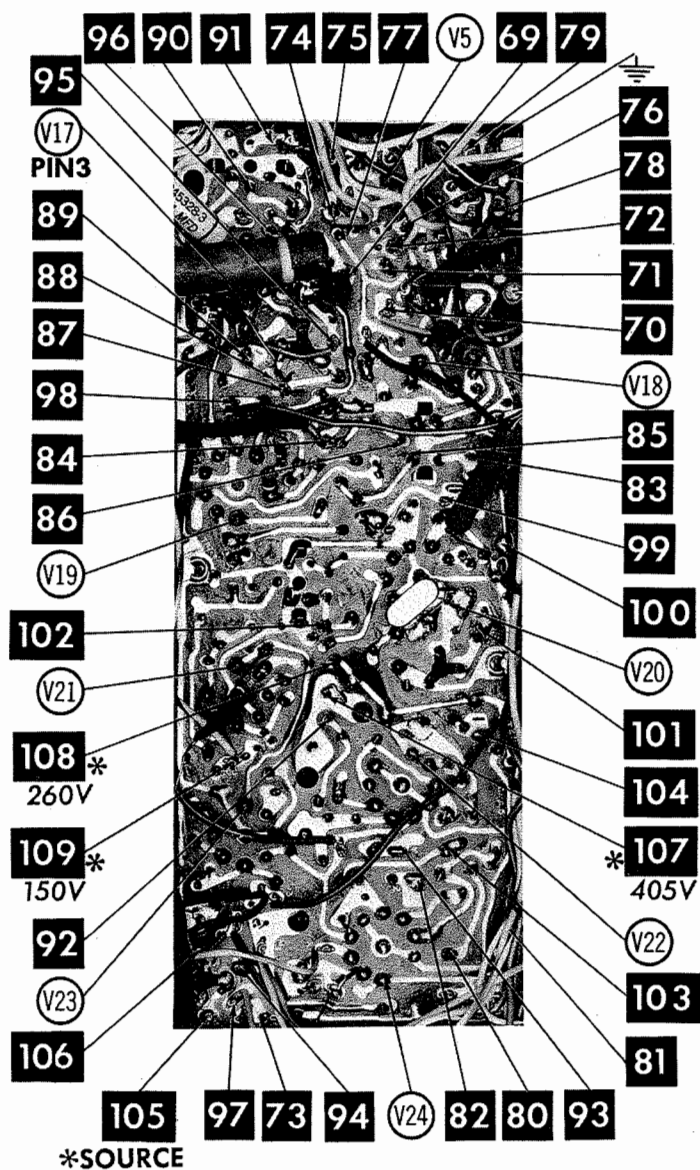
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CONVERGENCE PANEL

RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

FOLDER 4



COLOR CIRCUIT PRINTED BOARD

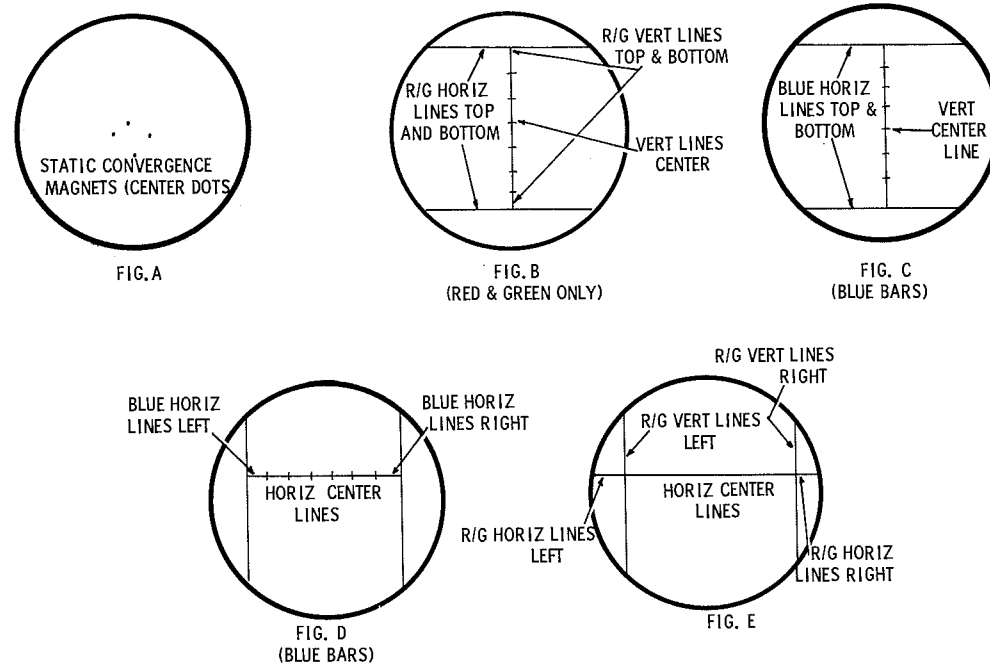
RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

FOLDER 4

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12	
V1	6JH6	310K	1400Ω	FIL	FIL	218Ω	218Ω	1000Ω						
V2	6GM6	85K	1NF	FIL	FIL	† 3400Ω	† 3400Ω	68Ω						
V3	6EJ7	180Ω	0Ω	180Ω	FIL	FIL	0Ω	† 3100Ω	† 3100Ω	0Ω				
V4	6LF8	0Ω	27K	† 6000Ω	FIL	FIL	22Ω	1200Ω	† 33K	† 10K				
V5	12BY7A	350Ω	550K	0Ω	FIL	FIL	FIL	† 8600Ω	† 23K	0Ω				
V6	6KA8	† 60K	4meg	3800Ω	FIL	FIL	55K	473K	† 32K	760K				
V7	6EW6	5.5Ω	270Ω	FIL	FIL	† 14K	† 14K	0Ω						
V8	6HZ6	4.5Ω	270Ω	FIL	FIL	† 560K	† 7100Ω	470K						
V9	6AQ5A	NC	270Ω	FIL	FIL	† 5000Ω	† 3800Ω	25K						
V10	6CF7	0Ω	3.2meg	2200Ω	FIL	FIL	† 1400Ω	NC	† 6.5meg	900K				
V11	6FQ7	† 25K	700K	1000Ω	FIL	FIL	† 61K	220K	49Ω	0Ω				
V12	6UE6	† 14K	1.9meg	0Ω	FIL	FIL	1.9meg	† 14K	1800Ω					
V13	6DW4	NC	† 22Ω	NC	FIL	FIL	NC	† 22Ω	NC	2.8meg				
V14	3A3	PINS 1 THRU 9 HAVE INFINITE RESISTANCE											TOP CAP † 622.3Ω	
V15	6BK4A	† 1000Ω	FIL	NC	NC	1.5meg	NC	FIL	NC					TOP CAP INF
V16	1V2	INF	INF	INF	66meg	66meg	INF	INF	INF	† 22.3Ω				TOP CAP † 22.3Ω
V17	6GH8A	370K	220K	† 4800Ω	FIL	FIL	† 2900Ω	390Ω	0Ω	11meg				
V18	6EW6	32K	39K	FIL	FIL	† 21.2Ω	† 1416Ω	39K						
V19	6JU8	INF	220Ω	INF	FIL	FIL	0Ω	13meg	22K	13meg				
V20	6GH8A	† 20K	47K	† 47K	FIL	FIL	† 6800Ω	0Ω	680Ω	INF				
V21	6GY6	155Ω	100Ω	FIL	FIL	† 5300Ω	† 3800Ω	2Ω						
V22	6GU7	† 24K	1meg	270Ω	FIL	FIL	† 24K	1meg	270Ω	0Ω				
V23	6GY6	155Ω	150Ω	FIL	FIL	† 5300Ω	† 3800Ω	.3Ω						
V24	6GU7	† 47K	240K	390Ω	FIL	FIL	† 24K	1meg	270Ω	0Ω				
V25	21FJP22	FIL	† 120K	† 640K	† 6400Ω	† 4600Ω	† 120K	† 600K	NC	† 75meg	NC	† 600K	† 120K	
												Pin 13 † 3600Ω	Pin 14 FIL	
V201	6DS4	NC	† 16K	NC	3.5meg	NC	NC	NC	0Ω	NC	FIL	NC	FIL	
V202	6KZ8	† 8700Ω	100K	0Ω	FIL	FIL	† 59K	† 58K	† 59K	† 65K				

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 ● READING DEPENDS ON POLARITY OF METER CONNECTIONS. ■ MEASURED FROM PIN 2 OF V2.
 † MEASURED FROM OUTPUT BRIDGE RECTIFIER SOURCE, X1 THRU X4. ‡ MEASURED FROM PIN 9 OF V13.
 ▲ MEASURED IN "SERVICE" POSITION. NC NO CONNECTION



FIGS. A THRU E ON PAGE 18

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

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

Adjust the High Voltage Control for 24KV on picture tube anode with normal brightness. Check voltage drop across R146 with VOM. The MINIMUM acceptable voltage drop should not be less than .85 volts with the acceptable range between 1.0 and 1.4 volts. Horizontal Linearity (Efficiency) Coil may be adjusted 1/2 turn clockwise if voltage drop is less than .85 volts. The Horizontal Output Tube current must not exceed 210MA under these conditions.

If foldover occurs in picture, adjust Horizontal Linearity clockwise to eliminate foldover while checking to make sure horizontal output current does not exceed 210MA.

Adjust Focus, Height, and Vertical Linearity Controls.

AGC ADJUSTMENT

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

COLOR AFC ALIGNMENT

Set the Killer Threshold Control to fully counterclockwise. Set the Tint Control to the center of its range.

Connect a color bar generator to the antenna terminals. Adjust the receiver for normal color reception. Short pin 1 of Burst Amp., V18, to ground.

Connect DC probe of VTVM thru 470K to pin 1 of Phase Detector, V19. Adjust A15 for maximum deflection on VTVM. If no reading is obtained, oscillator is not operating. Adjust A16 to start oscillator, then adjust A15 for maximum. Remove the short from pin 1 of Burst Amp. Adjust A17 for maximum deflection on VTVM. Make sure the oscillator is running and locked in.

