

## CABINET-REAR VIEW

## DISASSEMBLY INSTRUCTIONS

### CHASSIS REMOVAL

1. Remove all knobs and cabinet back held by 5 screws. Loosen antenna bracket and 4 screws holding tuners and control assemblies.
2. Loosen convergence assembly held by 1 screw. Unplug picture tube socket, high voltage lead, yoke leads, convergence panel plug, and speaker leads.
3. Remove 4 chassis bolts. Lift tuner from screws and remove chassis and tuner assembly.

### PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions.
2. Place cabinet face down on a soft protective surface. Remove blue lateral magnet, purity ring magnet assembly, and convergence magnet assembly from picture tube neck.
3. Loosen yoke clamp and remove yoke. Remove picture tube shield held by 4 bolts at each corner.
4. Remove 8 bolts from picture tube mounting brackets. Use brackets as handles and lift picture tube out and place on soft protective surface.

## PHOTOFACT® Folder

with CIRCUITRACE



MODEL 14F617MU

TRADE NAME	RCA Victor	Models	Chassis	Remote Chassis	Transmitter Chassis
	14F612MV/MU, 14F615MV/MU, 14F616MV/MU, 14F617MV/MU		CTC15C/D		
	14G655RV, 14G656RV, 14G736RV, 14G754RV, 14G768RV, 14G769RV, 14G845RV, 14G846RV		CTC15R	CTP10A	CRK6A
	14F615RV, 14F616RV		CTC15T	CTP10A	CRK6A
	14G655MV/MU, 14G656MV/MU, 14G657MV/MU, 14G738MV/MU, 14G748MV/MU, 14G754MV/MU, 14G760MV/MU, 14G768MV/MU, 14G769MV/MU, 14G795MV/MU, 14G796MV/MU, 14G805MV/MU, 14G806MV/MU, 14G835MV/MU, 14G836MV/MU, 14G845MV/MU, 14G846MV/MU		CTC15AE/AF		
	14G797MV		CTC15AE		
	14G875MV/MU, 14G876MV/MU, 14G884MV/MU, 14G896MV/MU, 14G900MV/MU, 14G908MV/MU		CTC15AA/AB		
	14G912MV/RV		CTC15E/U		

Some Models using UHF Tuner KRK112 are identified by letter "X" following the Model number.

MANUFACTURER	Radio Corporation of America, RCA Victor Home Instrument Div. Indianapolis, Indiana
TYPE SET	Color Television Receiver with Remote Control Receiver used in Some Versions
TUBES	VHF: Twenty-Six, UHF: Twenty-Seven
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)

MISC ADJUSTMENT..... PAGE 7

BLOCK DIAGRAM..... PAGE 22

## SERVICING IN THE FIELD

### SAFETY GLASS

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

### FUSE OR FUSE DEVICE

A 1½" #26 fuse wire is used for filament protection. (For location, see M1 in photo "Chassis - Bottom View".)

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

### VHF OSCILLATOR ADJUSTMENT

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

### AGC

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

### HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horiz. Osc. Coil (waveform slug B1). (See "Tube Placement Chart" for location.)

### HORIZONTAL LINEARITY

The linearity may be varied by a Horizontal Efficiency Coil. (See "Tube Placement Chart" for location.)

### FOCUS

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

### CENTERING

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

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

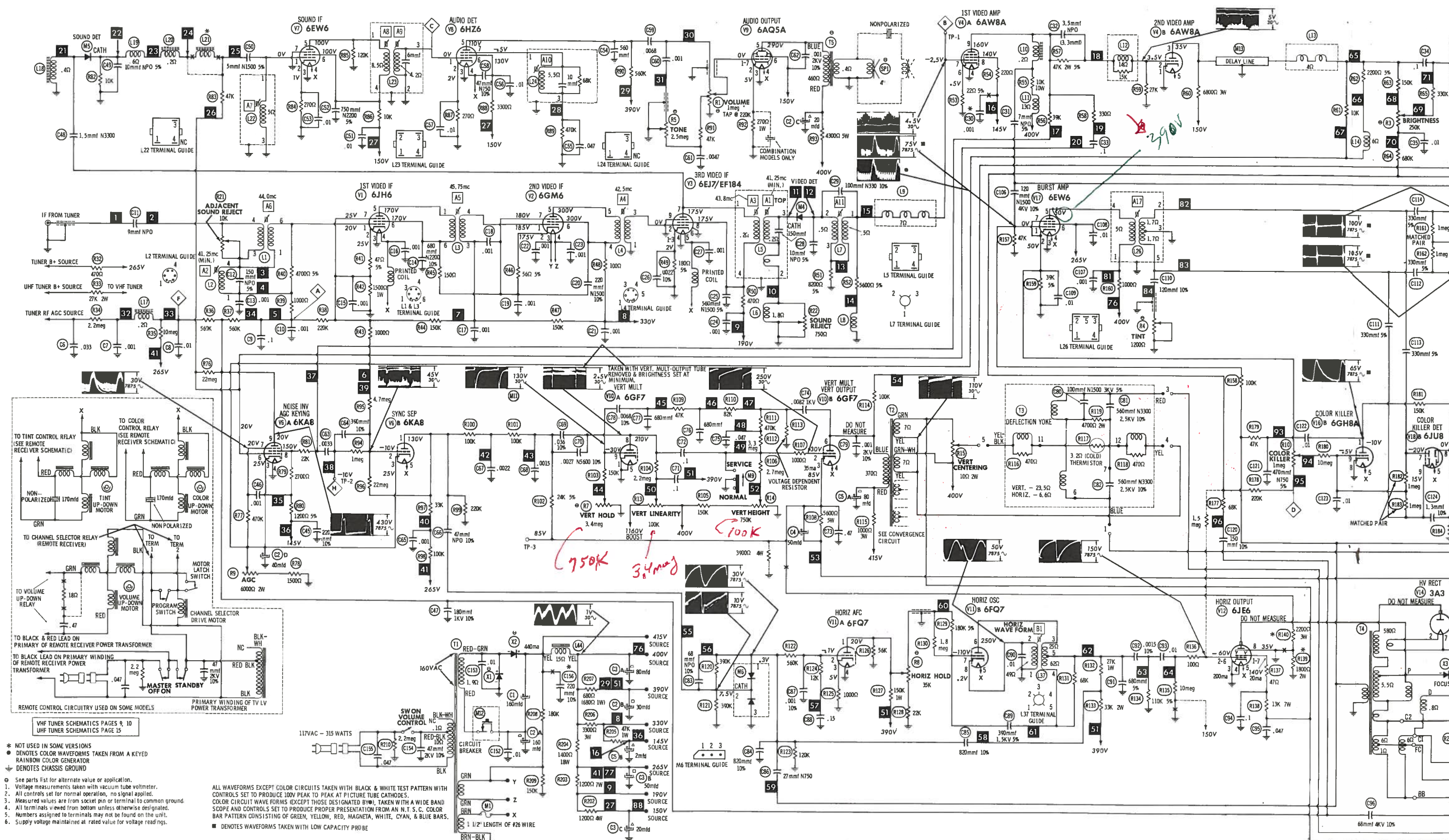


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MB374

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DATE 1-64

SET 673 FOLDER 2

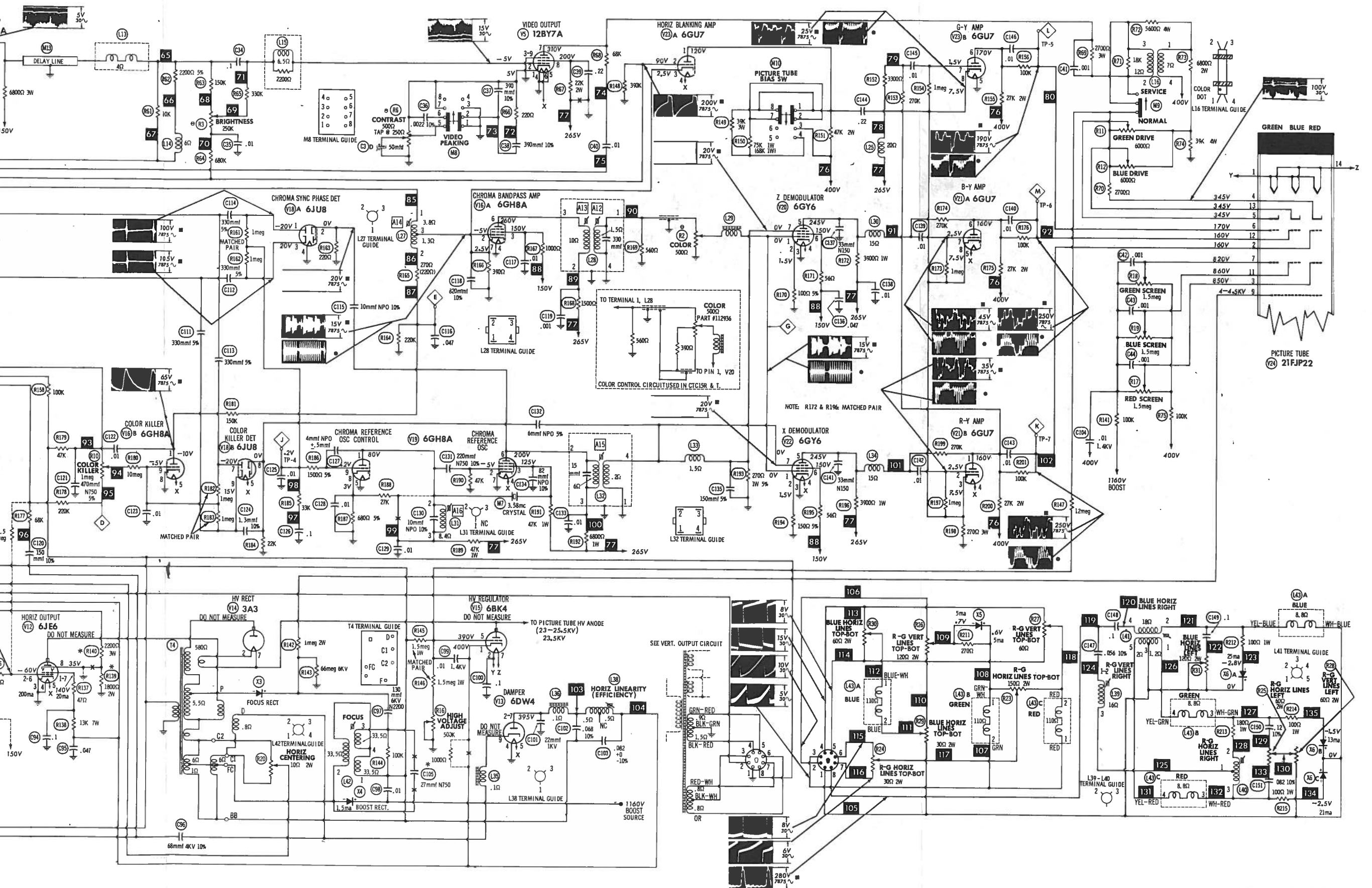


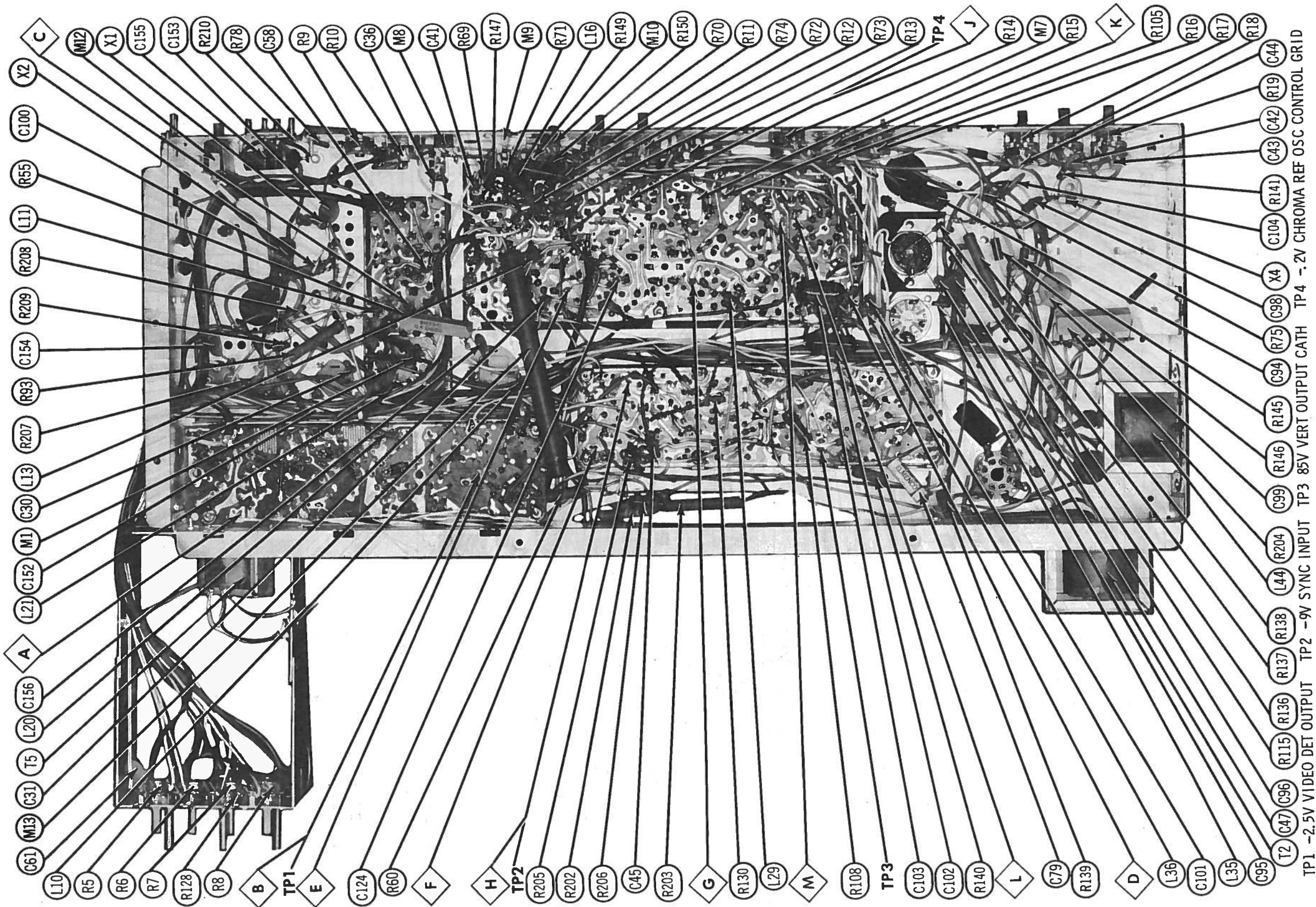
- \* NOT USED IN SOME VERSIONS  
 • DENOTES COLOR WAVEFORMS TAKEN FROM A KEYED RAINBOW COLOR GENERATOR  
 + DENOTES CHASSIS GROUND  
 e See parts list for alternate value or application.  
 1. Voltage measurements taken with vacuum tube voltmeter.  
 2. All controls set for normal operation, no signal 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.

