



DISASSEMBLY INSTRUCTIONS

SAFETY GLASS REMOVAL

1. Remove trim channels at the top and bottom of the safety glass by prying outward starting at the extreme ends.
2. Slide the retaining bars now exposed to the right by inserting a small bladed screwdriver in the slots near the middle of bars.
3. Tilt safety glass out and remove.

CHASSIS REMOVAL 210CK855

1. Remove 10 push-on type knobs from side of cabinet.
2. Remove 4 screws and 3 clips holding rear cover. Remove rear cover.
3. Remove speaker leads, HV lead, yoke leads, picture tube socket and convergence board plug.
4. Remove 2 chassis bolts from bottom of chassis, 1 from top and 1 wood screw from top rear of chassis.
5. Remove chassis.



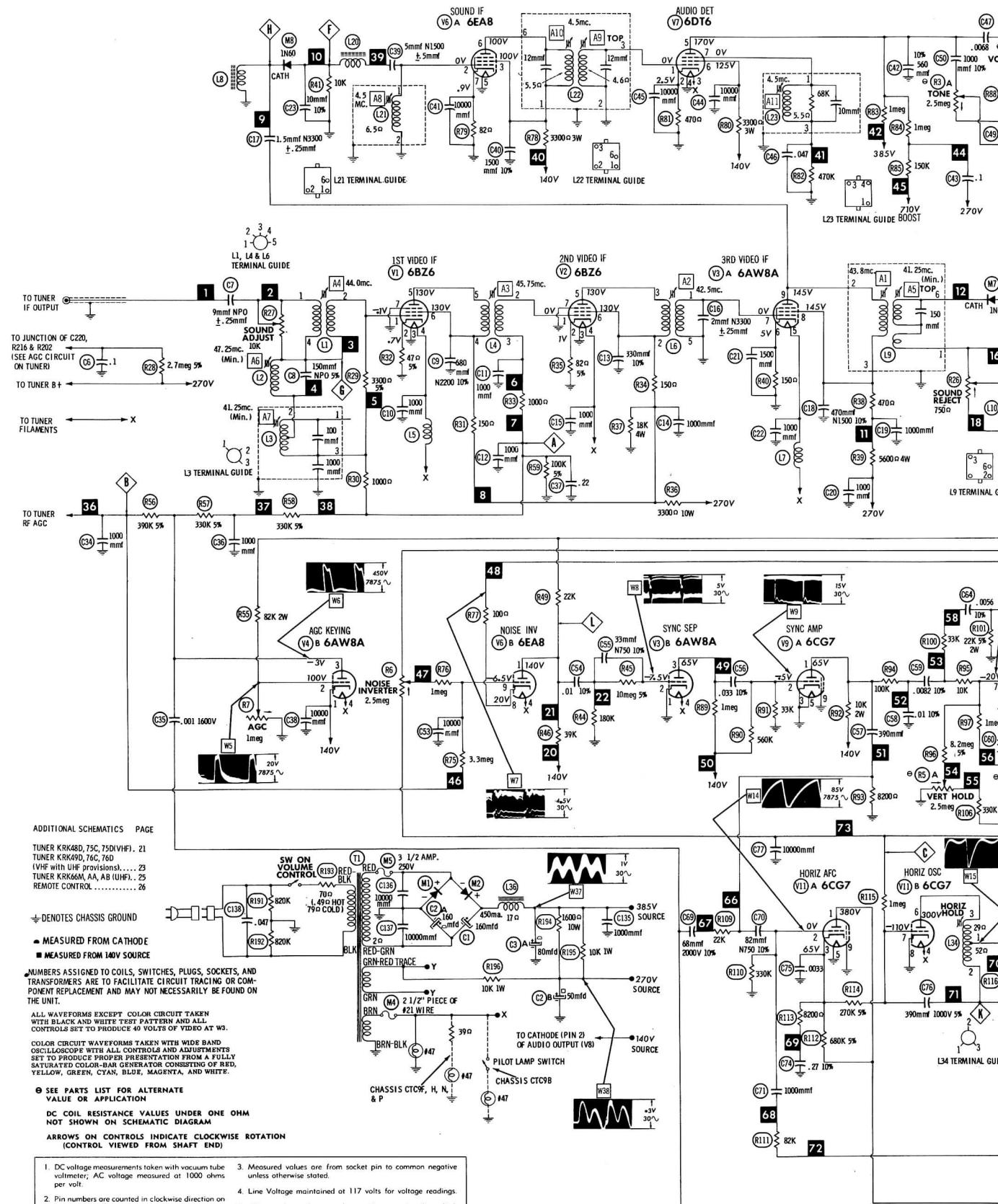
MODEL 210CK855 (Ch. CTC9A)

TRADE NAME	RCA Victor	MODELS	CHASSIS	
210CK855, 210CK856, 210CK857, 210CT822			CTC9A	
210CK855U, 210CK856U, 210CK857U, 210CT822U			CTC9B	
210CK885, 210CK886, 210CK889, 210CK905, 210CK906, 210CK907, 210CK920,				
210CK924, 210CK935, 210CK936, 210CT835, 210CT836, 210CT837			CTC9F	
210CK885U, 210CK886U, 210CK889U, 210CK905U, 210CK906U, 210CK907U,				
210CK920U, 210CK924U, 21CK935U, 21CK936U, 210CT835U, 210CT836U, 210CT837U ..			CTC9H	
210CKR940, 210CKR946, 210CTR845, 210CTR847			CTC9N	
210CKR940U, 210CKR946U			CTC9P	
210CKR940, U, 210CKR946, U, 210CTR845, 210CTR847 .. (Remote Transmitter)			CRK3A	
			(Remote Receiver)	CTP7A
MANUFACTURER	Radio Corporation of America, RCA Victor Tele. Div., Camden 8, N.J.			
TYPE SET	Color Television Receiver			
TUBES	VHF Twenty-four, UHF Twenty-five			
POWER SUPPLY	110-120 Volts AC, 60 Cycle	RATING 275 Watts, 3 Amp. @ 117 Volts AC		

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

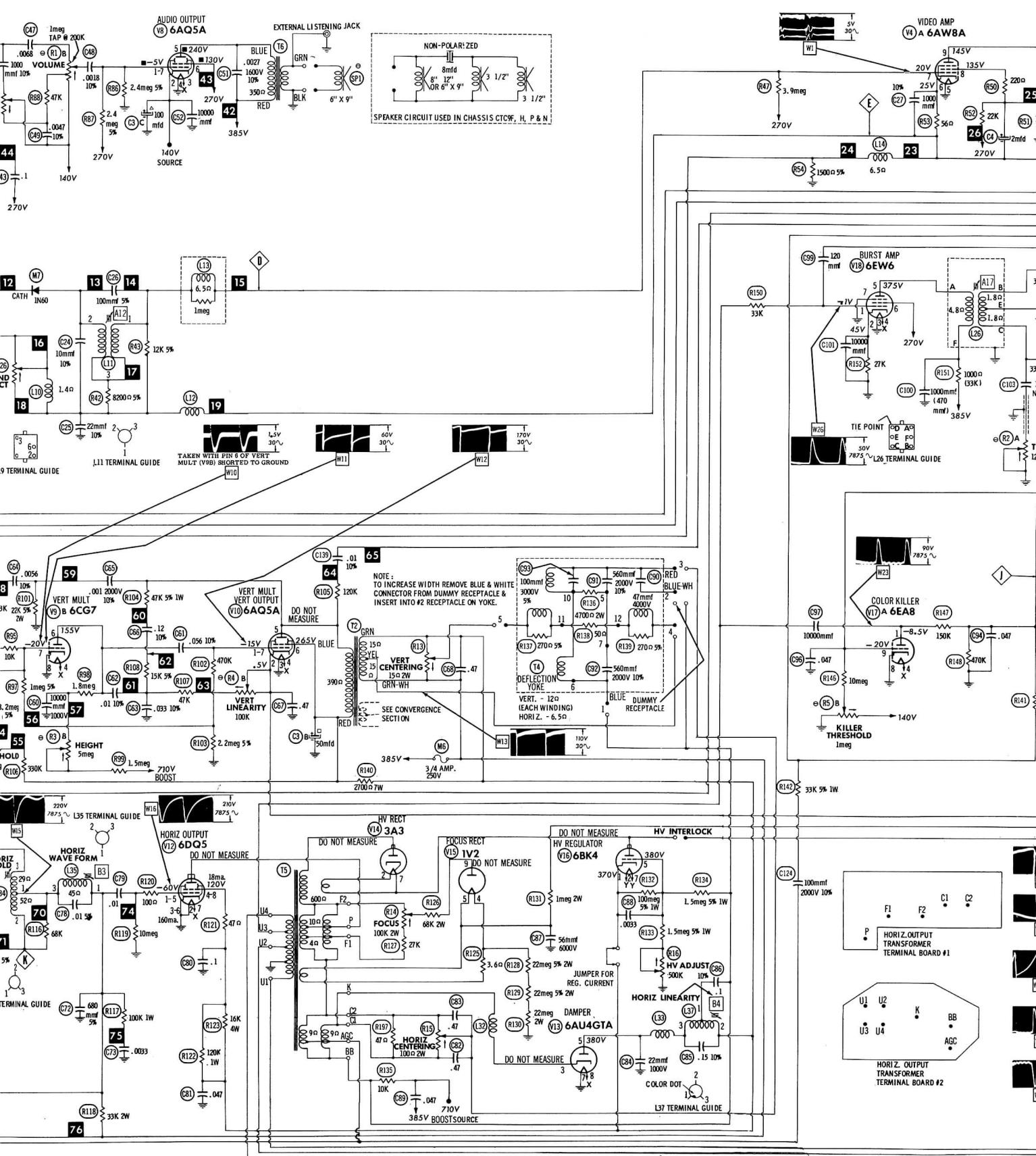
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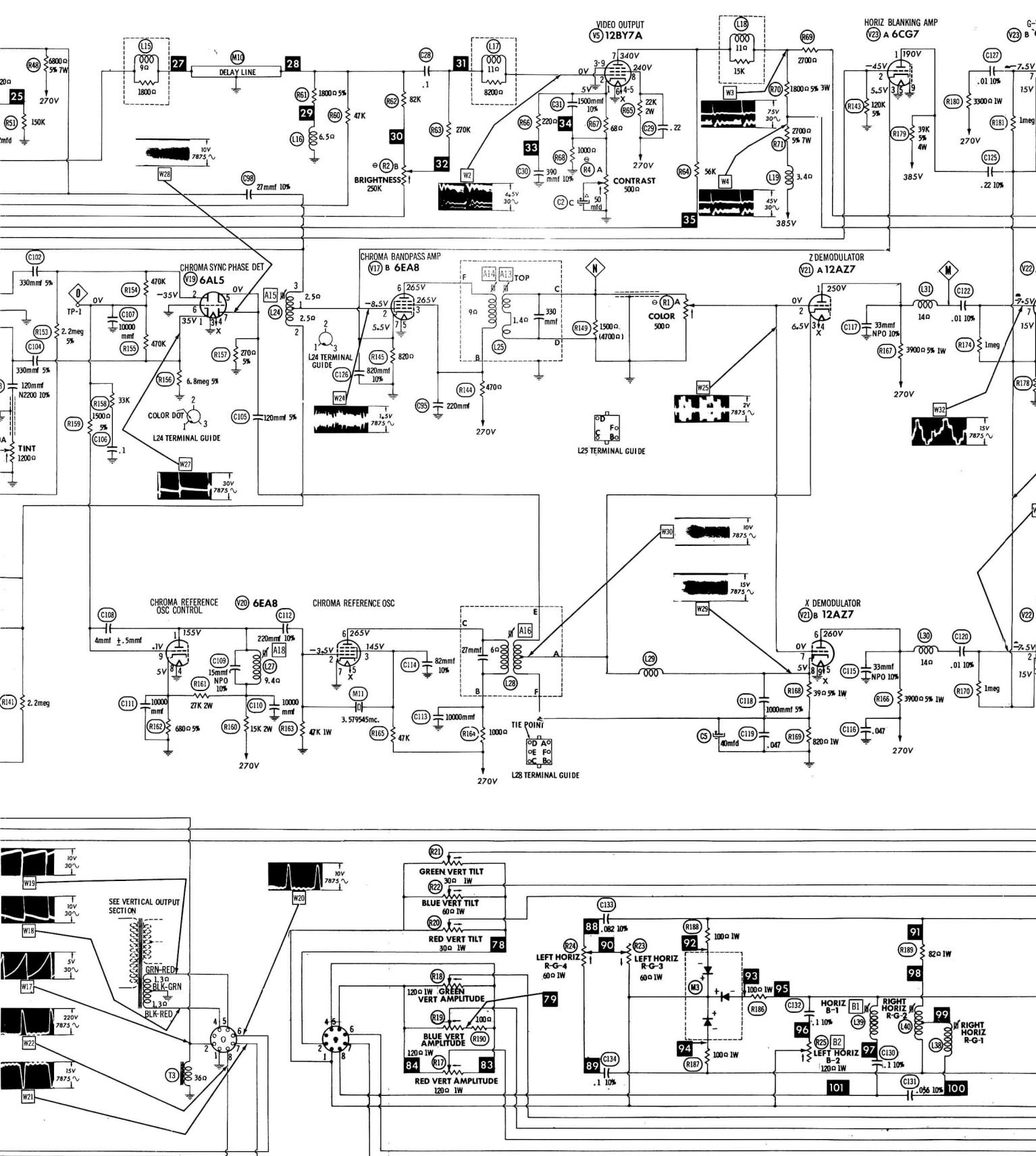
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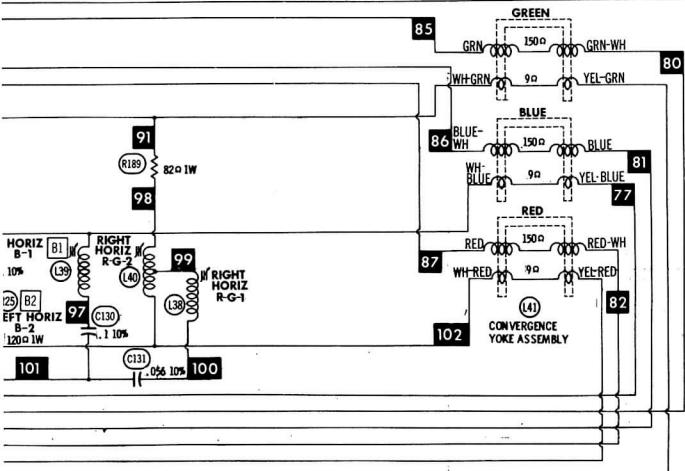
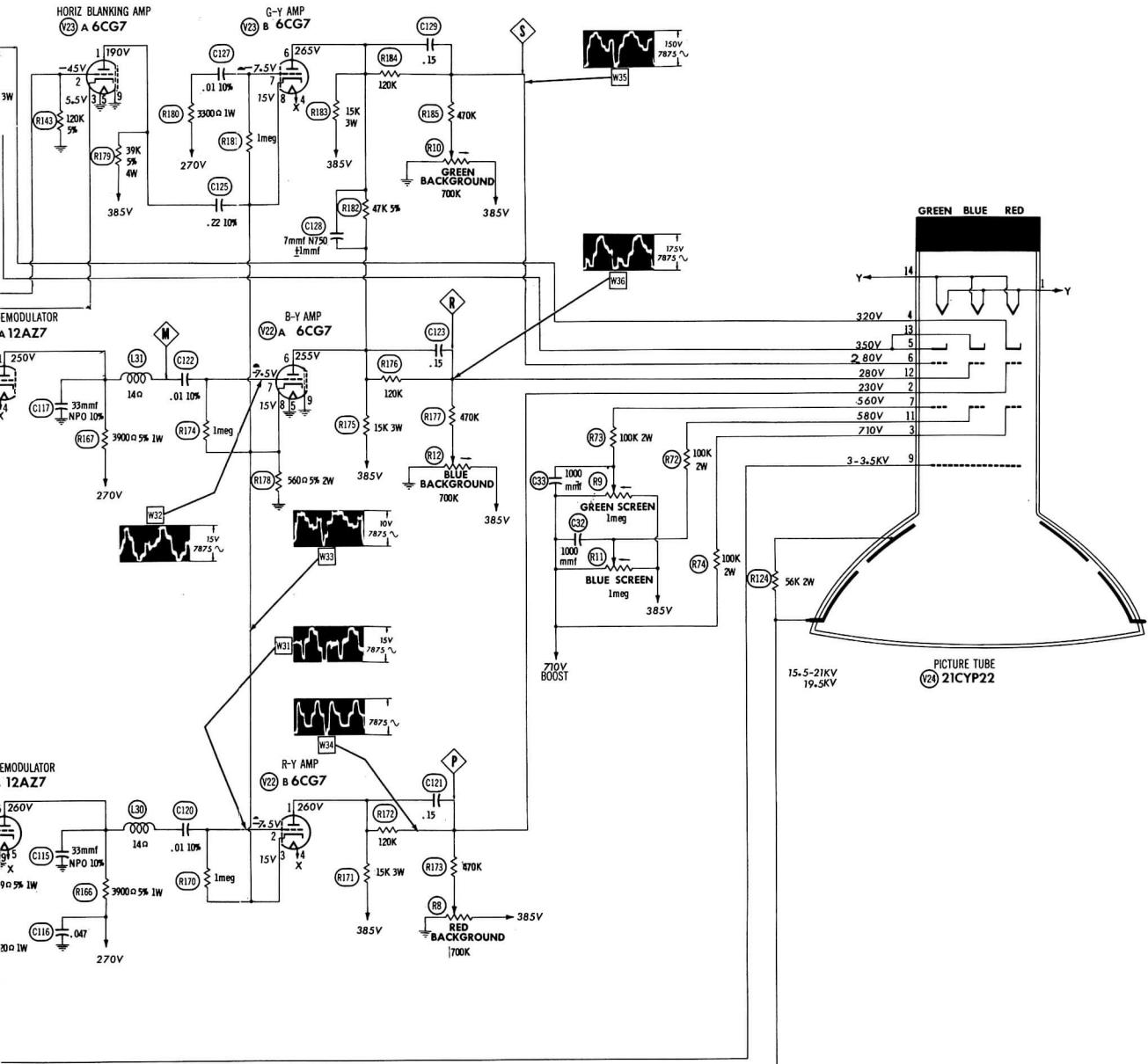