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

COLOR AFC ALIGNMENT Continued

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

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

PURITY ADJUSTMENTS

Perform step one of Convergence Adjustments. If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets.

If TV is equipped with an automatic degaussing coil, degaussing occurs between the time the receiver is turned on and before the high voltage appears. Shunt points Ⓢ and Ⓢ to ground. Loosen the deflection yoke and move it rearward until it is against the convergence yoke assembly.

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

GRAY SCALE ADJUSTMENTS

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

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

CONVERGENCE ADJUSTMENTS

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

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 A11 GENERAL CEMENT #8606, 8869, 9302 ... WALSCO #2511, 2543, 2588
 Mixer Plate Coil .. GENERAL CEMENT #9296, 9300, 9302 ... WALSCO #2510, 2511, 2547

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point \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 high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC 47.25MC	A1, R21 A2, R22	Adjust for MINIMUM. Keep cores of L5 (A1) and L1 (A2) at coil end away from board.
2.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		43.8MC 42.5MC 45.75MC 44.0MC	A3 A4 A5 A6, Mixer Plate Coil	Adjust for maximum with core nearest printed board end of coil for A3, A4 and A5. Adjust A6 for maximum with core at top end of coil and Mixer Plate Coil with core at bottom of coil.
3.	Connect vertical input of a scope to point \diamond . Low side to ground.	44MC (10MC Sweep)	41.25MC 42.17MC 42.75MC 45.0MC 45.75MC 47.25MC		Adjust for maximum gain and symmetry of response with markers as shown in Figure 1.

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 A11 for MINIMUM beat interference.

SOUND IF ALIGNMENT

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

CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RF Modulator (RCA WG304A or equivalent). Connect a -15 volt supply to point \diamond . Connect a -2 volt supply to point \diamond . Connect a -15 volt supply to point \diamond . Positive of all supplies to ground. Connect a Jumper from point A to ground. Turn Color Intensity to maximum. Remove the Horizontal Output Tube and connect a 2000 Ω , 100W resistor from 405 volt source to ground.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	High side thru .1mfd to grid of Bandpass Amp., V17A, low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC	Vert. Amp. thru Detector Probe to pin 1 of demodulators point \diamond , low side to ground.	A12 A13	Adjust for response curve similar to Fig. 2.
5.	High side of sweep gen. to Video sweep input of RF Demodulator. High side of signal gen. (set @ 45.75MC) to picture carrier input. Output of RF Modulator to Mixer Grid Test Point on Tuner low side to ground.	Sweep Gen. to 3MC (6MC Sweep)		"	A14	Adjust for response curve similar to Fig. 3. If necessary, retouch A12 to flatten top of response.

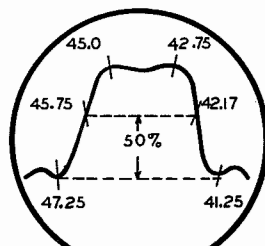


FIG. 1

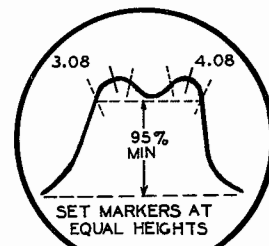


FIG. 2

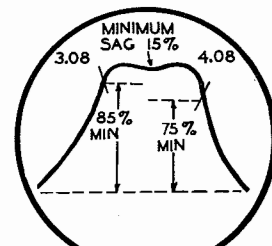
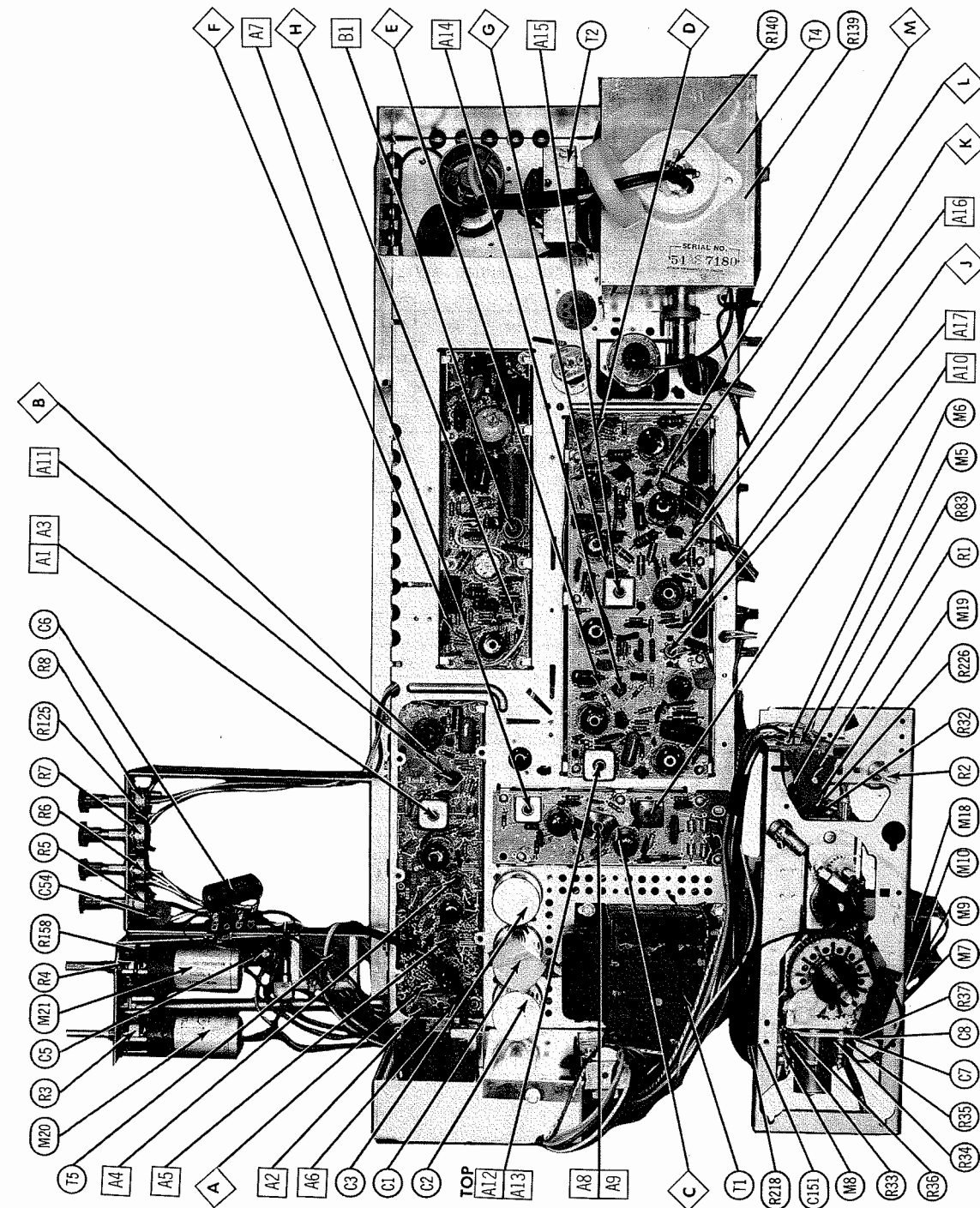


FIG. 3



RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH

FOLDER 4

VHF TUNER ALIGNMENT INSTRUCTIONS

OSCILLATOR ADJUSTMENTS

Starting with the highest available channel in area, check to see that all high band channels (7-13) can be tuned in with the fine tuning control. If any channel cannot be tuned in with the fine tuning, switch to the highest available high band channel in area. Set fine tuning to the center of its range, on each active high band channel, by turning fine tuning knob a MINIMUM of three complete turns counterclockwise, then turning clockwise one and one-half turns. Adjust the high band oscillator slug (accessible through a hole in the indicator drive gear) for best picture and sound. Recheck all high band channels. Check all available low band channels to see if they are well within the range of the fine tuning. If not, switch to highest low band channel (2-6) in area. Set fine tuning to the center of its range, on each active low band channel, by turning fine tuning knob a MINIMUM of three complete turns counterclockwise, then turning clockwise one and one-half turns. Adjust the low band oscillator slug (accessible through a hole in the indicator drive gear) for best picture and sound. Recheck all low band channels.

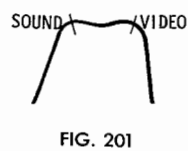
RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at point (T). Adjust bias to obtain response curve which shows no indication of overloading.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point (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.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A201	Increase bias to -15 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 7	Vert. Input to Point (U), low side to ground.		Decrease bias. Check channels 7 thru 13 and make compromise adjustments by expanding or compressing appropriate coils.
4. "	85MC	83.25MC 87.75MC	6	"	A202, A203	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
5. "	See chart	See chart	5 thru 2	"		Check channels 2 thru 6 and make compromise adjustments by expanding or compressing appropriate coils if necessary.

CHANNEL & FREQUENCY CHART

SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL
57MC	55.25MC 59.75MC	2	65MC	63.25MC 67.75MC	6	195MC	193.25MC 197.75MC	10
63MC	61.25MC 65.75MC	3	177MC	175.25MC 179.75MC	7	201MC	199.25MC 203.75MC	11
69MC	67.25MC 71.75MC	4	183MC	181.25MC 185.75MC	8	207MC	205.25MC 209.75MC	12
79MC	77.25MC 81.75MC	5	189MC	187.25MC 191.75MC	9	213MC	211.25MC 215.75MC	13



Tune in a UHF Station and adjust UHF IF Input Coil for best picture and sound.

