

CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

SAFETY GLASS CLEANING

1. Remove 5 push-on type control knobs from front control panel.
2. Remove 2 metal screws holding control panel and remove panel.
3. Insert a small screwdriver into 2 round spring hooks at top of control panel, pulling the bottom trim around the safety glass out.
4. Pull bottom of trim out approximately 6" and slide down to remove.
5. Remove 4 clips exposed by releasing from inside and removing from the front. Use caution when removing the clips since they hold the safety glass.

PICTURE TUBE REMOVAL

1. Lay receiver face down on a pad.
2. Remove lateral correction magnet, purity magnet and convergence yoke assembly.
3. Remove 4 hex nuts holding picture tube to the front of the cabinet.
4. Remove HV insulator and yoke.
5. Remove picture tube and flange insulator.
6. Remove flange insulator and HV connector.

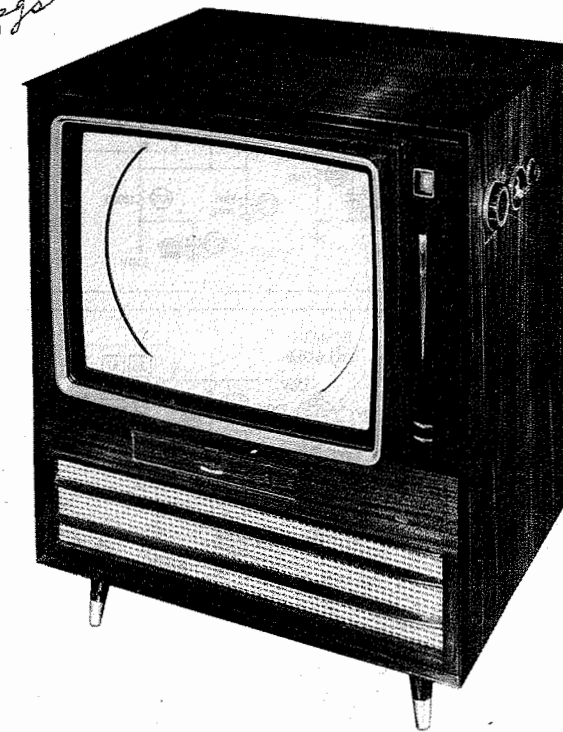
CHASSIS REMOVAL

1. Remove 5 push-on type control knobs from control panel, 6 from the side.
2. Loosen 2 wood screws, remove 2 metal screws and the rear cover.
3. Remove picture tube socket, yoke plug, convergence yoke plug, HV lead, tuner power cable, tuner output lead and 2 speaker leads.
4. Remove 2 metal screws holding control bracket to tuner.
5. Remove 4 chassis bolts from the bottom.
6. Remove the chassis.
7. Loosen 2 wood screws holding antenna terminal board.
8. Remove hex nut from under channel selector knobs, 2 hex nuts inside cabinet holding tuner.
9. Remove the tuner.
10. Remove 4 hex nuts, 8 plastic screws and 3 speakers.

PHOTOFACT* Folder



34 ggs



RCA VICTOR MODEL 21-CD-7895U (Ch. CTC5P)

TRADE NAME	RCA Victor	MODELS	CHASSIS
		21-CD-7975, U, 21-CD-7996, U, 21-CD-7999, U	CTC5AA, AB
		21-CD-7895, U, 21-CD-7897, U	CTC5N, P
		21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U	CTC5R, T
		21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U,	
		21-CD-7958, U	CTC5U, W
MANUFACTURER	Radio Corporation of America, RCA Victor Television Division, Camden 8, N. J.		
TYPE SET	Color Television Receiver		
TUBES	Thirty-one		
POWER SUPPLY	110-120 Volts AC, 60 Cycle	RATING	390 Watts 3.75 Amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

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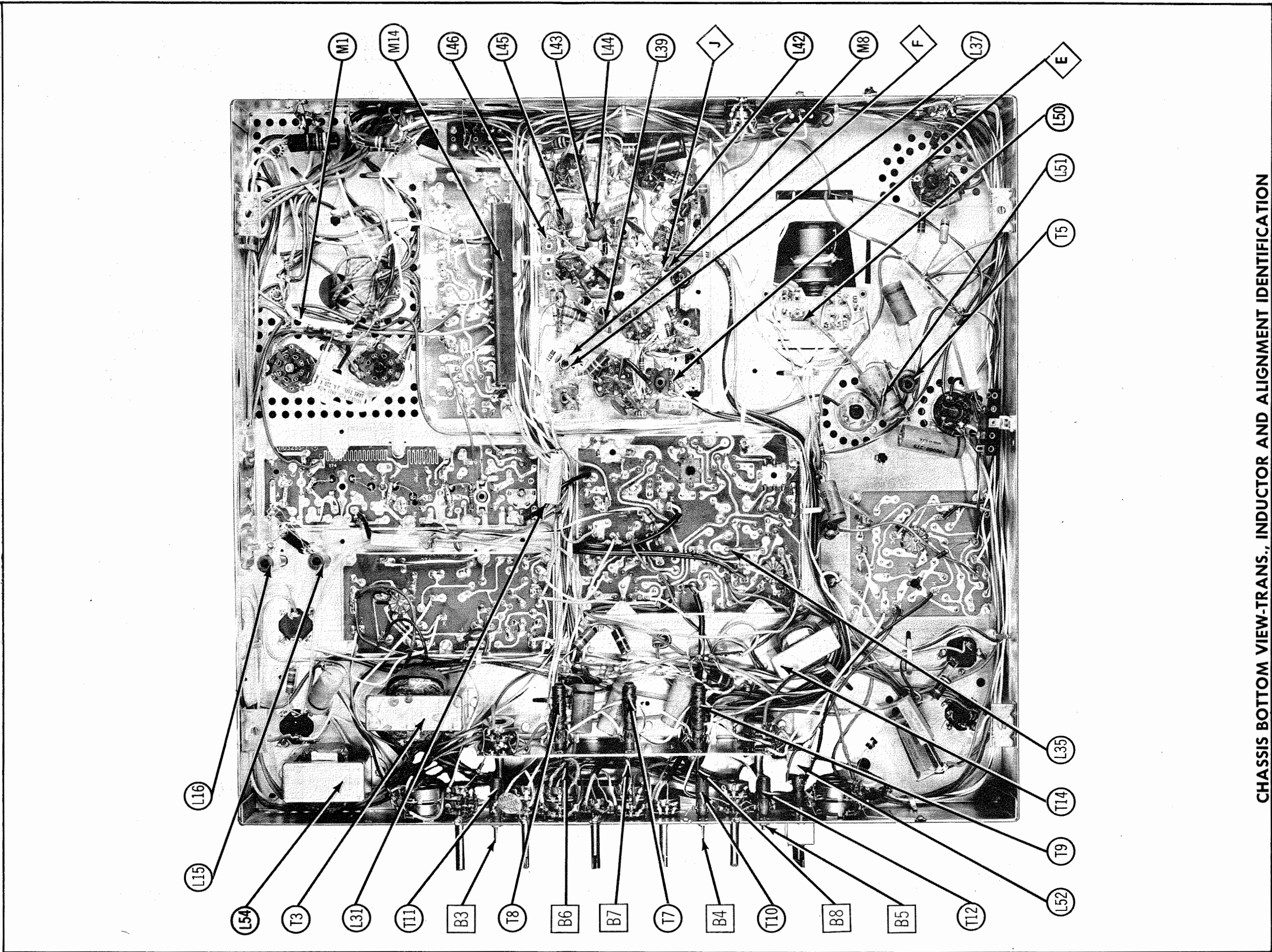
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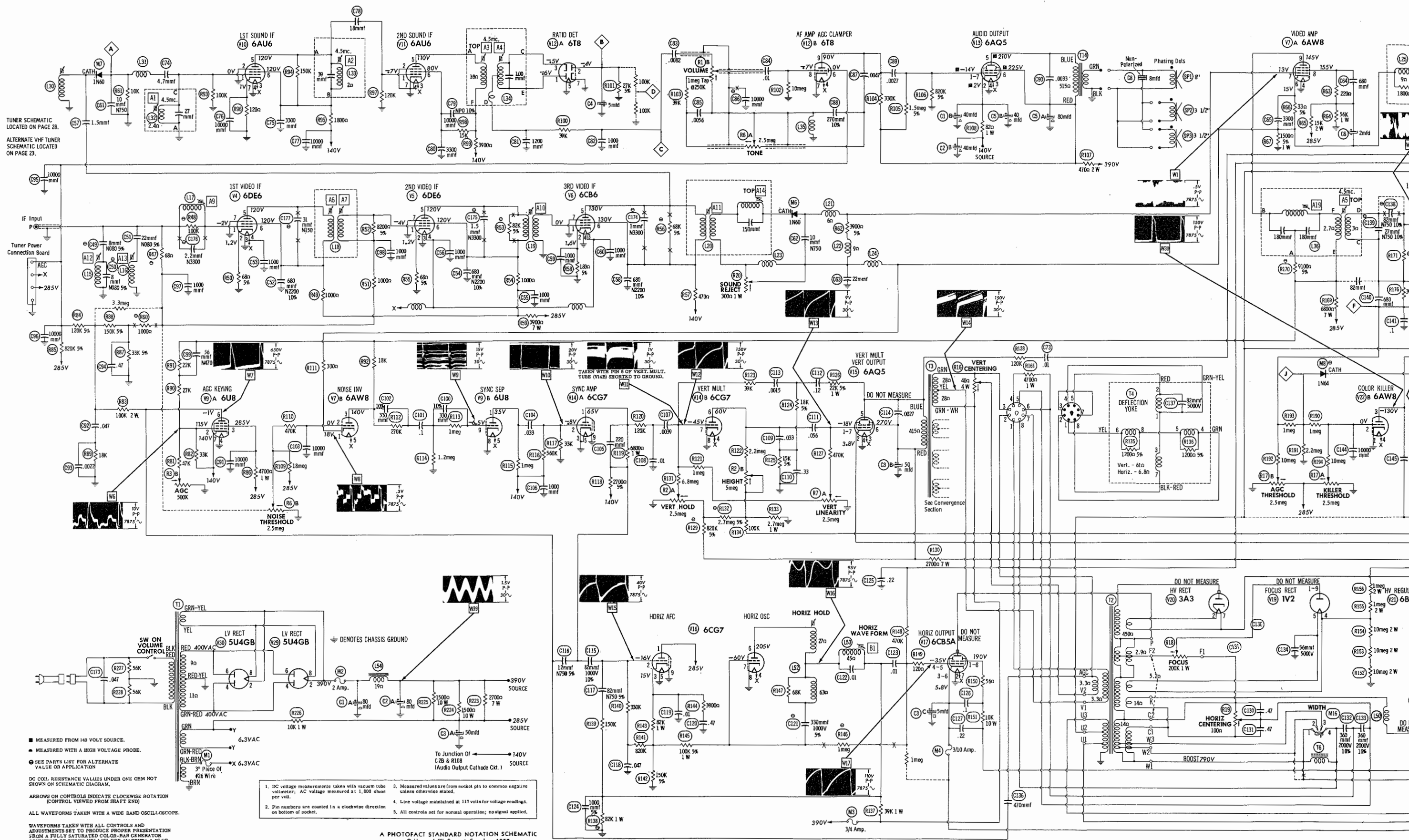
DATE 5-57

SET 358 FOLDER 9

RCA VICTOR MODELS 21-CD-7895, U, 21-CD-7897, U, 21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U, 21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U, 21-CD-7958, U, 21-CD-7975, U, 21-CD-7996, U, 21-CD-7999, U, (Ch. CTC5AA, AB, N, P, R, T, U, W)



CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION



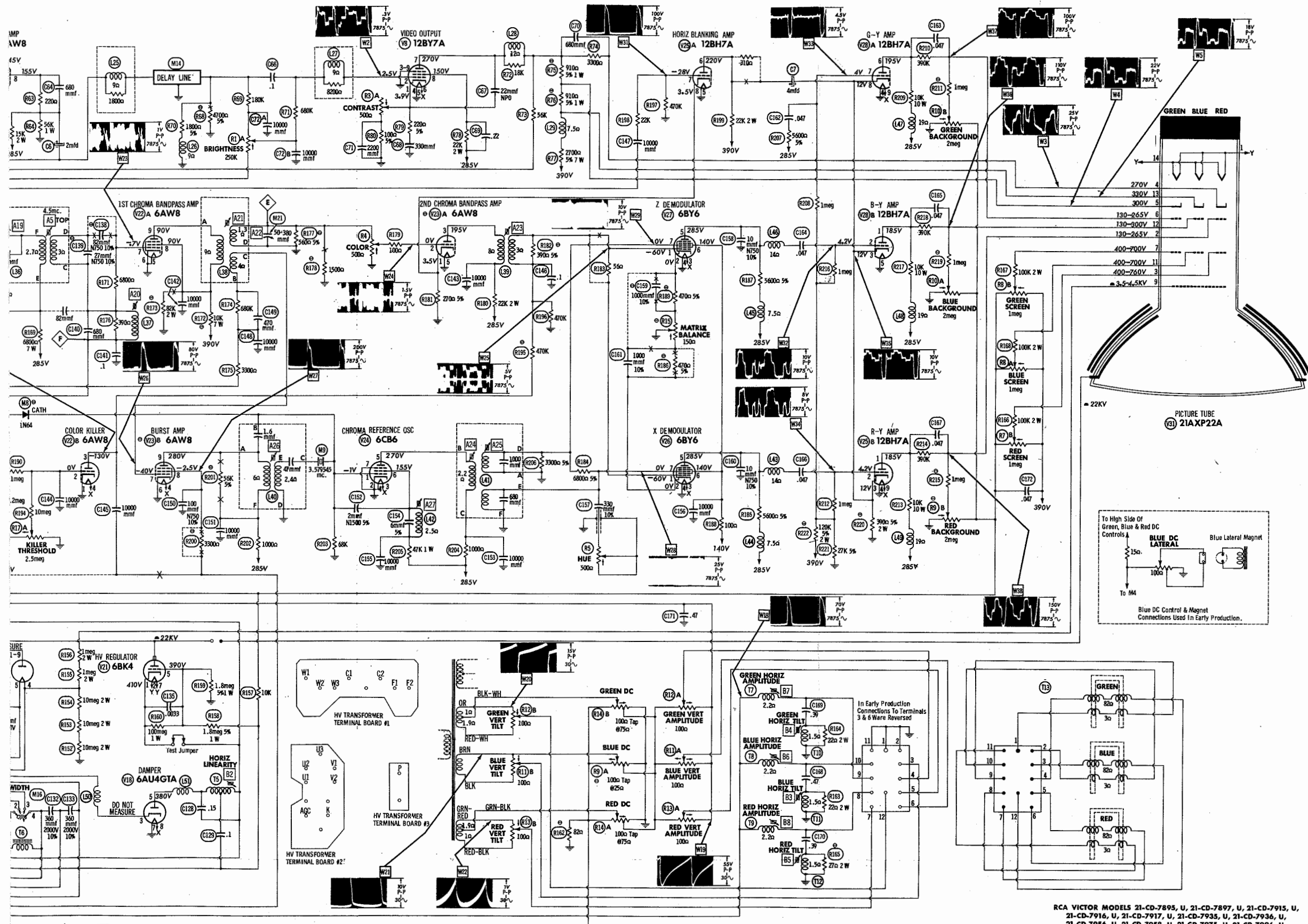
TUNER SCHEMATIC LOCATED ON PAGE 28.
ALTERNATE VHF TUNER SCHEMATIC LOCATED ON PAGE 23.

IF Input
Tuner Power Connection Board

MEASURED FROM 140 VOLT SOURCE.
MEASURED WITH A HIGH VOLTAGE PROBE.
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION.
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM.
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END).
ALL WAVEFORMS TAKEN WITH A WIDE BAND OSCILLOSCOPE.
WAVEFORMS TAKEN WITH ALL CONTROLS AND ADJUSTMENTS SET TO PRODUCE PROPER PRESENTATION FROM A FULLY SATURATED COLOR-BAR GENERATOR CONSISTING OF GREEN, YELLOW, RED, MAGENTA & BLUE.

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltage measured at 1,000 ohms per volt.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. All controls set for normal operation; no signal applied.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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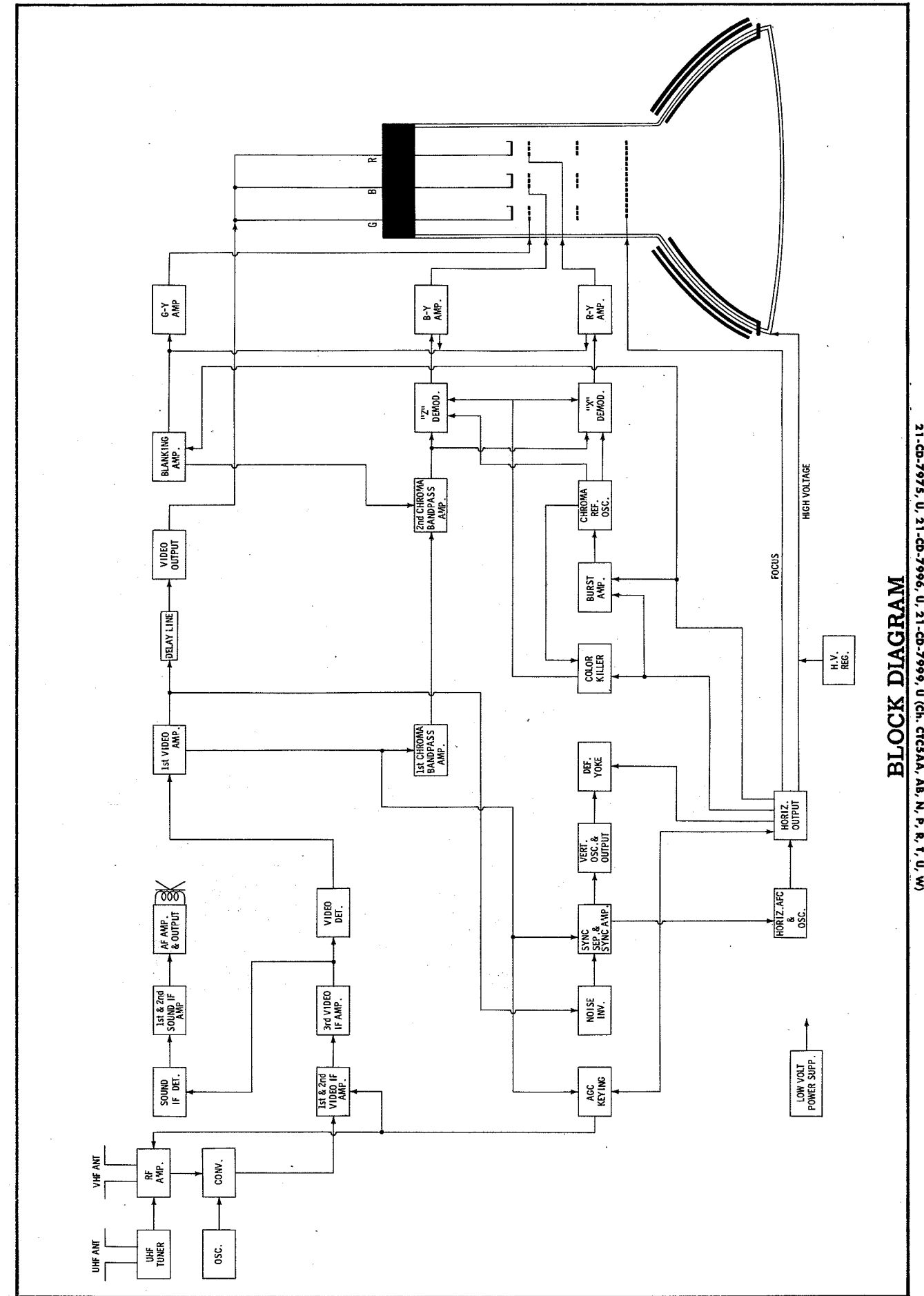
RCA VICTOR MODELS 21-CD-7895, U, 21-CD-7897, U, 21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U, 21-CD-7935, U, 21-CD-7936, U, 21-CD-7938, U, 21-CD-7956, U, 21-CD-7958, U, 21-CD-7959, U, 21-CD-7999, U, (Ch. CTC5AA, AB, N, P, R, T, U, W)