A PHOTOFAC STANDARD NOTATION SCHEMATIC
with CIRCUITRACE®

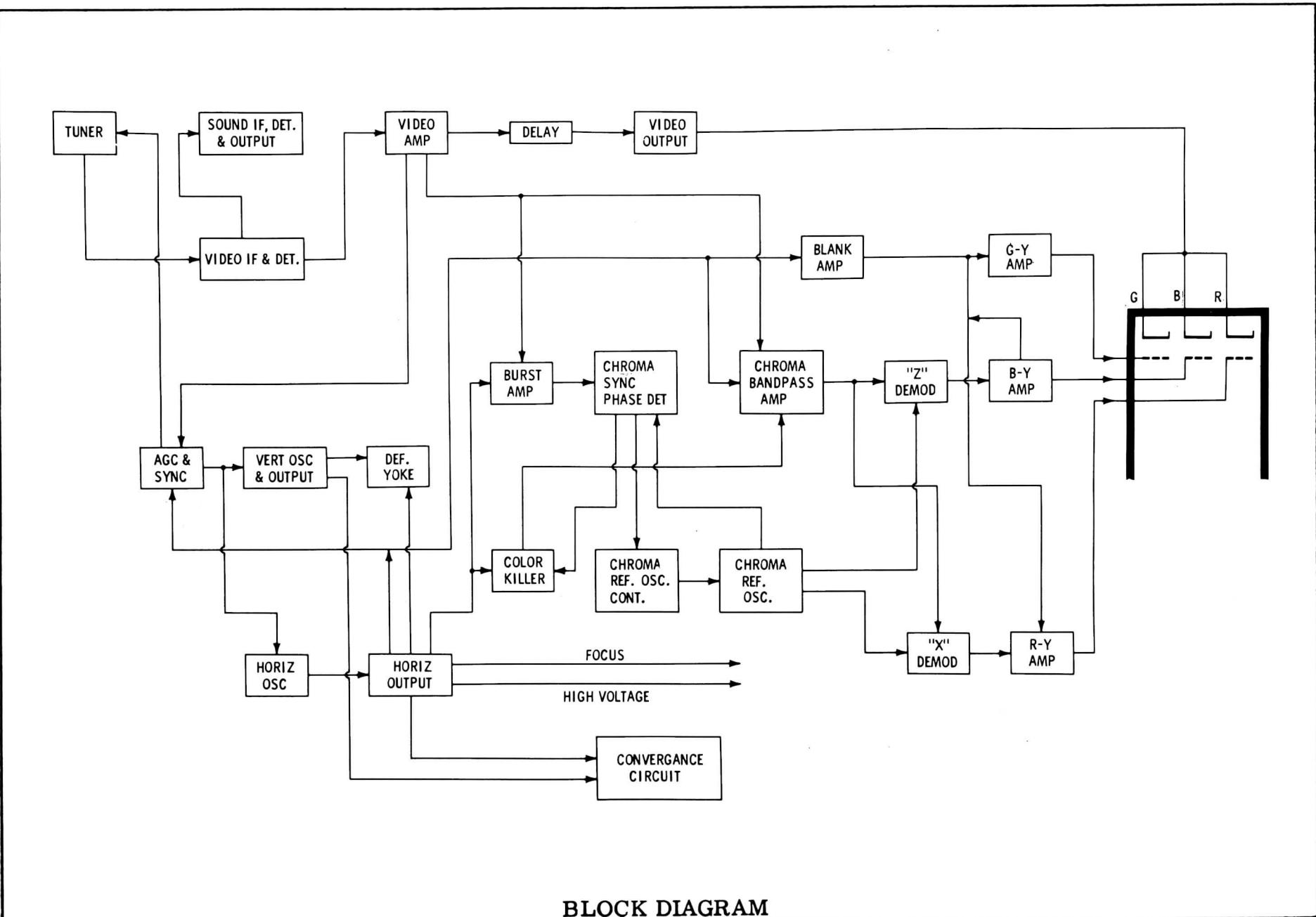
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RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P



ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
 Allow a 20 minute warm-up period for the receiver and test equipment.
 Suggested Alignment Tools: GENERAL CEMENT #8606, 8608L, 8282, 9295
 WALSCO #2526, 2543, 2544, 2545

VIDEO IF ALIGNMENT

Connect the negative lead of a 6 volt bias supply to point **A**. Positive to chassis.
 Connect the negative lead of a 15 volt bias supply to point **B**. Positive to chassis.
 Connect the negative lead of a 7 volt bias supply to point **C**. Positive to chassis.
 Connect the negative lead of a 7 volt bias supply to pin 2 (grid) of the Horizontal Blanking Amp. Positive to chassis.
 Connect a clip lead from point **E** to chassis. Preset Sound Reject (R26) at 75% clockwise rotation. Preset Sound Adjust (R27) at 50% rotation.
 Video IF shield must be in place during alignment.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. Direct	High side to ungrounded tube shield floating over Mixer-Osc. (V202). Low side to chassis.	43.8MC (Unmod)	4	DC probe thru 10K to point D . Common to chassis. Use negative scale.	A1	Adjust for maximum deflection. Use peak with core nearest printed board end of coil. Maintain VTVM reading of 1.5 volts by adjusting signal generator output.
2. "	"	42.5MC	"	"	A2	"
3. "	"	45.75MC	"	"	A3	"
4. "	"	44.0MC	"	"	A4	"
5. "	"	"	"	"	Mixer Plate Coil	Adjust for maximum deflection with peak at top end of coil.
6. "	"	41.25MC	"	"	A5, R26	Adjust A5 and Sound Reject (R26) simultaneously for MINIMUM deflection with slug away from chassis. Reduce bias at point A if necessary for sufficient indication.
7. "	"	47.25MC	"	"	A6, R27	Adjust for MINIMUM deflection with slug away from chassis.
8. "	"	41.25MC	"	DC probe thru 10K to point F . Common to chassis.	A7	Increase bias at point A to -6 volts. Adjust A7 for MINIMUM deflection with slug away from chassis.

OVERALL VIDEO IF RESPONSE CHECK

Connect bias as under "Video IF Alignment".
 Connect a .001mfd capacitor in series with a 180Ω resistor from pin 5 (Plate) of the 2nd Video IF Amp. to chassis with the resistor next to chassis.
 Connect a 1000mmf capacitor across the scope leads.
 The Video IF shield must be in place during alignment.
 Connect the DC probe of the VTVM to point **B**. Common to chassis. (Use negative scale).
 Use 10MC sweep unless otherwise noted.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
9. Direct	High side to ungrounded tube shield floating over Mixer-Osc. (V202). Low side to chassis.	45MC	42.17MC 45.75MC	4	Vert. Amp. thru demodulator probe (Fig. 1) to pin 5 (plate) of 1st Video IF. Low side to chassis.		Set sweep output for .1 volt peak to peak on scope. Retouch Mixer Plate Coil and A4 for maximum gain and symmetry of response similar to Fig. 2. Reduce the bias to -4 volts at point A if necessary.
10.	"	"	41.25MC	"	"		Reduce bias at point A to zero. Retouch A7 to place marker in trap notch as in Fig. 2.
11.	"	"	47.25MC	"	"		Retouch A6 and R27 to place marker in trap notch as in Fig. 2. Remove capacitor and resistor load from 2nd Video IF. Increase bias at point A to -6 volts.
12.	"	"	41.65MC 42.17MC 42.75MC 45.0MC 45.75MC	"	Vert. Amp. thru 10K to point D . Low side to chassis.		Use 3 volts peak to peak on the scope. Retouch A1, A2 and A3 for response similar to Fig. 3 with markers as shown. A1 controls the tilt, A2 affects 42.17MC side of curve and A3 affects the 45.75MC side. Connect a .001mfd capacitor from point G to chassis.
13.	"	"	41.25MC	"	"		Retouch A5 and R26 to place marker in trap notch if necessary. Remove .001mfd.
14.	Fig. 4	Across VHF antenna terminals thru matching network (Fig. 4).	All VHF Channels separately	42.17MC	All VHF Channels separately		Decrease bias at point B to -3 volts. SLIGHTLY retouch A1, A2 and A3 to correct for any overall tilt that is approximately the same on all channels. Repeat step 13.

ALIGNMENT INSTRUCTIONS (cont)

SOUND IF ALIGNMENT

Connect the negative lead of a 10 volt bias supply to point \triangle . Positive to chassis. In the following steps the signal level may be reduced by disconnecting the lead from the terminal at point \triangle and connecting a 1meg potentiometer from point \triangle to chassis. The lead is then connected to the center arm of the control. This arm is then used to control the level of the signal applied to the Sound IF strip. Start alignment with the control turned to maximum signal.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
15. .001mfd	High side to point \triangle . Low side to chassis.	4.5MC (400v FM Mod. 15KC swp)	Any non-interfering channel	DC probe thru diode probe (Fig. 5) to pin 1 (grid) of Audio Det. Common to chassis.	A8	Connect a jumper from pin 7 (grid) of Audio Det. to chassis. Adjust for maximum deflection. Set generator for 1 volt on VTVM. Use peak with slug nearest top of coil form.
16. "	"	"	"	"	A9, A10	Adjust for maximum deflection. Set generator for 1 volt on VTVM. Remove VTVM, diode probe and jumper.
17. "	"	"	"	USE SCOPE Across voice coil	All	Starting with slug fully counterclockwise, adjust to a peak. Continue turning clockwise until a second peak is reached and adjust for maximum at this second peak. Decrease signal until detector breaks out of lock as indicated by jagged portions of the sine wave on scope. Retouch A9 for symmetrical breakout similar to Fig. 6.

ALTERNATE SOUND IF ALIGNMENT USING FM GENERATOR

Connect the negative lead of a 10 volt bias supply to point \triangle . Positive to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
15. .001mfd	High side to point \triangle . Low side to chassis.	4.5MC (Unmod)	Any non-interfering channel	DC probe thru diode probe (Fig. 5) to pin 1 (grid) of the Audio Det. Common to chassis. Connect scope across speaker voice coil.	A8	Connect a jumper from pin 7 (grid 3) of Audio Det. to chassis. Adjust A8 for maximum deflection on VTVM. Use peak with slug nearest top of coil form.
16. "	"	"	"	"	A9, A10	Adjust for maximum deflection. Set generator output for 1 volt on VTVM. Peak with maximum core separation. Repeat steps 15 and 16.
17.	Remove the diode probe and jumper. Turn off the signal generator and tune in the strongest signal in the area. Set Volume control for normal volume. Set All so that core is flush with the top of coil form. Observe scope and listen to sound. Change bias at point \triangle to zero. Adjust All clockwise to peak. Continue clockwise to a louder peak, and adjust for maximum output at this second peak. Gradually decrease the signal until sound becomes distorted. Maintain distorted signal and adjust A9 for maximum output.					

4.5MC TRAP ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
18. .001mfd	High side to point \triangle . Low side to chassis.	4.5MC (400v AM)	Any non-interfering channel	USE SCOPE Vert. Amp. thru demodulator probe to pin 6 (plate) of 1st Chroma Bandpass Amp. Low side to chassis.	A12	Adjust for MINIMUM 400v indication on scope.

CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RCA RF Modulator (WG-304A) or similar device. Connect the negative lead of a 7 volt bias supply to point \triangle . Positive to chassis. Connect a clip lead from point \triangle to chassis. Turn Color Control fully clockwise.

DUMMY ANTENNA	SWEET GENERATOR COUPLING	SWEET GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
19. .1mfd	High side to pin 2 (grid) of 1st Chroma Bandpass Amp. Low side to chassis.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC	Any non-interfering channel	Vert. Amp. thru demodulator probe (Fig. 7) to pin 7 (grid) of "X" Demodulator. Low side to chassis.	A13, A14	Adjust for response similar to Fig. 8 with equal marker height.
20.	Turn Brightness, Contrast, and Noise Controls fully counterclockwise. Connect a 330Ω Resistor and a 4mfd Capacitor in series from plate (pin 6) of 1st Chroma Bandpass Amp. to chassis.						Remove clip lead between point \triangle and chassis. Adjust for response similar to Fig. 9. Peak with core nearest chassis end of coil form.
21. Direct	High side of sweep generator to Video Sweep Input of RF Modulator. High side of signal generator to Picture Carrier Input of RF Modulator. Output of RF Modulator across antenna terminals.	3MC (6MC Swp.) Set signal generator to unused channel	3.08MC 4.08MC	Unused Channel	Vert. Amp. thru demodulator probe (Fig. 7) to pin 7 (grid) of "X" Demodulator. Low side to chassis.	A15	
22. "	"	"	"	"	"		Disconnect the 330Ω Resistor and the 4mfd Capacitor from V17. Check for response similar to Fig. 10. If necessary, retouch A13, A14, & A15 to obtain desired response.

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Suggested Alignment Tools:

B3, B4 . . . GENERAL CEMENT #8606, 8606L, 8282, 9295
WALSCO #2526, 2543, 2544, 2545

Connect a 0-500MA meter in series with the cathode circuit of the Horizontal Output tube. Connect a .47mfd capacitor across the meter terminals. Connect a 0-1MA meter in series with the cathode circuit of the HV Regulator by removing the test jumper and connecting the meter in its place. Connect the high side of the scope thru a low capacity probe to point \textcircled{D} . Low side to chassis. Connect the DC probe of the VTVM thru a high voltage probe to the High Voltage Rectifier "cup". Common to chassis.

Set the Focus control fully counterclockwise. Set the High Voltage Adjust at two-thirds clockwise rotation. Tune the receiver to a station signal and synchronize the picture. Adjust the Horizontal Waveform slug (B3) for waveform similar to Fig. 11 with the round and sharp peaks at equal amplitudes. Keep the picture in sync during this adjustment with the Horizontal Hold.

Adjust the Horizontal Linearity slug (B4) for MINIMUM current indication on the 500MA meter.

Adjust the High Voltage Adjust for 23.5KV on the VTVM. Check the current reading on the meter. It should not exceed .8MA (19 watts).

AGC ADJUSTMENT

Tune in the strongest signal in the area. Connect the high side of a scope to point \textcircled{E} . Low side to chassis. Adjust the AGC control for 10 volts peak to peak on the scope.

NOISE INVERTER ADJUSTMENT

Connect the Vertical amplifier of the scope to point \textcircled{F} . Low side to chassis. Turn the Noise control fully counterclockwise. Turn slowly clockwise while observing the scope, when the tips of the sync pulses appear to be clipped, back off until the clipping just disappears.

COLOR AFC ALIGNMENT

Connect the Vertical amplifier of the scope to point \textcircled{G} . Low side to chassis. Connect the DC probe of the VTVM thru a 470K resistor to pin 2 (plate) of Chroma Sync Phase Detector. Common to chassis. Set the Tint control to the center of its range. Turn the Killer Threshold control fully counterclockwise. Connect a short clip from point \textcircled{H} to chassis. Adjust A16 for maximum deflection on the VTVM. If the Chroma Reference Oscillator is not running, no reading will be obtained. In which case adjust A18 just enough to start the oscillator and then adjust A16. Adjust A17 for maximum deflection on the VTVM. Make sure the oscillator is running and locked in.

Connect a clip lead from point \textcircled{I} to chassis. Disconnect the VTVM. Adjust A18 until the Color bars stand still on the screen or drift slowly by.

Move the scope connection to point \textcircled{J} .

Remove the clip lead from point \textcircled{I} . Observe the bar pattern on the scope and retouch A17 if necessary to obtain proper response curve similar to R-Y in Fig. 12 with equal change when rotating the Tint control from one end to the other.

After this adjustment return the Tint control the nominal setting. Move the scope connection to point \textcircled{K} . If necessary, retouch A16 for proper B-Y signal as shown in Fig. 12.

Move scope connection to point \textcircled{L} . Check for proper G-Y signal and repeat adjustment of A17, A16 if necessary.

Remove all clip leads and test equipment. Switch to an unused channel and adjust the Killer Threshold control to the point where color just disappears from the noise pattern on the screen.

PRELIMINARY CONVERGENCE ADJUSTMENTS

Connect the output of a white dot generator to the antenna terminals. Pre-set all Red, Green and Blue Horizontal and Vertical Convergence controls and coils to the center of their ranges.

Adjust Red, Green and Blue Convergence magnets and the Lateral Magnet to produce a white dot in the center of the screen. Keep the screen in sharp focus during this adjustment. Switch the generator to standby position.