VHF TUNER PARTS LIST AND DESCRIPTION TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6DS4	V202	Mixer - Osc.	6KZ8

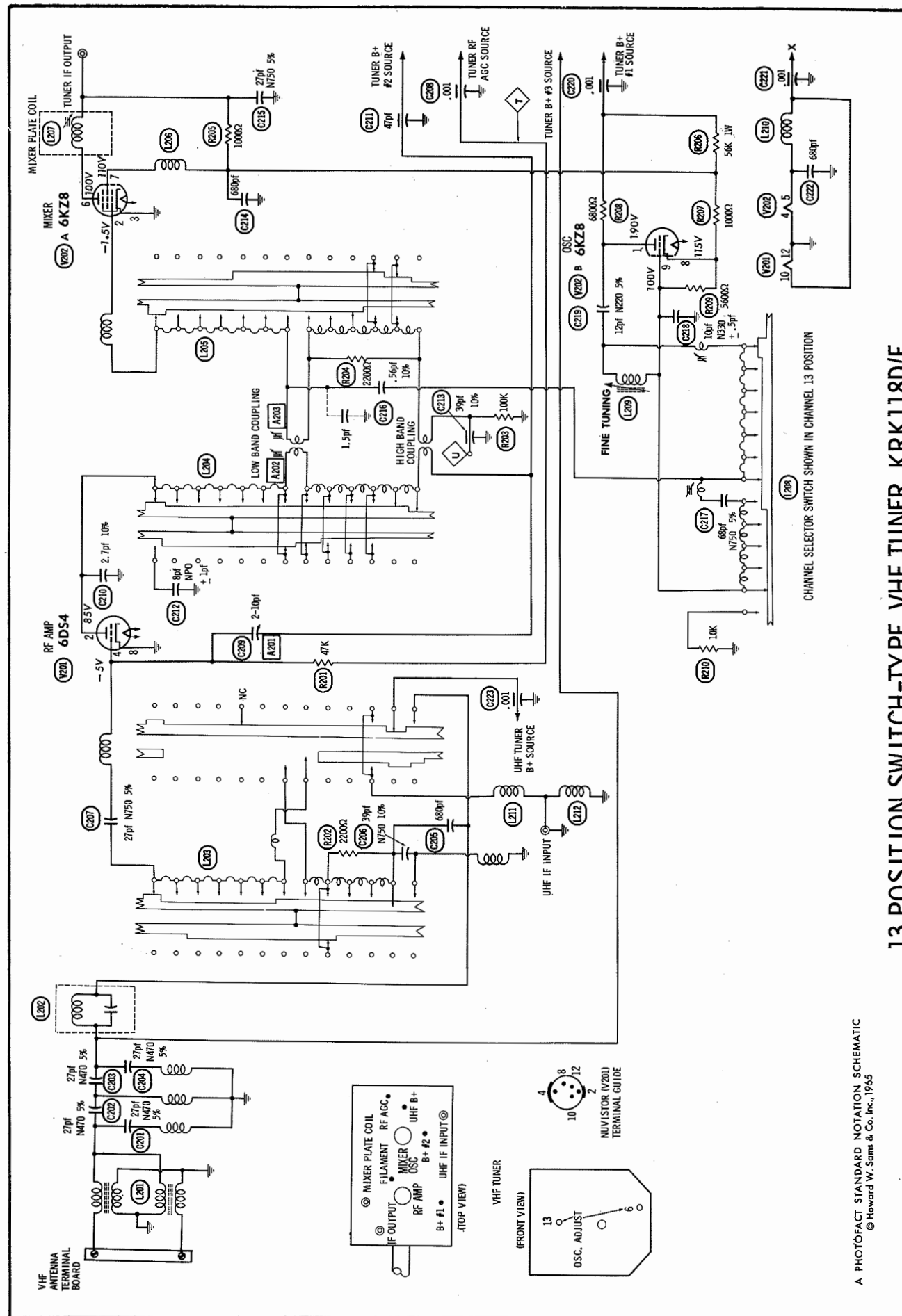
FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELMenco PART No.	MALLORY PART No.	SPRAGUE PART No.	
C201	27 N470 5%	#109348							10TCU-Q27
C202	27 N470 5%	#109348							10TCU-Q27
C203	27 N470 5%	#109348							10TCU-Q27
C204	27 N470 5%	#109348							10TCU-Q27
C205	680		BPD-00068	DD-681	BYA10T68	CCD-681	B368	CN7439	10TS-T68
C206	39 N750 10%		N750-DI 39	TCN-39	C10Q39U	CCTN-390	CN7427	CN7427	10TCU-Q39
C207	27 N750 5%			TCN-27					10TCU-Q27
C208	.001		EF-001	MFT-1000		CCF-102	CT280A		
C209	2-10	#112038		829-10					
C210	2.7 10%	#78443							
C211	47 10%	#112039							
C212	8 NPO ±1pf		NPO-DI 8.2						10TCC-V82
C213	39 10%	#112040							
C214	680		BPD-00068	DD-681	BYA10T68	CCD-681	B368	CN7427	10TS-T68
C215	27 N750 5%			TCN-27					10TCU-Q27
C216	.56pf 10%	#104949							
C217	68 N750 5%			DTN-68	C10Q68U		CN7468		10TCU-Q68
C218	10 N330 ±.5pf	#113279		TCZ-10					
C219	12 N220 5%								
C220	.001		EF-001	MFT-1000		CCF-102	CT280A		
C221	.001		EF-001	MFT-1000		CCF-102	CT280A		
C222	680		BPD-00068	DD-681	BYA10T68	CCD-681	B368		10TS-T68
C223	.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

COILS (RF-IF)

ITEM No.	USE	RCA Victor PART No.	NOTES	ITEM No.	USE	RCA Victor PART No.	NOTES
L201	Ant. Matching Assy.	113968		L207	Mixer Plate	112909	
L202	RF Choke		2 turns on 2.4pf capacitor	L208	Osc. Wafer	113976	Chan. 2 thru 13
L203	Ant. Wafer	113977	Chan. 2 thru 13	L209	Fine Tuning	113323	
L204	RF Wafer	113978	Chan. 2 thru 13	L210	Fil. Choke		
L205	Mixer Wafer	113979	Chan. 2 thru 13	L211	RF Choke		
L206	RF Choke			L212	UHF Input		



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RCA VICTOR CHASSIS
CTC16A/B/E/F/L/AB/AC/AF/AH
13 POSITION SWITCH-TYPE VHF TUNER KRK118D/E

FOLDER 4

UHF TUNER PARTS LIST AND DESCRIPTION

FIXED CAPACITORS

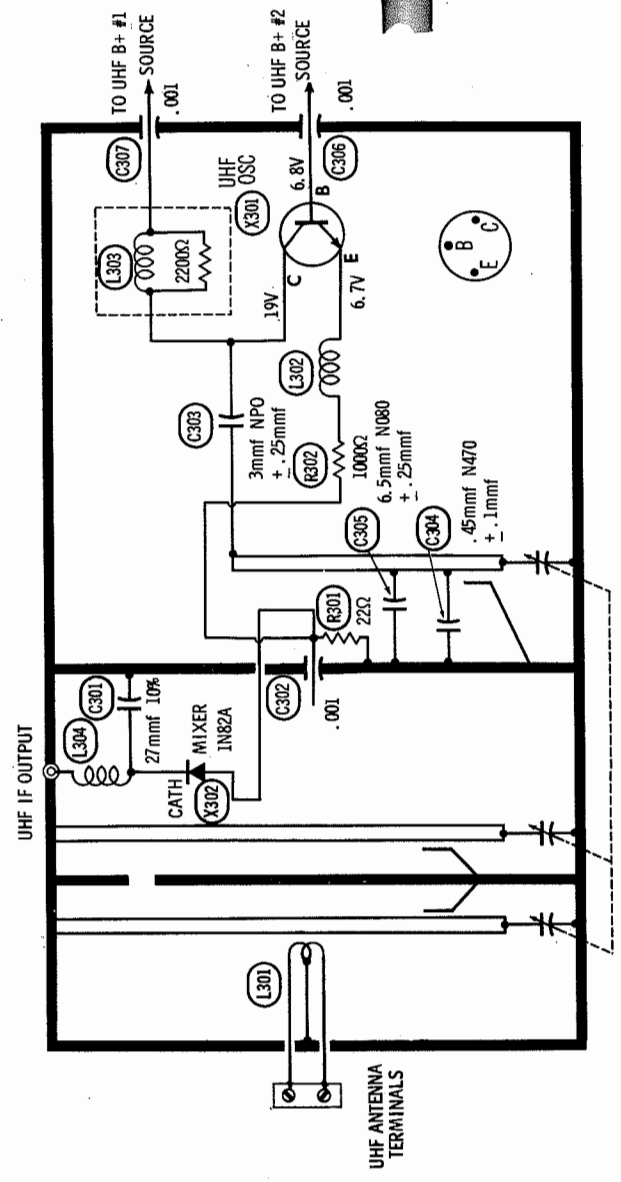
ITEM No.	RATING	REMARKS	REPLACEMENT DATA			
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.
C301	27 10 μ	#113931	DI-27	LD-270	LA10027-SL	CCD-270
C302	.001	#113932				
C303	3 NPO \pm .25mmf	#113932				
C304	.45mmf \pm .1mmf	#114541				
C305	6.5	#113933				
C306	3000 \pm .25mmf	#109595				
C307	.001	#109595				

POWER RECTIFIERS & SIGNAL DIODES

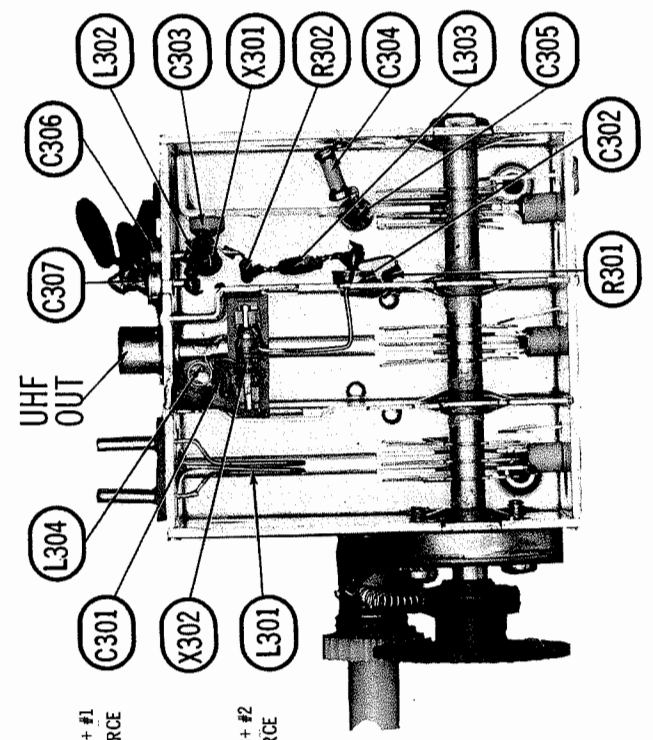
ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		DIODES
			GENERAL ELECTRIC PART No.	MALLORY PART No.	
X301	35449	UHF Oscillator			
X302					