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RESISTANCE MEASUREMENTS

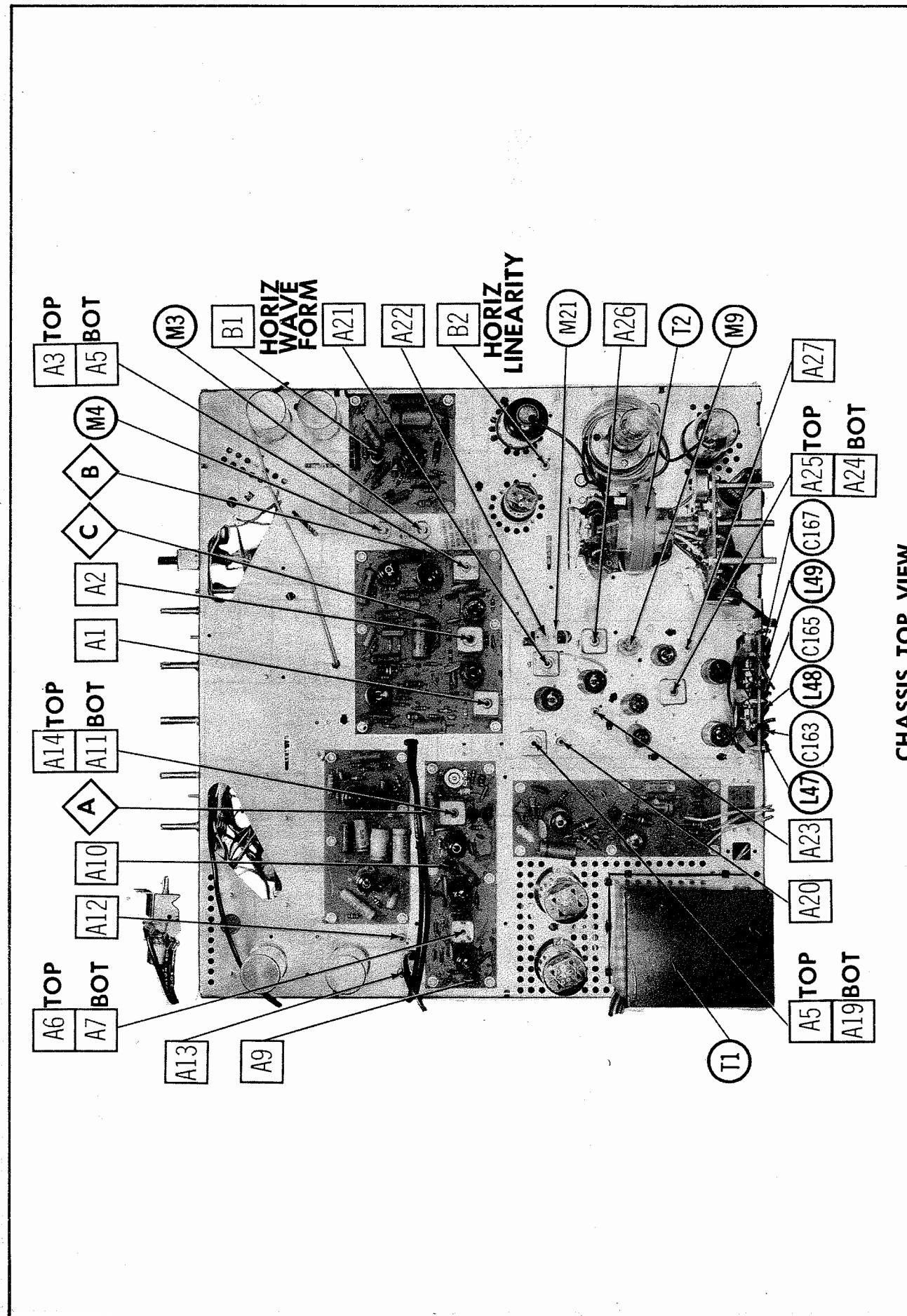
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6AF4A	*†18K	8000Ω	0Ω	.1Ω	.1Ω	8000Ω	*†18K		
V2	6BQ7A	†2800Ω	500K	600K	0Ω	.1Ω	600K	220K	120Ω	0Ω
V3	6X8	0Ω	100K	†14K	.1Ω	0Ω	0Ω	100K	†17K	†17K
V4	6DE6	34K	68Ω	0Ω	.1Ω	†5700Ω	†5700Ω	0Ω		
V5	6DE6	35K	68Ω	0Ω	.1Ω	†5700Ω	†5700Ω	0Ω		
V6	6CB6	.2Ω	180Ω	.1Ω	0Ω	■ 470Ω	■ 470Ω	0Ω		
V7	6AW8	1000Ω	● 780K	†25K	0Ω	.1Ω	800Ω	4600Ω	†16K	†7500Ω
V8	12BY7A	● 300Ω	● 820K	0Ω	0Ω	0Ω	.1Ω	†4500Ω	†23K	0Ω
V9	6U8	■ 1Meg	■ 33K	†5400Ω	0Ω	.1Ω	250K	60K	0Ω	2Meg
V10	6AU6	2.4Ω	0Ω	.1Ω	0Ω	■ 1800Ω	■ 1800Ω	120Ω		
V11	6AU6	120K	0Ω	.1Ω	0Ω	■ 4000Ω	■ 19K	0Ω		
V12	6T8	1NF	27K	1NF	.1Ω	0Ω	†220K	0Ω	10Meg	†330K
V13	6AQ5	500K	■ 82Ω	.1Ω	0Ω	†1000Ω	†490Ω	500K		
V14	6CG7	■ 9500Ω	33K	0Ω	.1Ω	0Ω	● †3Meg	● 2.3Meg	0Ω	0Ω
V15	6AQ5	● 1Meg	● 30Ω	.1Ω	0Ω	● †3000Ω	● †2700Ω	● 1Meg		
V16	6CG7	†700Ω	1.3Meg	230K	.1Ω	0Ω	†39K	250K	0Ω	0Ω
V17	6CB5A	†10K	0Ω	22Ω	500K	500K	22Ω	.1Ω	†10K	TOP CAP †29Ω
V18	6AU4GT	NC	NC	150K	NC	†42Ω	NC	0Ω	.1Ω	
V19	1V2	● †33K	NC	NC	30Meg	30Meg	NC	NC	NC	● †33K
V20	3A3		PINS 1 THRU 8	HAVE	INF	RESISTANCE				TOP CAP †470Ω
V21	6BK4	100Meg	†10K	NC	NC	900K	NC	†10K	NC	TOP CAP INF
V22	6AW8	0Ω	3Meg	950K	.1Ω	0Ω	0Ω	3Meg	†10K	†10K
V23	6AW8	270Ω	● 180Ω	†22K	.1Ω	0Ω	0Ω	680K	3300Ω	†1700Ω
V24	6CB6	68K	0Ω	.1Ω	0Ω	†17K	†47K	0Ω		
V25	12BH7A	†10K	1Meg	390Ω	0Ω	0Ω	†22K	470K	270Ω	.1Ω
V26	6BY6	470K	● 500Ω	.1Ω	0Ω	†6300Ω	■ 100Ω	.2Ω		
V27	6BY6	470K	● 500Ω	.1Ω	0Ω	†6300Ω	■ 100Ω	.2Ω		
V28	12BH7A	†10K	1Meg	390Ω	0Ω	0Ω	†10K	1Meg	390Ω	.1Ω
V29	5U4GB	NC	20K	NC	11Ω	NC	9Ω	NC	20K	
V30	5U4GB	NC	20K	NC	11Ω	NC	9Ω	NC	20K	
V31	21AXP22A	†10K	300K	†270K	†7800Ω	†3500Ω	280K	†200K	NC	30Meg
		PIN 10 NC	PIN 11 †100K	PIN 12 280K	PIN 13 †2700Ω	PIN 14 †10K				

* MEASURED IN UHF POSITION
 † MEASURED FROM PIN 2 OF V30.
 ■ MEASURED FROM 140V SOURCE.
 ● THIS READING WILL VARY, CONTROL SET FOR NORMAL OPERATION
 ‡ MEASURED FROM PIN 3 OF V18.
 NC NO CONNECTION
 TP TIE POINT



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BLOCK DIAGRAM



MISCELLANEOUS ADJUSTMENTS (cont.)

NOTE: Earlier production sets which did not use a red background control must be adjusted as follows: Set the screen controls fully counter clockwise and the green and blue background controls 30% from full counter clockwise. Turn the contrast control to the center of its range.

Connect the VTVM between the red grid and the red cathode of the picture tube. Adjust the brightness control for a reading of -70 volts on the VTVM. Leave the brightness control at this setting and adjust the three screen controls for a gray picture at a very low light level. After setting the screen controls, do not change the setting of the red screen control during the balance of this procedure.

Advance the contrast control and look at the picture. One color will usually predominate in the high brightness areas of the picture. Depending on which color is predominating proceed as follows:

1. If green is predominant in the highlights, turn the green background control SLIGHTLY counter clockwise and advance the green screen SLIGHTLY clockwise until gray is obtained in the low light areas.
2. If blue predominates in the highlights turn the blue background SLIGHTLY counter clockwise and advance the blue screen clockwise until gray is achieved in the low light areas.
3. If blue/green (cyan) background predominates in the highlights, turn both the blue and green background controls SLIGHTLY counter clockwise and advance the blue and green screen controls SLIGHTLY clockwise until gray is obtained in the low light levels.

4. If magenta is predominant in the highlights, turn the green background control SLIGHTLY clockwise and observing the low light areas adjust the green screen control counter clockwise to make the low light areas gray.

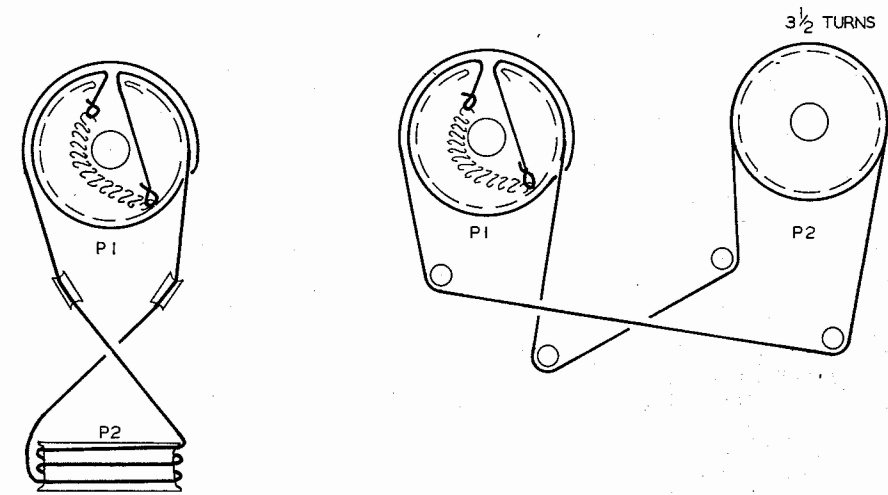
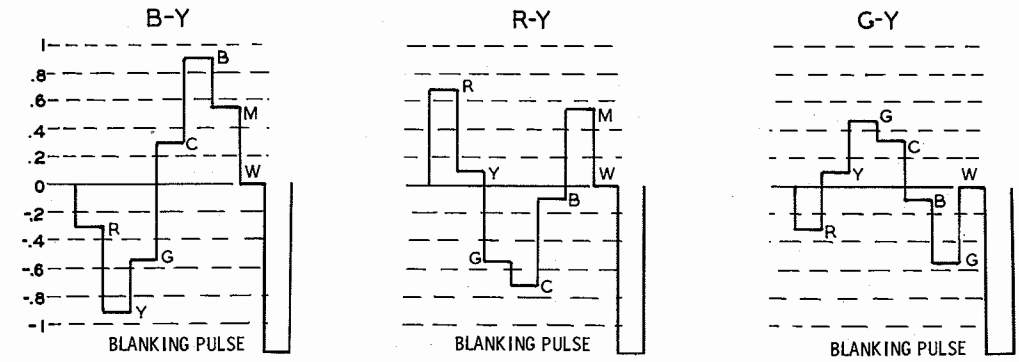
5. If yellow predominates the highlights, turn the blue background control SLIGHTLY clockwise and adjust the blue screen control SLIGHTLY counter clockwise to achieve gray in the low light areas.

6. If red predominates the highlights, turn the blue and green background controls SLIGHTLY clockwise and adjust both the blue and green screen controls SLIGHTLY counter clockwise to achieve gray in the low light areas.

Any of the conditions in 4, 5 and 6 indicates low color temperature and these steps are designed to correct this.

If the receiver is adjusted to too high a color temperature the result will be a loss of reds in the picture detail causing inability to obtain good flesh tones.

Too low a color temperature results in a loss of blue, green or blue/green colors in the picture thereby causing the objects to assume a reddish brown cast. This condition, however, is not nearly as objectionable as a loss of reds. Keep in mind that color temperature does not refer to brightness level.



TURN FINE TUNING SHAFT WITH PULLEY P1 FULLY CLOCKWISE

TURN FINE TUNING SHAFT WITH PULLEY P1 FULLY CLOCKWISE

DIAL CORD STRINGING

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect a 0-500 MA meter across the horizontal output fuse holder (M4). Remove the fuse (M4).

Loosen the cover of the high voltage cage and slide it back. Connect the VTVM thru the high voltage probe to the cup at the base of the high voltage rectifier tube (V20). Connect the common lead of the VTVM to chassis.

Turn the set on and tune in a TV station.

Set the width switch (M16) on the rear of the high voltage cage to its center position.

If necessary, adjust the vertical hold control to synchronize the picture vertically.

Adjust the horizontal hold to synchronize the picture horizontally. Using a low capacity probe, connect the vertical amplifier of the scope to terminal "J" of the horizontal oscillator printed board. Adjust the horizontal waveform slug (B1) until the sharp peaks and the round peaks of the waveform on the scope are of equal heights as in Fig. 13; keep the picture in sync during this adjustment with the horizontal hold.

Rotation of the horizontal hold should cause the picture to lose sync at either end of its rotation. From counter clockwise position, the picture should pull into sync with between 1 and 3 bars present. The picture should remain in sync for three complete turns of the knob clockwise from the pull-in point.