COLOR PURITY ADJUSTMENTS

If necessary, demagnetize picture tube and associated components.

Set the red tabs of the Purity Magnet together. Set the Edge Purity Magnets so that the two magnets are in the same relative position one above the other. Loosen the yoke clamp and slide the deflection yoke to the rear as far as possible.

Shunt test points \textcircled{M} and \textcircled{N} to chassis thru individual 100K resistors.

Slide Purity Magnet around the neck of the picture tube and at the same time spread the red tabs apart to produce a uniform red screen area at the center of the screen.

Move the Yoke forward and adjust for best overall red screen without neck shadow.

Adjust so that any color impurities occur at the extreme edges of the screen.

Adjust the Screen controls for a white raster and adjust the Edge Purity Magnets for best edge purity. Maximum correction is obtained with the open ends of the magnets 180 degrees apart. Rotate both magnets simultaneously to achieve the desired results.

VERTICAL CONVERGENCE ADJUSTMENTS

Recheck the "Preliminary Convergence Adjustments" for correct setting of the Red, Green and Blue magnets and the Lateral Magnet to produce a white dot in the center of the screen.

Loosen the two screws holding the Convergence board, slide the board to the left and remove. Fasten the board to the top rail of the cabinet with the two screws provided. Place so that the controls face forward.

Switch the dot generator to vertical bars and adjust the Red and Green tilt controls for equal displacement of the Center bar at the top and bottom.

Adjust the Red and Green Amplitude controls until the red and green lines are straight. Gradually reduce the Amplitudes to converge the red, green and blue along the center lines, retouching the Red and Green Tilt controls to keep the lines parallel. The center line should converge to produce a white line from top to bottom or show slight displacement of the Red on one side and the green on the other with all three parallel from top to bottom. Readjust the Convergence Magnets if necessary to superimpose the three parallel lines to produce a single white line from top to bottom.

Switch the generator to horizontal bars. Referring to the top and bottom bars as a reference, adjust the Blue Vertical Tilt and Amplitude controls for equal downward displacement of the blue horizontal from the extreme top and bottom lines of the raster. Reduce the Blue Vertical Amplitude control to converge all the lines at the center, retouching the Blue Vertical tilt SLIGHTLY, if necessary making all lines white at the center from top to bottom.

HORIZONTAL CONVERGENCE ADJUSTMENTS

Switch the generator to crosshatch pattern. If necessary, retouch convergence magnets to produce good convergence at the center of the screen. Adjust coil B-1 so that the blue horizontal line at the right center of the screen is a straight line.

Adjust control B-2 for a straight blue line to the left of the raster. Adjust R-G-1 to make the vertical lines at the right side of the raster converge. Adjust R-G-2 to make the horizontal red and green lines at the right side of the screen converge. Readjust B-1 to make the blue lines at the right center fall on the red and green converged lines.

Retouch R-G-1 for convergence of the vertical lines at the right side.

Adjust control R-G-3 to make the vertical lines at the left side converge.

Adjust control R-G-4 to make the red and green horizontal lines at the left side of the screen converge.

Readjust B-2 to make the blue lines at the left center fall on the converged red and green lines.

The picture or pattern should now show proper convergence over the entire screen.

GRAY SCALE ADJUSTMENTS

Set Green and Blue Screen controls two-thirds clockwise from minimum.

Set the Green and Blue Background controls to the center of their ranges.

Set the Red Background control fully counterclockwise and do not change it from this point on. Tune in a station and then turn the Brightness and Contrast controls fully counterclockwise. Use a program which displays the full range of contrast conditions from high lights to low lights.

Advance the Brightness control to obtain a picture of normal brightness. The control will usually fall approximately two-thirds clockwise. DO NOT overload.

Adjust the Blue and Green Background controls to produce white in the highlight areas of the picture.

Reduce the Brightness to produce a low level brightness picture and observe the lowlight areas (dark objects) of the picture. Some color will prevail in the lowlight areas, as indicated below.

1. Yellow in the lowlight areas. Blue Screen must be turned clockwise.

2. Magenta in the lowlight areas. Green Screen must be turned clockwise.

3. Red in the lowlight areas. Blue and Green Screens must be turned clockwise.

4. Green in the lowlight areas. Green screen must be turned counterclockwise.

5. Blue in the lowlight areas. Blue Screen must be turned counterclockwise.

6. Cyan in the lowlight areas. Blue and Green Screens must be turned counterclockwise.

Depending upon which of the above conditions prevail, turn the appropriate control in the indicated direction until a gray picture is obtained, then SLIGHTLY beyond in the same direction.

Advance the Brightness control to produce a well lit picture. Adjust the Blue and Green Background controls for white in the highlight areas of the picture. DO NOT ADJUST THE RED BACKGROUND CONTROL. Return the Brightness control to the lowlight area and retouch the proper Screen controls for gray in the lowlight areas.

Check for proper tracking at all light levels and retouch as necessary being sure not to change Red Background control setting.

ALIGNMENT INSTRUCTIONS (cont)

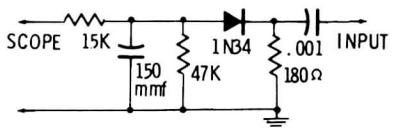


FIG. 1

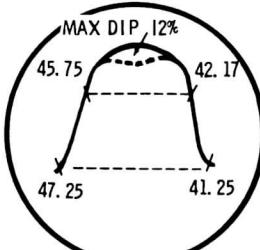


FIG. 2

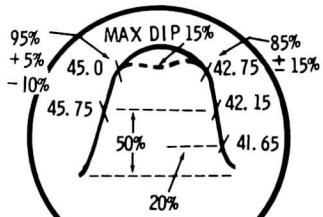


FIG. 3

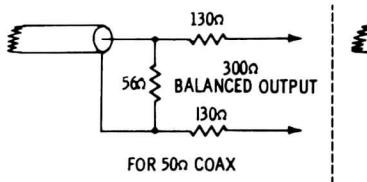


FIG. 4

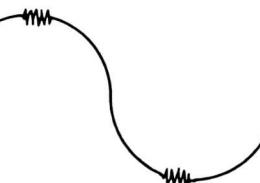


FIG. 6

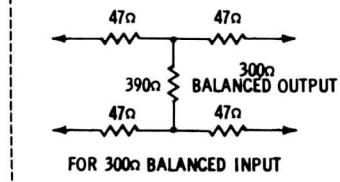


FIG. 7

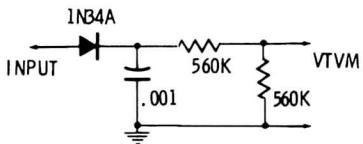


FIG. 5

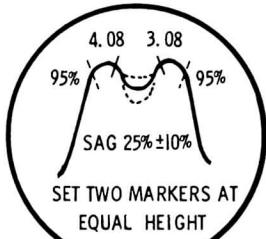


FIG. 8



FIG. 9

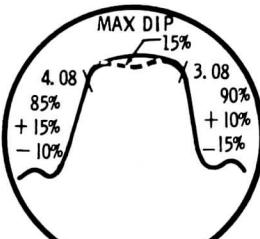


FIG. 10

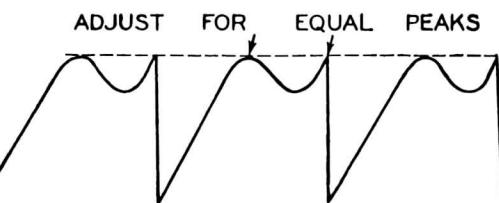


FIG. 11

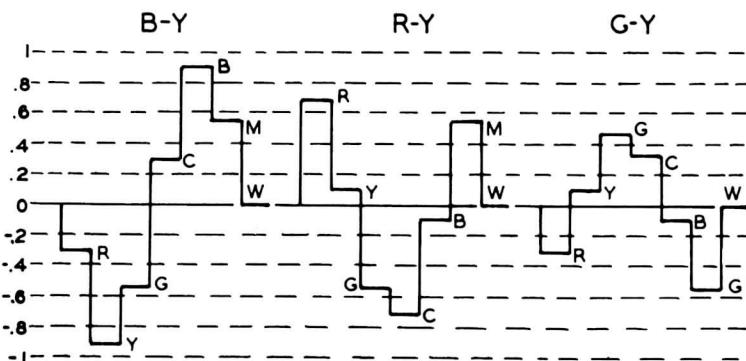
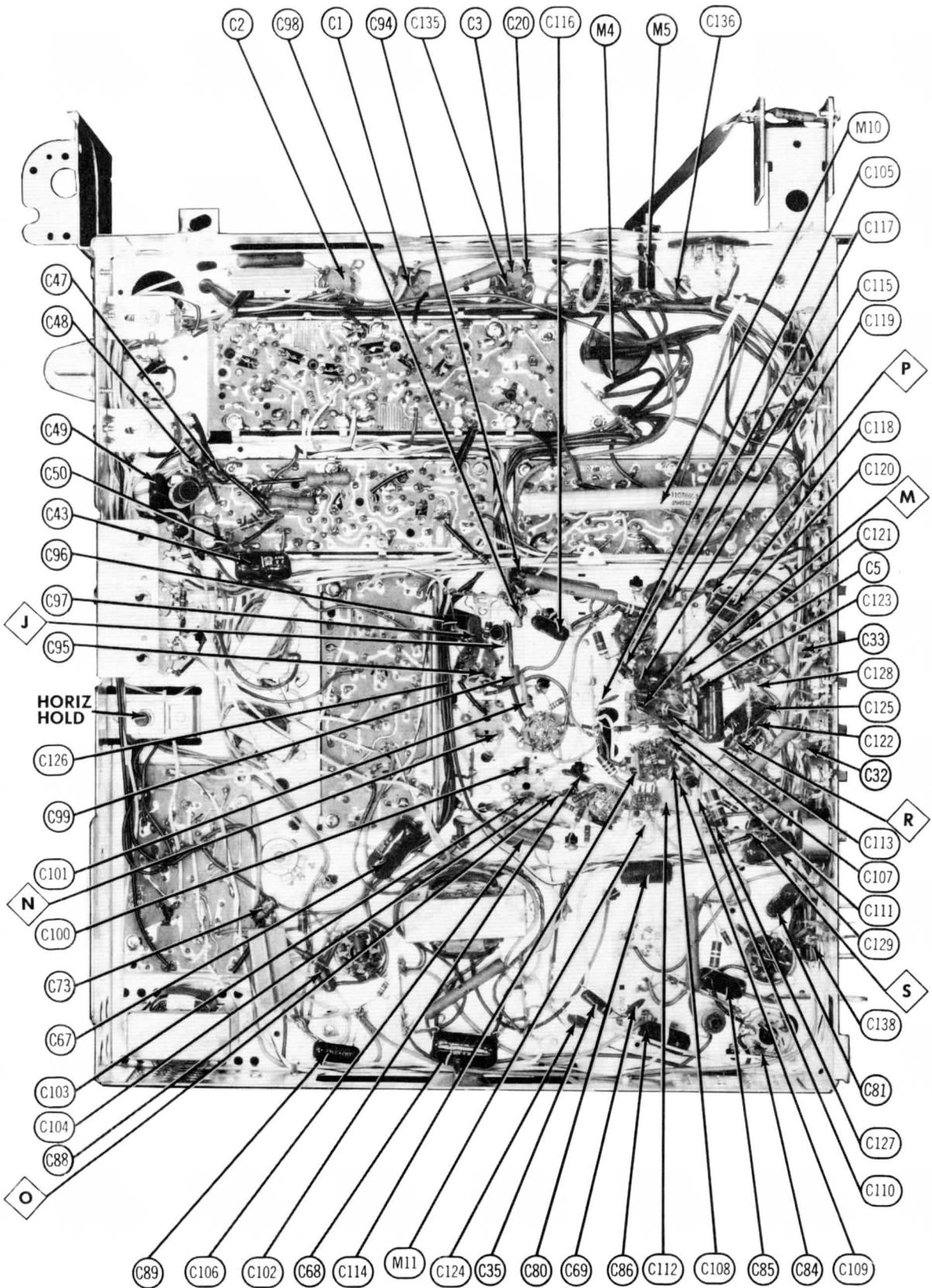


FIG. 12

SET 459 FOLDER 1



CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI. SEC.	REPLACEMENT DATA						NOTES
		RCA Victor PART No.	Hallidorsen PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	
T6	7600Ω 3-4Ω	100037	26548	A-3020	AU-604	A-3849	26548	S-9Z

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	RCA Victor PART No.	QUAM PART No.	
SP1	6" x 9"	PM	3-4Ω	107304 ① 107475 ② 107476 ③ 107477 ④ 102119 ⑤	69A3 3A15TZ9	

- ① Models 210CK855, 6, 7, & U, 210CK885, 6, 9 & U, 210CK905, 6, 7, & U, 210CK940, 6, & U.
- ② Models 210CT822U, 210CK920, 4, & U, 210CK935, 6, & U.
- ③ Models 210CTR845, 7
- ④ Models 210CT835, 6, 7, & U.
- ⑤ Models 210CK855, 6, 9, & U, 210CK905, 6, 7, & U, 210CK920, 4, & U, 210CK935, 6, & U, 210CKR940, 6, & U.

RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA						NOTES
		RCA Victor PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.		
M1	.450A	106379 ①	HA505 ①	SD-500 ①	F6 ①	SR500 ①	① Silicon Type.	
M2	.450A	106379 ①	HA505 ①	SD-500 ①	F6 ①	SR500 ①	② Selenium Type.	
M3		105064 ②						

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			RCA Victor PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M4	2½" #21 Wire C	3½A 250V	102792 106357		33203.5 (C 3½A-250V) 318.750	346007	C 3½	HC 2½ to 3½
M5					(3/4A-250V 3AG-P/T)			
M6	3AG	3/4A 250V P/T	105252				GJV 3/4	

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		RCA Victor PART No.	CBS PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M7	IN60	76675B	IN60	IN60	IN295	Video Det. (Pigtail)
M8	IN60	76675B	IN60	IN60	IN295	Sound Det. (Pigtall)

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M9	Tuner	KRK48D	VHF Ch. CTC9A
	Tuner	KRK75C	VHF Ch. CTC9F
	Tuner	KRK75D'	VHF Ch. CTC9N
	Tuner	KRK49D	VHF with UHF provisions Ch. CTC9B
	Tuner	KRK76C	VHF with UHF provisions Ch. CTC9H
	Tuner	KRK76D	VHF with UHF provisions Ch. CTC9P
	Tuner	KRK66M	UHF Ch. CTC9B
	Tuner	KRK66AA	UHF Ch. CTC9H
	Tuner	KRK66AB	UHF Ch. CTC9P
M10	Delay Line	105253	
M11	Crystal	105330	3.579545MC
M12	Magnet	105024	Convergence (3 used)
M13	Magnet	103172	Lateral Assembly
M14	Magnet	105027	Color Equalizer (12 used)
M15	Magnet	106460	Color Equalizer Ring
M16	Purity Coil Ring	79604	
	Printed Board	107293	Sound, Less Tubes
	Printed Board	107294	Video IF, Less Tubes
	Printed Board	107511	Video, Less Tubes
	Printed Board	107512	Vert., Less Tubes
	Printed Board	107295	Sync, Less Tubes
	Printed Board	106318	Convergence
	Microphone	107630	Remote Transducer Model 210CTR845, 7
	Microphone	107437	Remote Transducer Models 210CKR940, 6, U

PARTS LIST AND DESCRIPTIONS (Continued)