ALL WAVEFORMS EXCEPT COLOR CIRCUITS TAKEN WITH BLACK & WHITE TEST PATTERN WITH CONTROLS SET TO PRODUCE 100V PEAK TO PEAK AT PICTURE TUBE CATHODES. COLOR CIRCUIT WAVEFORMS (EXCEPT THOSE DESIGNATED BY M) TAKEN WITH A WIDE BAND SCOPE AND CONTROLS SET TO PRODUCE PROPER PRESENTATION FROM AN N.T.S.C. COLOR BAR PATTERN CONSISTING OF GREEN, YELLOW, RED, MAGNETA, WHITE, CYAN, & BLUE BARS.

■ DENOTES WAVEFORMS TAKEN WITH LOW CAPACITY PROBE

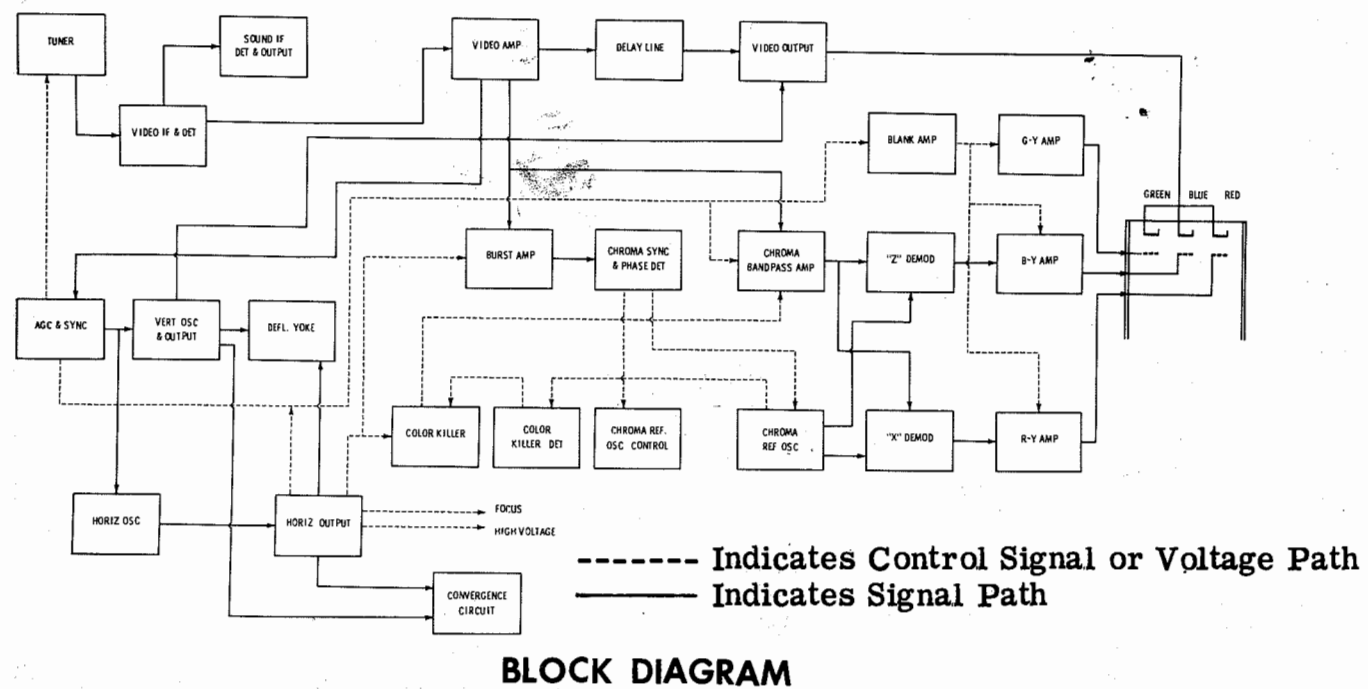
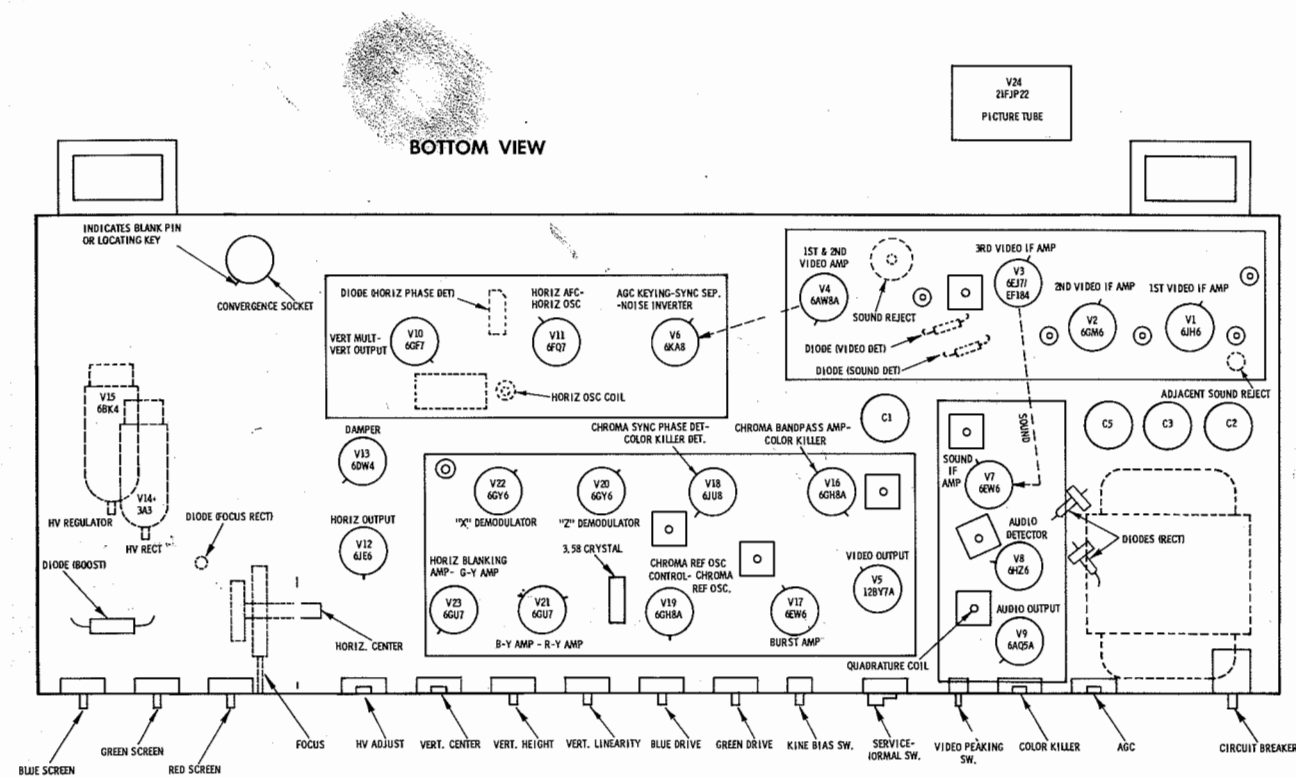




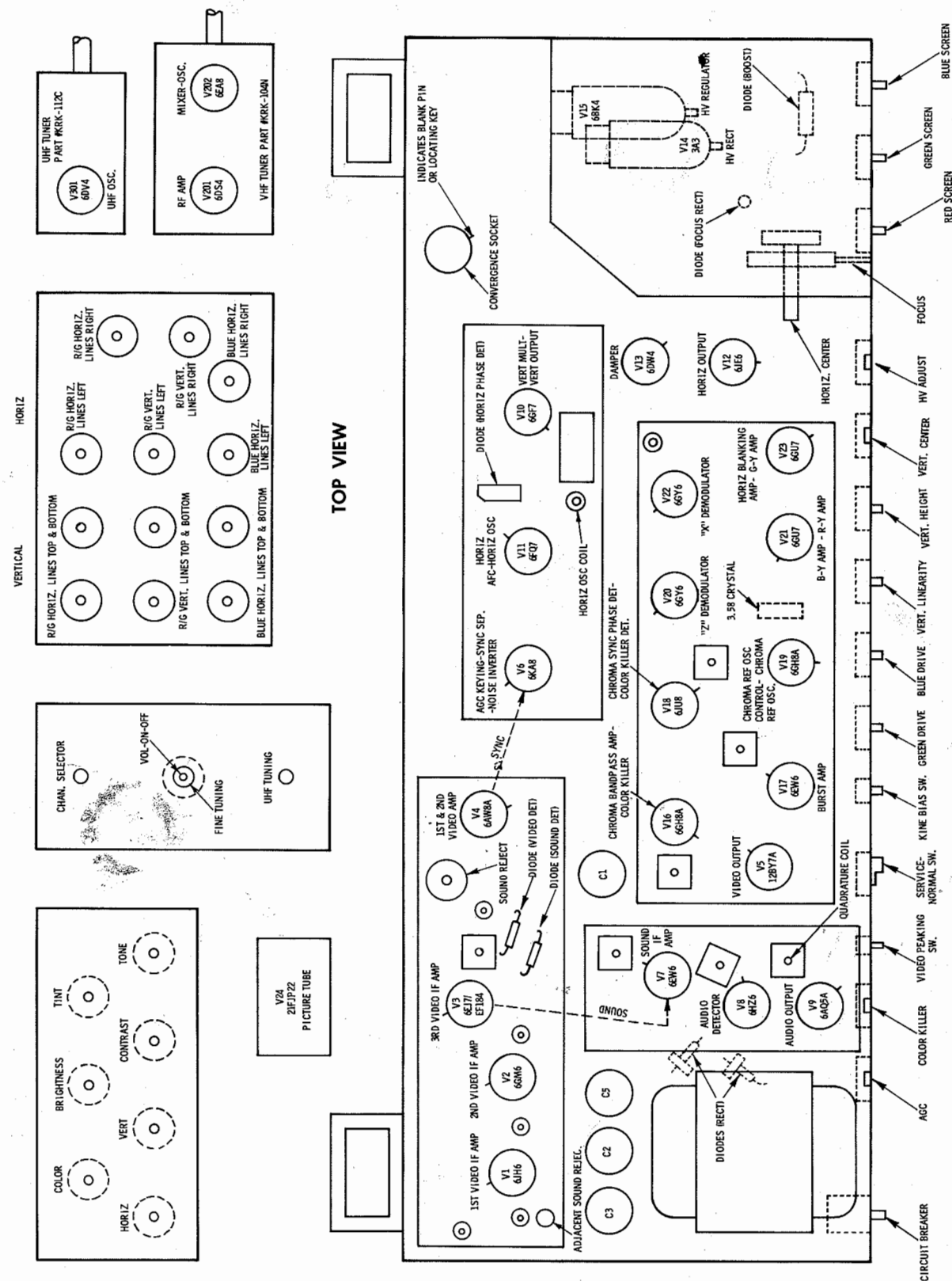


RCA VICTOR  
CHASSIS CT15AA/AB/AE/AF/C/D/E/R/T/U  
CHASSIS-BOTTOM VIEW

## TUBE PLACEMENT CHART



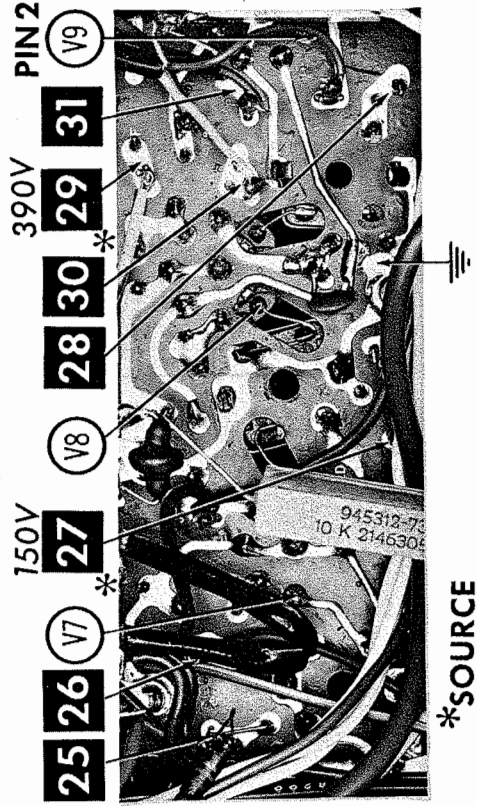
## TUBE PLACEMENT CHART



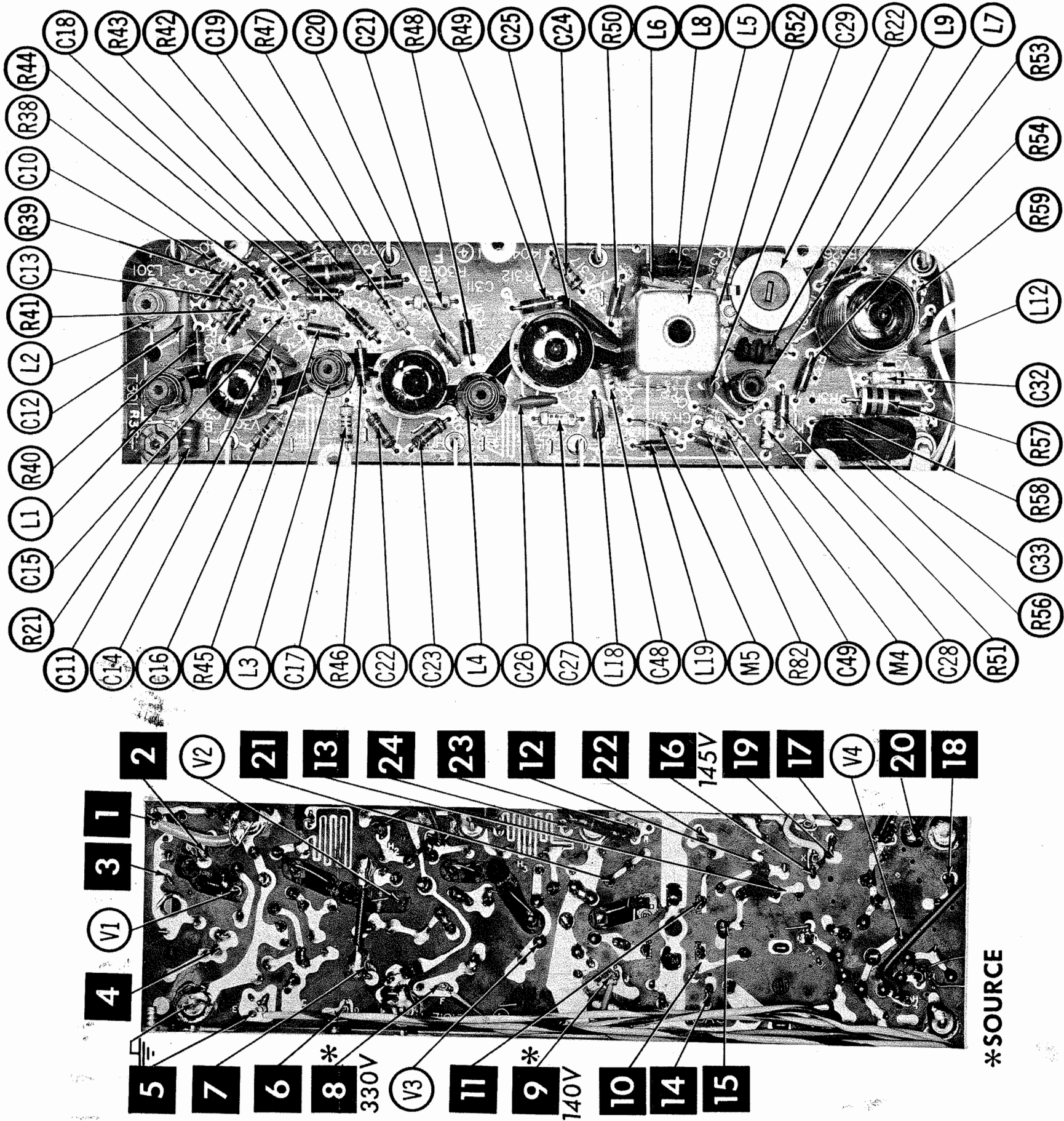
**RCA VICTOR CHASSIS**  
**CTC15AA/AB/AE/AF/C/D/E/R/T/U**