The proper setting for the horizontal hold is 1 turn counter clockwise from point of pull-in at the clockwise position of the knob. Adjust the horizontal linearity slug (B2) for a MINIMUM current reading on the MA meter. This will give the best horizontal linearity. Adjust the height and vertical linearity controls for a 5/8 inch over scan, at the top and bottom of the screen, with 117 volts line voltage. Adjust the focus control for proper focus.

COLOR AFC ALIGNMENT

Connect the color bar generator to the antenna terminals. Turn the channel selector to channel 3 and tune the signal in on the receiver. Adjust the horizontal control on the generator (if one is used, if not use the one on the receiver) until the bars synchronize horizontally on the picture screen. Adjust the fine tuning control until the picture shows no sound interference. Adjust the color control (R4) until color appears in the bar pattern. Set the color and contrast controls to the center of their ranges. Turn the killer threshold control (R17A) fully counter clockwise. Make sure the reference oscillator is operating by checking for a DC voltage at pin 7 (number 3 grid) of V26 of V27 (demodulators). Adjust A26 if necessary to start the oscillator. Connect a jumper between terminals "B" and "C" of L38. Connect the DC probe of the VTVM to point \diamond . Connect the common lead to chassis. Adjust A27 for a reading of -6 volts on the meter. Re-adjust A26 for zero beat as observed on the picture tube. Remove the short from L38. Move the DC probe of the VTVM to point \diamond . Connect a clip lead from terminal "D" of L37 to point \diamond . Adjust the AGC threshold control (R17B) for a reading of -5 volts on the meter. Remove the short from L37.

Move the DC probe of the VTVM thru the crystal detector (Fig. 11) to terminal "E" of L41. Rotate the "Hue" control from one end to the other and observe the voltage readings obtained on the meter. Adjust A24 for the same reading at both extreme settings of the "Hue" control.

Move the DC probe of the VTVM and the crystal detector to terminal "D" of L41 and adjust A25 for maximum DC reading on the VTVM.

Move the DC probe and the crystal detector back to terminal "E" of L41 and adjust the "Hue" control for MINIMUM voltage at the center of its range.

Connect the vertical amplifier of the scope to pin 2 (red grid) of the picture tube. Connect the low side to chassis. Remove the 6BY6 (V27) from its socket. Retouch A24 for correct waveform of the R-Y signal as shown in Fig. 14. Move the vertical amp. connection of the scope to pin 12 (blue grid) of the picture tube. Replace V27 in its socket and remove V26 from its socket. Retouch A25 for proper B-Y waveform as seen in Fig. 14. Observe the reading on the VTVM at terminal "E" of L41 and rotate the "Hue" control from one end to the other. The voltage should not be less than 8 volts at any position of the "Hue" control.

Move the scope connection back to the red grid (Pin 2) of the picture tube and set the "Hue" control for the proper R-Y waveform. Let the amplitude of the response curve represent 100%.

Move the vertical amplifier lead of the scope to pin 12 (blue grid) of the picture tube. The amplitude of the pattern should be 60% of that at the red grid. If necessary, adjust the matrix balance control (R15) to make the amplitude at the blue grid 60%.

Move the scope connection to pin 6 (green grid) of the picture tube. The amplitude of the waveform should be approximately 40.8% of the amplitude of the pattern on the red grid and should not deviate more than 5% from this percentage.

KILLER THRESHOLD CONTROL ADJUSTMENT

Switch the receiver to a channel where no signal is being used and turn the contrast control clockwise until noise is seen on the screen. Turn the color control fully clockwise. Color should be present in the noise on the screen. Adjust the killer threshold control (R17A) until the color in the noise pattern just disappears.

COMPLETE SET-UP PROCEDURE

Make sure that the AGC is properly adjusted and that the horizontal sweep circuits have been adjusted as per instructions.

PRELIMINARY CONVERGENCE ADJUSTMENTS

Connect the RF output of the dot generator to the antenna terminals. Preset the red, blue and green horizontal and vertical amplitude controls fully counter clockwise. The controls are located on the front apron of the chassis below the picture tube. Preset the red, blue and green vertical tilt control to mid-range.

Adjust the red, blue and green DC controls and the lateral magnet (or control on earlier production receivers) to produce a white dot at the center of the screen. Lateral movement of the dots are accomplished by adjustment of the lateral magnet. Red and green movement is opposite in direction to that of the blue.

Keep the focus in adjustment while making the above adjustments. Switch the dot generator to "Stand-by" position.

COLOR PURITY ADJUSTMENTS

Switch the channel selector to an unused channel and turn the contrast control fully counter clockwise.

Set the red tabs on the purity magnet together.

Turn the six field neutralizing magnets fully counter clockwise. These adjustments are accessible from the front of the set after the front trim is removed. Loosen the wing nuts at each side of the deflection yoke and slide the yoke as far to the rear as possible. Turn the blue and green screen controls fully counter clockwise. The controls are located on the front apron of the chassis behind the control case, which should be removed.

Rotate the purity magnet around the neck of the picture tube and at the same time adjust the tabs with respect to each other to produce a uniform red area at about 8 o'clock position on the screen and displaced from the center by a distance of approximately one-half the area itself. Move the yoke forward until the most uniform red screen without neck shadow is obtained. When the best position is found with a MINIMUM of purity error at the edges of the screen, tighten the wing nuts holding the yoke in place.

Tune in a station broadcasting a black and white picture and adjust the blue and green screen controls to produce a black and white picture. Adjust the neutralizing magnets for best white uniformity in the areas of each magnet. Some areas will require adjustment of more than one magnet. Check each color field by turning the other two screen controls down in turn, to insure that screen purity has not been sacrificed at the expense of uniformity.

VERTICAL DYNAMIC CONVERGENCE ADJUSTMENTS

Recheck "Preliminary Convergence Adjustment" for correct setting of the three DC convergence controls and the lateral magnet to produce a white dot at the center of the screen.

Switch dot generator to vertical bars. Referring to the center vertical bar nearest the center of the screen, turn the red vertical amplitude control fully clockwise and adjust the red vertical tilt control for maximum displacement of the red bar at the center of the screen. Turn the green vertical amplitude control fully clockwise and adjust the green vertical tilt control for maximum displacement of the green vertical bar at the center of the screen. The direction of displacement of the green bar should be opposite to that of the red bar.

Adjust the red and green vertical amplitude and tilt controls to produce straight vertical red and green bars parallel to the blue bar. Converge the three bars using the red and green DC controls to form a single white vertical bar at the center of the screen. SLIGHT readjustment of the red and green vertical amplitude and tilt controls may be required to produce this condition. Recheck the focus.

Turn the generator to horizontal bars and using the blue DC control displace the blue bar SLIGHTLY away from the others. Adjust the blue vertical amplitude and tilt controls for equal displacement of the blue bars with respect to the others from top of the screen to the bottom near the center of the screen (horizontally).

HORIZONTAL DYNAMIC CONVERGENCE ADJUSTMENTS

Referring to the center horizontal bars, turn the blue horizontal amplitude (B6) clockwise until the blue bar appears in the center of the screen. The blue bar will be below the red and green bars. Alternately adjust the blue horizontal tilt (B5) and amplitude (B6) to produce a straight blue horizontal bar across the center of the screen.

Shunt the red grid of the picture tube to chassis through a 100K resistor. (Red wire at the rear edge of the chroma printed board.) Alternately adjust the green horizontal amplitude (B7) and tilt (B4) to produce a green bar parallel to the blue bar over its entire length at the center of the screen.

Remove the shunt from the red grid of the picture tube and place it on the green grid. Alternately adjust the red horizontal amplitude (B8) and tilt (B5) to produce a red bar parallel to the blue bar over its entire length at the center of the screen. Remove the 100K shunt from the green grid.

With the blue DC control, move the blue bar near the other two and if necessary, retouch the above adjustments SLIGHTLY until all three bars are equally displaced along the entire center line of the screen.

Turn the generator to the dot pattern and converge the dot pattern using the three DC controls and the lateral magnet. The dot pattern should show maximum convergence over the entire area of the screen.

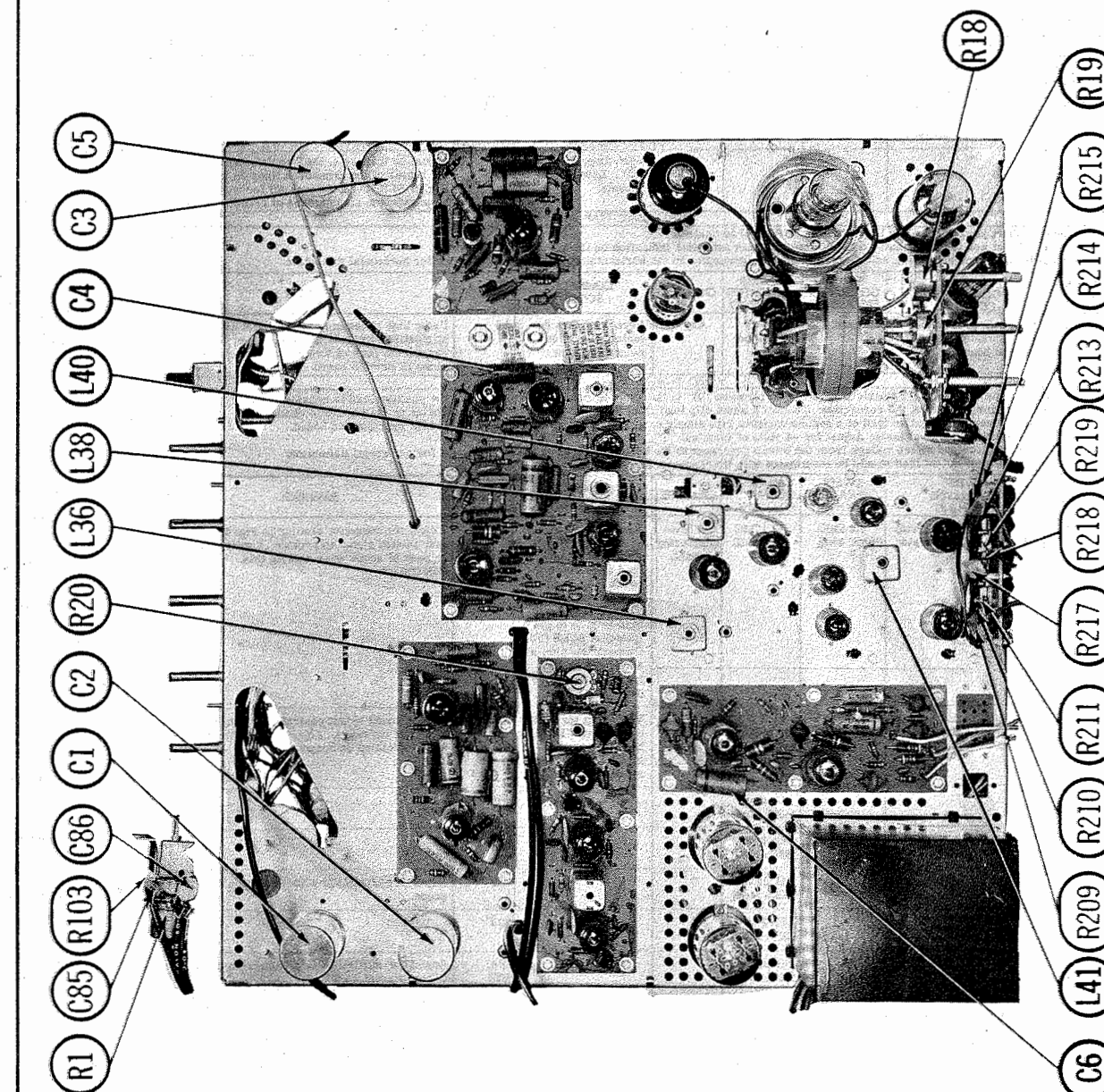
GRAY SCALE ADJUSTMENTS

Turn all the screen controls fully counter clockwise and the background controls 30% from full counter clockwise.