COILS (RF-IF)

ITEM No.	USE	RCA Victor PART No.	NOTES	ITEM No.	USE	RCA Victor PART No.	NOTES
L301	Ant. Input R.F. Choke	112302		L303	RF Choke	114940	16 turns on 2.2K resistor.
L302		78224		L304	Output Choke		

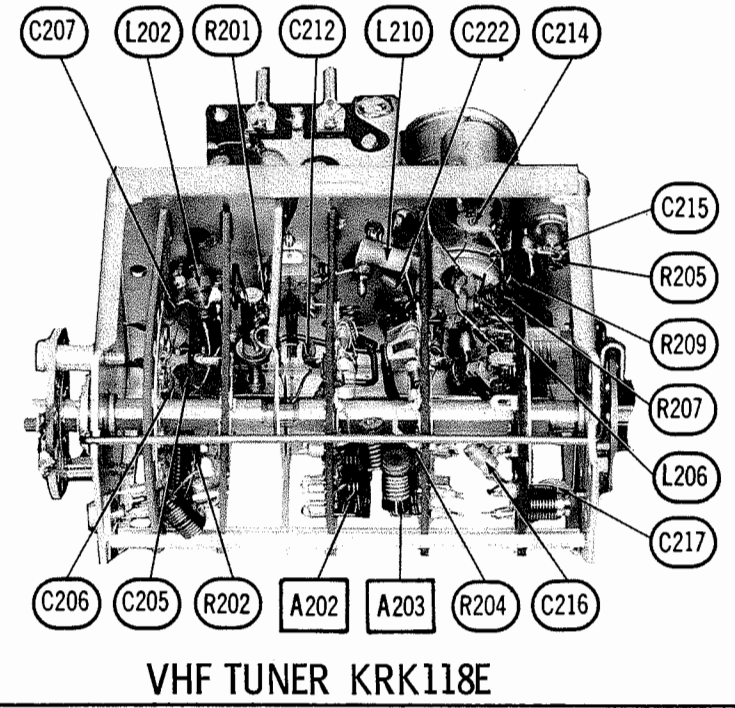


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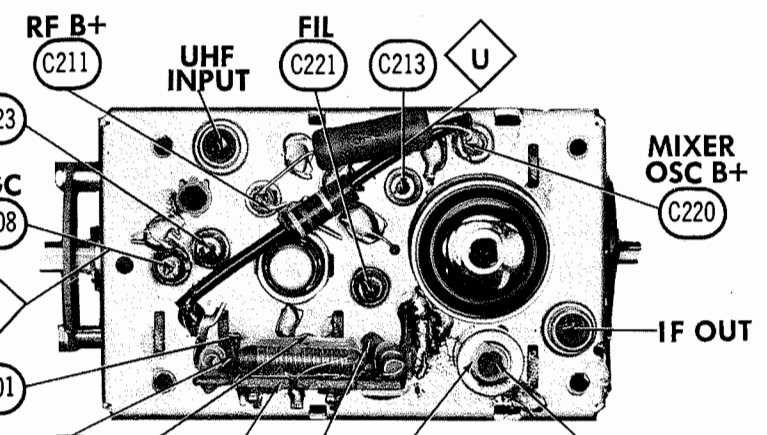
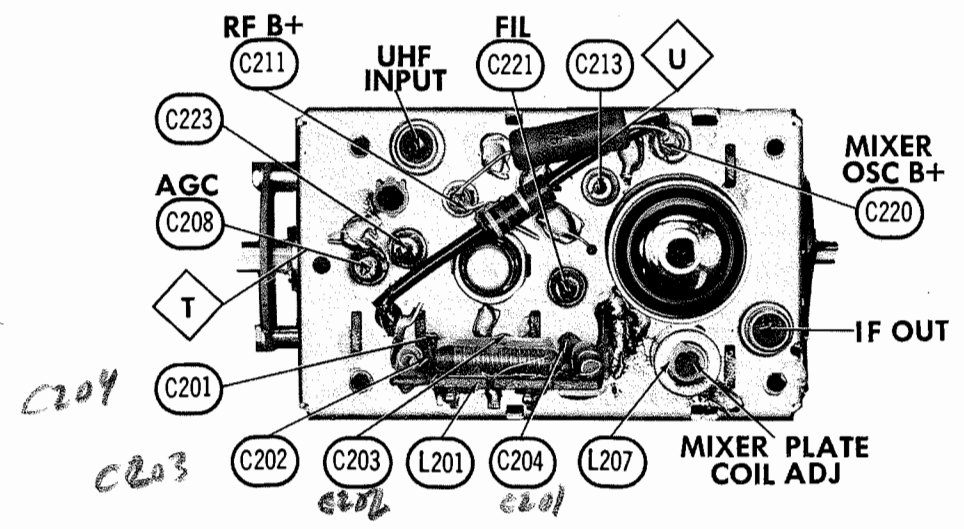


TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	
X301	35449	UHF Oscillator			



VHF TUNER KRK118E



RCA VICTOR CHASSIS CT16A/B/E/F/L/LAB/AC/AF/AH

FOLDER 4

PARTS LIST AND DESCRIPTION (CONTINUED)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA							WORKMAN PART No.
		RCA Victor PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.		
L37A	Horiz. Osc. and Waveform (Sine Wave)	112866							TB177
L38	Focus Shaft, Focus Control	113999							
L39	Horiz. Linearity (.25MH-1.1MH) (Efficiency)	112853							TB178 ①
		114006							
L40	Dynamic Convergence (Right R/G Vert. Lines) (2.8MH-6.8MH)	105065							T149
L41	Dynamic Convergence (Right R/G Horiz. Lines) (1.2MH-4.6MH)	113394							
L42	Dynamic Convergence (Right Blue Horiz. Line) (Pri. 3.8MH-9.5MH) (Sec. 1.3MH-1.7MH)	109180							
L43	Convergence Yoke								
A	Blue Section	109164							
B	Green Section	(1107882-3)							
C	Red Section	109164							
	Retainer, Conv. Coil Holder, Conv. Ass'y Slide, Includes non-metallic slide. Holder, non-metallic mount on Conv. Coils Magnet, Conv. Ass'y	113033							
		114029							
		105024							

① Disregard Tap.

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.			
L44	.42ADC	16Ω	.4 Hy.	112829	C-4133	C-2708	26C81	C-40X			
				(1104665-4)							

TRANSFORMER (POWER)

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	128VAC Tap @ 117VAC @ 3.33A	320VAC @ .48A DC	6.3VAC @ 1.9A	113991							
		SEC. 3		(906158-501)							
		6.3VAC @ 12A									

* 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	114047							
		(961415-4)			VO-700C			A-305X	
T3	Yoke (Horiz. 12MH) 70° (Vert. 38MH)	109457							
		(903562-509X)			DY-90AC			YC-300-1 ①	Remove two (2) 560Ω resistors.
T4	Horiz. Output	113992							
		(906160-501)							

* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER	VERTICAL OUTPUT												YOKE						
		Original Connections												Original Connections						
REPLACEMENT	Original Connections	Blue	Red	Green	White	Yellow	Green	Red	Black	White	Orange	Blue	Red	Green	White	Orange	1	3	4	5
MERIT		Blue	Red	Green	White	Yellow	Green	Red	Black	White	Orange	Blue	Red	Green	White	Orange				
STANCOR		Blue	Red	Green	White	Yellow	Green	Red	Black	White	Orange	Blue	Red	Green	White	Orange				
THORDARSON		Blue	Red	Green	White	Yellow	Green	Red	Black	White	Orange	Blue	Red	Green	White	Orange				
TRIAD		Blue	Red	Green	White	Yellow	Green	Red	Black	White	Orange	Blue	Red	Green	White	Orange	1	3	4	5

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	12600Ω	3-4Ω	113997							
			(D961429-9)	A-2901	A-3823	24806	S-53X			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		RCA Victor PART No.	QUAM PART No.	
SP1	4" x 6" PM 3-4Ω	107476 ①	46A1	① Used in Models GF631M/W/Y/MR/WR/YR, GF681M/W, GF701W/WR, GF703L/LR, GF705V/W/VR/WR, GF707C/F/V/FR/VR. ② Used in Models GF731M/W, GF737W, GF739C/L, GF741V/W, GF743F/V. ③ Used in Models FF567E/M/W/Y/MR/WR, GF611M/W. ④ Used in Model GF713M. ⑤ Used in Models GF641M/W, GF711M/W/MR/WR. ⑥ Used in Models HF861W, HF863L, HF865V/W, HF867V/F. ⑦ Used in Model HF857M/W. ⑧ Used in Models HF853M/W, HF854M/W.
	6" x 9" PM 6-8Ω	107706 ②		
	4" PM 3-4Ω	111763 ③		
	6" x 9" PM 3-4Ω	112779 ④	69A3	
	3 1/2" PM 7-9Ω	113034 ⑤		
	4" x 6" PM 6-8Ω	113038 ⑥		
	12" PM 8-10Ω	111989 ⑦	12A31PA	
	8" PM 3-4Ω	113004 ⑧	8A1	
	6" x 9" PM 3-4Ω	112779 ⑨	69A3	
	3 1/2" PM 18-20Ω	111987 ⑩		
	3 1/2" PM 18-20Ω	111987 ⑪		
	3 1/2" PM 18-20Ω	111987 ⑫		
	3 1/2" PM 6-8Ω	113035 ⑬	3A15TZ8	
	3 1/2" PM 6-8Ω	113035 ⑭	3A15TZ8	
	12" PM 8-10Ω	111989 ⑮	12A31PA	
	8" PM 3-4Ω	113004 ⑯	8A1	
	6" x 9" PM 3-4Ω	112779 ⑰	69A3	
	3 1/2" PM 18-20Ω	111987 ⑱		
	3 1/2" PM 18-20Ω	111987 ⑲		
	3 1/2" PM 18-20Ω	113035 ⑳	3A15TZ8	
	3 1/2" PM 6-8Ω	113035 ㉑	3A15TZ8	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA						
			RCA Victor PART No.	LITTELFUSE PART No.	BUSS PART No.	FUSE	HOLDER	FUSE	HOLDER
M1	3"	#28 Fuse Wire							