## FOLDER 2



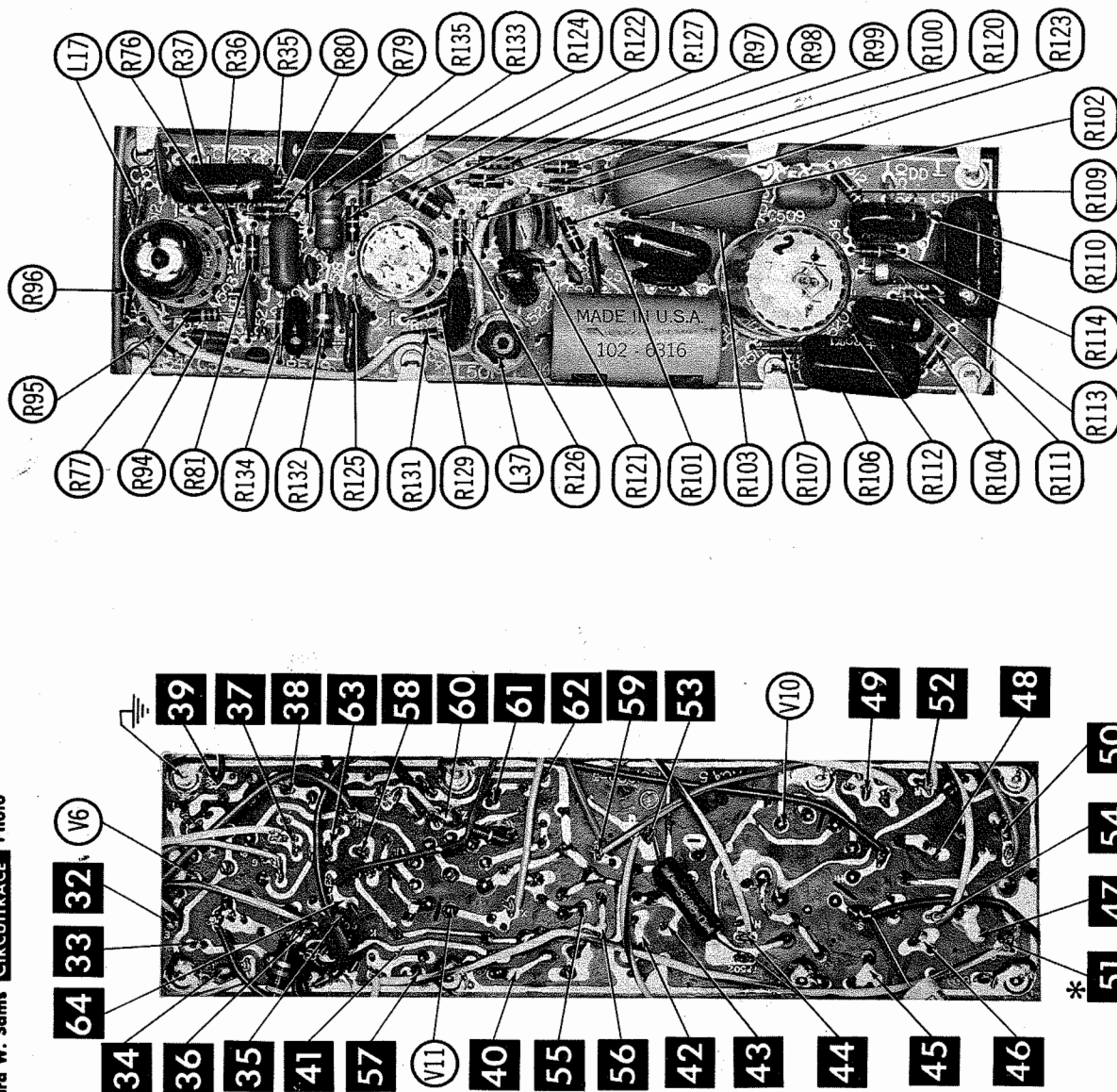


### SOUND PRINTED BOARD

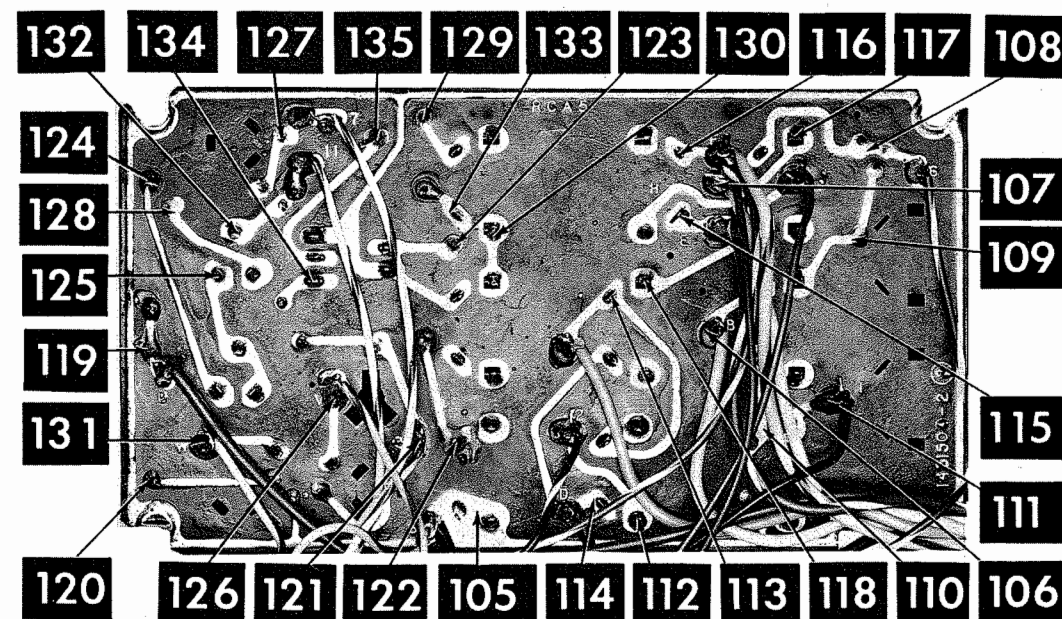
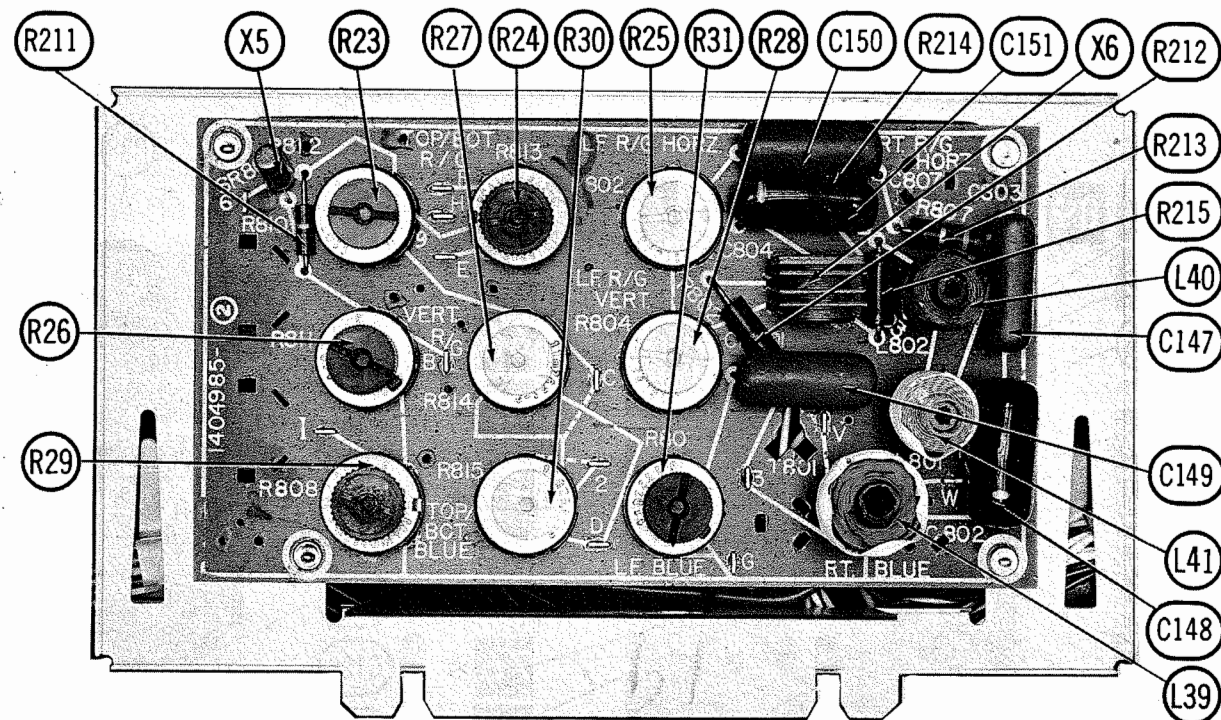