Turn the brightness control fully counter clockwise and the contrast control to the center of its range.

Connect the VTVM between the red grid and the red cathode of the picture tube. Adjust the red background control for -100 volts on the meter. Adjust the brightness control for -70 volts on the meter.

Leave the brightness control at this setting and adjust the three screen controls for a gray picture at a very low light level. After setting the screen controls, do not change the settings of the red screen control or the red background control during the balance of this procedure.



CHASSIS-TOP VIEW

RCA VICTOR MODELS 21-CD-7895, U. 21-CD-7897, U. 21-CD-7915, U. 21-CD-7916, U. 21-CD-7917, U. 21-CD-7935, U. 21-CD-7936, U. 21-CD-7937, U. 21-CD-7956, U. 21-CD-7958, U. 21-CD-7975, U. 21-CD-7996, U. 21-CD-7999, U. 21-CD-8000, U. 21-CD-8001, U. 21-CD-8002, U. 21-CD-8003, U. 21-CD-8004, U. 21-CD-8005, U. 21-CD-8006, U. 21-CD-8007, U. 21-CD-8008, U. 21-CD-8009, U. 21-CD-8010, U. 21-CD-8011, U. 21-CD-8012, U. 21-CD-8013, U. 21-CD-8014, U. 21-CD-8015, U. 21-CD-8016, U. 21-CD-8017, U. 21-CD-8018, U. 21-CD-8019, U. 21-CD-8020, U. 21-CD-8021, U. 21-CD-8022, U. 21-CD-8023, U. 21-CD-8024, U. 21-CD-8025, U. 21-CD-8026, U. 21-CD-8027, U. 21-CD-8028, U. 21-CD-8029, U. 21-CD-8030, U. 21-CD-8031, U. 21-CD-8032, U. 21-CD-8033, U. 21-CD-8034, U. 21-CD-8035, U. 21-CD-8036, U. 21-CD-8037, U. 21-CD-8038, U. 21-CD-8039, U. 21-CD-8040, U. 21-CD-8041, U. 21-CD-8042, U. 21-CD-8043, U. 21-CD-8044, U. 21-CD-8045, U. 21-CD-8046, U. 21-CD-8047, U. 21-CD-8048, U. 21-CD-8049, U. 21-CD-8050, U. 21-CD-8051, U. 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ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage should be disabled by removing the fuse (M3). Connect a 2500 ohm 100 watt resistor from B+ side of C2A (filter capacitor) to chassis. Turn the AGC control (R3A) fully clockwise. Turn the focus control (R18) fully counter clockwise. Connect the negative lead of a variable bias supply to point ④ thru a 100K resistor. Connect the positive lead to chassis and adjust for -10 volts bias at the connection.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Remove the bottom shield from the video IF printed board. Connect two matched 100K (±1%) resistors in series from point ⑤ to chassis. The junction of these two resistors is alignment point ⑥ as shown on the schematic.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. .01MFD	High side to point ④. Low side to chassis.	4.5MC (unmod)	Any	DC probe to point ⑤. Common to chassis.	A1, A2, A3, A4	Adjust for maximum deflection. Adjust signal generator for -14 volts on VTVM when finally peaked.
2. "	"	"	"	DC probe to point ⑥. Common to point ⑤.	A4	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Remove the two 100K resistors and test equipment.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. .01MFD	High side to point ④. Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. amp. to point ⑤. Low side to chassis.	A1, A2, A3	Disconnect stabilizing capacitor (C4). Adjust for curve of maximum amplitude and symmetry as in Fig. 1. Reconnect C4.
2. "	"	"	"	"	Vert. amp. to point ⑥. Low side to chassis.	A4	Adjust so that the 4.5MC marker occurs at the center of the crossover lines as in Fig. 2. SLIGHTLY retouch A3 for maximum amplitude and straightness of crossover lines.

VIDEO 4.5MC TRAP ALIGNMENT

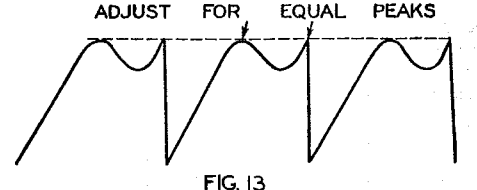
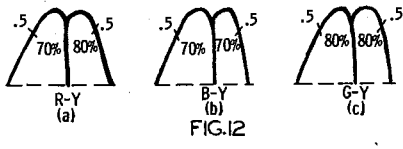
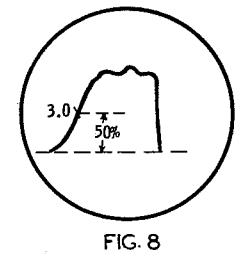
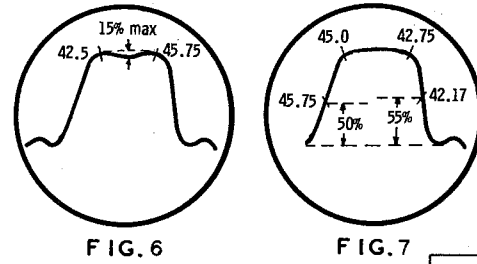
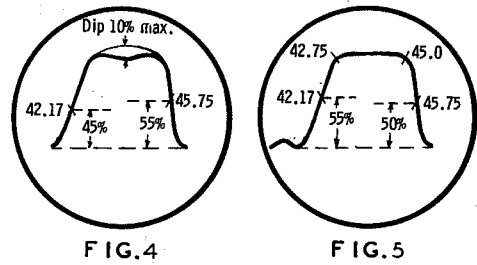
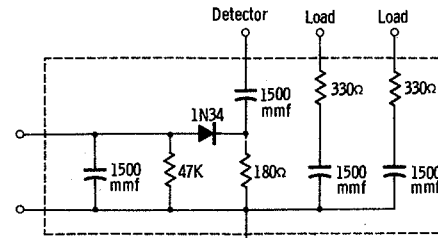
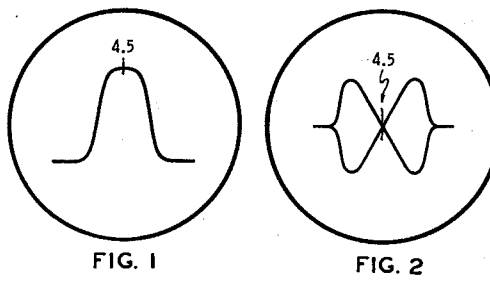
Connect a short jumper from pin 1 (grid) of the 6CB6 (V6) to chassis. The -10 volts at point ④ may have to be lowered to obtain sufficient indication on the scope. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
3. .01MFD	High side to terminal "D" of video amp. printed board.	Not used.	4.5MC (400% Mod)	Any	Vert. amp. thru detector (Fig. 3) to point ⑤. Low side to chassis.	A5	Using high generator output adjust A5 for MINIMUM 400% indication on scope. Remove short from pin 1 of V6. Replace shield on video IF printed board.

VIDEO IF ALIGNMENT

Connect the negative lead of a variable bias supply to terminal "B" of the video IF printed board. Connect the positive lead to chassis. Adjust the bias for -9 volts at the connection. Connect a short clip lead from terminal "C" of the video amplifier printed board to chassis. For step 11, connect the negative lead of a second variable bias supply to terminal "T" of the sound, AGC and 1st sync printed board. Connect the positive lead to chassis. Adjust for -4 volts at terminal "T". Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. 1500MMF	High side to pin 1 (grid) of 8DE6 (V4). Low side to chassis.	43.5MC (10MC Swp)	42.17MC 45.75MC	Any non-interfering channel.	Vert. amp. to output of detector (Fig. 3). Connect "detector" lead of detector probe (Fig. 3) to pin 5 (plate) of 8DE6 (V4). Connect one "load" lead (Fig. 3) to pin 5 (plate) of 8CB6 (V6). Connect low side of scope and ground lead of detector probe to chassis.	A6, A7	Adjust for response similar to Fig. 4. Use just enough signal to provide .1 volt peak to peak of scope when making this adjustment.
5. "	High side to point ④. Low side to chassis.	Not used.	45.75MC (400% Mod)	"	Vert. amp. thru 10K to terminal "D" of the video amp. printed board. Low side to chassis.	A8, A9	Preset sound reject control (R20) at the center of its range. Adjust for maximum 400% indication on scope.
6. "	"	"	42.5MC (400% Mod)	"	"	A10	"
7. "	"	"	43.8MC (400% Mod)	"	"	A11	"
8. "	"	"	41.25MC (400% Mod)	"	"	A12	Adjust for MINIMUM 400% indication on scope.
9. "	"	"	47.25MC (400% Mod)	"	"	A13	"
10. "	"	"	41.25MC (400% Mod)	"	"	A14, R20	Adjust for MINIMUM 400% indication on scope. Repeat step 7.
11. "	High side to point ④. Low side to chassis. Use very short exposed ends on leads.	43.5MC (10MC Swp)	42.17MC 45.0MC 45.75MC	4	"	"	Check for response curve similar to Fig. 5 with markers as indicated. Retouch A8, A10 and A11 to obtain proper response, if necessary. (Use 3 volt peak to peak on scope.) Repeat step 10.



ADDITIONAL VIDEO IF ALIGNMENT FOR UHF MODELS

Remove the crystal cover of the UHF tuner to make sweep connection to the front terminal of the crystal holder. Connect bias as under "Video IF Alignment". Keep the RF bias set at -9 volts. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

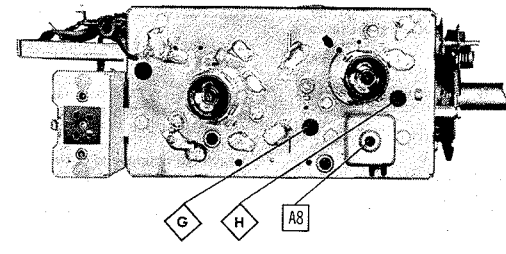
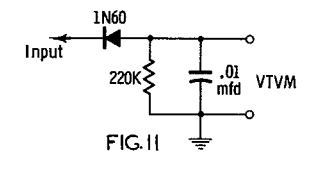
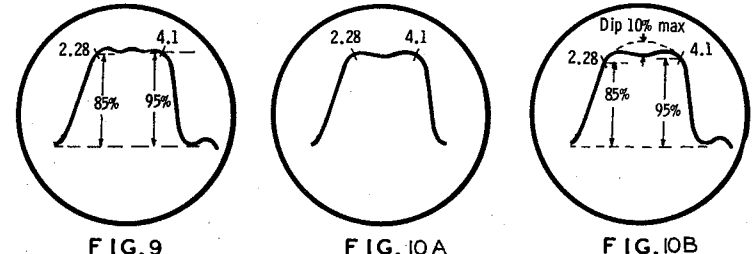
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
12. 1000Ω carbon resistor in series with a 1500MMF capacitor	High side to front terminal of IN83 crystal holder in tuner. Low side to chassis. (Use very short leads.)	650MC (10MC Swp)	42.5MC 45.75MC	Between channels 43 and 44.	Connect a 180Ω carbon resistor in series with a 1500MMF capacitor from point ⑤ to chassis with the resistor next to chassis. Connect the vert. amp. of scope thru det. (Fig. 3) to the high side of the 180Ω resistor. Low side to chassis.	A15, A16, A17, A18	Couple the marker generator loosely to detector probe (Fig. 3) to provide markers. Set sweep generator output to provide .5 volts (or less) peak to peak on scope. Adjust A15 for maximum gain with markers as indicated in Fig. 6. If necessary, adjust A16 to place 45.75MC marker at peak of curve. Adjust A17 for MINIMUM tilt of curve. If necessary, adjust A18 for proper bandwidth. Remove the 180Ω resistor and the 1500MMF capacitor.
13. Two 120Ω carbon resistors	Across VHF antenna terminals with 120Ω in each lead.	See freq. chart.	42.17MC 45.0MC 45.75MC	Check on all VHF channels.	Vert. amp. thru 10K to terminal "D" of video amp. printed board.	A9, A11	Couple marker generator loosely to first video IF amp. grid. Check for response similar to Fig. 7 on all VHF channels. SLIGHTLY retouch A9 and A11 if necessary to correct for any overall tilt.
14. "	Across UHF antenna terminals with 120Ω in each lead.	"	"	Check on all UHF channels.	"	A15, A16, A17	Leave marker connected as in step 13. Check for response similar to Fig. 7 on all UHF channels. SLIGHTLY retouch A15, A16 and A17 if necessary to correct any overall tilt. Remove test equipment and bias supplies.