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

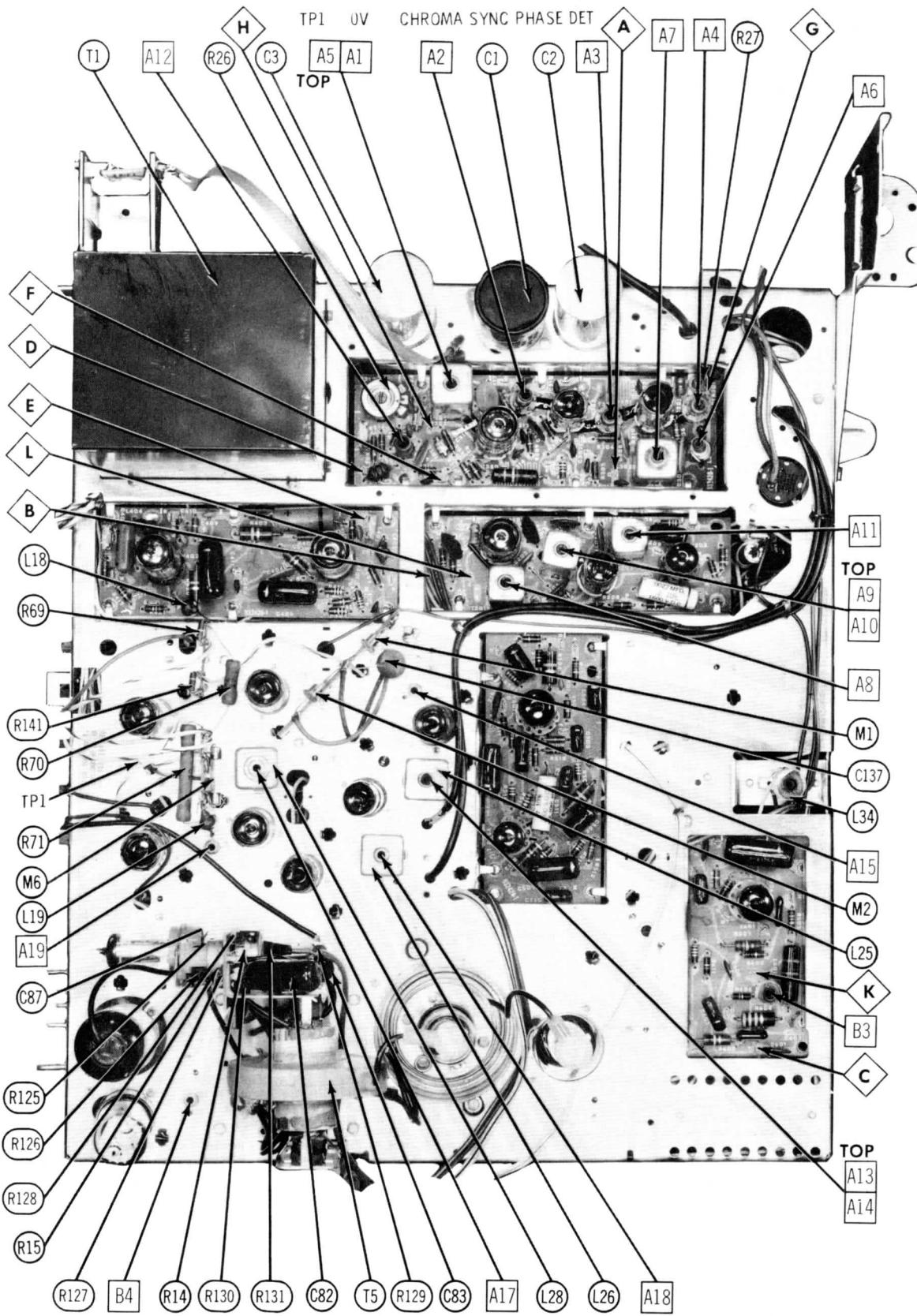
NAME	PART NO.	DESCRIPTION
Safety Glass	106781	All Models except 210CT822, U
Safety Glass	105014	Models 210CT822, U
Mask	106459	All Models except 210CT822, U
Mask	107403	Models 210CT822, U
Knob	107462	VHF Channel Selector, Maroon, Models 210CT822, U
Knob	107303	VHF Channel Selector, Taupe, Models 210CK855, 6, 7, & U
Knob	107302	VHF Channel Selector, Wine, Models 210CK855, U
Knob	107372	VHF Channel Selector, Clear, Models 210CK885, 6, 9, U, 210CK905, 6, 7, & U, 210CK920, 4 & U, 210CK935, 6 & U, 210CKR940, 7, & U, 210CT835, 6, 7 & U, 210CTR845
Knob	102580	UHF Tuning, Brown Maroon, Model 210CT822U
Knob	102578	UHF Tuning, Taupe, Model 210CK856U, 7U
Knob	102653	UHF Tuning, Wine, Model 210CK855U
Knob	107269	UHF Tuning, Clear, Models 210CK885U, 6U, 7U, 210CK905U, 6U, 7U, 210CK920U, 4U, 210CK935U, 6U, 210CKR940U, 6U, 210CT835U, 6U, 7U
Knob	106311	Fine Tuning, Maroon, Models 210CT822, U
Knob	104988	Fine Tuning, Taupe, Models 210CK856, 7, & U
Knob	104987	Fine Tuning, Wine, Models 210CK855, U
Knob	106596	Fine Tuning, Clear, Models 210CK885, 6, 9 & U, 210CK905, 6, 7 & U, 210CK920, 4 & U, 210CK935, 6 & U, 210CKR940, 7 & U, 210CT835, 6, 7, & U, 210CTR845, 7
Knob	106104	UHF Dial, Brown Maroon, Model 210CT822U
Knob	106103	UHF Dial, Gray, Models 210CK856U, 7U
Knob	106102	UHF Dial, Wine, Model 210CK855U
Knob	107266	UHF Dial, Clear, Models 210CK885U, 6U, 9U, 210CK905U, 6U, 7U, 210CK920U, 4U, 210CK935U, 6U, 210CKR940U, 6U, 210CT835U, 6U, 7U
Knob	107398	Off-On-Volume, Brightness, Brown Maroon, Models 210CT822, U
Knob	106615	Off-On-Volume, Brightness, Wine, Models 210CK855, U
Knob	106616	Off-On-Volume, Brightness, Taupe, Models 210CK855, 6, 7 & U
Knob	106278	Off-On-Volume, Brightness, Clear, Models 210CK885, 6, 9, & U, 210CK905, 6, 7 & U, 210CK920, 4 & U, 210CK935, 6 & U, 210CKR940, 6 & U, 210CTR845, 7, 210CT835, 6, 7 & U
Knob	107399	Color or Tint, Brown Maroon, Models 210CT822, U
Knob	106618	Color or Tint, Taupe, Models 210CK856, 7 & U
Knob	106617	Color or Tint, Wine, Models 210CK855, U
Knob	107603	Color or Tint, Clear, Models 210CK885, 6, 9 & U, 210CK905, 6, 7 & U, 210CK920, 4 & U, 210CK935, 6 & U, 210CKR940, 7 & U, 210CT835, 6, 7 & U, 210CTR845, 7
Knob	100407	Focus
Knob	106317	Horizontal, Maroon, Models 210CK855, 6, 7 & U, 210CT822, U
Knob	79533	Horiz. Freq., knurled
Knob	102581	Tone, Contrast, Vert., Maroon, Models 210CK855, 6, 7 & U, 210CT822, U
Knob	107605	Tone, Contrast, Vert., Clear, Models 210CK885, 6, 9 & U, 210CK905, 6, 7, & U, 210CK920, 4 & U, 210CK935, 6 & U, 210CKR940, 6 & U, 210CT835, 6, 7 & U, 210CTR845, 7
Escutcheon	105031	Color & Tint Control Marker, Models 210CK855, 6, 7 & U
Escutcheon	107607	Color-On-Volume Bar, Models 210CK885, 6, 9 & U, 210CK905, 6, 7 & U, 210CK920, 4, & U, 210CK935, 6 & U, 210CKR940, 6 & U, 210CTR845, 7
Escutcheon	106512	Fine Tuning
Escutcheon	107606	Tint-Bright Bar, Models 210CK885, 6, 9 & U, 210CK905, 6, 7 & U, 210CK920, 4, & U, 210CK935, 6 & U, 210CKR940, 6 & U, 210CTR845, 7
Escutcheon	107631	Microphone
Cabinet	Z4571	Models 210CT822, U
Cabinet	M4652	Models 210CK855, U
Cabinet	M4653	Models 210C K856, U
Cabinet	M4654	Models 210CK857, U
Cabinet	X4609	Models 210CK885, U
Cabinet	X4610	Models 210CK886, U
Cabinet	X4611	Models 210CK887, U
Cabinet	X4612	Models 210CK905, U
Cabinet	X4613	Models 210CK906, U
Cabinet	X4614	Models 210CK907, U
Cabinet	Z4576	Models 210CT835, U
Cabinet	Z4577	Models 210CT836, U
Cabinet	Z4578	Models 210CT837, U
Cabinet Leg	X5125	Models 210CT835, 6, 7 & U

WIRING DATA

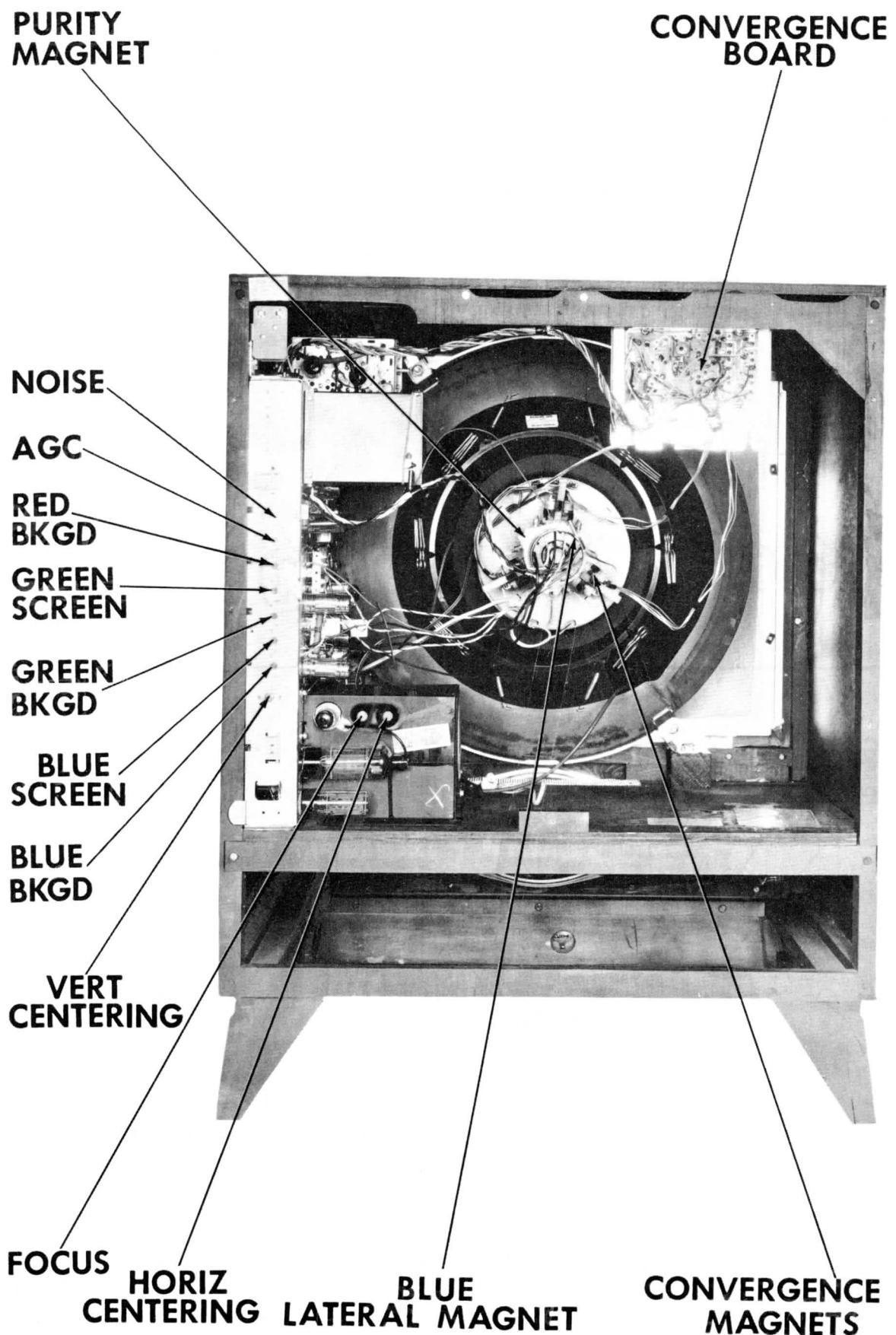
High Voltage Lead	Use BELDEN No. 8869
Shielded Hook-up Wire	Use BELDEN No. 8865 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874
300Ω 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

RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P

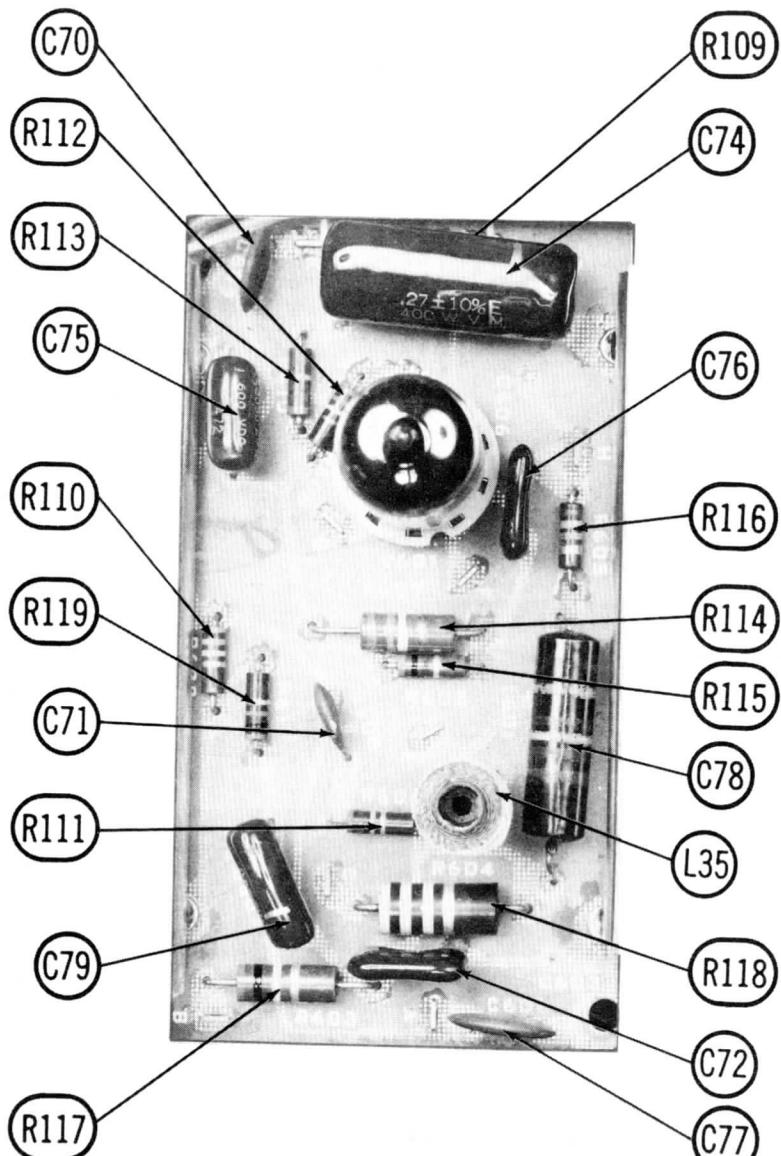
FOLDER 1



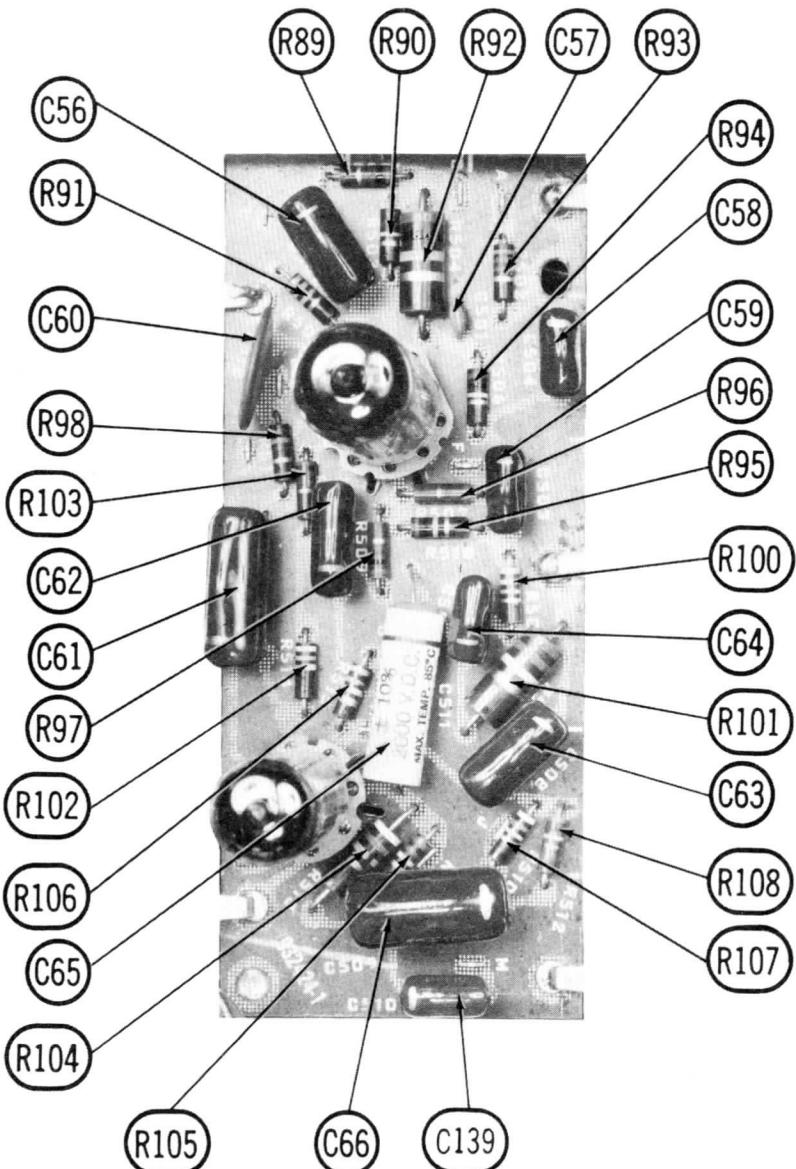
CHASSIS TOP VIEW



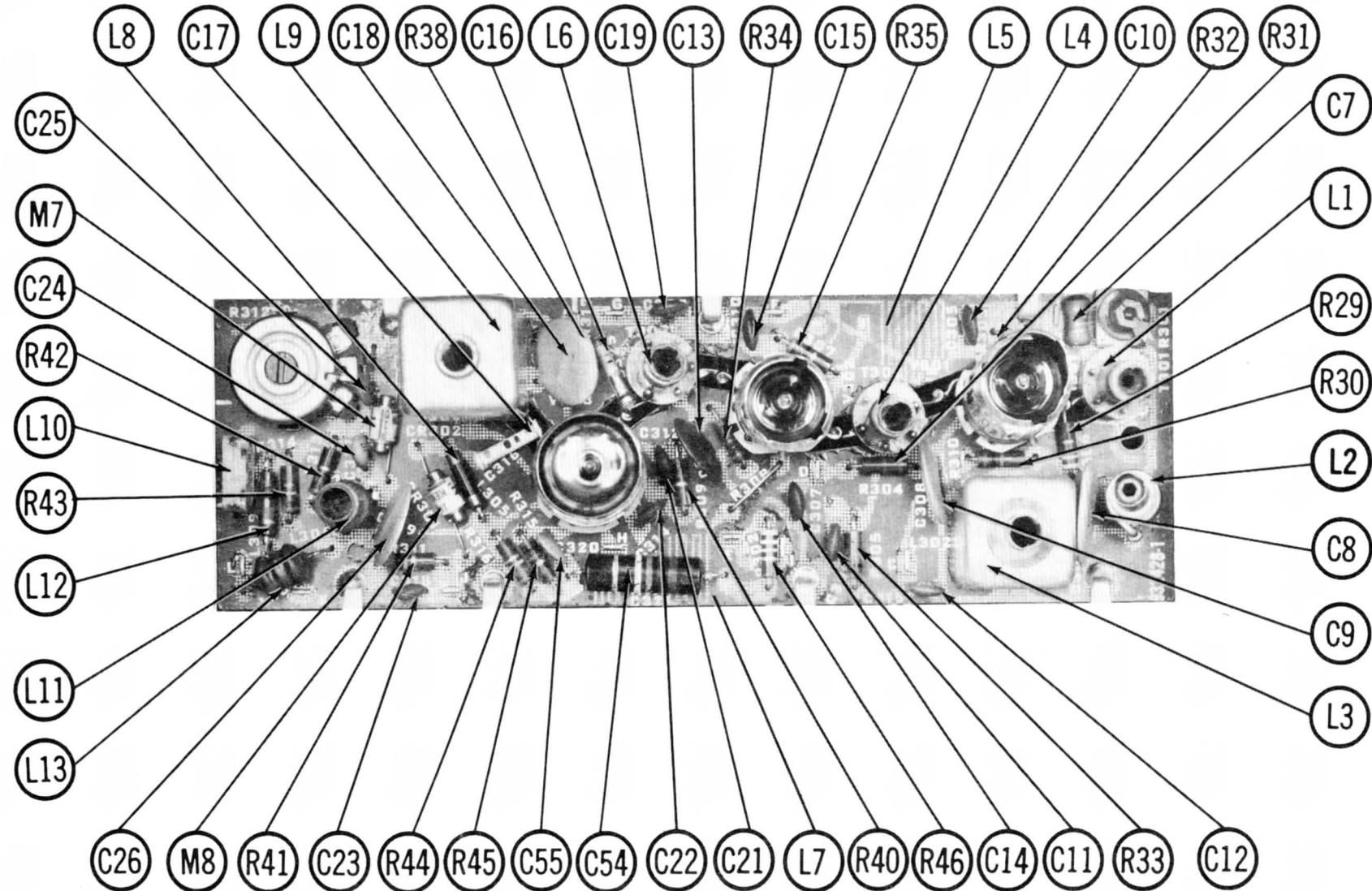
CABINET-REAR VIEW



HORIZ PRINTED BOARD



VERTICAL PRINTED BOARD



VIDEO IF PRINTED BOARD
RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	100K	47Ω	0Ω	.1Ω	†4000Ω	†4000Ω	0Ω		
V2	6BZ6	100K	82Ω	.1Ω	0Ω	†4000Ω	†4000Ω	0Ω		
V3	6AW8A	0Ω	10meg	■ 1meg	.1Ω	0Ω	150Ω	.1Ω	†6500Ω	†6500Ω
V4	6AW8A	■ 0Ω	500K	700K	.1Ω	0Ω	1000Ω	5500Ω	†25K	†7000Ω
V5	12BY7A	• 500Ω	• 500K	0Ω	.1Ω	.1Ω	0Ω	†4500Ω	†25K	0Ω
V6	6EA8	†25K	6.5Ω	■ 3300Ω	.1Ω	0Ω	■ 3300Ω	82Ω	1000Ω	1.1meg
V7	6DT6	4.6Ω	470Ω	.1Ω	0Ω	†700K	■ 3300Ω	470K		
V8	6AQ5A	1.2meg	¶60K	.1Ω	0Ω	†350Ω	†800Ω	1.2meg		
V9	6CG7	■ 10K	33K	0Ω	.1Ω	0Ω	• †5meg	• 2.5meg	0Ω	0Ω
V10	6AQ5A	2.5meg	25Ω	0Ω	.1Ω	†3200Ω	†2700Ω	2.5meg		
V11	6CG7	†0Ω	330K	500K	.1Ω	0Ω	†33K	600K	0Ω	0Ω
V12	6DQ5	10meg	0Ω	0Ω	†15K	10meg	0Ω	.1Ω	†15K	TOP CAP †15Ω
V13	6AU4GTA	NC	NC	¶400K	NC	†9.5Ω	NC	0Ω	.1Ω	
V14	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE							TOP CAP †610Ω	
V15	1V2	TP	NC	NC	66meg	66meg	66meg	NC	NC	• †90K
V16	6BK4	†9Ω	¶25K	NC	NC	1meg	NC	¶25K	NC	TOP CAP INF
V17	6EA8	630K	420K	†1300Ω	.1Ω	0Ω	†1300Ω	820Ω	0Ω	5meg
V18	6EW6	33K	27K	0Ω	.1Ω	†1000Ω	†800Ω	0Ω		
V19	6AL5	4.5meg	5meg	0Ω	.1Ω	270Ω	0Ω	270Ω		
V20	6EA8	†13K	47K	†47K	0Ω	.1Ω	†1800Ω	0Ω	680Ω	5meg
V21	12AZ7	†4700Ω	• 130Ω	860Ω	.1Ω	.1Ω	†4700Ω	• 130Ω	860Ω	0Ω
V22	6CG7	†15K	1meg	560Ω	.1Ω	0Ω	†13K	1meg	560Ω	0Ω
V23	6CG7	†39K	120K	820Ω	.1Ω	0Ω	†13K	1meg	560Ω	0Ω
V24	21CYP22	¶25K	†120K	†110K	†7200Ω	†2700Ω	†120K	• †550K	NC	66meg
		Pin 10 NC	Pin 11 • †550K	Pin 12 †110K	Pin 13 †2700Ω	Pin 14 ¶25K				
V201	6BC8	†5500Ω	550K	560K	0Ω	.1Ω	560K	800K	0Ω	0Ω
V202	6EA8	†7600Ω	100K	INF	0Ω	.1Ω	INF	0Ω	INF	INF
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

¶ THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.

● THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.

† MEASURED FROM 385V SOURCE.

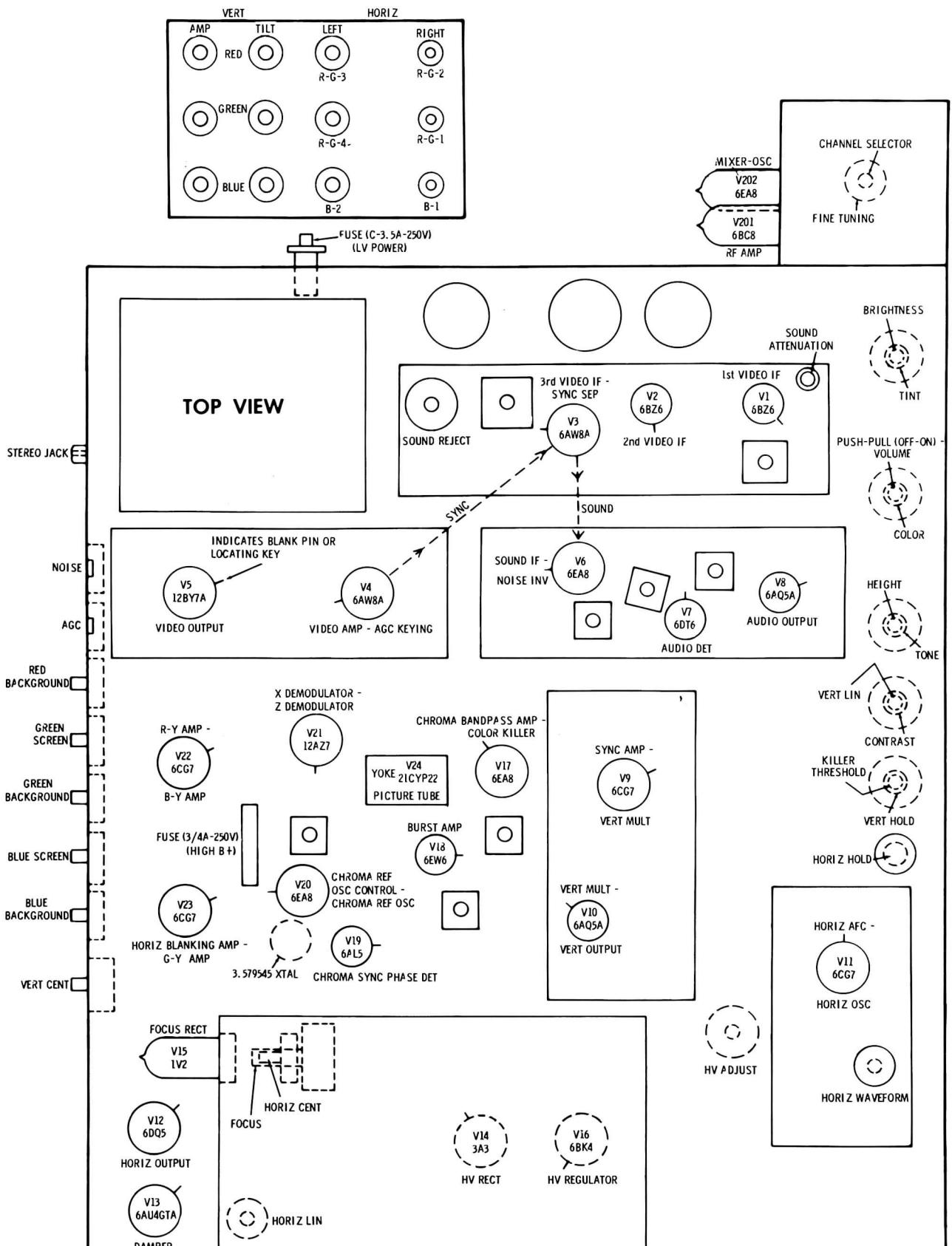
■ MEASURED FROM 140V SOURCE.

‡ MEASURED FROM PIN 3 OF V13.

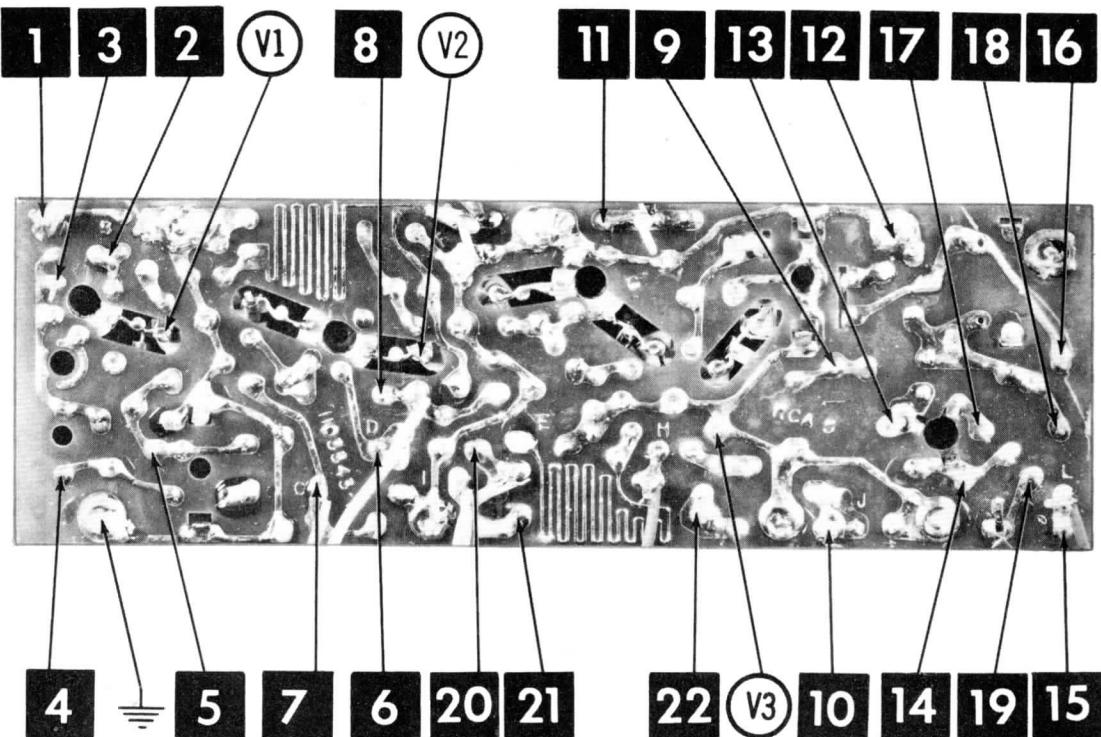
NC NO CONNECTION

TP TIE POINT

TUBE PLACEMENT CHART



CircuiTrace numbers 1 thru 22

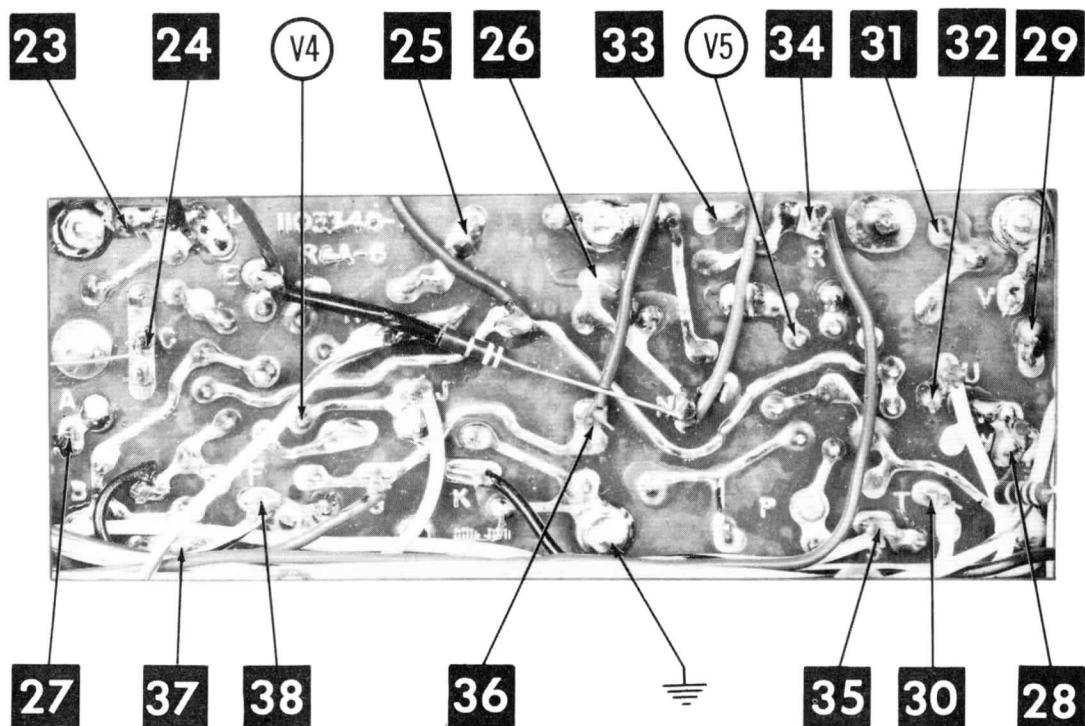


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VIDEO IF
PRINTED BOARD

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

CircuiTrace Numbers 23 thru 38



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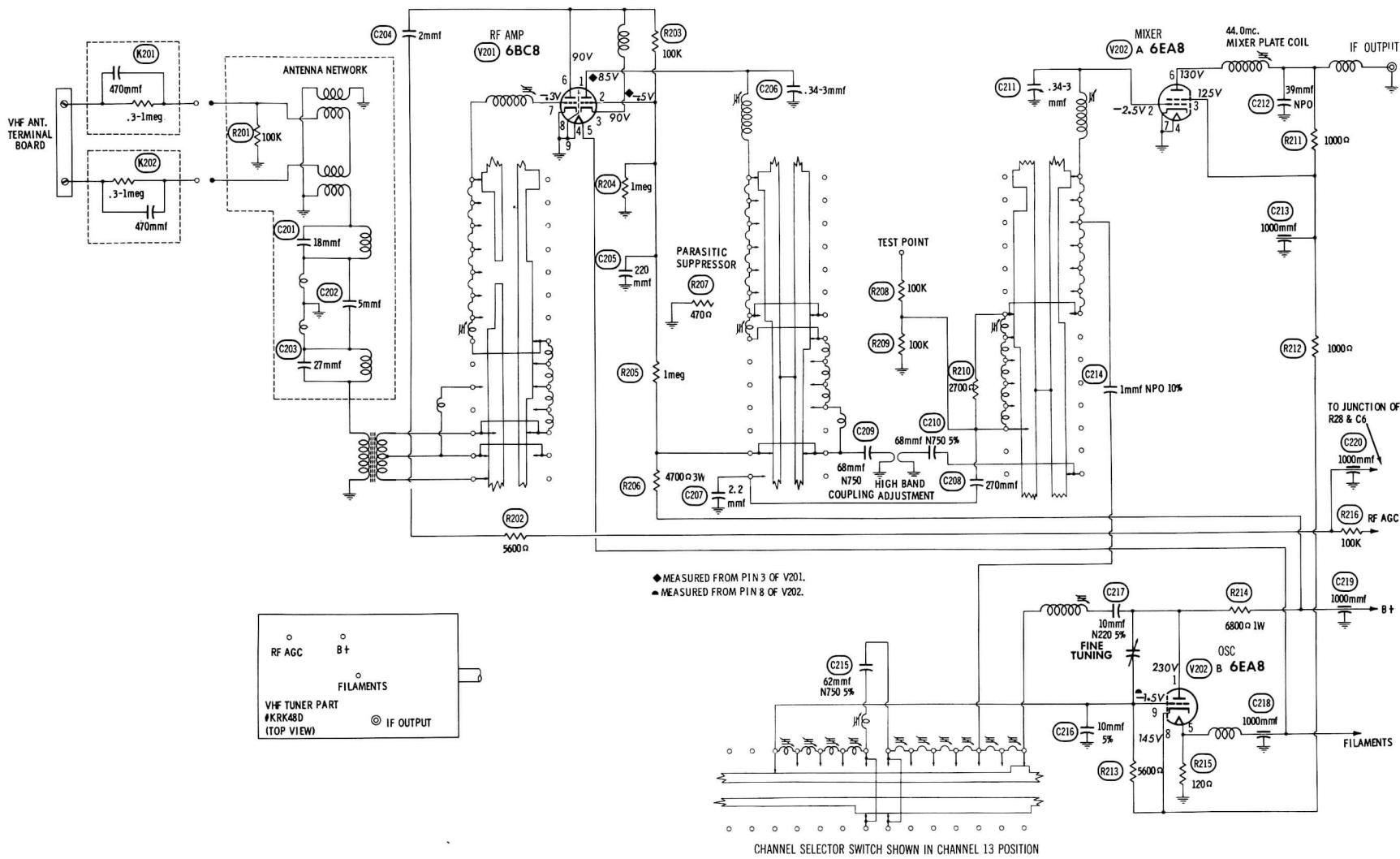
VIDEO
PRINTED BOARD