### VIDEO IF PRINTED BOARD

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



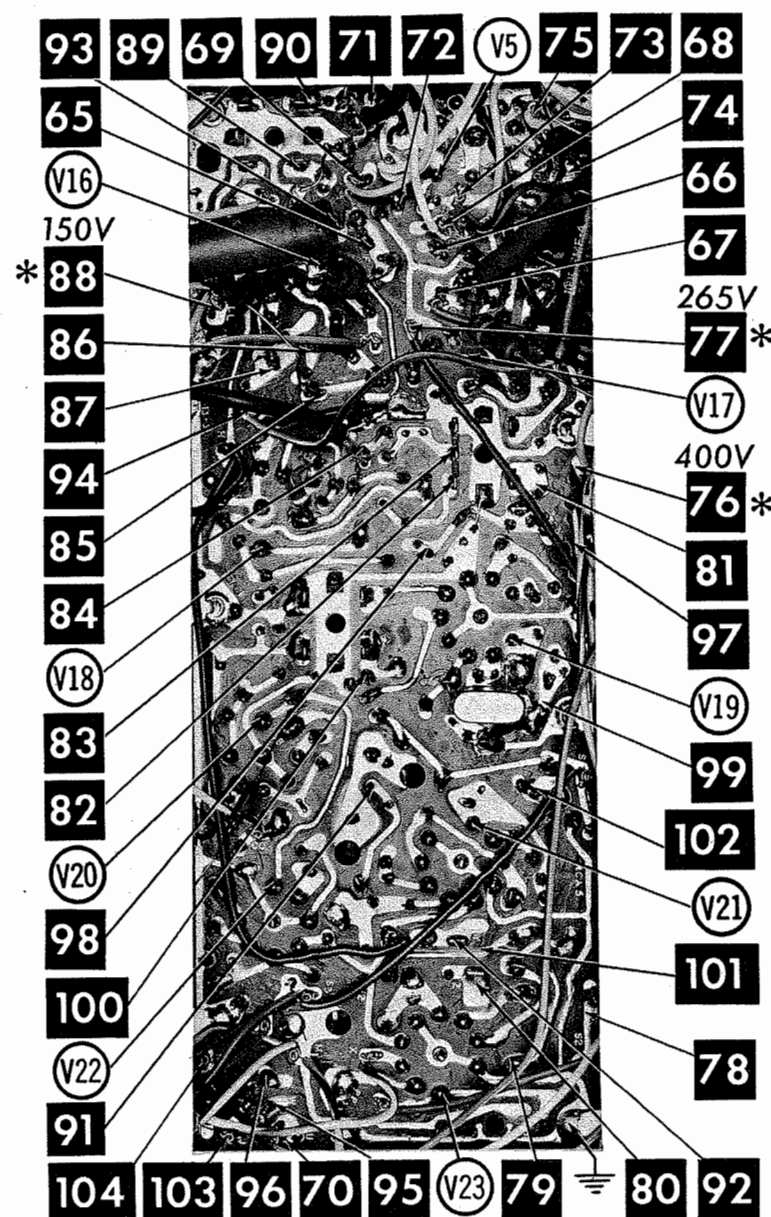
VERT, HORIZ, SWEEP PRINTED BOARD



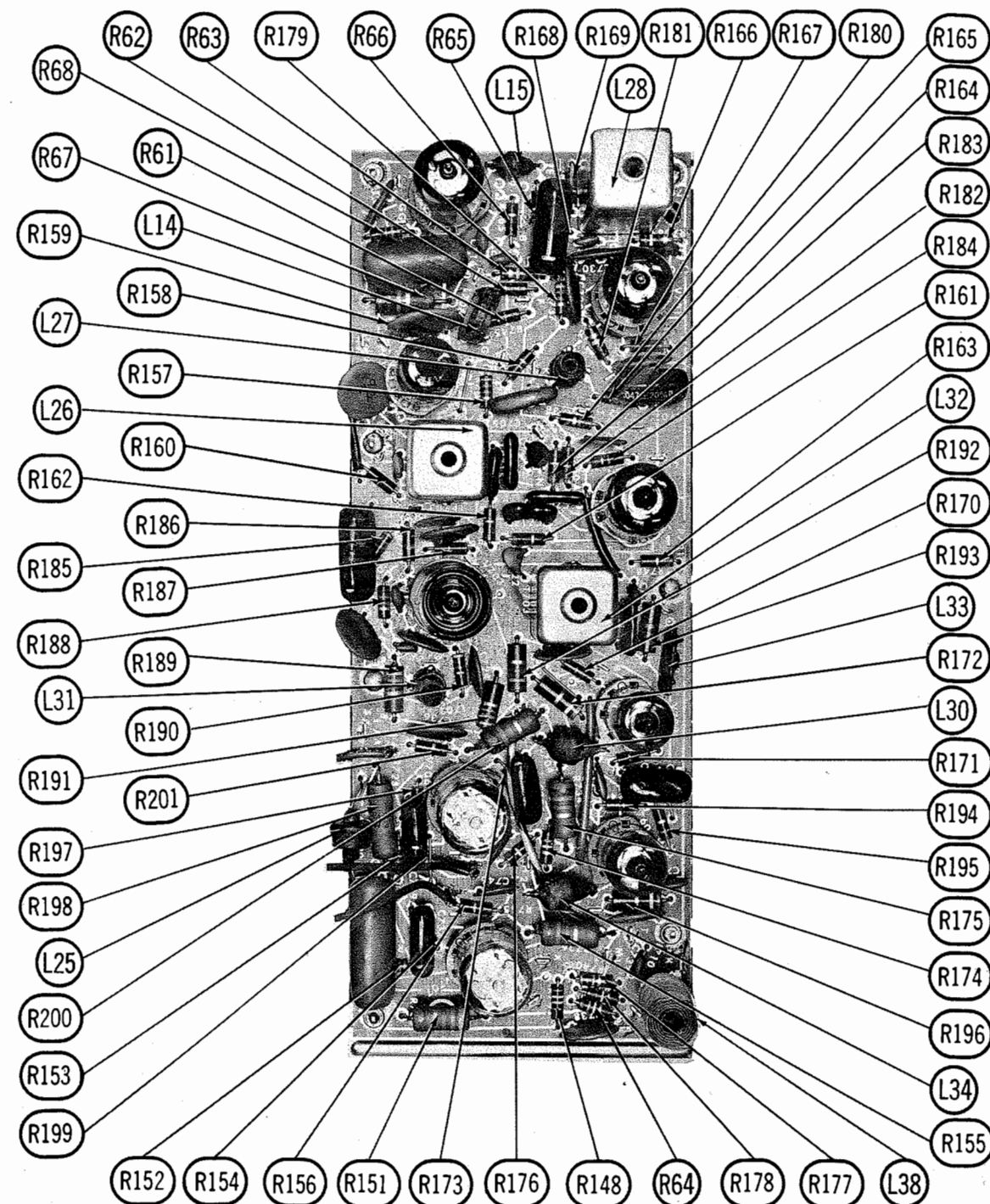
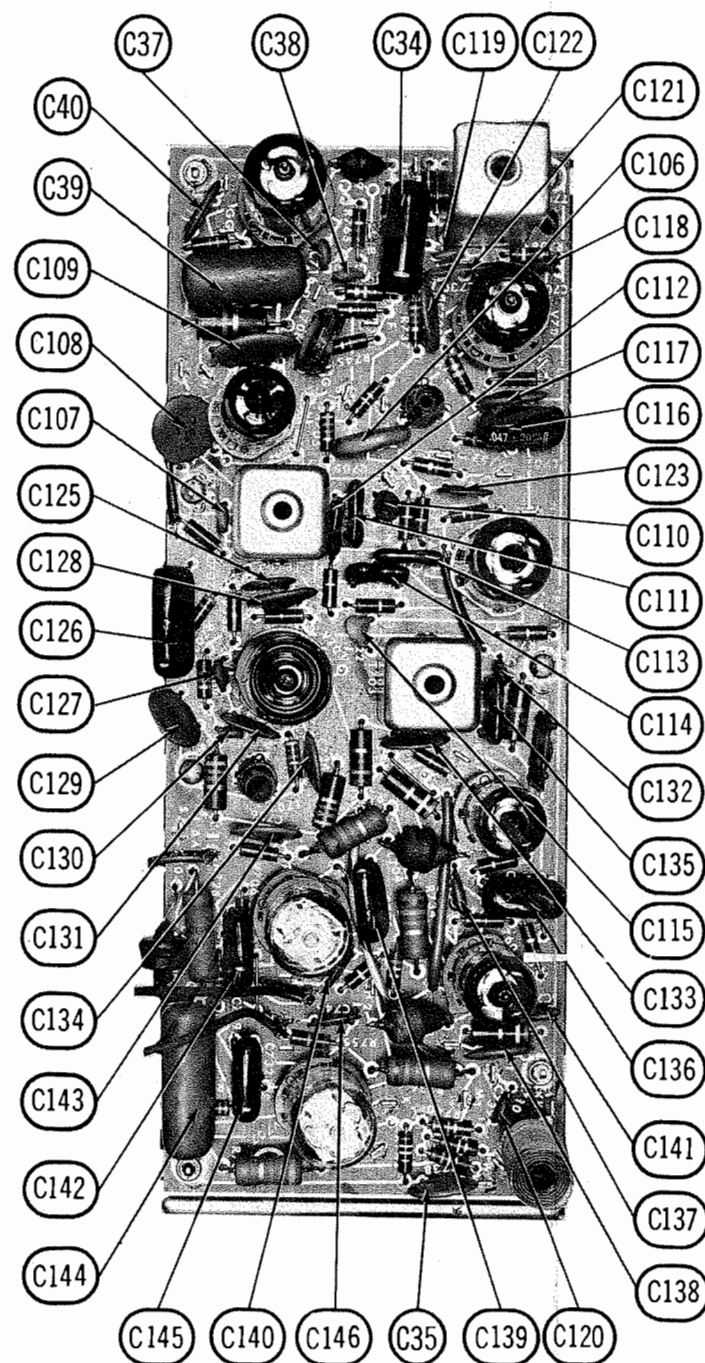
A Howard W. Sams CIRCUITRACE® Photo

CONVERGENCE PRINTED BOARD





\* SOURCE



PRINTED BOARD ( COLOR CIRCUIT)



## 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	Pin 13	Pin 14
V1	6JH6	220K	1450Ω	FIL	FIL	● 216Ω	● 216Ω	1400Ω							
V2	6GM6	75K	1N	FIL	FIL	† 3400Ω	† 3400Ω	● 56Ω							
V3	6EJ7/EF184	180Ω	0Ω	180Ω	FIL	FIL	0Ω	† 3100Ω	3100Ω	0Ω					
V4	6AW8A	0Ω	# 22K	† 7500Ω	FIL	FIL	22Ω	● 1000Ω	† 32K	† 10K					
V5	12BY7A	320Ω	650K	0Ω	FIL	FIL	FIL	† 6500Ω	† 23K	0Ω					
V6	6KA8	† 60K	4meg	3000Ω	FIL	FIL	55K	470K	† 30K	† 700K					
V7	6EW6	5Ω	270Ω	FIL	FIL	† 14K	† 14K	0Ω							
V8	6HZ6	4.5Ω	270Ω	FIL	FIL	† 560K	† 7100Ω	470K							
V9	6AQ5A	60K	270Ω	FIL	FIL	† 4700Ω	† 3800Ω	NC							
V10	6GF7	0Ω	2.7meg	2100Ω	FIL	FIL	† 1370Ω	NC	† 3.2meg	280K					
V11	6FQ7	# † 20K	670K	1000Ω	FIL	FIL	† 60K	215K	45Ω	0Ω					
V12	6JE6	† 13K	9.5meg	0Ω	FIL	FIL	9.5meg	† 13K	1600Ω	NC					TOP CAP † 6.9Ω
V13	6DW4	NC	† 26Ω	NC	FIL	FIL	NC	† 26Ω	NC	2.9meg					
V14	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE													TOP CAP † 58Ω
V15	6BK4	† 22Ω	FIL	NC	NC	† 1.5meg	NC	FIL	NC						TOP CAP INF
V16	6GH8A	370K	220K	† 4800Ω	FIL	FIL	† 2900Ω	390Ω	0Ω	11meg					
V17	6EW6	32K	38K	FIL	FIL	† 1000Ω	† 1400Ω	38K							
V18	6JU8	▲ 1meg	220Ω	▲ 1meg	FIL	FIL	0Ω	12meg	22K	12meg					
V19	6GH8A	† 20K	47K	† 48K	FIL	FIL	† 8600Ω	0Ω	680Ω	1N					
V20	6GY6	135Ω	100Ω	FIL	FIL	† 5300Ω	† 3900Ω	2.2Ω							
V21	6GU7	† 22K	1meg	270Ω	FIL	FIL	† 22K	1meg	270Ω	0Ω					
V22	6GY6	135Ω	150Ω	FIL	FIL	† 5300Ω	† 3900Ω	.6Ω							
V23	6GU7	† 47K	260K	390Ω	FIL	FIL	† 22K	1meg	270Ω	0Ω					
V24	21FJ22	FIL	127K	■ 420K	† 6400Ω	† 4500Ω	† 127K	■ 420K	NC	† 70meg	NC	■ 420K	† 127K	† 4500Ω	FIL
V201	6DS4	NC	† 17K	NC	3.4meg	NC	NC	NC	0Ω	NC	FIL	NC	FIL		
V202	6EA8	† 11K	100K	† 121K	FIL	FIL	† 122K	0Ω	121K	† 126K					
V301	6DV4	† 30K	† 30K	NC	5600Ω	NC	5600Ω	18K	NC	NC	FIL	NC	FIL		
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	Pin 13	Pin 14

- # THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
 ● READING DEPENDS ON POLARITY OF METER CONNECTIONS.  
 † MEASURED FROM PIN 9 OF V13.  
 ▲ MEASURED FROM PIN 9 OF V19.  
 ● MEASURED FROM PIN 2 OF V2.  
 ■ MEASURED FROM CATHODE OF X4.  
 † MEASURED FROM OUTPUT OF X2.  
 • VHF TUNER KRK104N AND UHF TUNER KRK112C.  
 NC NO CONNECTION

## 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 0-1500 microammeter in series with the cathode lead of the HV regulator tube.  
 A VTVM thru a high voltage probe to picture tube anode connector.  
 Point Ⓢ to ground.  
 A short across horizontal oscillator cathode coil (pin 8 to ground).  
 Tune in a TV station and set all controls for normal operation.  
 Adjust the Horizontal Hold control until the picture "floats" with the blanking bars vertical. Remove the short from the Horizontal Oscillator Cathode and adjust B1 until the picture "floats" horizontally. Remove the short from point Ⓢ. Adjust the Horizontal Linearity Coil for MINIMUM current in the horizontal output tube (should not exceed 210MA).

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

Adjust Focus, Height and Vertical Linearity controls.

### AGC ADJUSTMENT

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

### COLOR AFC ALIGNMENT

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

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

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

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

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

### PURITY ADJUSTMENTS

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

Connect the blue and green grids of the picture tube through individual 100K resistors to ground. Loosen the deflection yoke and move it rearward until it is against the convergence yoke assembly.

Adjust the tabs on the purity magnet, and rotate 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 possibly "Down" position and begin again. Return the Normal-Service switch to "Normal". Adjust the blue and green drive controls to eliminate coloring in the dark and bright areas of the picture.

### CONVERGENCE ADJUSTMENTS

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

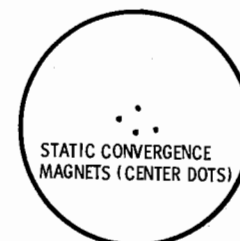


FIG. A

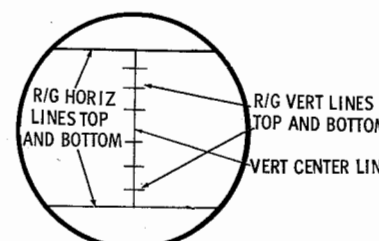


FIG. B  
(RED & GREEN ONLY)

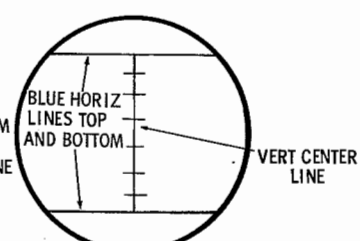


FIG. C  
(BLUE BARS)

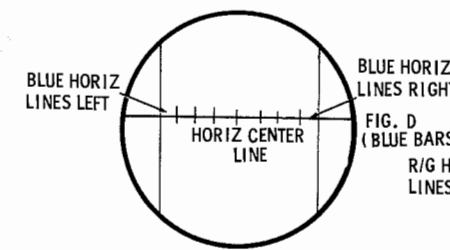


FIG. D  
(BLUE BARS)

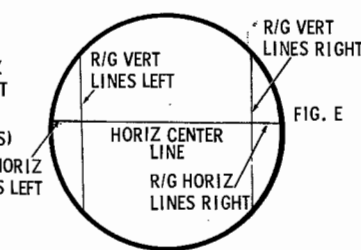


FIG. E

SET 673 FOLDER 2

# 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 A10 ..... GENERAL CEMENT #9302, 8808L, 8869 ... WALSCO #2511, 2544, 2588  
Mixer Plate Coil .. GENERAL CEMENT #9302, 9296, 9297 .... WALSCO #2511, 2546, 2547

## VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point A) 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 B. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC 47.25MC	A1, A2, R22 (Sound Reject Control)	Adjust for MINIMUM. 45.0 42.75 45.75 42.2 50% 47.25 41.25 FIG. 1
2. Connect DC probe of a VTVM thru a 47K resistor to point B. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	43.8MC 42.5MC 45.75MC 44.0MC	A3, A4, A5, A6, Mixer Plate Coil	Adjust for maximum amplitude.
3. Connect vertical input of a scope to point B. Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.2MC 45.75MC 45.0MC 45.75MC 47.25MC		Adjust for maximum gain and symmetry of response with markers as shown in Figure 1. In order to obtain a proper response, it may be necessary to slightly retouch A3, A4, A5, A6 and Mixer Plate Coil for optimum response.

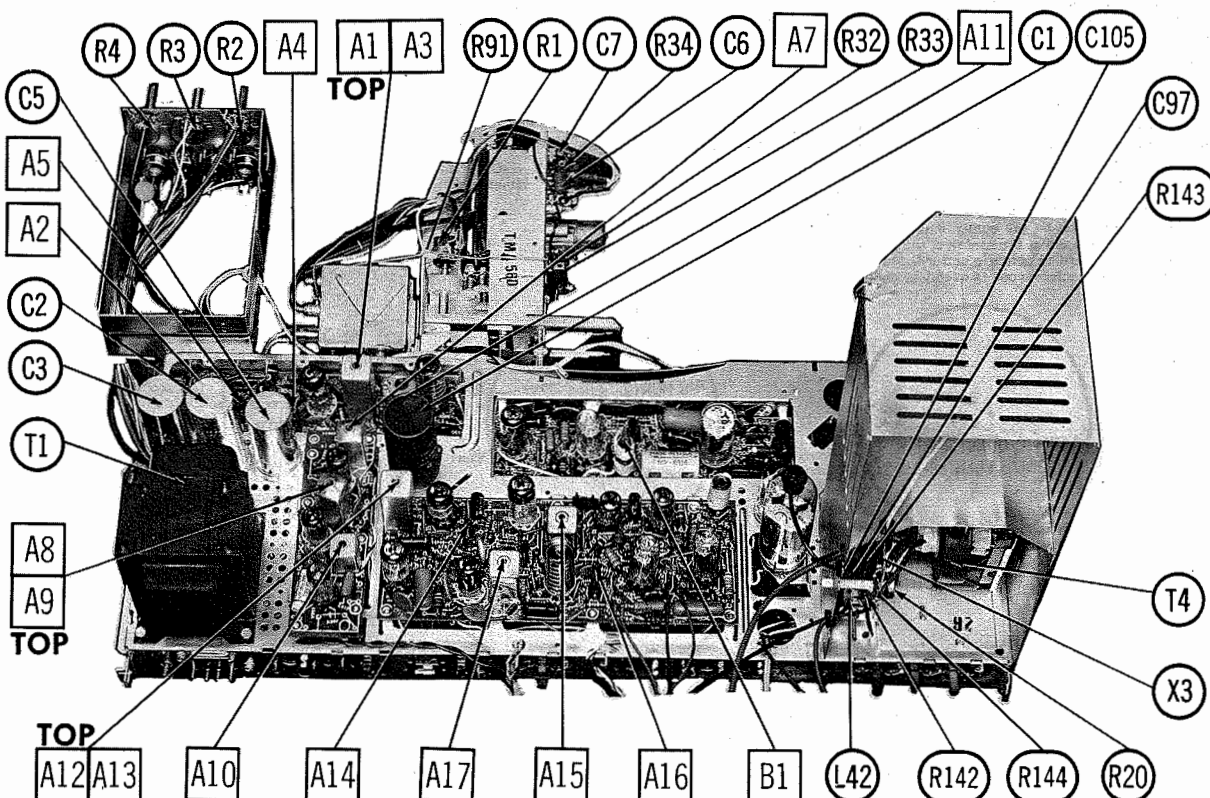
## SOUND ALIGNMENT

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

## 4.5 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.

ALIGNMENT CONTINUED ON PAGE 17



CHASSIS—TOP VIEW

# ALIGNMENT INSTRUCTIONS (cont)

## 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 D. Connect a -2 volt supply to point E. Connect a -15 volt supply to point F. Positive of all supplies to ground. Connect a jumper from point G to ground. Turn the color intensity to maximum. Remove the Horizontal Output tube and connect a 2000Ω 100W resistor from Source "B" to ground.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. High side thru .1mfd to grid of Bandpass Amp. (V17). Low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC		Vert. Amp. to pin 1 of demodulators, point G. 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. 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)	45.75MC		"	A14	Adjust for response curve similar to Fig. 3. If necessary retouch A12 to flatten top of response.