VIDEO AND BANDPASS ALIGNMENT

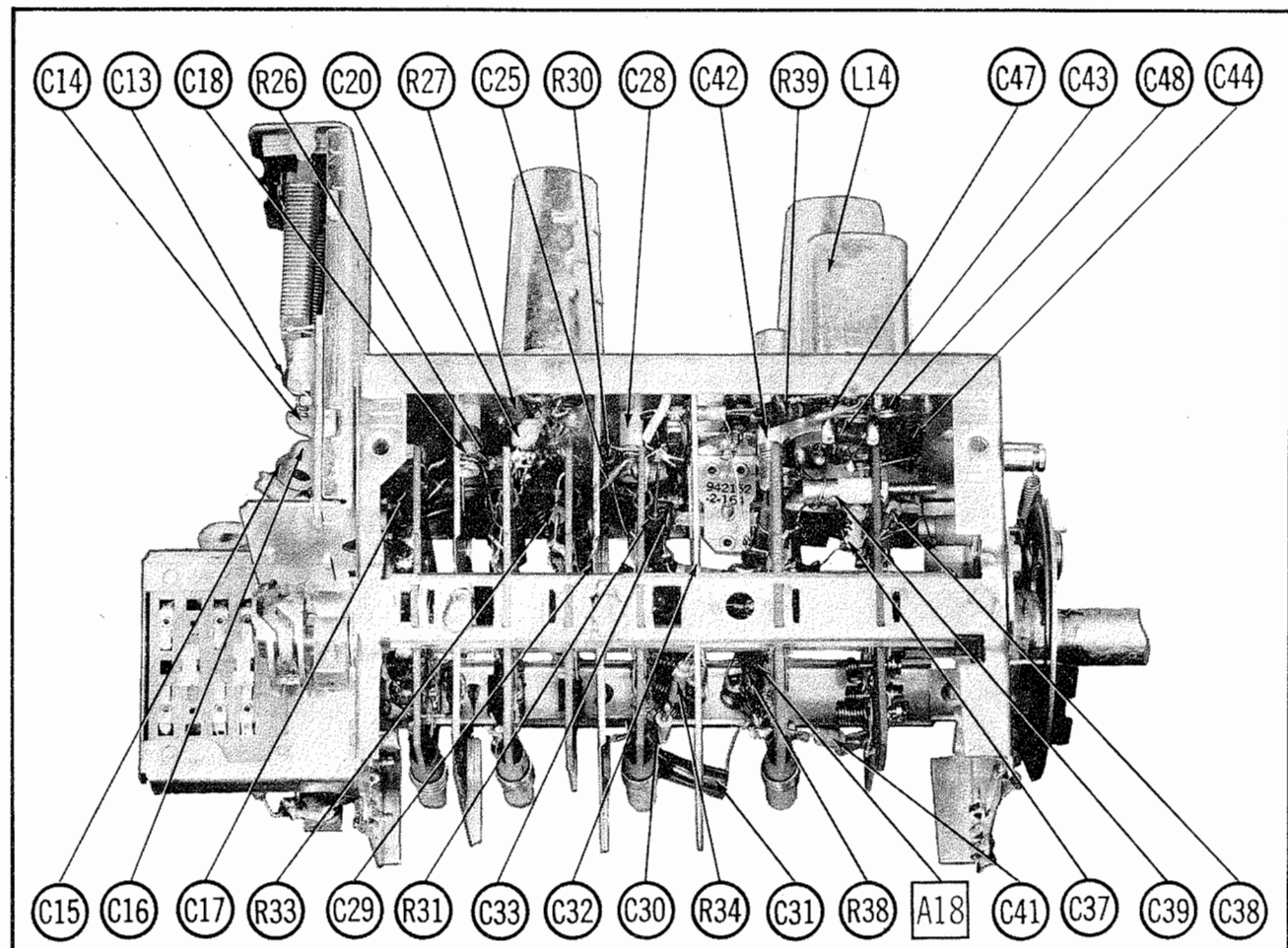
Set the receiver to channel 4. Connect bias as under "Video IF Alignment". Adjust the RF bias for -4 volts and the IF bias for -9 volts. Change the chroma bias at point ④ for a reading of -8 volts. Be sure that the first video amplifier tube is in its socket. Turn the killer threshold control (R17A) and noise threshold control (R6B) fully counter clockwise. Connect the vertical amplifier of the oscilloscope thru the scope probe to terminal "C" of the video amplifier printed board. Connect the low side to chassis. Loosely couple the marker generator to the scope connection. Remove the short from this terminal which was made previously if not already done. Set the generator for 13MC. Connect an insulated wire to the RF "IN" terminal of the generator and insert the free end into the tuner near the oscillator circuit. Adjust the fine tuning control for near zero beat on the scope. This is to set the oscillator exactly on frequency. Connect the sweep and signal generators, using the R-F modulator, to the antenna terminals and set the sweep generator for "Video Sweep". Set the signal generator to 67.25MC. Connect the VTVM thru the diode probe (Fig. 3) between terminals "B" and "D" of the video amplifier printed board. Adjust the output from the generators to produce -1.5 volts on the VTVM. Turn the brightness and color controls fully counter clockwise and the contrast control fully clockwise. The response on the scope should conform to that in Fig. 8. Disconnect the oscilloscope and diode probe from terminal "C" of the video amplifier printed board and reconnect the scope and diode probe to pin 9 (plate) of the 6AW8 chroma bandpass amplifier (V22). Load the bandpass transformer (L38) by connecting a 330 ohm, 1 watt resistor from pin 8 (screen) to pin 9 (plate) of V22. Connect a 2MFD, 350 volt paper electrolytic capacitor from pin 9 (plate) of 6AW8 (V21) to chassis. Adjust A19 for maximum gain at 4.08MC. Adjust A20 for maximum response at 2.28MC. Retouch A19 and A20 for proper response similar to Fig. 9 but do not adjust A20 to tune below 2.28MC. Remove the 330 ohm load and the 2MFD capacitor which was placed in the circuit previously. Connect the scope and diode probe to point ⑤. Adjust A21 for maximum gain as shown in Fig. 10A. Retouch A21 for maximum gain of response curve while adjusting A22 for equal peaks of the response curve as shown in Fig. 10A. Turn the color control fully clockwise. Connect a short jumper from pin 1 (grid) of 8CB6 maintaining symmetry in Fig. 10A. Turn the color control fully clockwise. Connect a 330 ohm, 1 watt resistor from pin 5 (plate) of the 6BY6 (V26) to reference oscillator (V24) to chassis. Connect a 330 ohm, 1 watt resistor from pin 5 (plate) of the 6BY6 (V26) to the ungrounded side of C3A. Connect the scope and diode probe to pin 5 (plate) of 6BY6 (V26). Adjust A23 for the response shown in Fig. 11 to terminal "E" of L41. Connect the common side of the VTVM to chassis. Rotate the "Hue" control from one end to the other and observe the reading on the meter. Adjust A24 for the same reading at both ends of the "Hue" control settings. Move the VTVM and the crystal detector to terminal "D" of L41 and adjust A25 for maximum reading on the VTVM. Remove the crystal detector and VTVM. Connect the scope and diode probe to pin 1 (plate) of the R-Y amplifier (V25), then to pin 1 (plate) of the B-Y amplifier (V26) and then to pin 6 (plate) of the G-Y amplifier (V28) and check the R-Y, B-Y and G-Y responses as shown in Fig. 12. Remove all bias sources, the 500 ohm resistor loading the B+ and the scope. Replace the fuse M3 in its mounting clip.