PHONO CARTRIDGE & NEEDLES

*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

ITEM No.	REPLACEMENT DATA								NOTES
	RCA Victor PART No.	ASTATIC PART No.	ELECTRO-VOICE PART No.	SONOTONE PART No.					
	111348 ①	110020A	487D	N564sd					◆ Diamond Sapphire ◆ Dual Sapphire Needle
		110022A		N564sd					Original Cartridge Replacement
				N564					

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M2	VHF Tuner	KRK118E	Used in Models FF567MR/WR, GF631MR/WR/YR, GF701WR, GF703LR, GF705VR/WR, GF707FR/VR, GF711MR/WR, HF861WR, HF863LR, HF865VR/WR, HF867FR/VR.
	VHF Tuner	KRK118D	Used in Models FF567E/M/W/Y, GF611M/W, GF631M/W/Y, GF641M/W, GF681M/W, GF701W/WR, GF703L/LR, GF705V/W/VR/WR, GF707C/F/V/FR/VR, GF711M/W/MR/WR, GF713M, GF731M/W, GF737W, GF739C/L, GF741V/W, GF743F/V, HF853M/W, HF854M/W, HF857M/W, HF861M, HF863L, HF865V/W, HF867E/V.
M3	UHF Tuner	KRK120JP	Used in Models FF567E/M/W/Y/MR/WR, GF611M/W, GF631M/W/Y/MR/WR/YR, GF641M/W, GF681M/W, GF701W/WR, GF703L/LR, GF705V/W/VR/WR, GF707C/F/V/FR/VR, GF711M/W/MR/WR, GF713M, HF861M/W, HF863L/LR, HF865V/W/VR/WR, HF867E/V/FR/VR.
	UHF Tuner	KRK120JT	Used in Models GF731M/W, GF737W, GF739C/L, GF741V/W, GF743F/V, HF853M/W, HF854M/W, HF857M/W.
M4	Crystal	106330	
M5	Switch	114170	
M6	Switch	114170	
M7	Switch	112896	
M8	Switch	114171	
M9	Switch	113336	
M10	Switch	112192	
M11	Switch	46760	
M12	Switch	113398	
M13	Switch	113398	
M14	Circuit Breaker	113950	
		(945830-4)	
M15	Magnet Assembly	105024	Convergence (3 required)
M16	Magnet Assembly	112832A	Blue Lateral
M17	Delay Line	109837	
M18	Motor	113251	Channel Selector
M19	Motor	113324	Volume
M20	Motor	113325	Tint
M21	Motor	113325	Color
M22	Degaussing Coil	114256	All Models except FF567E/M/MR/WR/Y and GF611M/W.
	Sound Circuit Board - Complete, less tubes	114042	
	Printed Circuit Board	114043	
	Video IF Circuit Board - Complete, less tubes	114044	
	Deflection Circuit Board - Complete, less tubes	114045	
	Printed Circuit Board	114045	
	Printed Circuit Board	114046	

CABINET PARTS LIST ON PAGE 22

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8866 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8899 (Plastic)
300Ω Tuner Input Lead	Use BELDEN No. 8225
300Ω Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

TUBES

ITEM No.	USE	TYPE	REPLACEMENT DATA				
			AMPEREX	GENERAL ELECTRIC	RCA	SYLVANIA	
V1	1st Video IF	6JH6			V14	HV Rectifier	3A3
V2	2nd Video IF	6GM6			V15	HV Regulator	6BK4A
V3	3rd Video IF	6EJ7			V16	Focus Rectifier	1V2
V4	1st - 2nd Video Amp.	6LF8			V17	Chroma Bandpass Amp. - Color Killer	6GH8A
V5	Video Output	12BY7A			V18	Burst Amp.	6EW6
V6	AGC Keying - Sync Sep. - Noise Inverter	6KA8			V19	Chroma Sync Phase Det. - Color Killer Detector	6JU8
V7	Sound IF	6E96			V20	Chroma Reference Osc. - Chroma Ref. Osc. Control	6GH8A
V8	Audio Detector	6AQ5A			V21	"Z" Demodulator	6CY6
V9	Audio Output	6GF7			V22	B-Y Amp. - R-Y Amp.	6CY6
V10	Vert. Mult. - Vert. Output	6FQ7			V23	"X" Demodulator	6GU7
V11	Horiz. AFC - Horiz. Osc.	6JB6			V24	Horiz. Blanking Amp. - G-Y Amp.	6GU7
V12	Horiz. Output	6DW4					
V13	Damper						

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	RCA Victor PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V25	21FJP22	21FJP22 ①	21FJP22 ①	21FJP22 ②	① Aluminized ② Color Bright "85"

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS				DIODES GENERAL ELECTRIC PART No.
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	.48A	113998	1N1696	A500 or 1N1095	1N1764 or 1N2863	60H or F-6	
X2	.48A	113998	1N1696	A500 or 1N1095	1N1764 or 1N2863	60H or F-6	
X3	.48A	113998	1N1696	A500 or 1N1095	1N1764 or 1N2863	60H or F-6	
X4	.48A	113998	1N1696	A500 or 1N1095	1N1764 or 1N2863	60H or F-6	
X5	.113997	(972571-3)	GECR-2		1N2863	CR203	PG-33-16H-Q
X6A	.006A	114013	1N1692 ①	A50 or D	1N2858 ①	D50 ①	10H or F-1 ①
B	.045A	(1470990-1)					
C	.018A						
D	.007A						
X7		112524					1N60
X8		112524					1N60
X9		109474					6GCl

When replacing selenium rectifier with silicon type, add series resistance to obtain original output voltage.
① 4 Required.

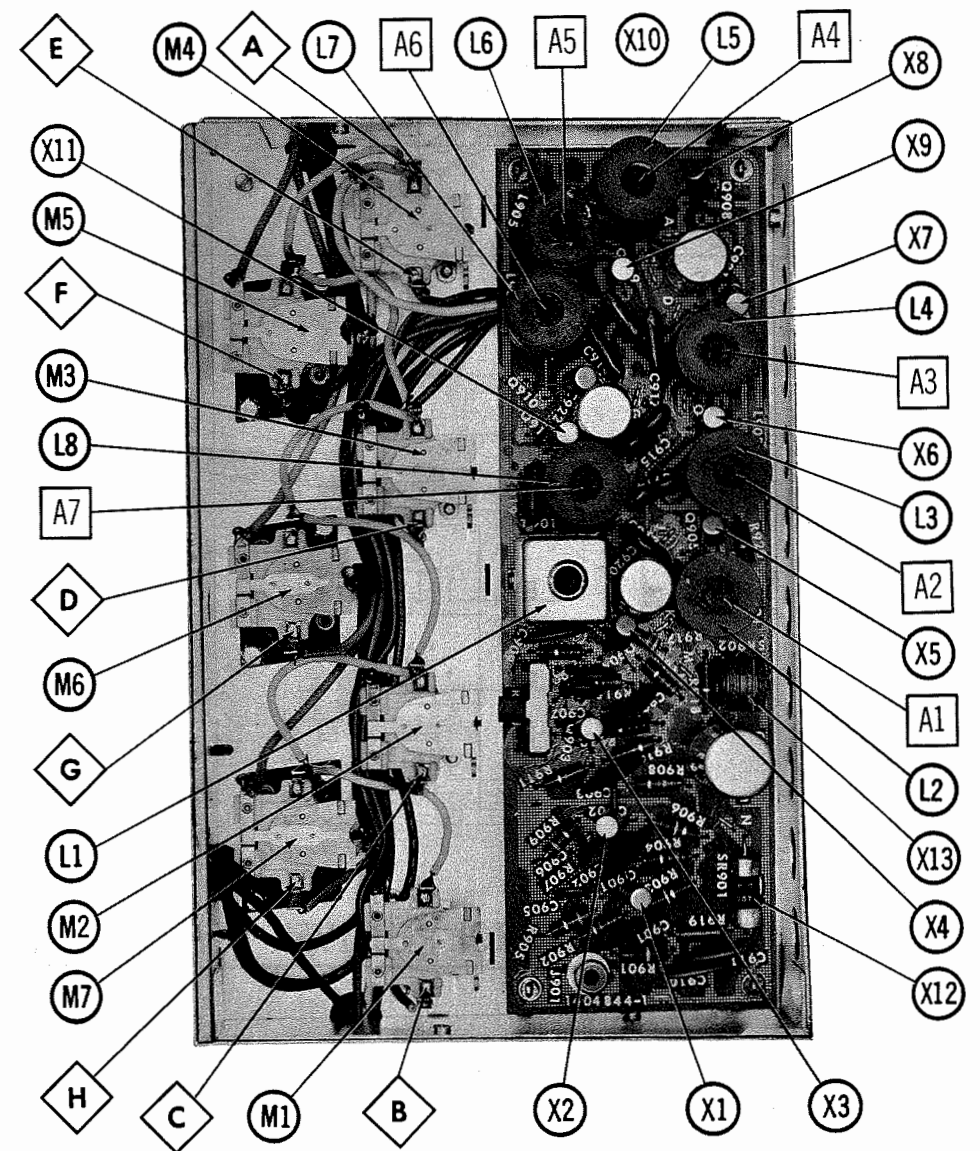
ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	RCA Victor PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	80	450	114001	AFHS4-88-10	DD0178.8	XC3-32	TMT-3763	FP450.16	TVLS4754 *
B	30	450	(974576-31)		BR40-150	QT1-13	TD-40-150		
C	40								

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 736 FOLDER 4. File this Folder with the TV Folder in the yellow filing jacket provided.