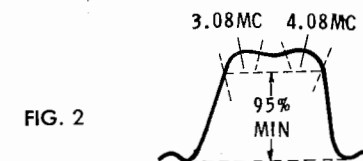


FIG. 2

SET MARKERS AT  
EQUAL HEIGHTS

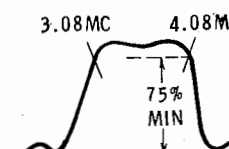


FIG. 3

## VHF TUNER ALIGNMENT INSTRUCTIONS

### PRE-ALIGNMENT INSTRUCTIONS

Allow a 20 minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: A201 ..... GENERAL CEMENT #8728, 8275, 8195 ... WALSCO #2531X, 2541, 2526  
A202, A203, A204 .. GENERAL CEMENT #9302, 9296, 9297 .... WALSCO #2511, 2546, 2547

### VHF OSCILLATOR ALIGNMENT (TUNERS KRK103 & KRK107)

Starting with the highest available channel in the area, check to see that all high band channels (7-13) can be tuned in with the fine tuning control. If any channels cannot be tuned in with the fine tuning, switch to channel 13 and adjust the oscillator slug (accessible through a hole in the indicator drive gear) and 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 channel 6 and adjust the channel 6 slug and recheck all low band channels.

### VHF OSCILLATOR ALIGNMENT (TUNERS KRK104 & KRK108)

Starting with the highest available channel, check to see that each channel can be tuned in well within the range of the fine tuning. If any channel cannot be tuned in, adjust the oscillator on that channel.

### RF AND MIXER ALIGNMENT (BOTH TUNERS)

Use only enough generator output to provide a usable indication. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point D. 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.	195MC		10	Vert. Input to point D. Low side to ground.	A201	Increase bias to -15 volts. Adjust for MINIMUM response.
2. "	213MC	211.25MC 215.75MC	13	"	A202	Adjust for response curve similar to Fig. 201 with markers as shown. If necessary spread or compress RF Amp plate coil and high band coupling for best response.
3. "	85MC	83.25MC 87.75MC	6	"	A203, A204, A205	Adjust for response curve similar to Fig. 201. If necessary, adjust low band coupling for best response.
4. "	207MC 201MC 195MC 189MC 183MC 177MC 171MC 165MC 159MC	205.25MC 207.75MC 199.25MC 203.75MC 193.25MC 197.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC 169.25MC 173.75MC 163.25MC 167.75MC 157.25MC 161.75MC	12 11 10 9 8 7 6 5 4 3 2	"		Check all channels for response similar to Fig. 201. If necessary, spread or compress the coils on each channel for optimum response.

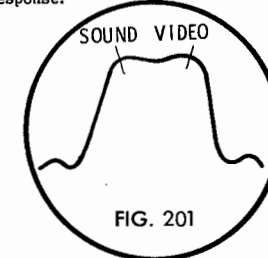
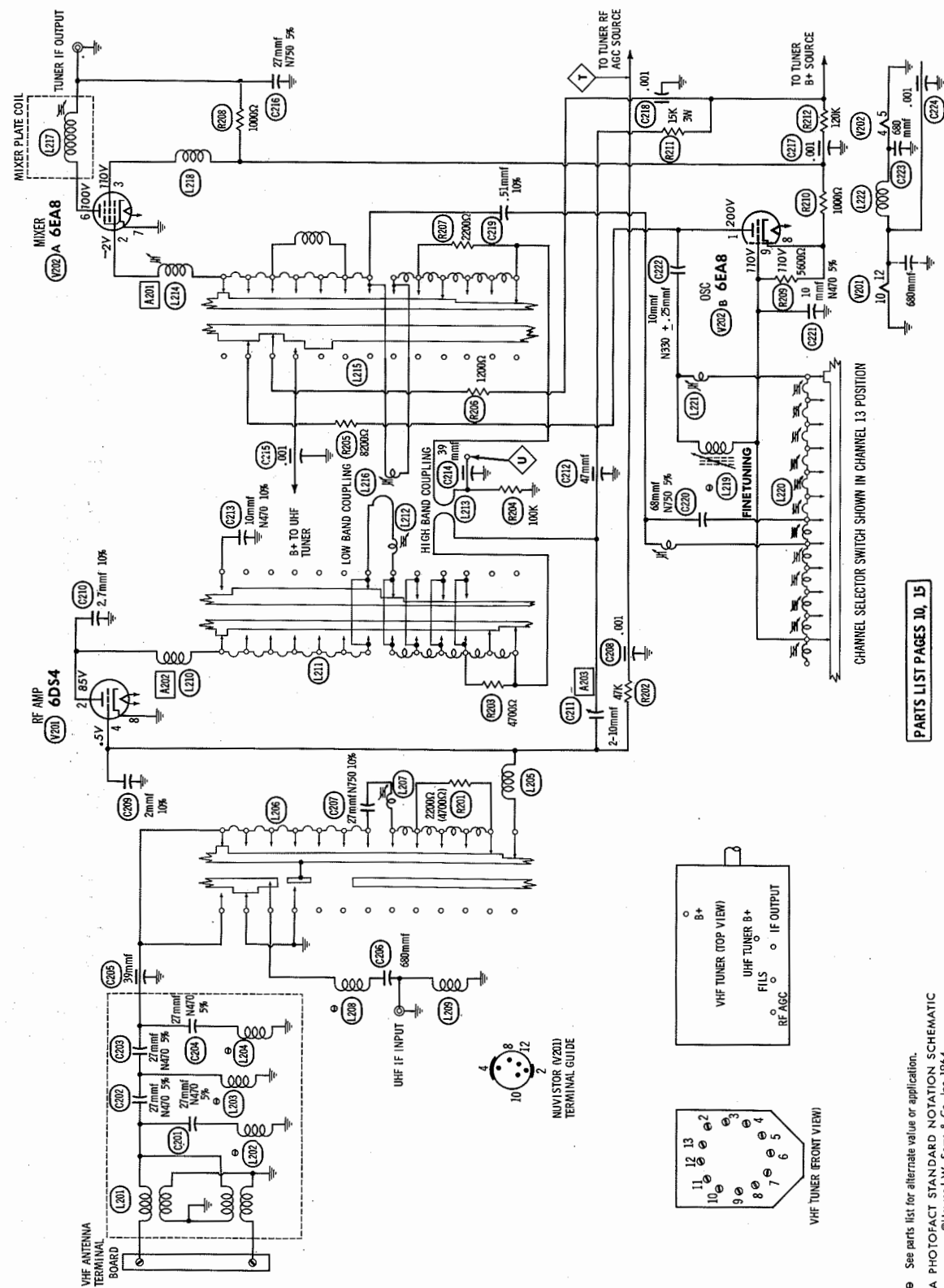
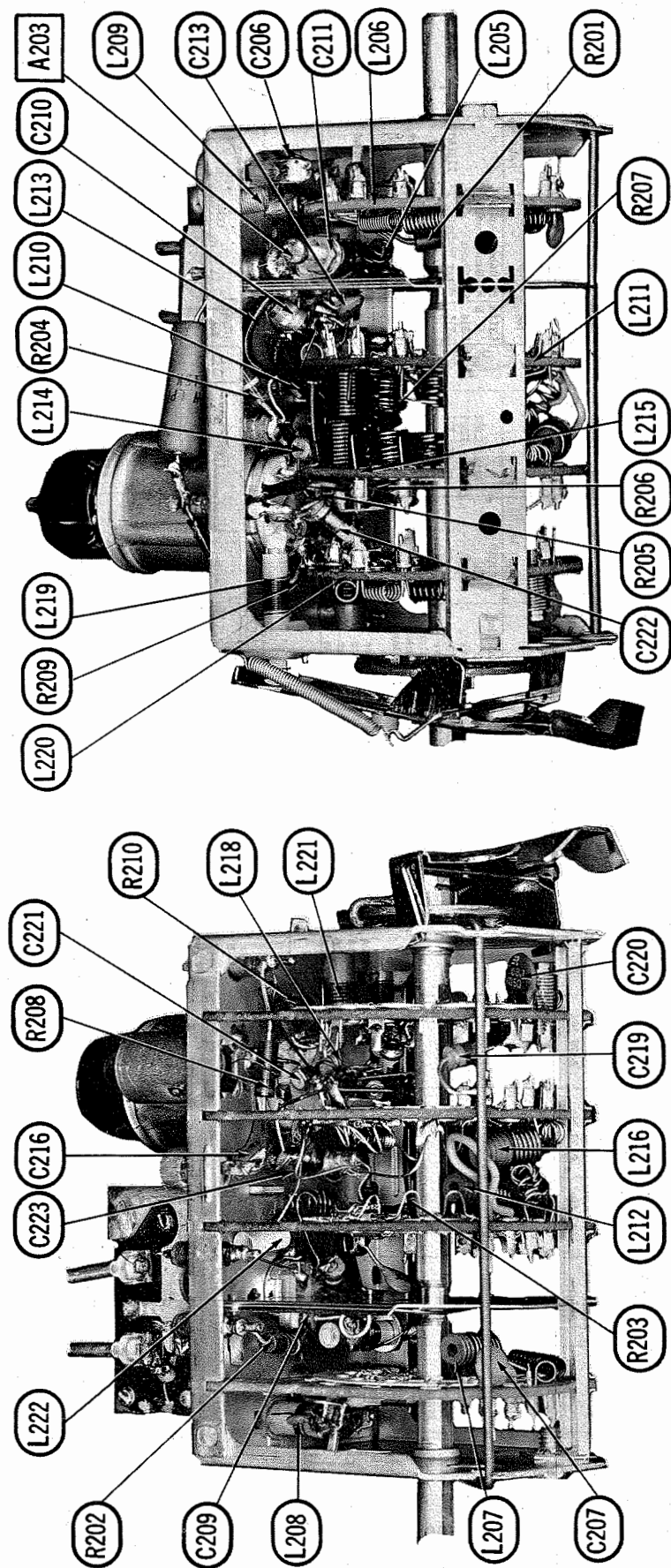
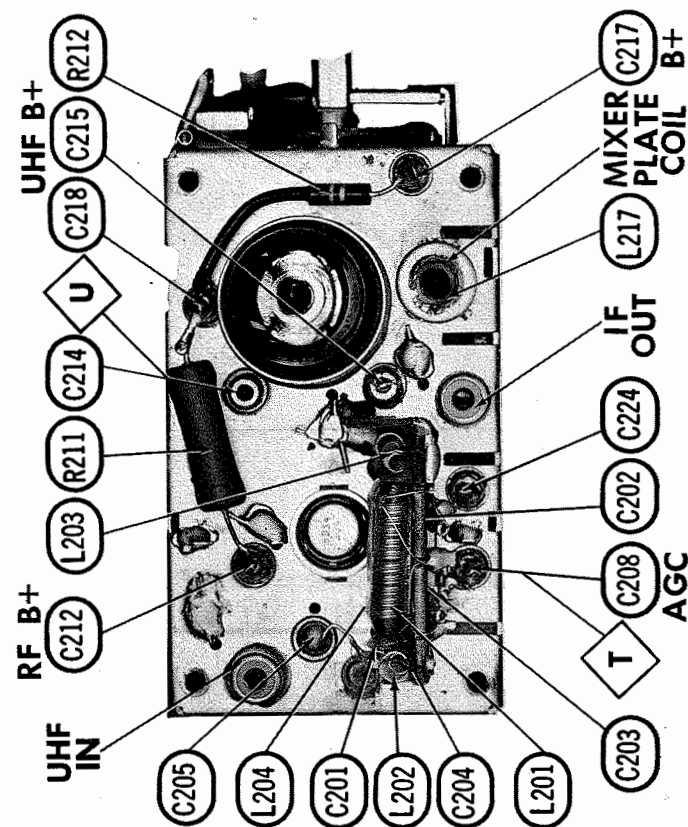


FIG. 201



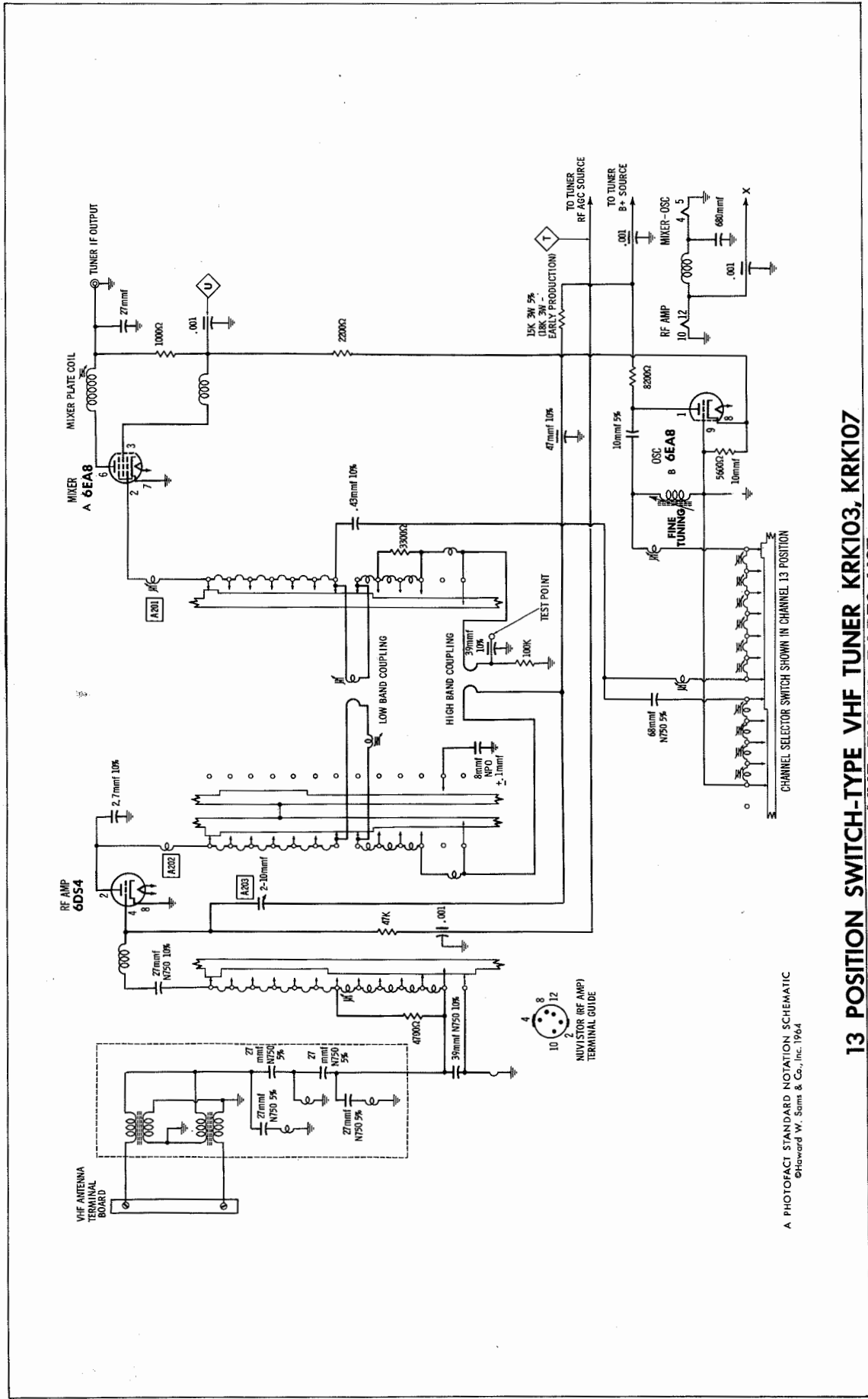


See parts list for alternate value or application.  
A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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# 13 POSITION WAFER-TYPE VHF TUNER KRK104, KRK108