TELEVISION CHANNEL FREQUENCIES

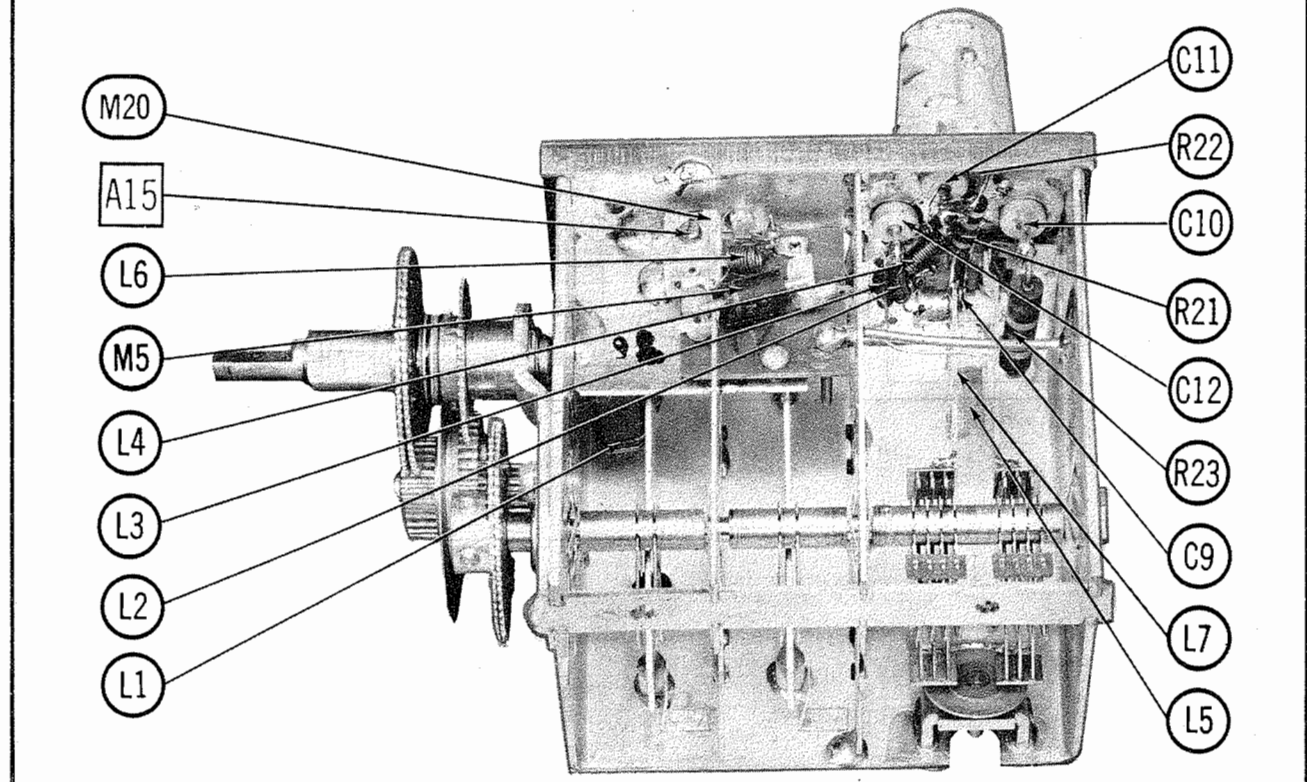
Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier
2	54-60	55.25	59.75	23	524-530	525.25	529.75	44	650-656	651.25	655.75	64	770-776	771.25	775.75
3	60-66	61.25	65.75	24	530-536	531.25	535.75	45	656-662	657.25	661.75	65	776-782	777.25	781.75
4	66-72	67.25	71.75	25	536-542	537.25	541.75	46	662-668	663.25	667.75	66	782-788	783.25	787.75
5	72-78	73.25	77.75	26	542-548	543.25	547.75	47	668-674	669.25	673.75	67	788-794	789.25	793.75
6	82-88	83.25	87.75	27	548-554	549.25	553.75	48	674-680	675.25	679.75	68	794-800	795.25	799.75
7	174-180	175.25	179.75	28	554-560	555.25	559.75	49	680-686	681.25	685.75	69	800-806	801.25	805.75
8	180-186	181.25	185.75	29	560-566	561.25	565.75	50	686-692	687.25	691.75	70	806-812	807.25	811.75
9	186-192	187.25	191.75	30	566-572	567.25	571.75	51	692-698	693.25	697.75	71	812-818	813.25	817.75
10	192-198	193.25	197.75	31	572-578	573.25	577.75	52	698-704	699.25	703.75	72	818-824	819.25	823.75
11	198-204	199.25	203.75	32	578-584	579.25	583.75	53	704-710	705.25	709.75	73	824-830	825.25	829.75
12	204-210	205.25	209.75	33	584-590	585.25	589.75	54	710-716	711.25	715.75	74	830-836	831.25	835.75
13	210-216	211.25	215.75	34	590-596	591.25	595.75	55	716-722	717.25	721.75	75	836-842	837.25	841.75
14	470-476	471.25	475.75	35	596-602	597.25	601.75	56	722-728	723.25	727.75	76	842-848	843.25	847.75
15	476-482	477.25	481.75	36	602-608	603.25	607.75	57	728-734	729.25	733.75	77	848-854	849.25	853.75
16	482-488	483.25	487.75	37	608-614	609.25	613.75	58	734-740	735.25	739.75	78	854-860	855.25	859.75
17	488-494	489.25	493.75	38	614-620	615.25	619.75	59	740-746	741.25	745.75	79	860-866	861.25	865.75
18	494-500	495.25	499.75	39	620-626	621.25	625.75	60	746-752	747.25	751.75	80	866-872	867.25	871.75
19	500-506	501.25	505.75	40	626-632	627.25	631.75	61	752-758	753.25	757.75	81	872-878	873.25	877.75
20	506-512	507.25	511.75	41	632-638	633.25	637.75	62	758-764	759.25	763.75	82	878-884	879.25	883.75
21	512-518	513.25	517.75	42	638-644	639.25	643.75	63	764-770	765.25	769.75	83	884-890	885.25	889.75
22	518-524	519.25	523.75	43	644-650	645.25	649.75								