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

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VHF TUNER KRK48D, 75C, 75D

RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P



TUNER
KRK48D

PARTS LIST AND DESCRIPTIONS

TUBES

CBS			GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE			
V201	RF Amplifier	6BC8	V202	Mixer-Osc.		6EA8		

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	CAP.	VOLT	TOL	RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	
C201	18				DI-18	DD-180	L10Q18	CNO-418	10TS-Q18
C202	5				DI-5	DD-050	L10V5	ZT-555	10TS-V50
C203	27				DI-27	DD-270	L10Q27	CNO-427	10TS-Q27
C204	2				DI-220	TCZ-2R2	C10V2C	CNO-522	10TCC-V22
C205	220				DI-220	DD-221	L10T22	B-322	10TS-T22
C206	.34-.3								
C207	2.2								
C208	270								
C209	68		N750		DI-270	TCZ-2R2	C10V22C	CNO-522	10TCC-V22
C210	68		N750 5%		N750-DI 68	DD-271	L10T27	B-327	10TS-T27
C211	.34-.3					DTN-68	C10Q68U	CN7-468	10TCU-Q68
C212	39		NPO			DTN-68	C10Q68U	CN7-468	10TCU-Q68
C213	1000								
C214	1		NPO 1%		NPO-DI 39	TCZ-39	C10Q39C	CNO-439	10TCC-Q39
C215	62		N750 5%		EF-001	MFT-1000			
C216	10		5%			TCZ-1		CNO-510	10TCC-V10
C217	10		N220 5%			TCN-62	C10Q62U		10TCU-Q62S 5% *
C218	1000					TCZ-10	C10Q1C	CNO-410	10TCC-Q10
C219	1000								10TCR-Q10
C220	1000								

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

RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R201	100K		R207	470Ω		R213	5600Ω	
R202	5600Ω		R208	100K		R214	6800Ω 1W	
R203	100K		R209	100K		R215	120Ω	
R204	1meg		R210	2700Ω		R216	100K	
R205	1meg		R211	1000Ω				
R206	4700Ω 3W		R212	1000Ω				

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	RCA Victor PART No.	REPLACEMENT DATA
K201	Antenna Isolation	470mmf, .3-1meg	104328	Centralab Sprague RC-471 AC1-1
K202	Antenna Isolation	470mmf, .3-1meg	104328	Centralab Sprague RC-471 AC1-1

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

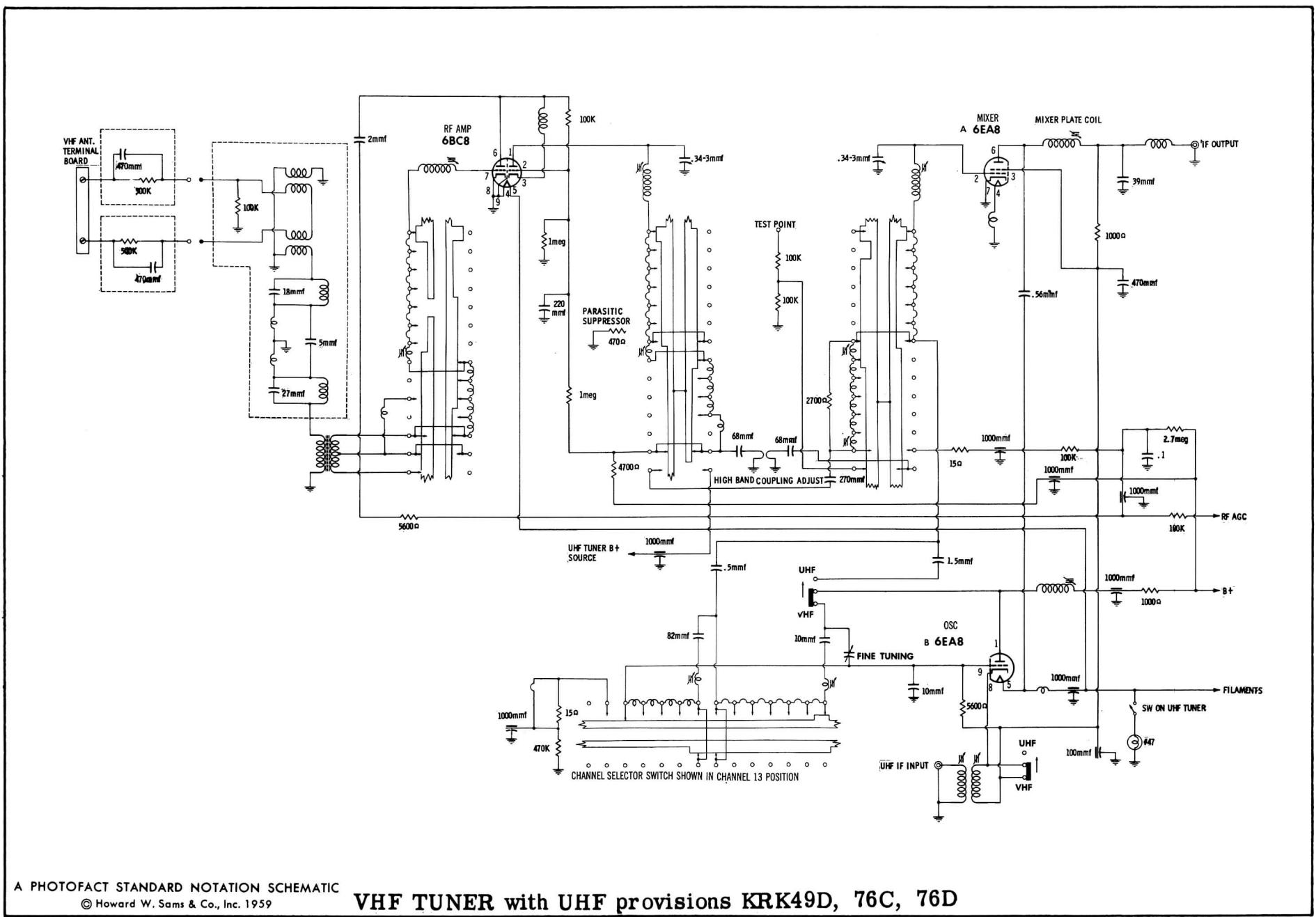
Suggested Alignment Tools:	GENERAL CEMENT #5000, 5003, 5014, 5015, 5016, 8276, 8290 WALSCO #2512, 2515, 2522, 2523, 2525, 2537
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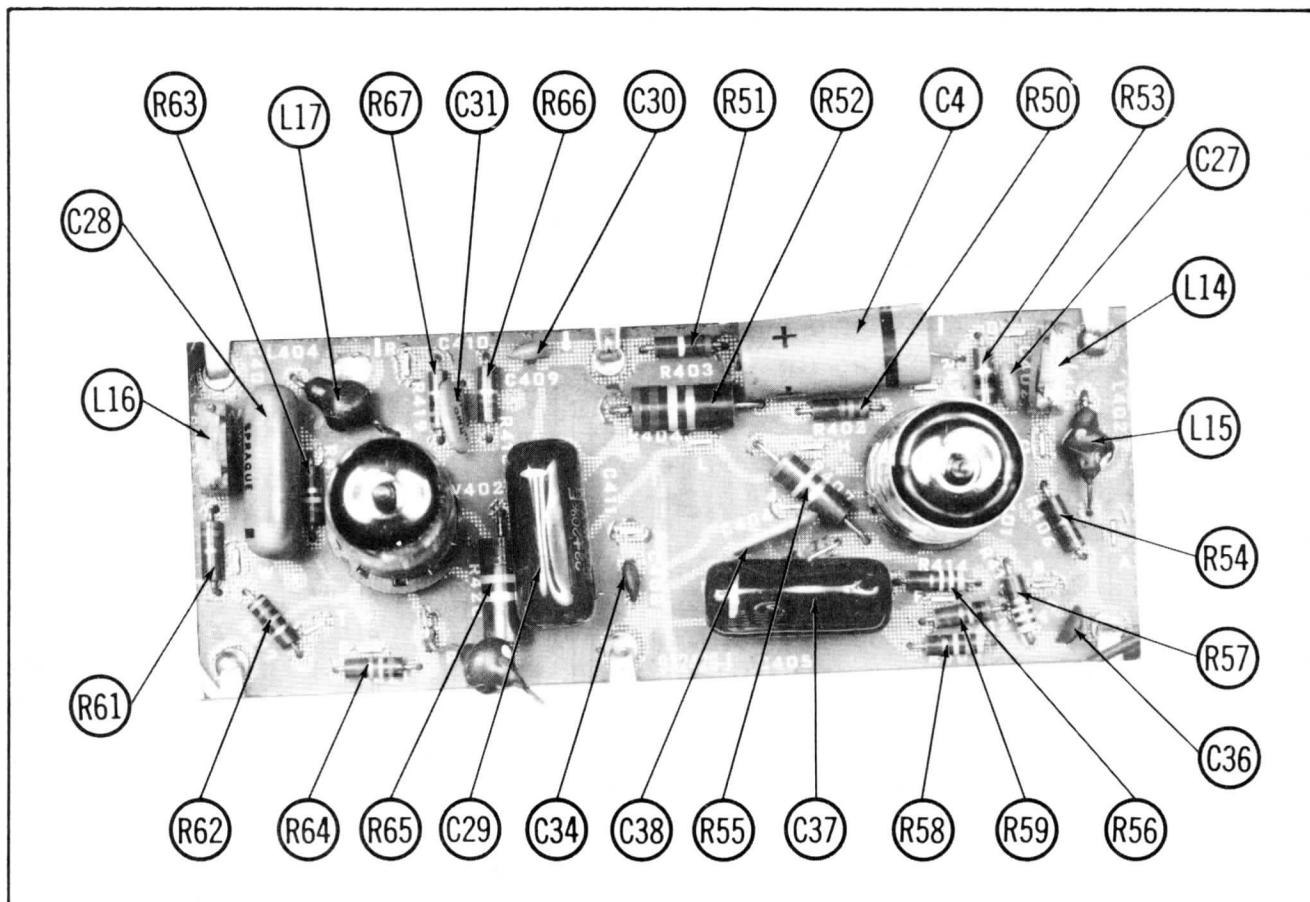
VHF OSCILLATOR ALIGNMENT

Set the Fine Tuning to the center of its range. The adjustments should be made in sequence from the highest to the lowest channel in the area. Channel 13 adjustment is located at 2 o'clock. Proceed in a counterclockwise direction. Adjust for best picture and sound.