CHASSIS CTC15AA/AB/AE/AF/C/D/E/R/T/U

RCA VICTOR



13 POSITION SWITCH-TYPE VHF TUNER KRK103, KRK107  
VHF TUNER PARTS LIST

• AMPEREX • GENERAL ELECTRIC • RCA • RAYTHEON • SYLVANIA •			TUBES		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6D54	V202	Mixer - Osc.	6EA8

FIXED CAPACITORS

REPLACEMENT DATA		
ITEM No.	RATING	REMARKS
C201	27 N470 5%	#108348
C202	27 N470 5%	#108348
C203	27 N470 5%	#108348
C204	27 N470 5%	#108348
C205	27 N470 5%	#108348
C206	27 N470 5%	#108348
C207	27 N470 5%	#108348
C208	27 N470 5%	#108348
C209	27 N470 5%	#108348
C210	27 N470 5%	#108348
C211	27 N470 5%	#108348
C212	27 N470 5%	#108348
C213	27 N470 5%	#108348
C214	27 N470 5%	#108348
C215	27 N470 5%	#108348
C216	27 N470 5%	#108348
C217	27 N470 5%	#108348
C218	27 N470 5%	#108348
C219	27 N470 5%	#108348

FIXED CAPACITORS (cont)

REPLACEMENT DATA		
ITEM No.	RATING	REMARKS
C220	27 N470 5%	#108348
C221	27 N470 5%	#108348
C222	27 N470 5%	#108348
C223	27 N470 5%	#108348
C224	27 N470 5%	#108348

COILS (RF-IF)

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V301	UHF Oscillator	8D44			

UHF TUNER PARTS LIST  
TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V301	UHF Oscillator	8D44			

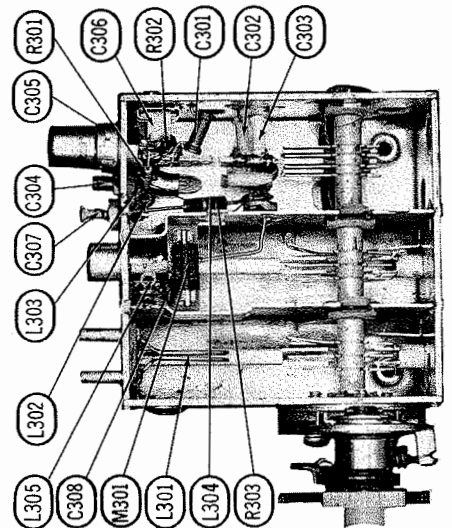
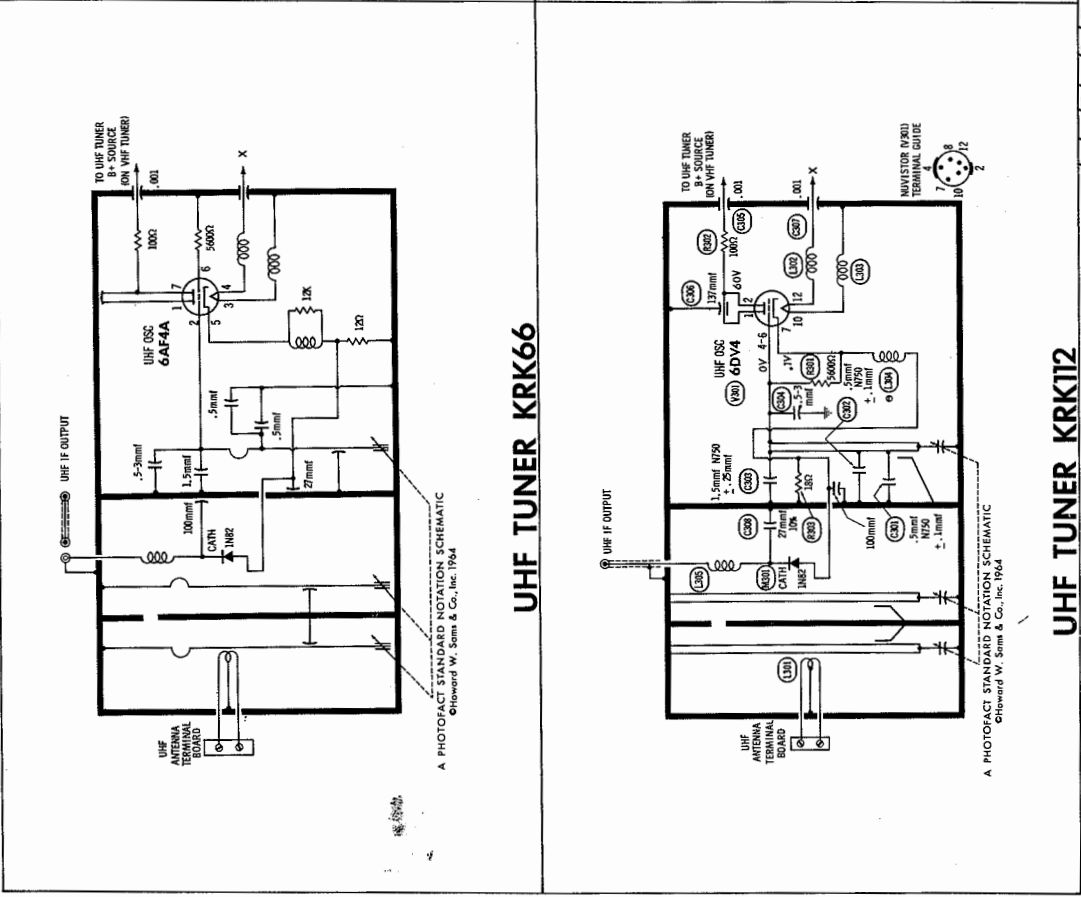
FIXED CAPACITORS

REPLACEMENT DATA		
ITEM No.	RATING	REMARKS
C301	27 N470 5%	#108348
C302	27 N470 5%	#108348
C303	27 N470 5%	#108348
C304	27 N470 5%	#108348
C305	27 N470 5%	#108348
C306	27 N470 5%	#108348
C307	27 N470 5%	#108348
C308	27 N470 5%	#108348

COILS (RF-IF)

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V301	UHF Oscillator	8D44			

UHF TUNER KRK66





## 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)(cont)

ITEM No.	USE	REPLACEMENT DATA							NOTES
		PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	Workman PART No.	
L39	Horiz. Right Red & Green (Right Red & Green Vert. Line) (2.8MH-6.8MH)	105065						T149	
L40	Horiz. Right Red & Green (Right Red & Green Horiz. Line) (1.2MH-4.8MH)	113394							
L41	Horiz. Right Blue (Pri. 3.8MH-9.5MH) (Sec. 1.3MH-1.7MH)	109180							
L42	Focus	113640							
L43	Convergence Yoke	109164							
A	Blue Section	109164							
B	Green Section	109164							
C	Red Section	109164							

## 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	.4A DC	15.2Ω	.4 Hy.	112829 (1104665-3)		C-2708	28C81	C-40X	

## TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
				RCA Victor PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T1	128VAC Tap @ 117VAC @ 3.1A	160VAC @ .44A DC	6.3VAC @ 2.3A	113383 (906153-501)					
		SEC. 3	SEC. 4						
		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 (961415-3)	113390						
T3	Yoke (Horiz. 12.4MH) 70° (Vert. 40MH) (903562-507)	109457						
T4	Horiz. Output (906152-501)	113382						

## 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	1400Ω	3-4Ω	112822 † (D-961420-3) 113546 †	A-2801	A-3823	24861	S-53X		† Used in Chassis CTC15A, C, D, E, R, T, AE, AF. † Used in Chassis CTC15AA, AB

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		RCA Victor PART No.	QUAM PART No.	
SP1	4" PM 3-4Ω	107474	4A1	Used in Models 14F615RV, 616RV, 612MV/MU, 615MV/MU, 616MV/MU, 617MV/MU.
	4" x 6" PM 3-4Ω	107476	46A1	Used in Models 14G708RV, 768RV, 769RV, 768MV/MU, 769MV/MU, 768MV/MU/RV, 769MV/MU/RV, 768MV/MU/RV, 769MV/MU/RV.
	6" x 8" PM 6-8Ω	107706		Used in Models 14G835MV/MU, 836MV/MU, 834MV/MU, 896MV/MU, 900MV/MU, 908MV/MU, 14G912MV/RV.
	5" x 7" PM 8-8Ω	108652		Used in Models 14G845MV/MU/RV, 846MV/MU/RV, 14G875MV/MU, 876MV/MU.
	4" x 6" PM 6-8Ω	113038		Used in Models 14G795MV/MU, 796MV/MU, 797MV, 805MV/MU, 806MV/MU.

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				BUSS PART No.
			RCA Victor PART No.	LITTELFUSE PART No.	FUSE HOLDER	FUSE HOLDER	
M1	1 1/2"	#26 Wire	102792				

## MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M2	VHF Tuner	KRK104N	Used in Models 14F612, 615, 616, 617MU.
	VHF Tuner	KRK104J	Used in Models 14G655, 656, 657MU, 14G736, 746, 754, 760, 768, 769, 795, 796MU, 14G805, 806, 835, 836, 845, 846MU.
	VHF Tuner	KRK108E	Used in Models 14G875, 876, 884, 896, 900, 908MU.
	VHF Tuner	KRK103N	Used in Models 14F612, 615, 616, 617MV.
	VHF Tuner	KRK103J	Used in Models 14G655, 656, 657MV, 14G736, 746, 754, 760, 768, 769, 795, 796, 797MV, 14G805, 806, 835, 836, 845, 846MV.
	VHF Tuner	KRK107F	Used in Models 14F615, 616, 655, 656, 657RV, 14G736, 754, 768, 769, 845, 846RV, 14G912MV.
	VHF Tuner	KRK107D	Model 14G912RV.
	VHF Tuner	KRK107E	Used in Models 14G875, 876MV, 14G884, 896MV, 14G900, 908MV.
M3	VHF Tuner	KRK112C	Used in Models with letter "X" following Model number.
	UHF Tuner	KRK86AM	Used in Models 14G655, 656, 657MU, 14G736, 746, 754, 760, 768, 769, 795, 796MU, 14G805, 806, 835, 836, 845, 846MU.
	UHF Tuner	KRK66AT	Used in Models 14G875, 876, 884, 896MU, 14G900, 908MU.
M4	Diode	112524	Video Detector
M5	Diode	112524	Sound Detector
M6	Diode	109474	Dual Selenium Horiz. AFC
M7	Cryetal	105330	3.58 Osc.
M8	Switch	113398	Video Peaking
M9	Switch	48760	Normal Service
M10	Switch	113398	Picture Tube Bias
M11	Switch	112192	UHF Tuner Switch
M12	Circuit Breaker	109835	
M13	Delay Line	109837	3.58MC
M14	Magnet	105024	Convergence Assembly (3 used)
M15	Magnet	112932A	Complete Lateral Assembly
	Printed Board	113407	Sound Circuit, less tubes
	Printed Board	113408	Picture Assembly, less tubes
	Printed Board	113409	Deflection Assembly, less tubes
	Printed Board	113410	Chroma Circuit, less tubes
	Printed Board	113411	Convergence Circuit

## CABINETS &amp; CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Mask, used in Models 14F612, 616, 617MV/MU	113273	Knob, UHF Channel Selector, All UHF Models except 14G875, 876, 884, 896MU, 14G900, 908MU	112574
Mask, used in Models 14F615, 616RV	113274	Knob, UHF Channel Selector, used in Models 14G875, 876, 884, 896MU, 14G900, 908MU	113319
Mask, used in Models 14G835, 836, 845, 846MV/MU	113275	Knob, Volume, used with Knob #112570	112993
Mask, used in Models 14G855, 656, 657RV	113328	Knob, Volume, used in Models 14G760, 768, 769, 746, 754, 795, 796, 736MV/MU, 14G737MV, 14G855, 656, 657MV/MU, 14G805, 806MV/MU, 14F612, 615, 616, 617MV/MU	112785
Mask, used in Models 14G736, 746, 754, 760, 768, 769RV	113329	Knob, Volume, used in Models 14G736RV, 14G855, 656, 657, 754, 768, 769RV, 14G835, 836MV/MU, 14F615, 616RV, 14G835, 846MV/MU/RV.	113656
Mask, used in Models 14G795, 796MV/MU	113330	Knob, "On" Volume, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113320
Mask, used in Models 14G855, 656, 657MV/MU	113331	Knob, Brightness, used in All Models except 14G875, 876, 884, 896, 900, 908MV/MU	112784
Mask, used in Models 14G912MV	113525	Knob, Brightness, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113535
Mask, used in Models 14G875, 876, 884, 896MV/MU, 14G900, 908MV/MU	113526	Knob, Horiz., Vert., Contrast, Tone, used in All Models except 14G875, 876, 884, 896, 900, 908MV/MU	112928
Knob, VHF Channel Selector, used in Models 14F612, 615, 616, 617MV/MU, 14G615, 616RV	112570	Knob, Horiz., Vert., Contrast, Tone, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113533
Knob, VHF Channel Selector, used in Models 14G655, 656, 657MV/MU, 14G736, 754, 760, 768, 769, 746, 754, 795, 796MV/MU	112939	Knob, Horiz., Vert., Contrast, Tone, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113263
Knob, VHF Channel Selector, used in Models 14G875, 876, 884, 896MV/MU, 14G900, 908MV/MU	113316	Knob, Horiz., Vert., Contrast, Tone, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113536
Knob, VHF Channel Selector, used in Models 14G655, 656, 657, 736, 754, 768, 769RV, 14G835, 836, 845, 846MV/MU, 14G845, 846RV, 13G912MV/RV	113245	Knob, Horiz., Vert., Contrast, Tone, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113264
Knob, Fine Tuning, used in Models 14G855, 656, 657, 736, 746, 754, 760, 768, 769, 795, 796MV/MU, 14G797MV, 14G805, 806MV/MU, 14F615, 616RV, 14F612, 615, 616, 617MV/MU	112786	Knob, Color, used in All Models except 14G875, 876, 884, 896, 900, 908MV/MU	113534
Knob, Fine Tuning, used in Models 14G655, 656, 657, 736, 754, 768, 769RV, 14G835, 836MV/MU, 14G912MV/RV, 14G845, 846MV/MU/RV.	113071	Knob, Color, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	112833
Knob, Fine Tuning, used in Models 14G875, 876, 884, 896, 900, 908MV/MU	113315		