RCA VICTOR REMOTE RECEIVER CTP10E, TRANSMITTER CRK6A



RECEIVER - TOP VIEW

RCA VICTOR REMOTE RECEIVER CTP10E, TRANSMITTER CRK6A

TRADE NAME	RCA Victor Receiver CTP10E, Transmitter CRK6A
SUPPLIER	For current address, see Master Index.
TYPE SET	Remote Control Receiver and Transmitter
TRANSISTORS	Remote Control Receiver - Eleven, Remote Control Transmitter - One
POWER SUPPLY	110-120 Volts AC, 60 Cycles RATING 7 Watts, .065 Amp. @ 117 Volts AC

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

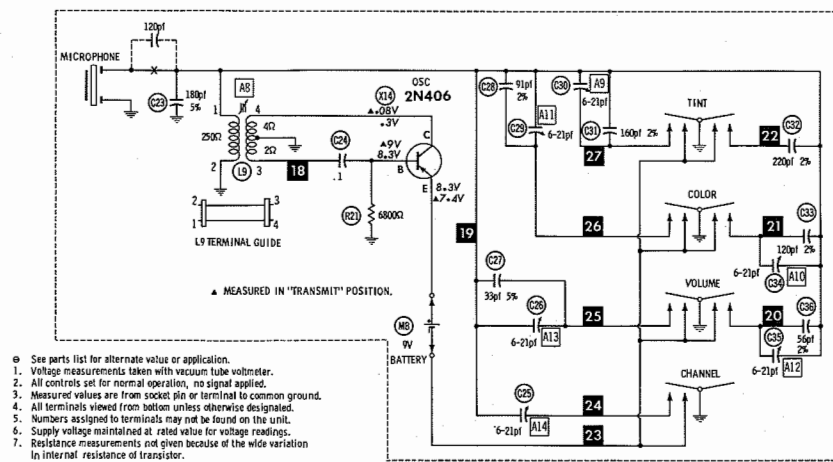
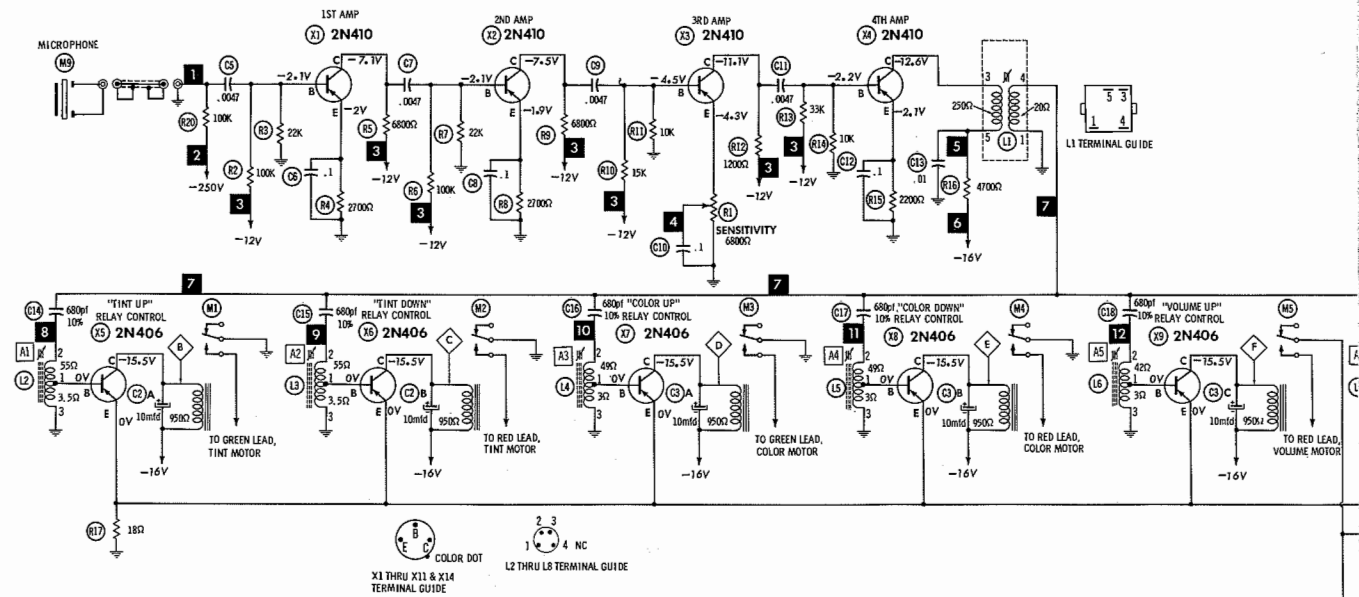


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W.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

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DATE 1-65 SET 736 FOLDER 4-A

SET 736 FOLDER 4-A



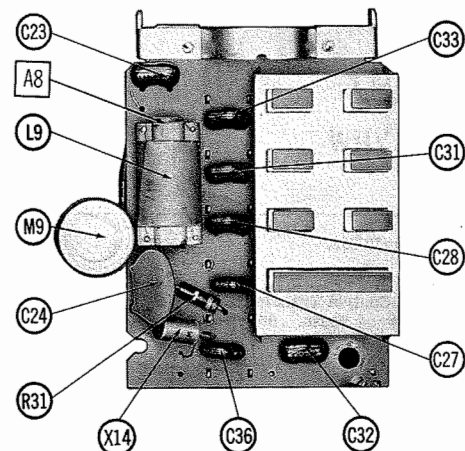
- See parts list for alternate value or application.
- 1. Voltage measurements taken with vacuum tube voltmeter.
- 2. All controls set for normal operation, no signal applied.
- 3. Measured values are from socket pin or terminal to common ground.
- 4. All terminals viewed from bottom unless otherwise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

A. PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITRACE
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Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

117VAC - 7 WATTS (REMOTE ONLY)
TO JUNCTION OF MASTER ON-OFF AND STAND-BY SWITCHES
TO BLACK LEAD OF TV POWER TRANSFORMER PRIMARY

REMOTE CONTROL RECEIVER CTP10A, TRANSMITTER CRK



A Howard W. Sams CIRCUITRACE® Photo

TRANSMITTER

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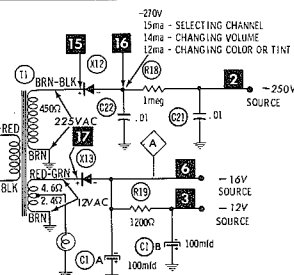
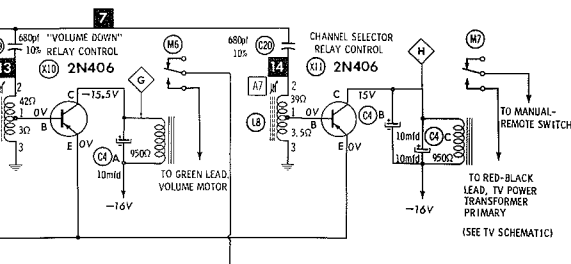
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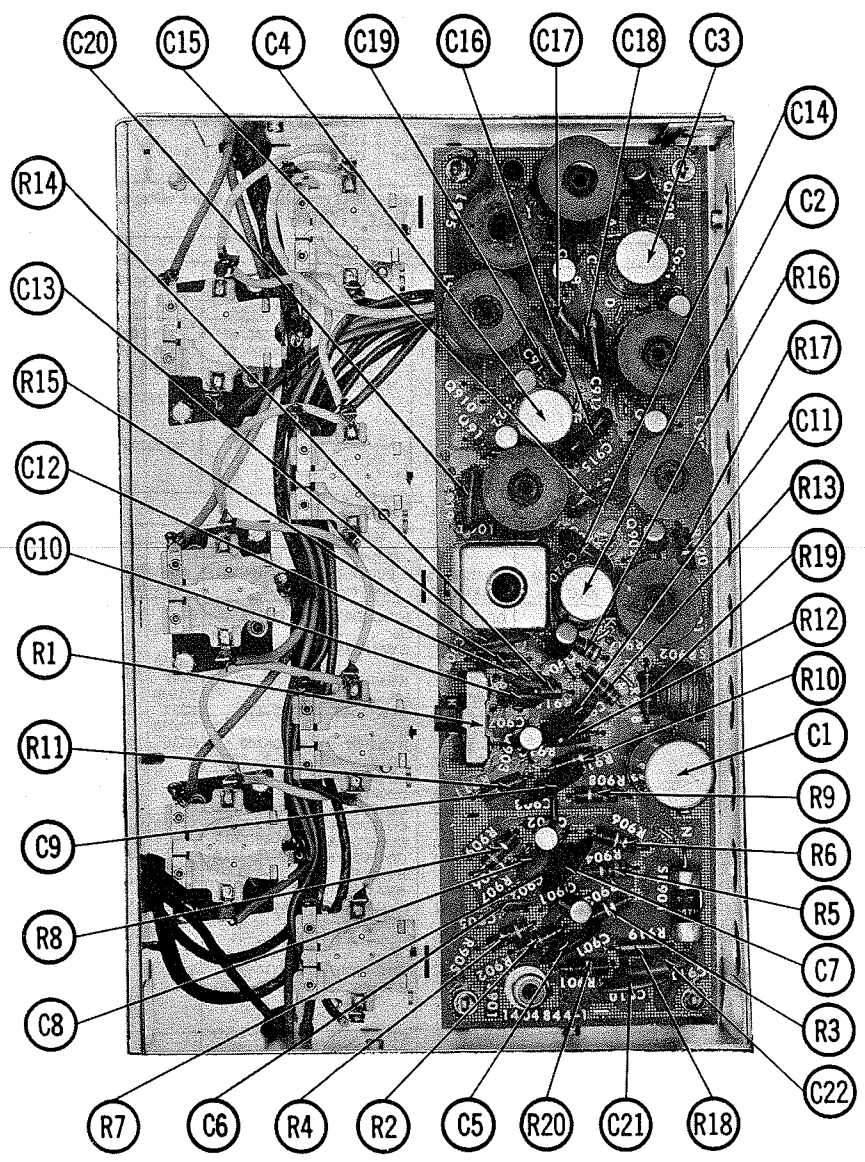
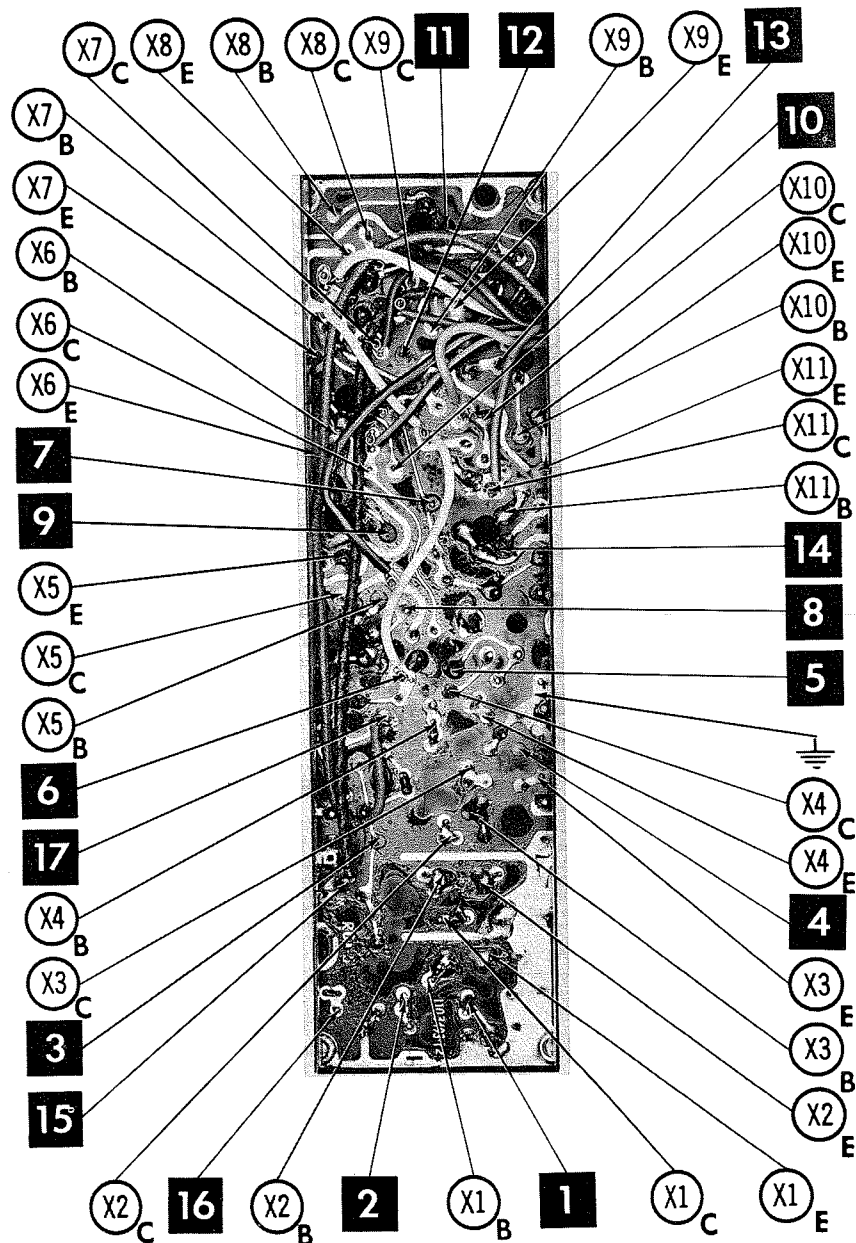
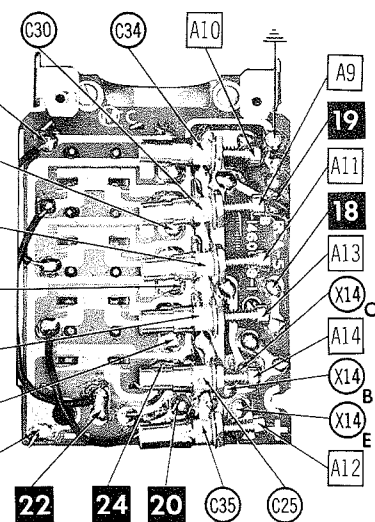
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A Howard W. Sams CIRCUITRACE® Photo