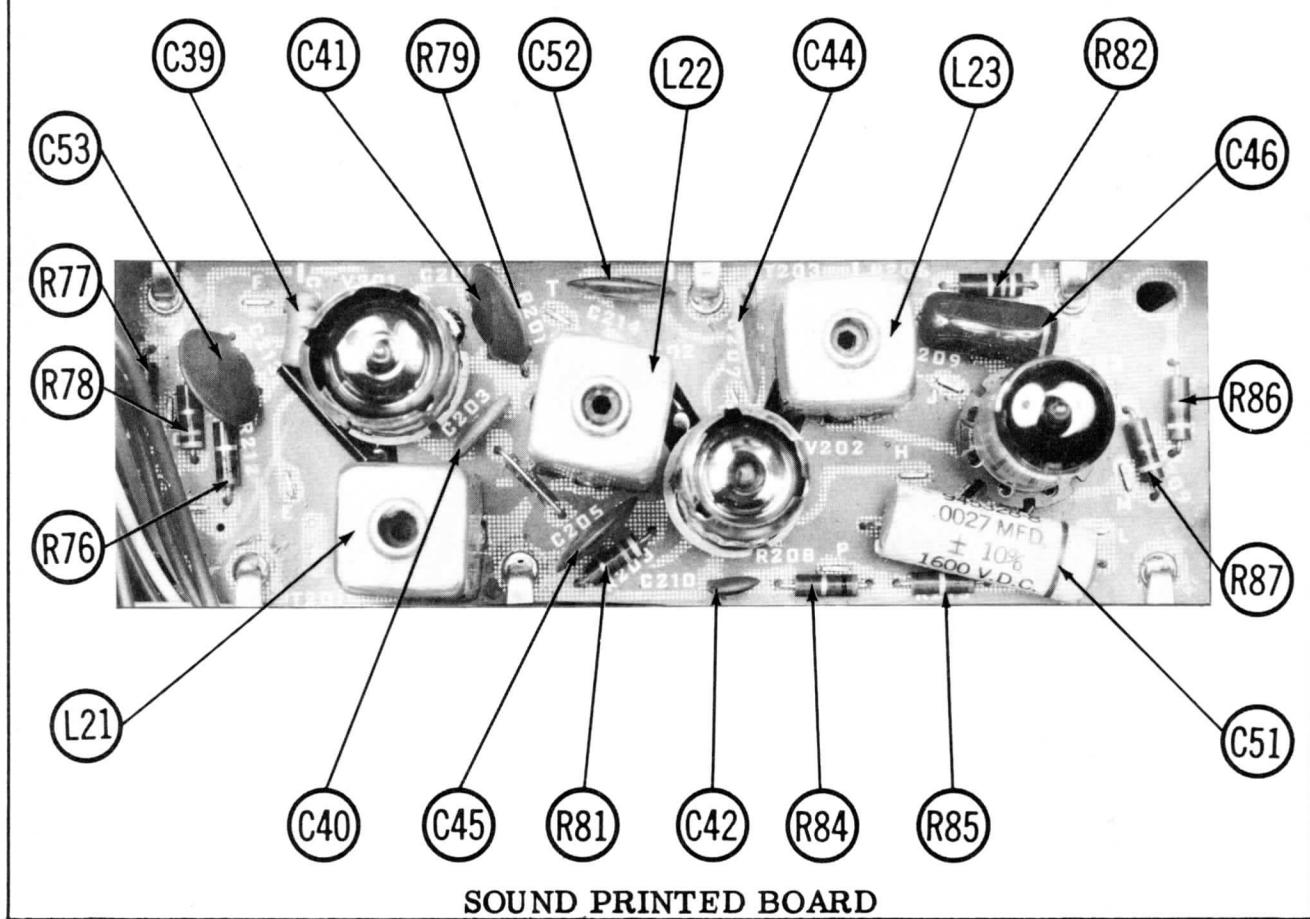
VHF RF AND MIXER ALIGNMENT

This portion of the tuner has been properly aligned at the factory and is very stable. Alignment of this portion should not be attempted in the field.
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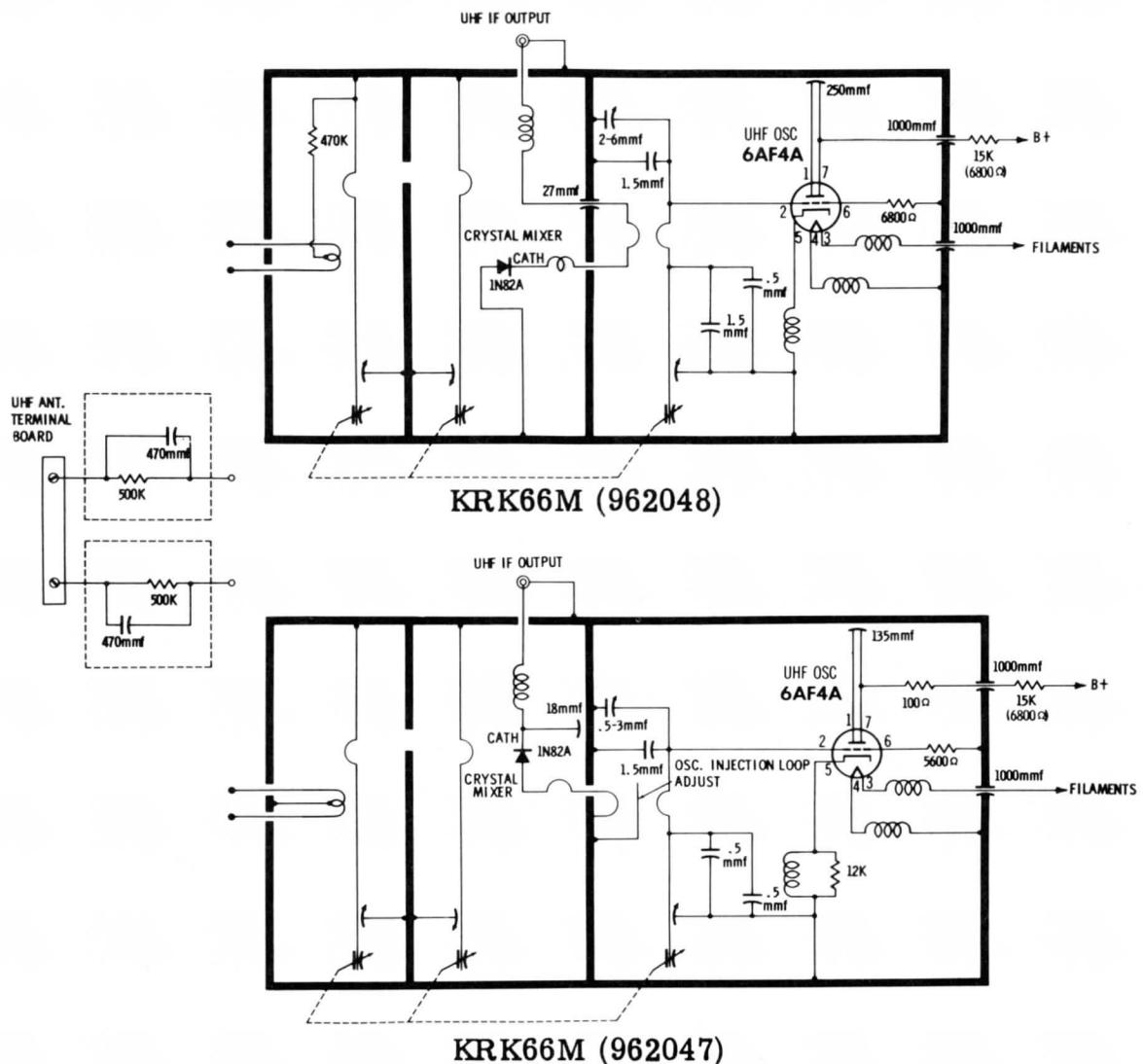




VIDEO PRINTED BOARD

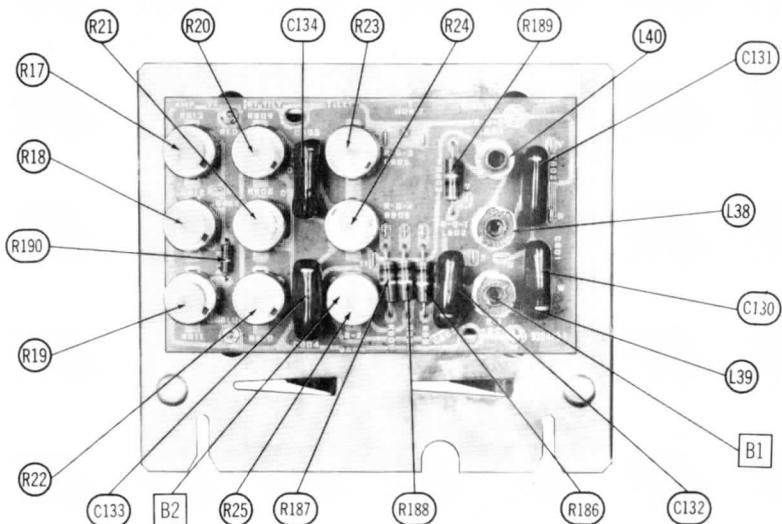


SOUND PRINTED BOARD

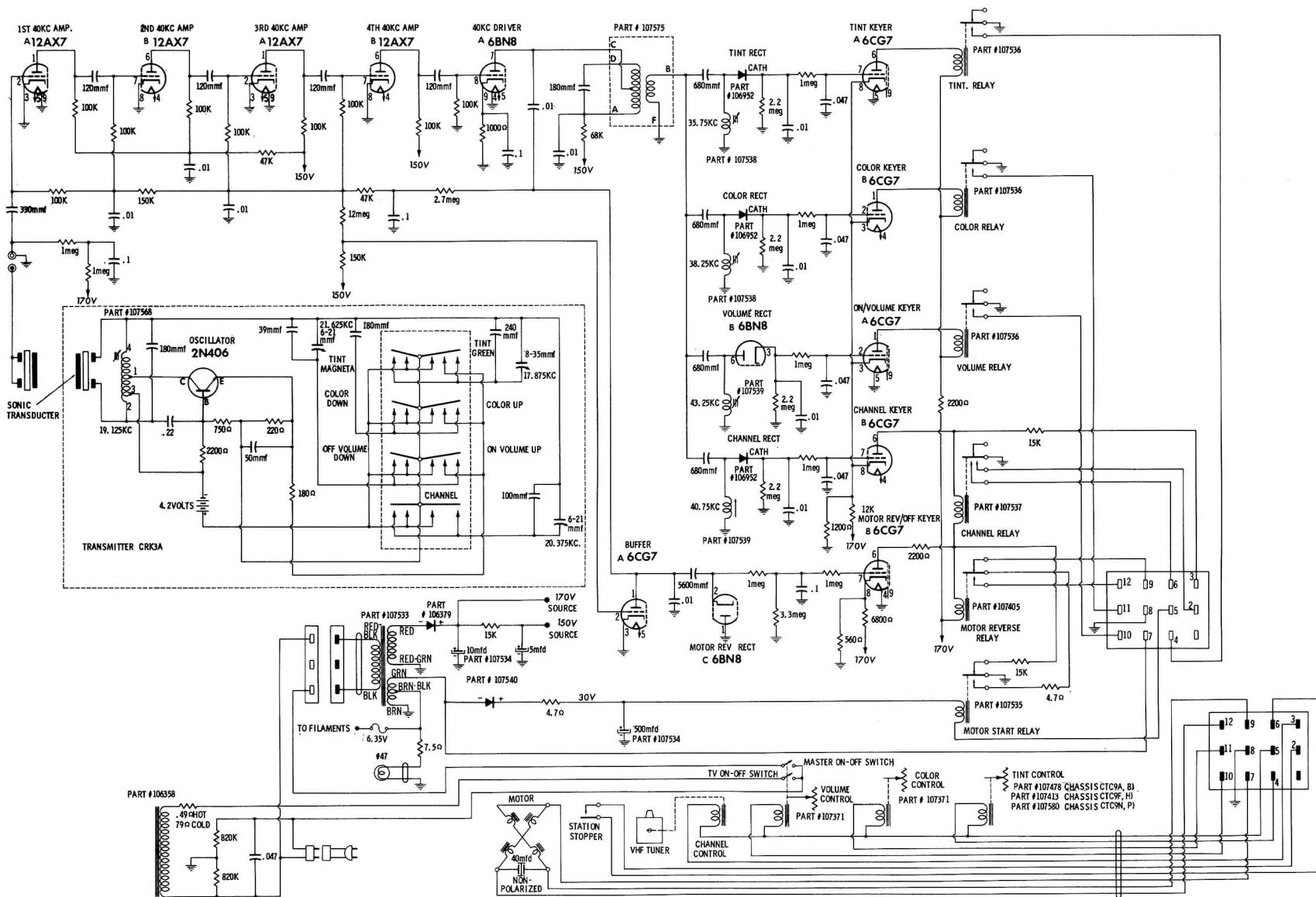


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UHF TUNER



CONVERGENCE PRINTED BOARD



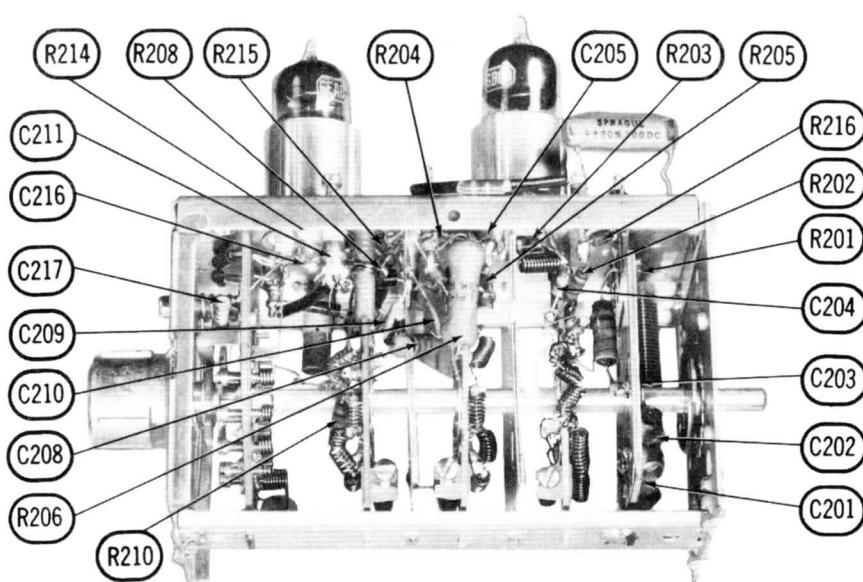
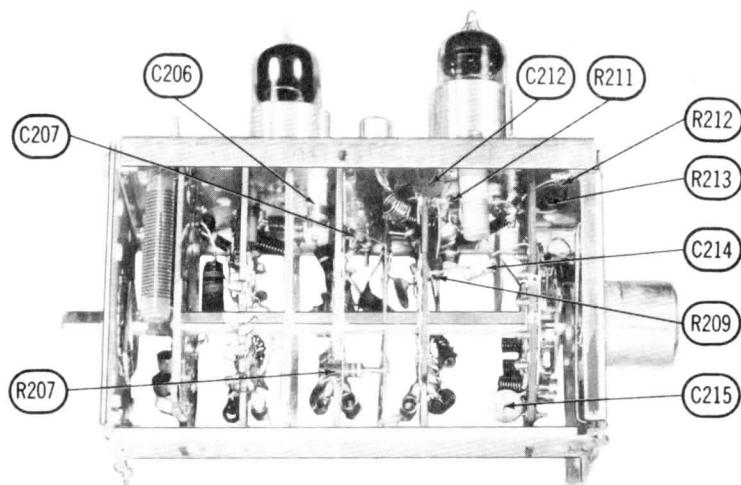
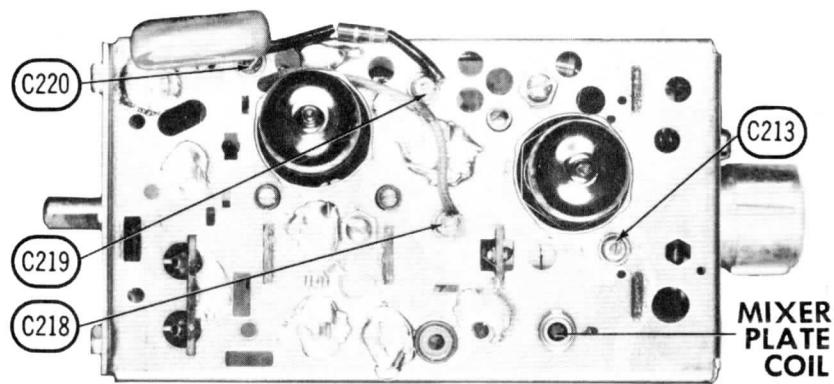
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REMOTE CONTROL TRANSMITTER CRK3A & REMOTE CONTROL RECEIVER CTP7A

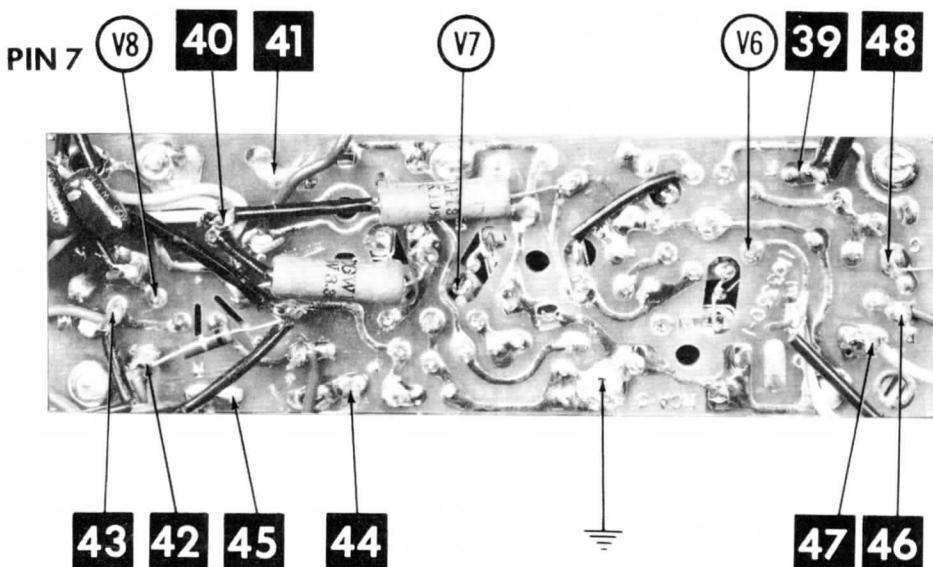
RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P