## 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. 8275 (Foam Core) or 8285 (Foam Jacketed)
300Ω Tuner Input Lead .....	Use BELDEN No. 8225
300Ω Antenna Lead-in .....	Use BELDEN No. 8464 (Flat) or 8464 (Round) - 4 Conductor
Antenna Rotor Cable .....	Use BELDEN No. 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

• AMPEREX •		• GENERAL ELECTRIC •		• RCA •		• RAYTHEON •		• SYLVANIA •	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE		TYPE	
V1	1st Video IF Amp.	6JH6		V14	HV Rectifier	3A3		8BK4	
V2	2nd Video IF Amp.	6GM8		V15	HV Regulator	6EJ7/EF184			
V3	3rd Video IF Amp.	6AW8A		V16	Chroma Bandpass Amp. - Color Killer	6EJ7/EF184		6EJ7/EF184	
V4	1st & 2nd Video Amp.	12BY7A		V17	Burst Amp.	6EJ7/EF184		6EJ7/EF184	
V5	Video Output			V18	Chroma Sync Phase Det. - Color Killer Det.	6EJ7/EF184		6EJ7/EF184	
V6	AGC Keying - Sync Sep. - Noise Inverter	6KA8		V19	Chroma Ref. Osc. Control - Chroma Ref. Osc.	6EJ7/EF184		6EJ7/EF184	
V7	Sound IF	6EJ7/EF184		V20	"Z" Demodulator	6EJ7/EF184		6EJ7/EF184	
V8	Audio Detector	6EJ7/EF184		V21	B-Y Amp. - R-Y Amp.	6EJ7/EF184		6EJ7/EF184	
V9	Audio Output	6AQ5A		V22	"X" Demodulator	6EJ7/EF184		6EJ7/EF184	
V10	Vert. Mult. - Vert. Output	6GF7		V23	Horiz. Blanking Amp. - G-Y Amp.	6GU7		6GU7	
V11	Horiz. AFC - Horiz. Osc.	6GF7							
V12	Horiz. Output	6EJ7/EF184							
V13	Damper	6DW4							

## PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	RCA Victor PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V24	21FJP22	21FJP22 ①	21FJP22 ①	21FJP22 ②	① Aluminized ② Silver Screen "85"

## POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.44A	106379	1N540 or 1N2070 ①	1N2654 or 1N3195	60H or F-6
X2	.44A	106379	1N540 or 1N2070 ①	1N2654 or 1N3195	60H or F-6
X3		113397 (752314)		CR208	
X4	.0015A	113391		CR203	
X5	.005A	113392	1N2091	1N3764 or 1N2859	10H or F-1
X6A	.025A	113321 (752309)	A50 or D50	1N2858	10H or F-1
B	.013A		A50 or D50	1N2856	10H or F-1
C	.021A		A50 or D50	1N2858	10H or F-1

① X1 and X2 may use a single unit, VB600.

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					
	CAP.	VOLT.	RCA Victor PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	160	250	112825 (972126-6)	AFH1-31-75 ①	XA0315 ①	XC1-19 ①	TMS-1480 ①	WP131.5 ①
C2A	.180	250	112828 (974576-26)	AFH4-108-38	C0330	XC3-29	TMT-3739	FP376.9
B	.30	450			HR200-250	QT1-28	TD-200-300	TC692
C	.40	450						
D	.40	150						
C3A	.80	450	112827 (974576-26)	AFH4-108-35	C0370	XC3-30	TMT-3763	FP366.5
B	.50	450			HR50-50	HR50-50	TD-50-50	TC55
C	.20	250						
D	.50	50						
C4	.50	150	109227 (442901-61)	FRS1480	HR50-150	QT1-17	TD-50-150	TC49
C5A	.80	450	112961	AFH2-98 ②	A0510	XC1-8	TMS-1800	FP149
B	.20	350	(974576-26)		HR2-450	QT1-1	TD-2-450	TC595

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.  
① Use insulating sleeve and mounting washer.  
② Use MW-4 Mounting Plate.

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.
C24	.001	#109142	SI 1000	D6-102	LA10D1-C4	CCD-102	B-210	5HK-D10
C25	580 N1500 5%		DI-2200	CF-222	JB6D22	CCD-222	B-210	5HK-D10
C26	.0022 10%		SI 1000	D6-102	LA10D1-C4	CCD-102	B-210	5HK-D10
C27	.001			TCZ-10	C10Q1C		CNO-410	10TCC-Q10
C28	10 NPO 5%			TCZ-10				10TCC-Q10
C29	100 N330 10%			TCZ-10				10TCC-Q10
C30	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C31	7 NPO 5%			DD-103	C10V88C	CCD-103	CNO-568	10TCC-V88
C32	3.5 NPO 5%			DD-103	C10V33C	CCD-103	CNO-533	10TCC-V33
C33	1.1 400V		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10
C34	1.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10
C35	.01	#105304	BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C36	.0022 10%		DI-2200	CF-222	JB6D22	CCD-222	B-110	5HK-D10
C37	390 10%		DI-390	DD-391	LA10T39-C4	CCD-391	GP339	10TS-T39
C38	390 10%		DI-390	DD-391	LA10T39-C4	CCD-391	GP339	10TS-T39
C39	.22 200V		P288N-22	DD-103	PM2P22	2DP-4-224	GEM-2022	2PS-P22
C40	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C41	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C42	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C43	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C44	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C45	.220 10%	#103411	DI-220	DD-221	LA10T22-S3	CCD-221	GP322	10TS-T22
C46	.001		SI 1000	D6-102	LA10D1-C4	CCD-102	B-210	5HK-D10
C47	180 1KV 10%		DI-180	DD-181	LA10T18-S3	CCD-181	GP318	10TS-T18
C48	1.5 N3300			TCZ-10	C10Q1C		CNO-410	10TCC-Q10
C49	10 NPO 5%			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C50	5 N1500 5%			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C51	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C52	750 N2200 5%			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C53	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C54	580		DI-580	DD-581	LA10T58-C4	CCD-581	GEM-2147	2TM-P10
C55	.047 200V	#106384	P288N-047	DD-103	CUB2847	4DP-3-473	GEM-2147	2TM-P10
C56	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C57	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C58	47 N750 10%		N750-DI 47	DTN-47	C10Q47U	CCTN-470	CN7-447	10TCU-Q47
C59	.0068		BPD-0068	DD-682	BYA10D68	CCD-682	B-268	5HK-D68
C60	.001		SI 1000	D6-102	LA10D1-C4	CCD-102	B-210	5HK-D10
C61	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C62	.001 2KV 10%			DD-332	PKM60D1	CCD-332	B-233	5HK-D33
C63	.0033		BPD-0033	DD-391	BYA10D33	CCD-391	GP339	10TS-T39
C64	390 10%		DI-390	DD-102	LA10T39-C4	CCD-102	B-210	5HK-D10
C65	.001	#113387	BPD-001	DD-102	BYA10D1	CCD-102	CNO-447	10TCC-Q47
C66	47 NPO 10%		NPO-DI 47	DTZ-47	C10Q47C	CCTO-470	B-222	10TS-T22
C67	.0022		BPD-0022	DD-222	LA10D22-C4	CCD-222	B-215	10TS-T15
C68	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	PVC6139	6PS-D35
C69	.036 600V 10%		BE6839		PM6839	6DP-3-393	GEM-601	6TM-P10
C70	.0027 N5600 10%			DF-104	CUB6P1	6DP-4-104	GEM-601	6TM-P10
C71	.1 600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM-601	6TM-P10
C72	.1 600V		P288N-47	DD-822	PKM16D82	16DP-3-802	GEM-16282	16TM-P47
C73	.47 200V		P288N-047	DD-503	CUB2847	4DP-3-473	GEM-2147	2TM-P10
C74	.0082 1KV		P288N-008	DD-681	BYA10T68	CCD-681	B-368	10TS-T68
C75	.047 200V	#105320	BPD-00068	DD-681	BYA10T68	CCD-681	B-368	10TS-T68
C76	680		BPD-00068	DD-681	BYA10T68	CCD-681	B-368	10TS-T68
C77	680		BE6D68		WIMF4D68	6DP-1-682	PVC4268	6PS-D68
C78	.0068 400V 10%			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C79	.001 2KV 10%			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C80	100 N1500 3KV 5%			DD-821	JB8T8	CCD-821	GP382	10TS-T82
C81	580 N3300 2.5KV 10%			DD-821	JB8T8	CCD-821	GP382	10TS-T82
C82	580 N3300 2.5KV 10%			TCN-27	C10Q25U	CCTN-270	CN7-427	10TCU-Q27
C83	68 NPO 10%		NPO-DI 68	DTZ-68	C10Q68C	CCTO-680	CNO-468	10TCC-Q68
C84	820 10%		DI-820	DD-821	JB8T8	CCD-821	GP382	10TS-T82
C85	820 10%		DI-820	DD-821	JB8T8	CCD-821	GP382	10TS-T82
C86	27 N750	#109806	P288N-15	DD-102	PM2P15	2DP-3-154	GEM-2015	2PS-P15
C87	.001 10%			DD-102	PM2P15	2DP-3-154	GEM-2015	2PS-P15
C88	.15 200V			DD-103	PM4S1	4DP-1-103	GEM-411	4PS-S10
C89	390 1.5KV 5%		P488N-01	DD-103	CD19F681J	DM-19-681J	MCJ249	MS-338
C90	.01 400V		BE6D15	DD-152	PM6D15	6DP-1-152	PVC6215	6PS-D15
C91	680 5%		P688N-01	DD-103	PM6S1	6DP-2-103	GEM-611	6PS-S10
C92	.0015 600V 10%		P688N-01	DD-103	PM6S1	6DP-2-103	GEM-611	6PS-S10
C93	.01 600V		P688N-01	DD-103	PM6S1	6DP-2-103	GEM-611	6PS-S10
C94	.1 600V		P688N-01	DD-103	PM6S1	6DP-2-103	GEM-611	6PS-S10
C95	.047 600V 10%		P688N-047	DD-503	CUB6S47	6DP-3-473	GEM-6147	6TM-S47
C96	68 4KV 10%	#112847		DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C97	130 N2200 6KV			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C98	.01 1.4KV		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C99	.01 1.4KV		P688N-1	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C100	.1 800V		BPD-000022	DD-220	LA10Q22-SL	CCD-220	GP422	5GA-Q22
C101	22 1KV			DD-220	LA10Q22-SL	CCD-220	GP422	5GA-Q22
C102	.088 600V 10%			DD-220	LA10Q22-SL	CCD-220	GP422	5GA-Q22
C103	.082 600V ±10%			DD-220	LA10Q22-SL	CCD-220	GP422	5GA-Q22
C104	.01 1.4KV		DAC-27	DD16-103	HVE16S1	16DP-3-103	UAC-110	BL-S10
C105	27 N750		N750-DI 25	TCN-27	C10Q25U	CCTN-270	CN7-427	10TCU-Q27
C106	120 N1500 4KV 10%	#109229	BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C107	.001		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C108	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C109	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C110	120 10%		DI-120	DD-121	LA10T12-S3	CCD-121	GP312	10TS-T12
C111	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333	MS-333
C112	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333	MS-333
C113	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333	MS-333
C114	330 5%		ADM-15-331	CPR-330J	CD15F331J	DM-15-331J	MS-333	MS-333
C115	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C116	.047 200V	#112884	P288N-047	DD-503	CUB2847	4DP-3-473	GEM-2147	2TM-P10
C117	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C118	620 10%		DI-620	DD-621	JB6T8	CCD-621	GP382	10TS-T82
C119	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C120	150 10%		DI-150	DD-151	LA10T15-S3	CCD-151	GP315	10TS-T15
C121	470 N750 5%			TCN-470	C10Q47U	CCTN-470	CN7-447	10TCU-Q47
C122	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C123	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C124	1.3 10%		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C125	.01		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10
C126	.1 200V	#105247		DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C127	4 NPO ±5mmf			DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C128	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C129	.01		BPD-001	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C130	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C131	220 N750 10%		N750-DI 220	DTN-220	C10T22U	CCTN-221	CN7-322	10TCU-T22
C132	6 NPO 5%			DTN-220	C10T22U	CCTN-221	CN7-322	10TCU-T22

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.
C133	.01	#109260	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C134	82 NPO 10%		ADM-15-151	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C135	150 5%		P288N-047	DD-503	CUB2847	4DP-3-473	GEM-2147	2TM-447
C136	.047 200V					*		10TCP-Q33
C137	33 N150							
C138	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C139	.01 800V		P688N-01	DD-103	PM681	6DP-1-103	GEM-611	6PS-S10
C140	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C141	33 N150					*		10TCP-Q33
C142	.01 800V							
C143	.01	P688N-01	DD-103	PM681	6DP-2-103	GEM-611	6PS-S10	
C144	.01 800V	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C145	.22 400V	P488N-22	DD-103	PM4P22	4DP-5-224	GEM-4022	4PS-P22	
C146	.01 800V	P688N-01	DD-103	PM681	6DP-2-103	GEM-611	6PS-S10	
C147	.056 400V 10%	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C148	.1 400V	BE6S56	DD-103	PM4856	4DP-3-563	PVC4156	4DS-856	
C149	.1 200V	P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10	
C150	.12 200V 10%	P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10	
C151	.082 200V 10%							
C152	.01	#109230	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C153	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C154	.07 2KV 10%							2DY-447
C155	.047 800V		P688N-047	DD-503	CUB6847	6DP-3-473	GEM-6147	6TM-S47
C156	.220 10%		Note 1	DI-220	DD-221	LA10722-S3	CCD-221	GP322