RCA VICTOR REMOTE RECEIVER CRK6A, TRANSMITTER CTPI0E



B-BASE C-COLLECTOR E-EMITTER

RECEIVER

**RECEIVER
WIRING DATA**

PARTS LIST AND DESCRIPTION

TRANSFORMER (POWER)

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid 22AWG) 8524 (Stranded 22AWG) 8570 (Stranded 26AWG)	Available in 12 Colors
---	------------------------------

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2N410	1st Amplifier	DS-25	GE-1	2N410	PNP
X2	2N410	2nd Amplifier	DS-25	GE-1	2N410	PNP
X3	2N410	3rd Amplifier	DS-25	GE-1	2N410	PNP
X4	2N410	4th Amplifier	DS-25	GE-1	2N410	PNP
X5	2N406	Tint Up Relay Control	DS-26	GE-2	2N406	PNP
X6	2N406	Tint Down Relay Control	DS-26	GE-2	2N406	PNP
X7	2N406	Color Up Relay Control	DS-26	GE-2	2N406	PNP
X8	2N406	Color Down Relay Control	DS-26	GE-2	2N406	PNP
X9	2N406	Volume Up Relay Control	DS-26	GE-2	2N406	PNP
X10	2N406	Volume Down Relay Control	DS-26	GE-2	2N406	PNP
X11	2N406	Channel Selector Relay Cont.	DS-26	GE-2	2N406	PNP

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS				DIODES
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X12	.001A	112018	1N1695 or GE-504	1N2070 or 1N2083	1N1763 or 1N2862	40H or F-4	
X13	.005A	112017	1N1692	1N2069 or 1N2092	1N2860	20H or F-2	

When replacing selenium rectifier with silicon type, add series resistance to obtain original output voltage.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		RCA Victor PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AERVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	100	20	112765	CRE623A	NLW100-25	MT1-20	MLV100-25	TT25X100	TE-1211
B	100	20	(973983-11)	CRE623A	NLW100-25	MT1-20	MLV100-25	TT25X100	TE-1211
C2A	10	25	112763	PRS2050	BBRD115	MT1-5	MLV10-25	TC40	TVA-2210
B	10	25	(973983-9)						
C3A	10	20	112764					TCT3109	
B	10	20	(973983-10)						
C	10	20							
C4A	10	20	112764					TCT3109	
B	10	20	(973983-10)						
C	10	20							

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AERVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47
C6	.1	12V	TTD-1	UK20-104	H6		TA010	HY320
C7	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47
C8	.1	12V	TTD-1	UK20-104	H6		TA010	HY320
C9	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47
C10	.1	12V	TTD-1	UK20-104	H6		TA010	HY320
C11	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B247	5HK-D47
C12	.1	12V	TTD-1	UK20-104	H6		TA010	HY320
C13	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C14	680	100V 10%	ADM-19-681	CPR-680J	CD19F681K	DM-15-681K	MS-368	
C15	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C16	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C17	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C18	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C19	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C20	890	100V 10%	ADM-19-891	CPR-890J	CD19F891K	DM-15-891K	MS-368	
C21	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C22	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10
C23	180	5%	ADM-15-181	CPR-180J	CD15F181J	DM-10-181J	MS-318	
C24	.1	50V	TTD-1	CK-104	H6		TA010	TG-P10
C25	6-21		#113740					
C26	6-21		#113740					
C27	33	5%						
C28	91	2%						
C29	6-21		#113740					
C30	6-21		#113740					
C31	160	2%						
C32	220	2%						
C33	120	2%						
C34	6-21		#113740					
C35	6-21		#113740					
C36	56	2%						

RCA Victor Part Number

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			RCA Victor PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Sensitivity	6800Ω	112014 (945364-3)				MTC682L1

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					
		RCA Victor PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	NOTES
L1	Bandpass	112770					
L2	Tint Control	112766					
L3	Tint Control	112766					
L4	Color Control	112767					
L5	Color Control	112767					
L6	Motor Control	112768					
L7	Motor Control	112768					
L8	Channel Selector	112769					

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.	

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M1	Relay	112760	Tint Control "Up"
M2	Relay	112760	Tint Control "Down"
M3	Relay	112760	Color Control "Up"
M4	Relay	112760	Color Control "Down"
M5	Relay	112759	Volume Control "Up"
M6	Relay	112759	Volume Control "Down"
M7	Relay	112759	Channel Selector

TRANSMITTER TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X14	2N406	Oscillator	DS-26	GE-2	2N406	PNP

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		RCA Victor PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L9	Remote Transmitter Osc.	112953					

BATTERIES

ITEM No.	VOLTAGE	RCA Victor PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M8	9V		L6 or H126	206 or E126	M-1611 or TR-126	Mercury

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M9	Microphone Printed Circuit Board	112942A 113363	Complete, including components

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Case - Transmitter, Bottom	113364	Button - "Up" Control for Volume, Color, Tint	112954
Case - Transmitter, Top	113365	Button - "Down" Control for Volume, Color, Tint	112955
Escutcheon - Transmitter, Top	112946		
Button - Channel Selector	112947		

ALIGNMENT INSTRUCTIONS

REMOTE CONTROL RECEIVER

Suggested Alignment Tools: GENERAL CEMENT #8606, 8606L, 8869 ... WALSCO #2543, 2544, 2588

A Transmitter known to be operating properly (preferably one checked for accuracy by a crystal standard) is used as a signal source. For each step depress the appropriate button and hold it down while adjusting receiver circuits. Connect common lead of VTVM to point Ⓛ. Maintain Transmitter at the distance which will provide -7 volt reading at each point.

SIGNAL GENERATOR COUPLING	TRANS. FREQ.	FUNCTION	CONNECT VTVM	ADJUST	REMARKS
1.	35.0KC	Up Tint	DC probe to point Ⓛ	A1	Adjust for maximum.
	36.5KC	Down Tint	DC probe to point Ⓛ	A2	"
	38.0KC	Up Color	DC probe to point Ⓛ	A3	"
	39.5KC	Down Color	DC probe to point Ⓛ	A4	"
	41.0KC	Up Volume	DC probe to point Ⓛ	A5	"
	42.5KC	Down Vol.	DC probe to point Ⓛ	A6	"
	44.0KC	Chan. Sel.	DC probe to point Ⓛ	A7	"

REMOTE CONTROL TRANSMITTER

Suggested Alignment Tools: A8 GENERAL CEMENT #8606, 8606L, 8869 ... WALSCO #2543, 2544, 2588

A9 thru A14. GENERAL CEMENT #9087, 8290, 8868 WALSCO #2525, 2526, 2587
A Transmitter known to be operating properly (preferably one that has been checked with a crystal standard) may be used as a signal source. Loosely couple the Transmitter which is adjusted to the Vertical Input of a Scope. Loosely couple the standard Transmitter to the Horizontal Input of Scope. Keep Transmitters at least 2 feet apart.