FOLDER 1



TUNER KRK48D

CircuiTrace numbers 39 thru 48

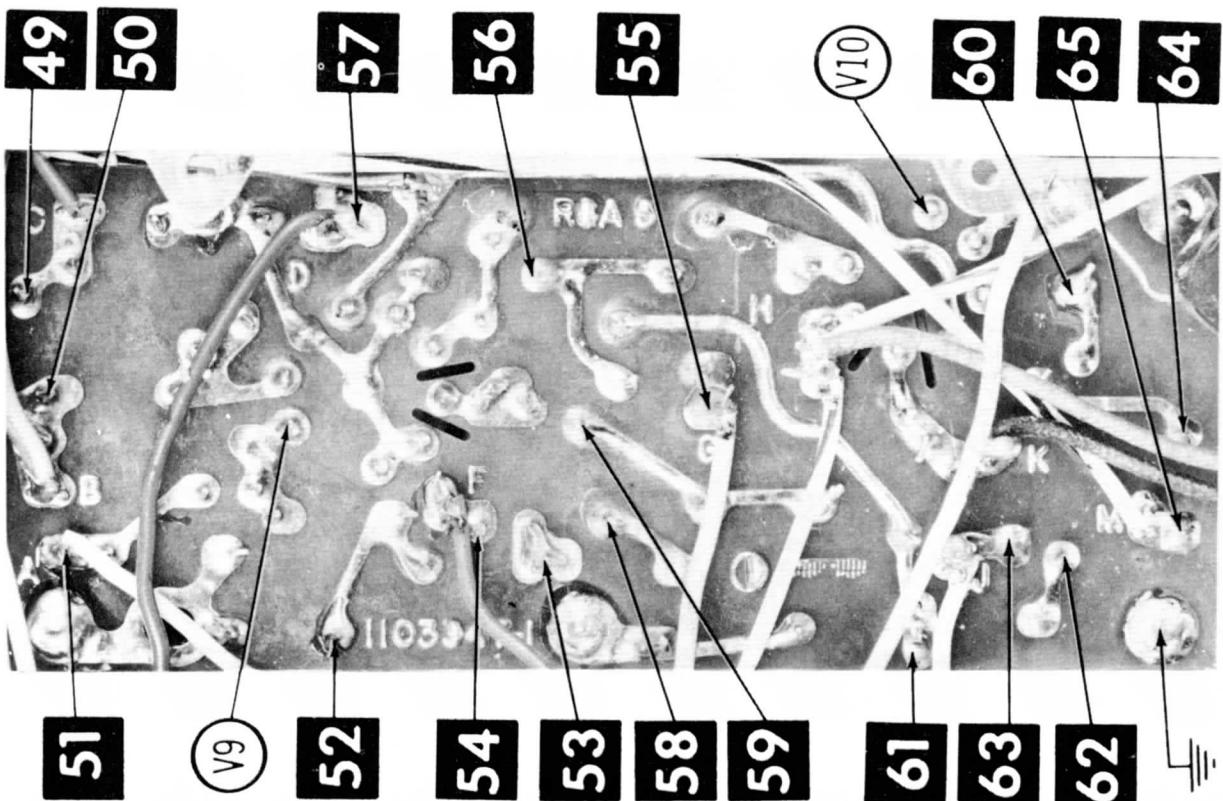


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SOUND
PRINTED BOARD

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

CircuiTrace Numbers 49 thru 65

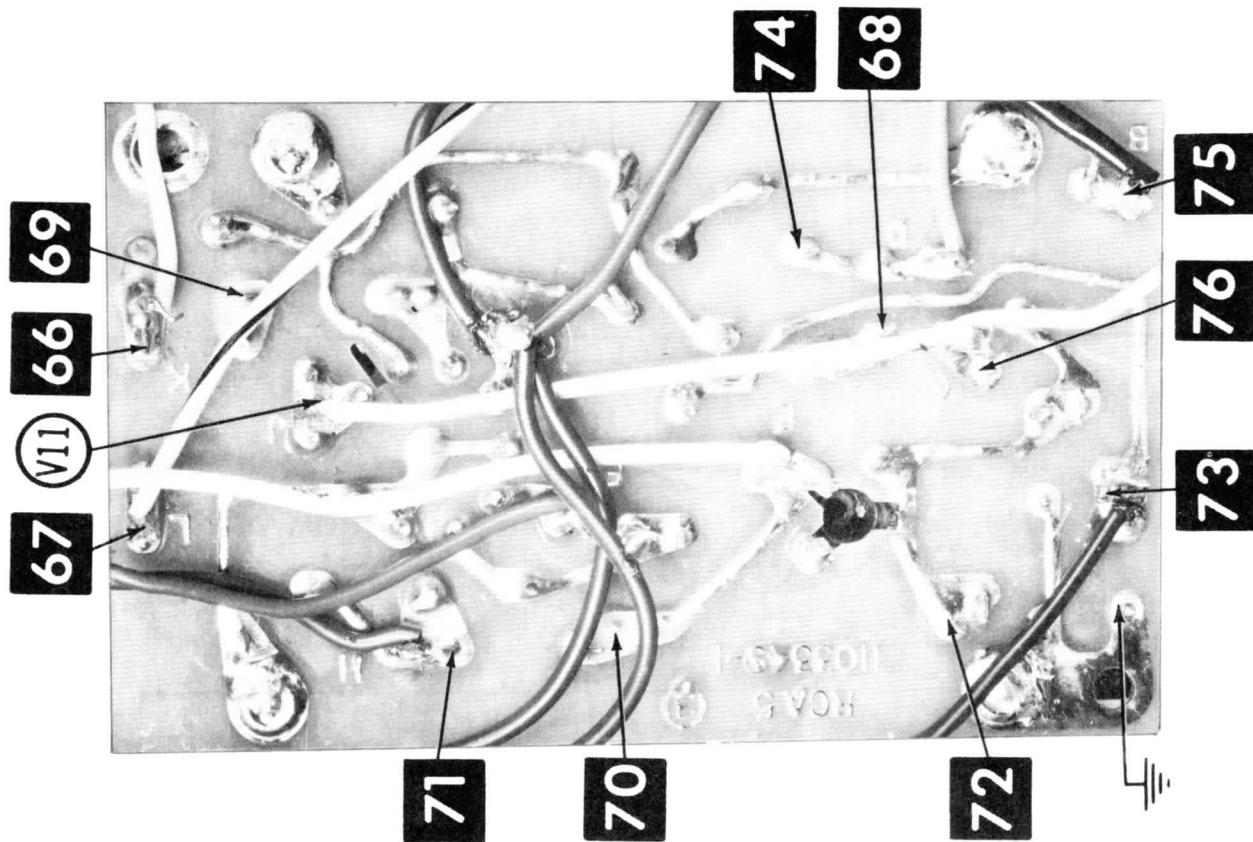


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VERTICAL
PRINTED BOARD

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

CircuiTrace Numbers 66 thru 76

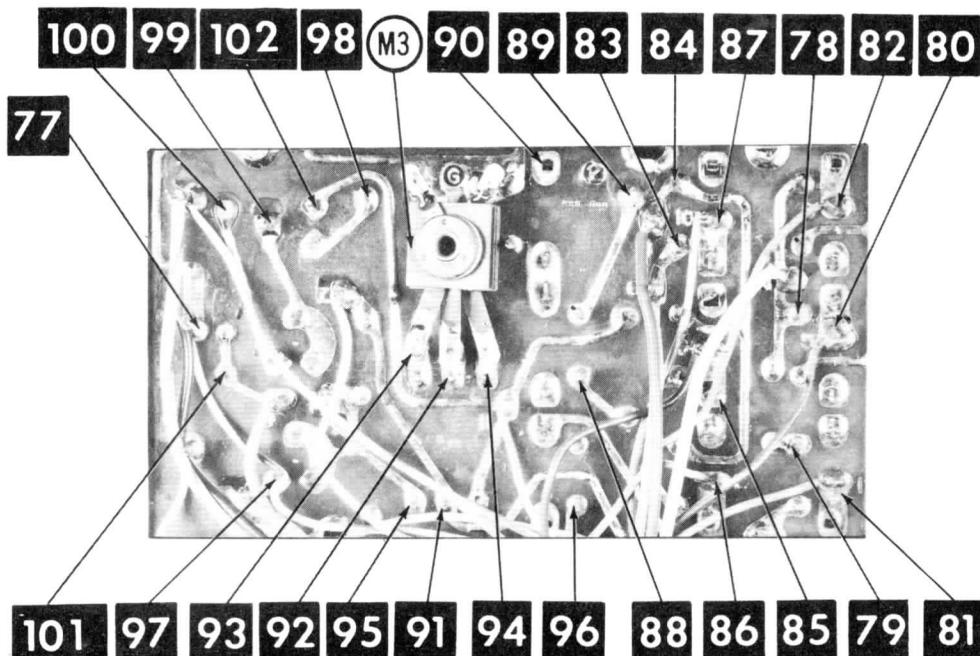


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HORIZONTAL PRINTED BOARD

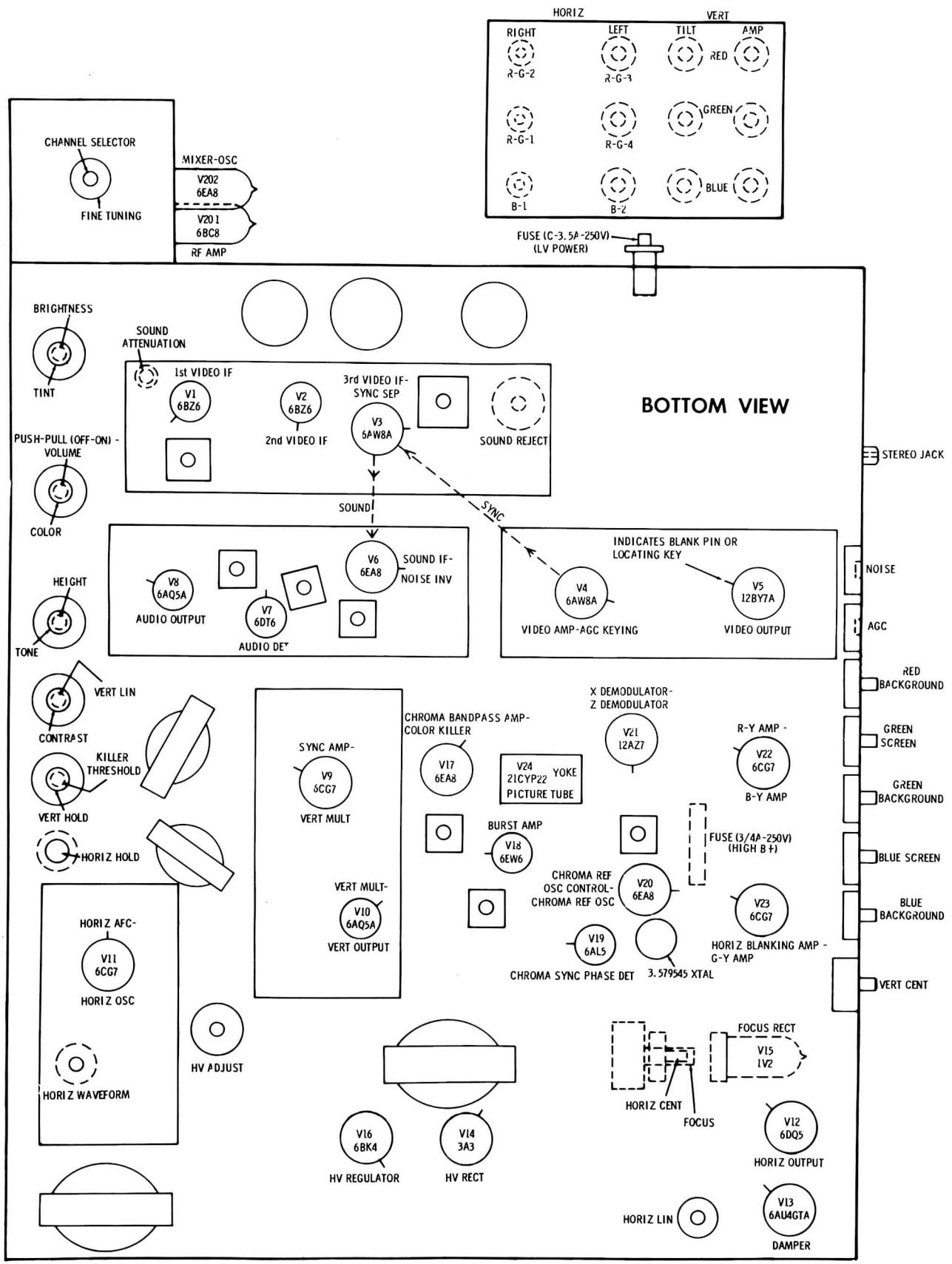
ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

CircuiTrace Numbers 77 thru 102

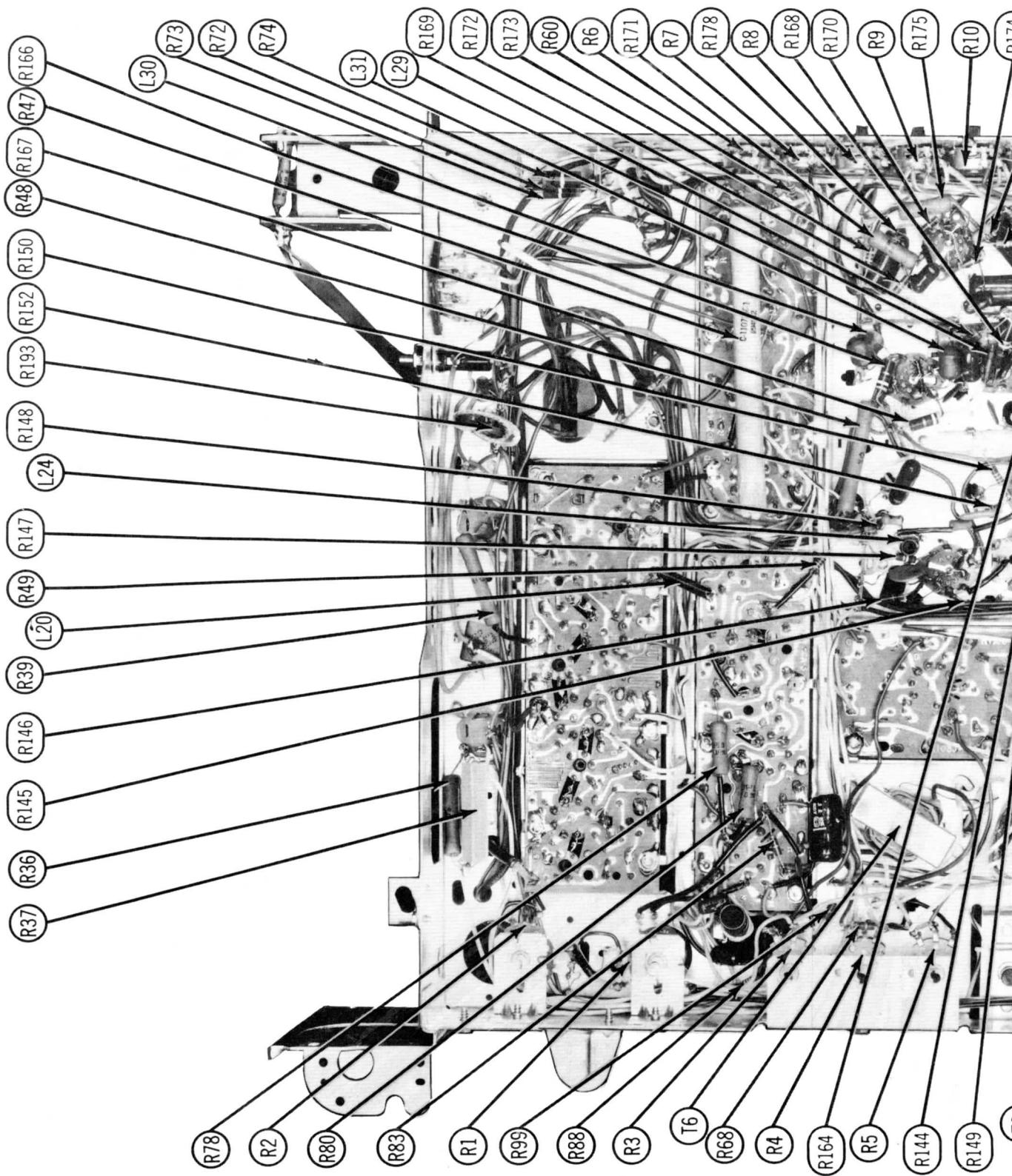


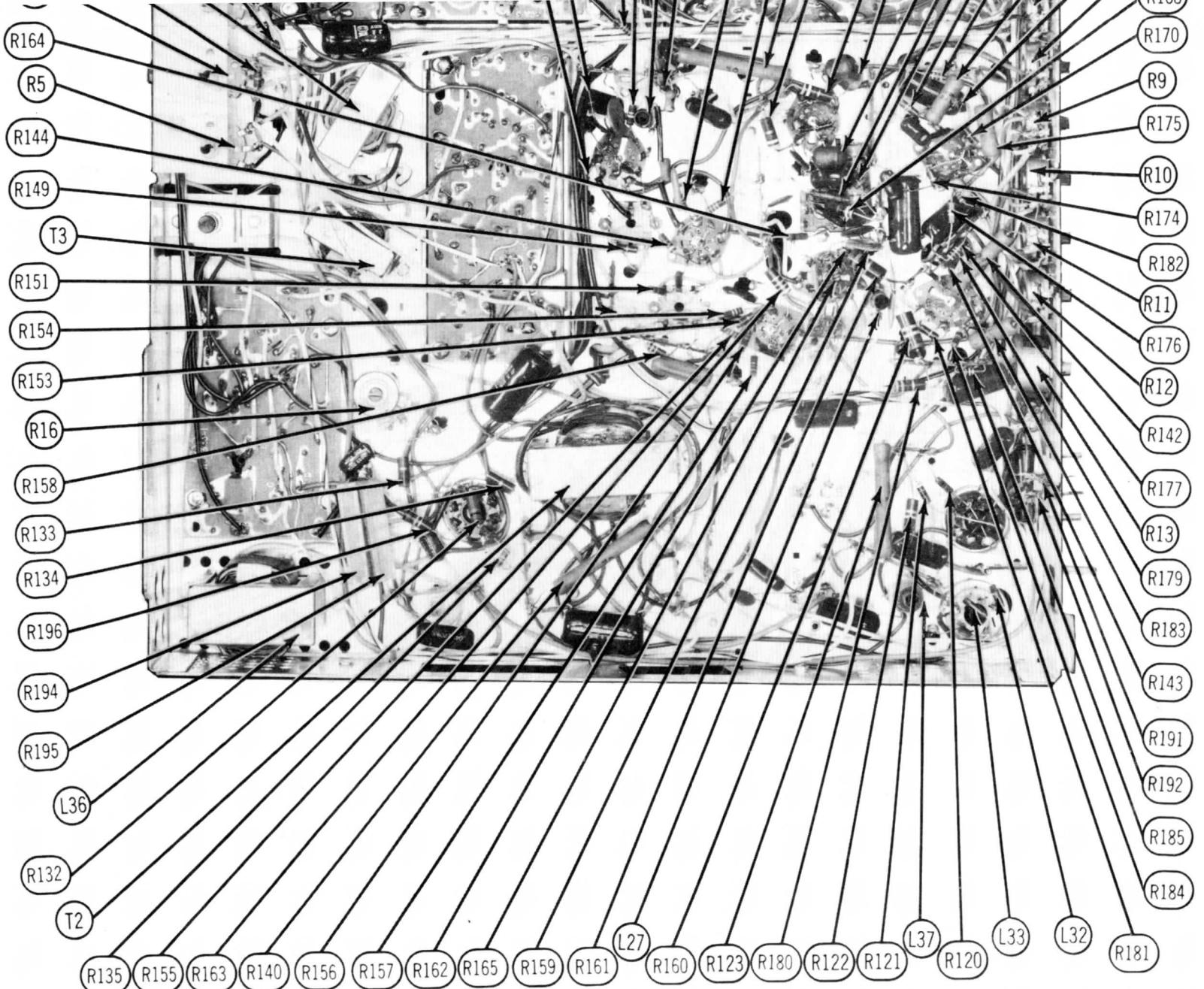
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CONVERGENCE PRINTED BOARD



TUBE PLACEMENT CHART





CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

RCA VICTOR CHASSIS
CTC9A, B, F, H, N, P