# PHOTOFACT® Folder

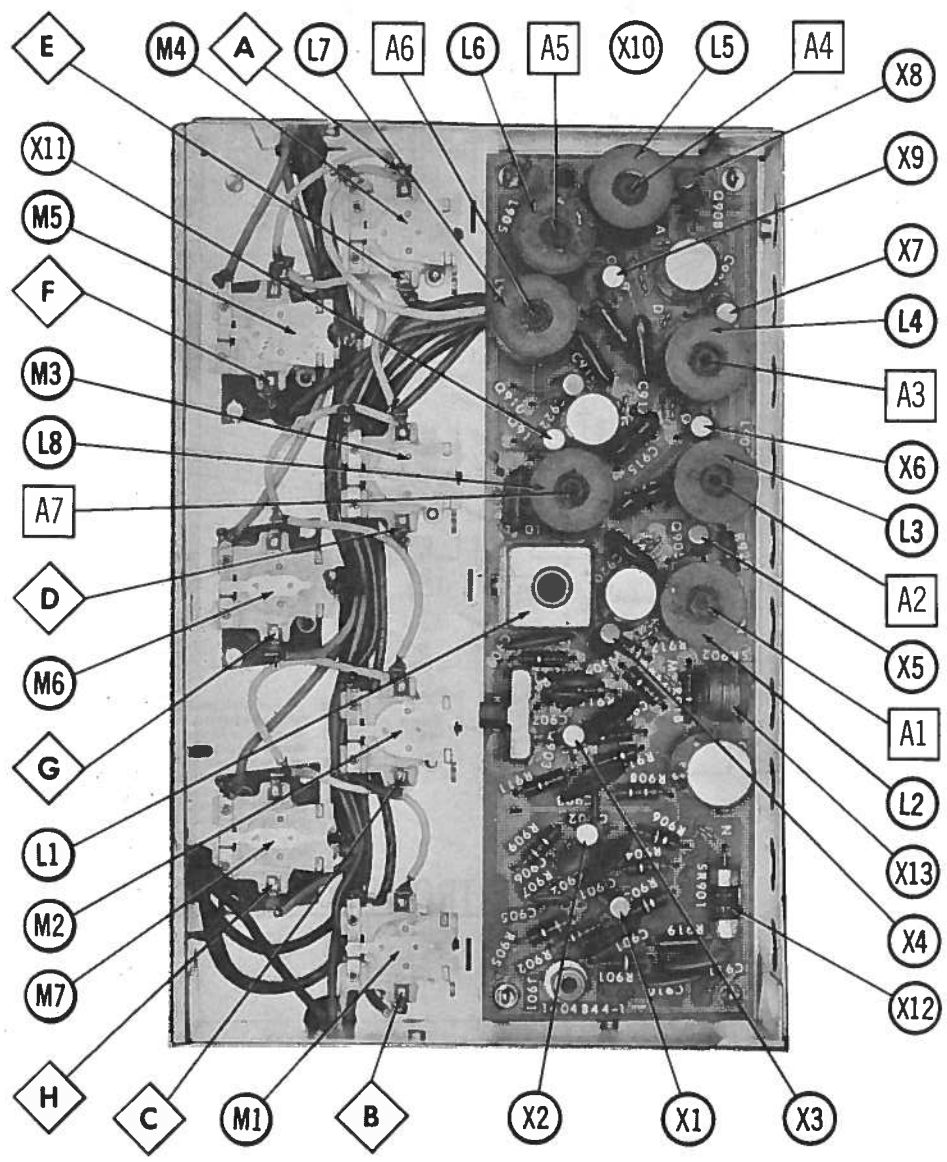
with CIRCUITRACE™

**RCA VICTOR REMOTE CONTROL RECEIVER  
CHASSIS CTP10A, TRANSMITTER CRK6A**

## IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 673 FOLDER 2. File this Folder with the TV Folder in the yellow filing jacket provided.

RCA VICTOR REMOTE CONTROL RECEIVER  
CHASSIS CTP10A, TRANSMITTER CRK6A



RECEIVER - TOP VIEW

RCA VICTOR REMOTE CONTROL RECEIVER  
CHASSIS CTP10A, TRANSMITTER CRK6A

**MANUFACTURER**  
**TYPE SET**  
**TRANSISTORS**  
**POWER SUPPLY**

Radio Corporation of America, RCA Victor Home Instrument Div., Indianapolis 1, Indiana  
Remote Control Receiver CTP10A, Transmitter CRK6A  
Remote Control - Eleven, Transmitter - One  
110-120 Volts AC, 60 Cycle

**RATING** 5 Watts, .050 Amp. @ 117 Volts AC

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

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SET 673 FOLDER2-A

## RECEIVER TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2N410	1st Amp.	D826	GE2	2N410	PNP
X2	2N410	2nd Amp.	D826	GE2	2N410	PNP
X3	2N410	3rd Amp.	D826	GE2	2N410	PNP
X4	2N410	4th Amp.	D826	GE2	2N410	PNP
X5	2N408	Tint Up Relay Control	D826	GE2	2N408	PNP
X6	2N408	Tint Down Relay Control	D826	GE2	2N408	PNP
X7	2N408	Color Up Relay Control	D826	GE2	2N408	PNP
X8	2N408	Color Down Relay Control	D826	GE2	2N408	PNP
X9	2N408	Volume Up Relay Control	D826	GE2	2N408	PNP
X10	2N408	Volume Down Relay Control	D826	GE2	2N408	PNP
X11	2N408	Channel Sel. Relay Control	D826	GE2	2N408	PNP

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS			NOTES
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X12		112018	1N2070	1N2862	MODEL 12	Rectifier (Selenium) Rectifier (Selenium) When replacing selenium rectifier with silicon type, add series resistance to obtain original output voltage.
X13		112017	1N2069	1N2860	2F4	

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		RCA Victor PART No.	REPLACEMENT DATA				NOTES
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	
C1A	100	20	112785	BCD20X100100	BCPAP21		TC2501	TE211 TE212 TE1204
B	100	20	(973983-11)				TC2501	
C2A	10	25	112783	PRS2050			TT25X10	
B	10	25	(973983-9)				TT25X10	
C3A	10	20	112784					
B	10	20	(973983-10)					
C	10	20						
C4A	10	20	112784					
B	10	20	(973983-10)					
C	10	20						

## FIXED CAPACITORS

ITEM No.	RATING		REMARKS	REPLACEMENT DATA							
				AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.		
C5	.0047			BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47		
C6	.1	10V			UK10-104	HCC10104Z		TA-010	HY-320		
C7	.0047			BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47		
C8	.1	10V			UK10-104	HCC10104Z		TA-010	HY-320		
C9	.0047			BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47		
C10	.1	10V			UK10-104	HCC10104Z		TA-010	HY-320		
C11	.0047			BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47		
C12	.1	10V			UK10-104	HCC10104Z		TA-010	HY-320		
C13	.01			BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-810		
C14	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C15	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C16	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-680K	MCJ249	MS-368		
C17	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C18	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C19	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C20	680	100V 10%		1469-00068	CPR-680J	SR5T68	DM-15-681K	MCJ249	MS-368		
C21	.01			BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-810		
C22	.01			BPD-01	DD-103	BYA1081	CCD-103	B-110	5HK-810		
C23	.91	50V	(120) †		CK-104		DM-15-910G	TA-010	9GAB-P1		
C24	.1		#107639								
C25	6-21		#107639								
C26	6-21		#107639								
C27	33	5%		1469-000033	CPR-33J	2ZRSQ33	DM-15-330J		MS-433		
C28	91	2%					DM-15-910G				
C29	6-21		#107639								
C30	6-21		#107639								
C31	160	2%					DM-15-161G				
C32	220	2%					DM-15-221G				
C33	120	2%					DM-15-121G				
C34	6-21		#107639								
C35	6-21		#107639								
C36	56	2%					DM-15-560G				

† Alternate Value

# 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)				

## 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.	
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					

## PARTS LIST AND DESCRIPTION

## 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 ② .050A	230VAC ②	14VAC CT ② .004A DC	112762					

## MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M1	Relay	112780	Tint Control Up
M2	Relay	112780	Tint Control Down
M3	Relay	112780	Color Control Up
M4	Relay	112780	Color Control Down
M5	Relay	112759	Volume Control Up
M6	Relay	112759	Volume Control Down
M7	Relay	112759	Channel Selector

## WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord .....	Use BELDEN No. 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type) .....	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)

## TRANSMITTER TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X14	2N408	Oscillator	D826	GE2	2N408	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.	112963					

## BATTERIES

ITEM No.	VOLTAGE	RCA Victor PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M8	4V	VB163	B163	E163	TR-163	

## MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M9	Microphone	112942	

## ALIGNMENT INSTRUCTIONS

### REMOTE CONTROL RECEIVER PRE-ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT #8606, 8606L, 8889; 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	"

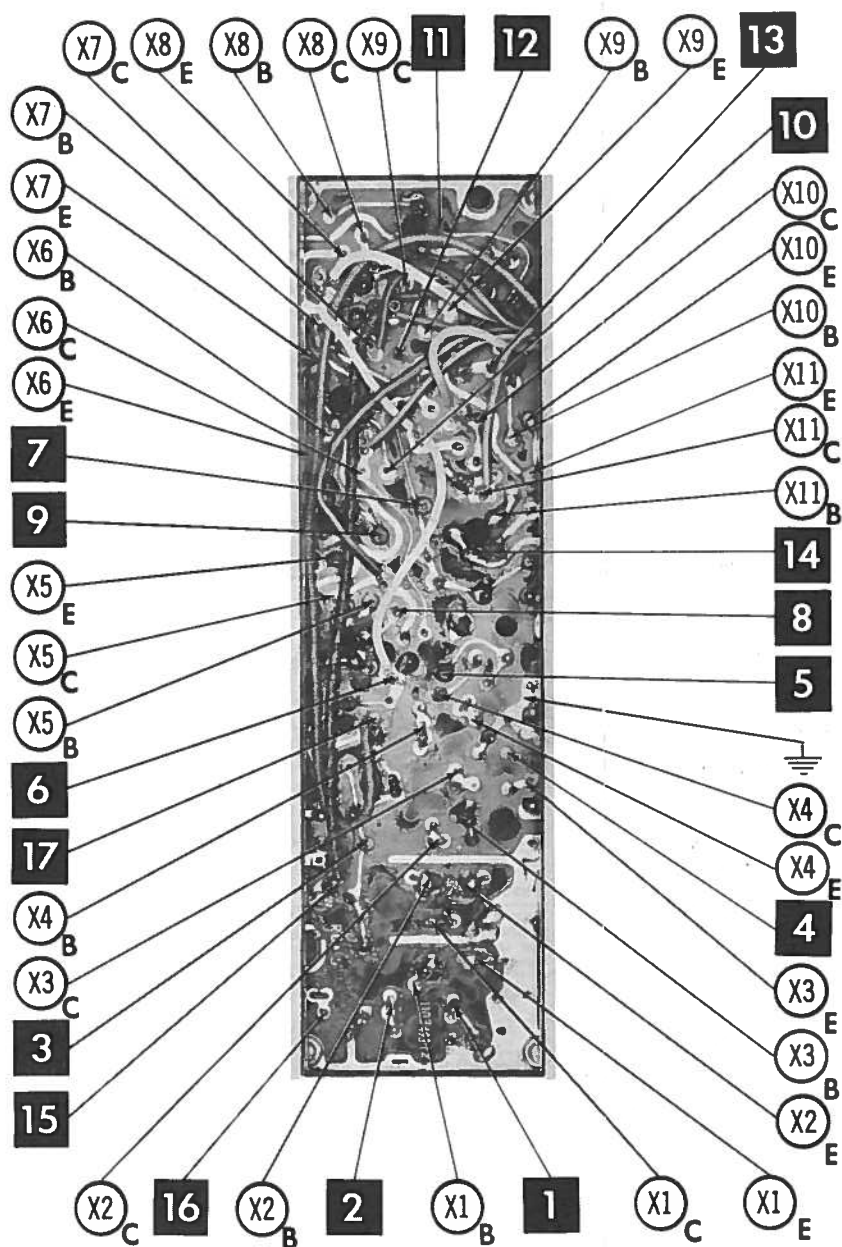
### REMOTE CONTROL TRANSMITTER PRE-ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A8 ..... GENERAL CEMENT #8606, 8606L, 8889 ... 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.

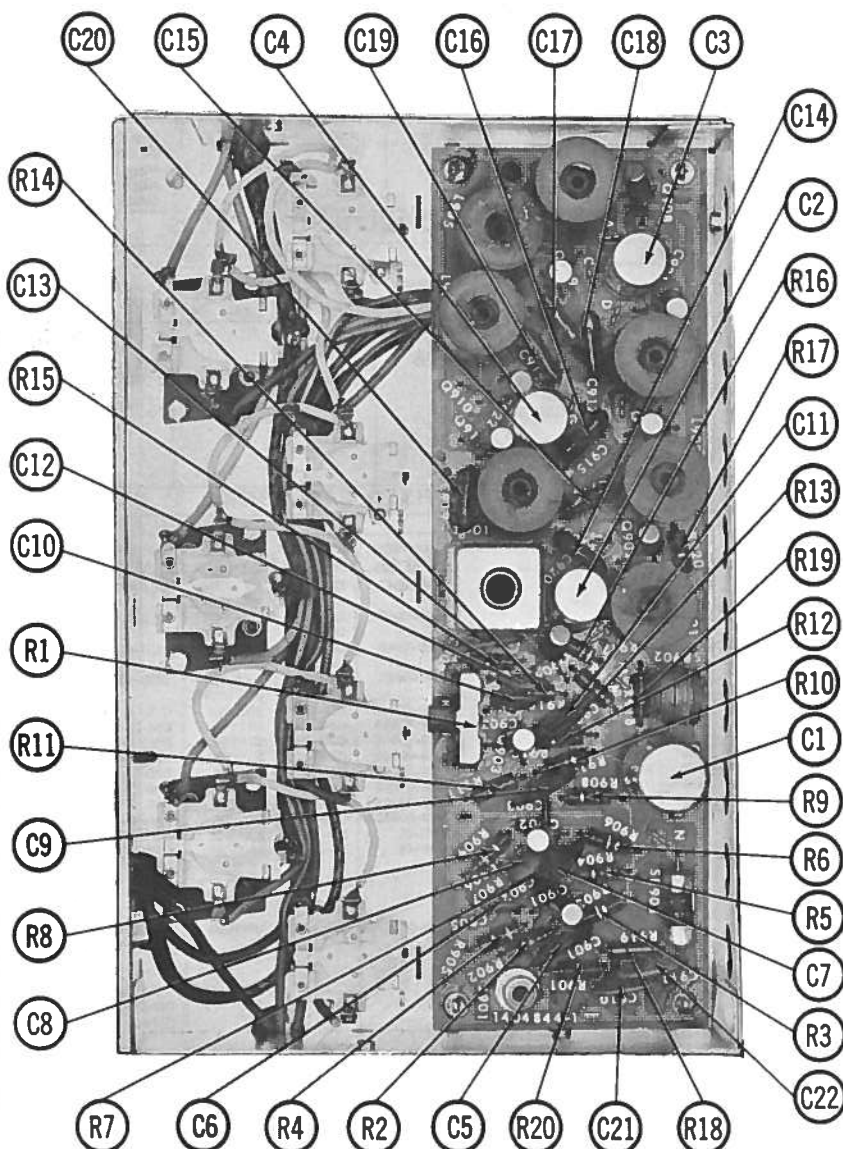
SIGNAL GENERATOR COUPLING	TRANS. FREQ.	FUNCTION	CONNECT SCOPE	ADJUST	REMARKS
1.	35KC	Up Tint	See above Pre-Alignment Instructions	A8	Adjust for zero beat indication.
	36.5KC	Down Tint	"	A9	"
	38KC	Up Color	"	A10	"
	39.5KC	Down Color	"	A11	"
	41.0KC	Up Volume	"	A12	"
	42.5KC	Down Vol.	"	A13	"
	44.0KC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







B-BASE C-COLLECTOR E-EMITTER



RECEIVER