SIGNAL GENERATOR COUPLING	TRANS. FREQ.	FUNCTION	CONNECT SCOPE	ADJUST	REMARKS
1.	35KC	Up Tint	See above Alignment Instructions.	A8	Adjust for zero beat indication.
	36.5KC	Down Tint	"	A9	"
	38KC	Up Color	"	A10	"
	39.5KC	Down Color	"	A11	"
	41.0KC	Up Volume	"	A12	"
	42.5KC	Down Vol.	"	A13	"
	44.0KC	Chan. Sel.	"	A14	"

PARTS LIST AND DESCRIPTION (CONTINUED)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	RCA Victor	MERIT	STANCOR	THORDARSON	TRIAD	
			PART No.	PART No.	PART No.	PART No.	PART No.	
T2	8800Ω Tap @ 12%	3-4Ω	111395 (962828-11)					
T3	8800Ω Tap @ 12%	3-4Ω	111395 (962828-12)					

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			RCA Victor		LITTELFUSE		BUSS	
			PART No.	HOLDER	PART No.	HOLDER	PART No.	HOLDER
M12	1/2" length fuse wire	105252						
M13	1 1/2" length fuse wire							

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft. 17109 (Plastic) or 17129 (Rubber) - 9 Ft.
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8401 or 8421
Phono Pick-up Arm Cable	Use BELDEN No. 8430 (Two Conductor-Unshielded) 8429 (Two Conductor-Shielded) 8419 (Three Conductor-Shielded)

SET 736 FOLDER 4-B

RCA VICTOR AMP
CHASSIS RS-203C

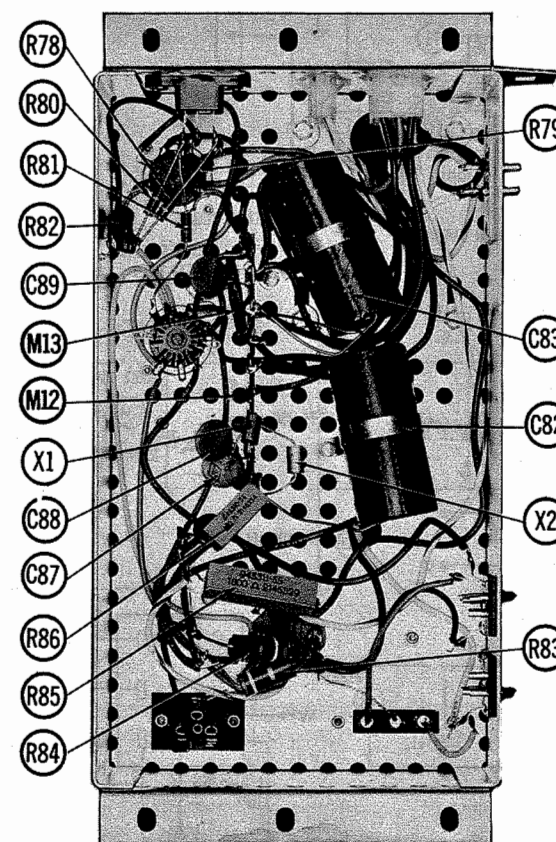
PHOTOFACT® Folder



**RCA VICTOR AMP
CHASSIS RS-203C**

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 736 FOLDER 4. File this Folder with the TV Folder in the yellow filing jacket provided.



RCA VICTOR AMP
CHASSIS RS-203C

TRADE NAME	RCA Victor
SUPPLIER	For current address, see Master Index.
TYPE SET	Stereo Power Amplifier
TUBES	Two
POWER SUPPLY	110-120 Volts AC, 60 Cycle

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



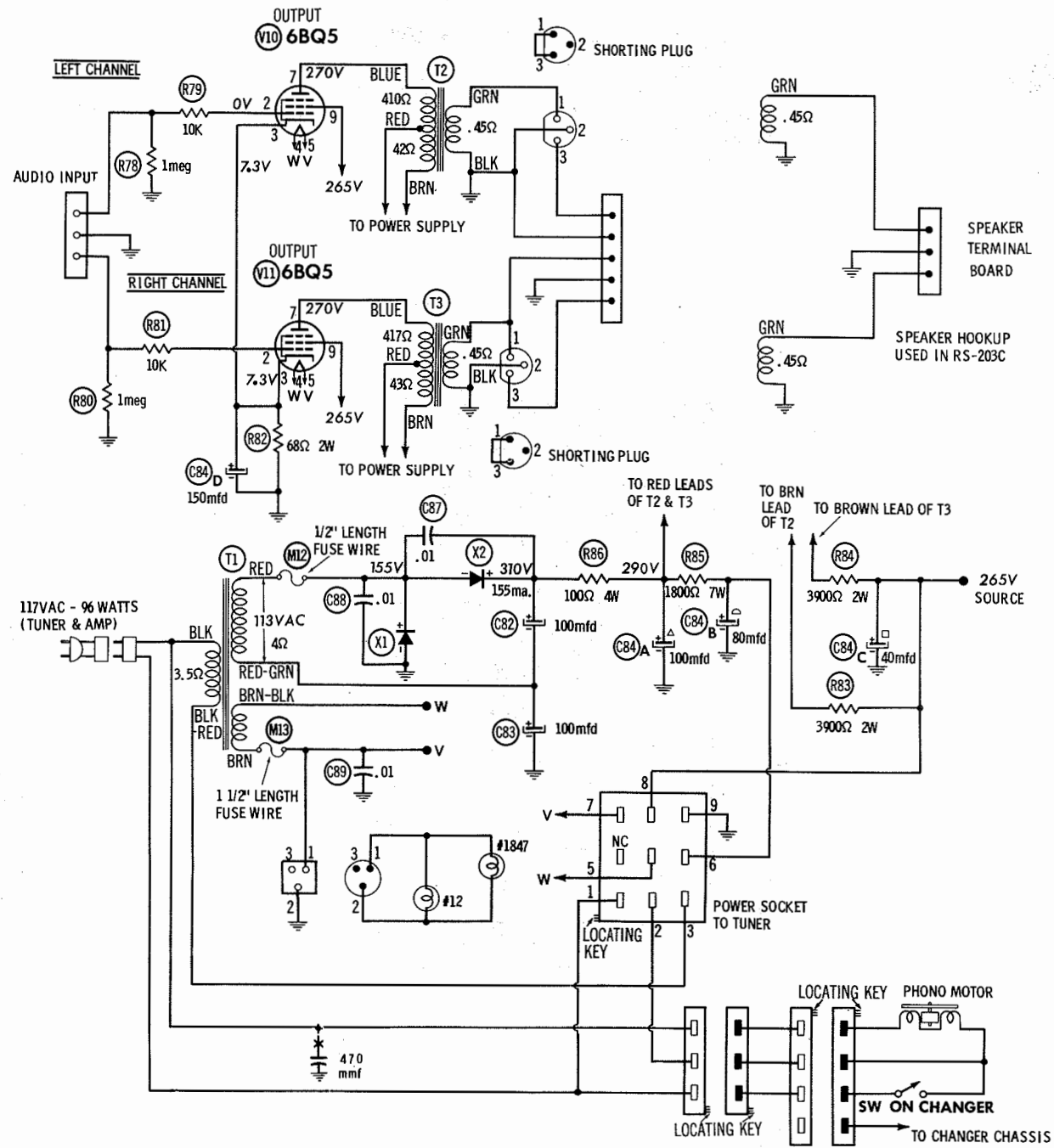
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DATE 1-65 SET 736 FOLDER 4-B

SET 736 FOLDER 4-B

4



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V10	6BQ5	NC	340K	68Ω	FIL	FIL	NC	† 450Ω	NC	† 2100Ω
V11	6BQ5	NC	380K	68Ω	FIL	FIL	NC	† 450Ω	NC	† 2100Ω

† MEASURED FROM OUTPUT OF X2.

NC NO CONNECTION

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

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**RCA VICTOR
 AMP CHASSIS RS-203B/C**

PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements.
 Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

TUBES

ITEM No.	USE	TYPE	REPLACEMENT DATA				
			AMPEREX	GENERAL ELECTRIC	RCA	RAYTHEON	SYLVANIA
V10	Output	6BQ5					
V11	Output	6BQ5					

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.155A	108379 (34174)	1N3194 ①	1N1784 or 1N2883 or 1N3195	40H or F-4
X2	.155A	108379 (34174)	1N3194 ①	1N1784 or 1N2883 or 1N3195	40H or F-4

① A Dual Unit, VB600, may be used instead of two single units.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	RCA Victor PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C82	100	200	111399 (1441070-1)	PRS1595	BR100-250	QT1-24.1	TD-100-200	TC1285	TVA-1445
C83	100	200	111399 (1441070-1)	PRS1595	BR100-250	QT1-24.1	TD-100-200	TC1285	TVA-1445
C84A	100	350	111400 (972187-23)	AFHS-4-57-91	D0042 NLW150-15	XCS-41 MT1-23	TMQ-4304 MLV150-15	FP333.88 TT15X150	TVLS3846.5* TE-1163
C84B	80	350							
C84C	40	350							
C84D	150	15							
C85	8	10NP	102847 (943319)	PRS6200	BBR8-150	NPQT-3		TCN108	TVANS-1112*
C86	8	10NP	102847 (943319)	PRS7315	BBR8-150	NPQT-3		TCN108	TVANS-1112*

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

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMenco PART No.	MALLORY PART No.	SPRAGUE PART No.
C87	.01		BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-S10
C88	.01		BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-S10
C89	.01		BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-S10

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R85	1800Ω 7W	PW7-1800	7W-SQ-1800		R86	100Ω 4W		4G-100	

TRANSFORMER (POWER)

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	117VAC @ .9A	113VAC @ .155A DC	6.3VAC @ 4.5A	111401 (981795-7)	P-4082 ①				① Drill new mounting hole(s).