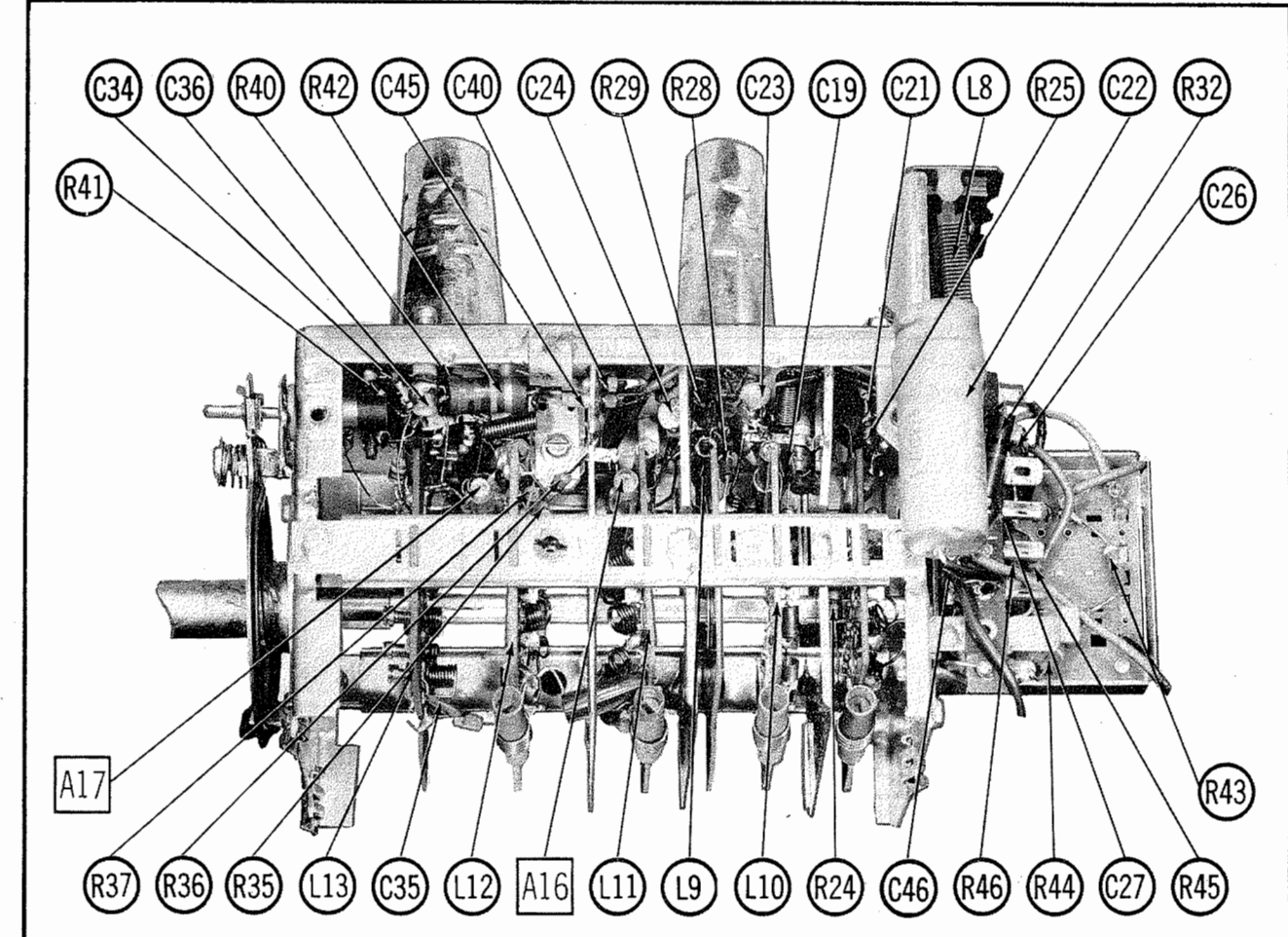
RF TUNER TOP VIEW



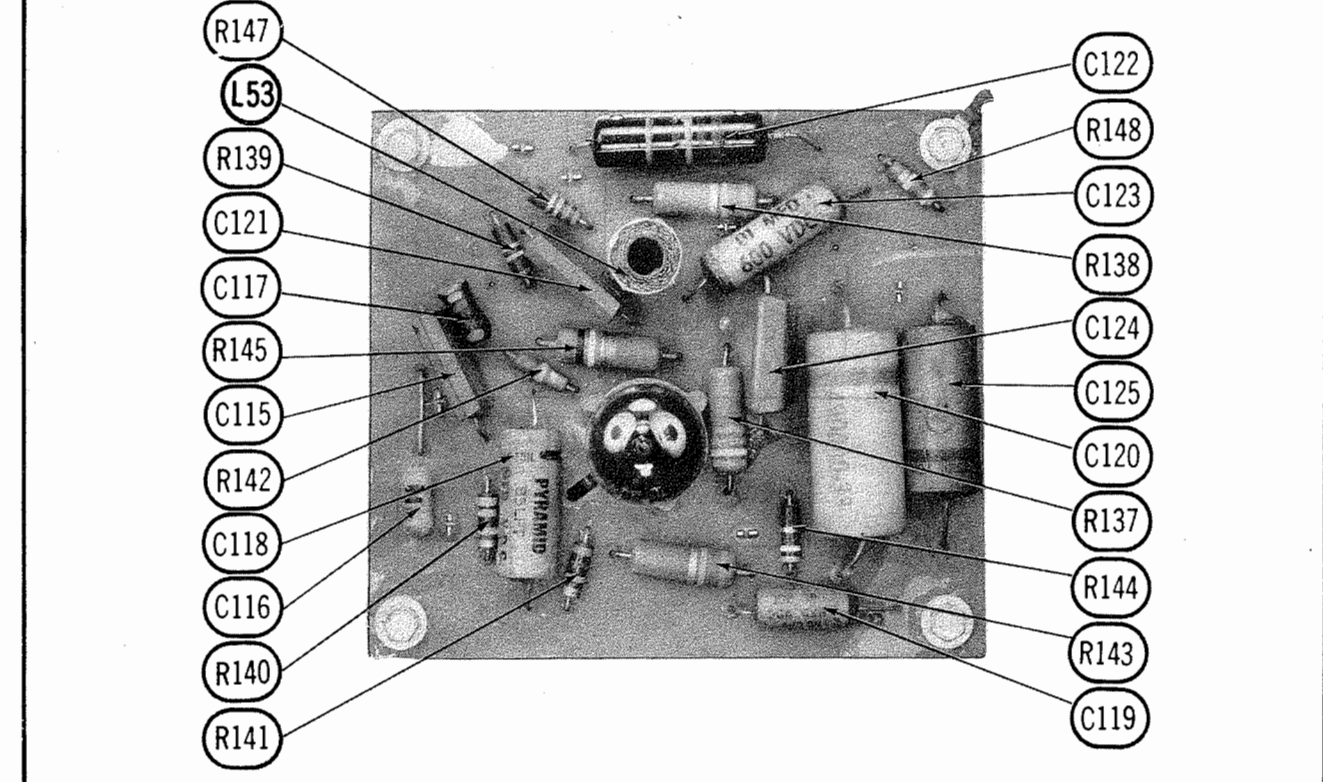
RF TUNER LEFT SIDE



UHF TUNER SIDE VIEW

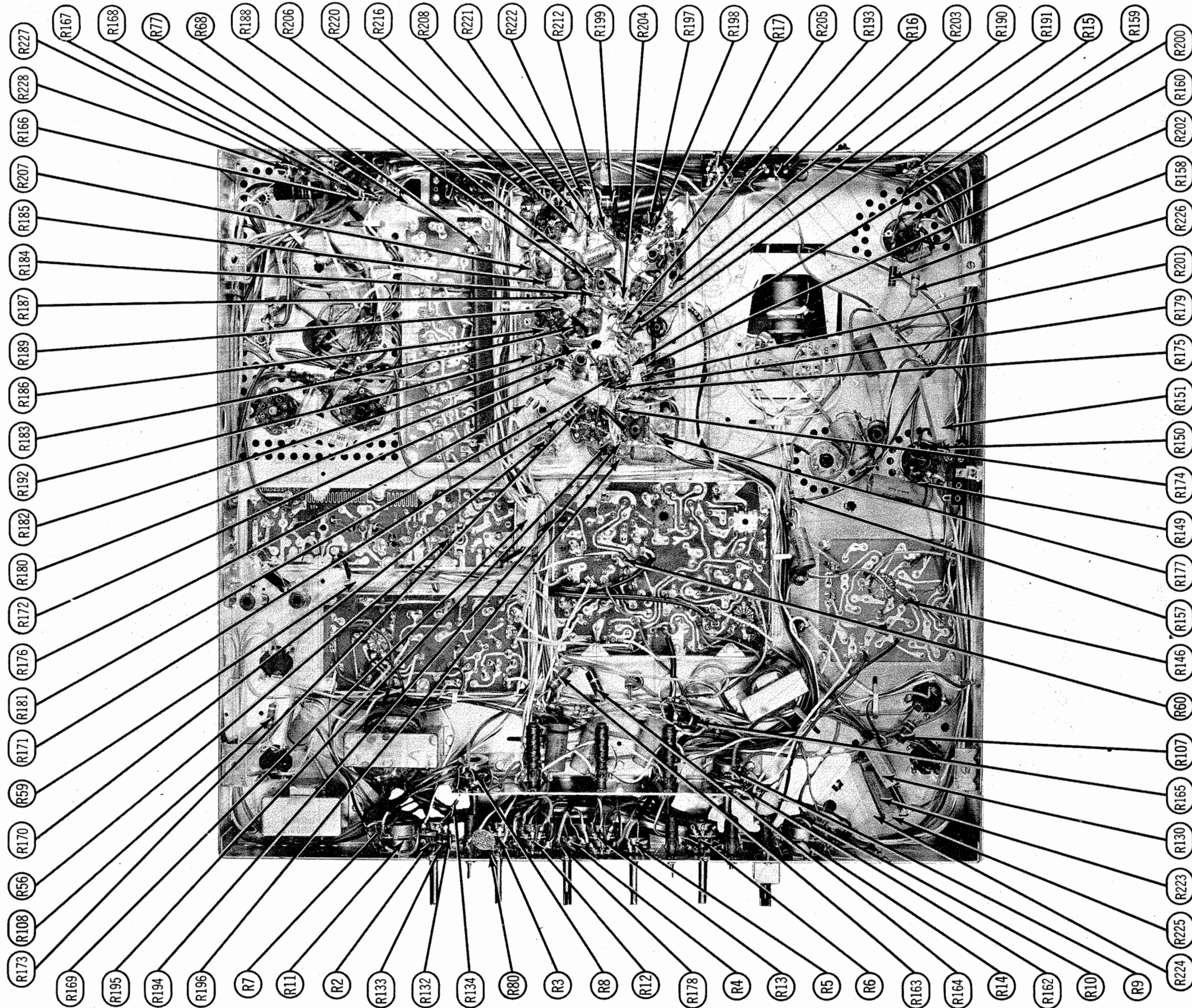


RF TUNER RIGHT SIDE



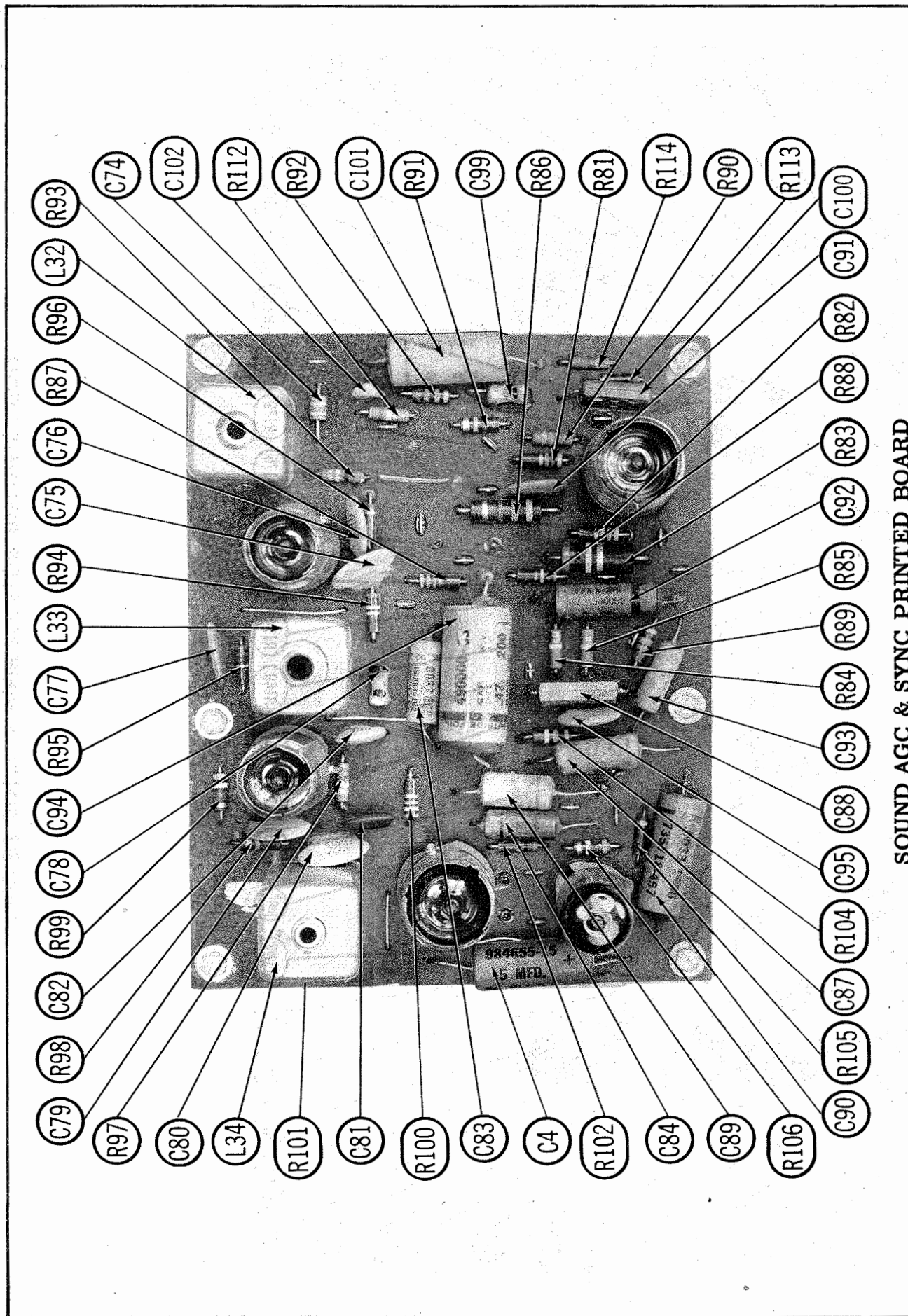
HORIZONTAL SWEEP BOARD

RCA VICTOR MODELS 21-CD-7895, U. 21-CD-7897, U. 21-CD-7915, U. 21-CD-7916, U.
 21-CD-7917, U. 21-CD-7935, U. 21-CD-7936, U. 21-CD-7956, U. 21-CD-7958, U.
 21-CD-7975, U. 21-CD-7996, U. 21-CD-7999, U. (Ch. CICSAA, AB, N, P, R, T, U, W)



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

RCA VICTOR MODELS 21-CD-7895, U, 21-CD-7897, U, 21-CD-7915, U, 21-CD-7916, U,
 21-CD-7917, U, 21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U, 21-CD-7958, U,
 21-CD-7975, U, 21-CD-7996, U, 21-CD-7999, U (Ch. C1C5A4, A8, N, P, R, T, U, W)



SOUND AGC & SYNC PRINTED BOARD

PARTS LIST AND DESCRIPTIONS (Continued)

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 C)	RCA Victor PART No.	Holladson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
L54	.480A	19Ω	.54 HY	102134					C-40X

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA						
			RCA Victor PART No.		LITTELFUSE PART No.		BUSS PART No.		
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER	
M1	3" Pc. #21 wire		102792						
M2	3AG	2A 250V	102182		318002. (3AG-2A-P/T)			GJV2	
M3	C	3/4A	102185	102183	332.75U (C-3/4A)	346003		C 3/4	HC 3/4 to 1 1/4
M4	C	3/10A 250V	102165	102182	332.300 (C-3/10A)	346001		C 3/10	HC 3/10 to 1/2

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA		NOTES
		RCA Victor PART No.	SYLVANIA PART No.	
M5	1N82 *	77489	1N82A	UHF Mixer (Clip in)
M6	1N80	76675	1N80	Video Detector (Pigtall)
M7	1N80	76675	1N80	Sound Detector (Pigtall)
M8	1N84 *	79985	1N80	Color Killer Bias (Pigtall)

* A K3D may be used in some versions * A 1N60 may be used in some versions.

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M9	Crystal	102249	3.579545MC Oscillator
M10	Dial Light	11891	UHF #44 Type
M11	Dial Light	11891	VHF #44 Type
M12	Tuner	KRK40-E	UHF/VHF, Consists of UHF tuner part #Krk36-B and VHF tuner part #Krk35-A, Used in Ch. CTC5P
	Tuner	KRK40-H	UHF/VHF, consists of UHF tuner part #Krk36-B and VHF tuner part #Krk35-A, Used in Ch. CTC5T
	Tuner	KRK40-D	VHF, Consists of Sub-assy. part #Krk35-C, Used in Ch. CTC5N
	Tuner	KRK40-F	VHF, consists of Sub-assy. Part #Krk35-C, Used in Ch. CTC5R
	Tuner	KRK41	VHF, Consists of Sub-assy. Part #Krk35-C, Used in Ch. CTC5U
	Tuner	KRK41-A	UHF/VHF, Consists of UHF tuner part #Krk36-D and VHF tuner part #Krk35A, Used in Ch. CTC5W
	Tuner	KRK42	VHF, Consists of Sub-assy. Part #Krk35-C, Used in Ch. CTC5AA
	Tuner	KRK42-A	UHF/VHF, Consists of UHF tuner part #Krk36-D and VHF tuner part #Krk35-A, Used in Ch. CTC5AB
M13	Ant. Matching Network	100454	Includes coils and caps.
M14	Delay Line	102189	Luminance Channel
M15	Switch	102884	UHF/VHF Ant. Changeover, Slide type
M16	Switch	102160	Width, Rotary wafer
M17	Magnet	79604	Purity Ring Assy. (6 required)
M18	Magnet	103172	Blue Lateral Positioning Part #102295 used in early versions.
M19	Magnet	102495	Color Equalizer Assy.
M20	Trimmer Cap.	79558	UHF Mixer (10-50MMF)
M21	Trimmer Cap.	102240	1st. Bandpass (50-380MMF)
	Shield	102283	Picture tube
	Shield Liner	102438	Picture tube
	Printed Board	102126	Video IF circuit (less tubes)
	Printed Board	102121	Video circuit (less tubes)
	Printed Board	102124	Sound circuit (less tubes)
	Printed Board	102120	Vertical circuit (less tubes)
	Printed Board	102589	Horizontal circuit (less tubes)
	Printed Board	102781	Chroma circuit (less tubes)
	Safety Glass	102278	All models
	Bezel	102288	
	Knob	100407	Horiz. centering, focus, width switch
	Knob	79533	Horiz. frequency
	Knob	101124-B	Brightness, All models
	Knob	102722	VHF channel selector, Models 21-CD-7895, U, 21-CD-7915, U
	Knob	102723	VHF channel selector, Models 21-CD-7897, U, 21-CD-7916, U, 21-CD-7917, U
	Knob	101151-B	VHF channel selector, Models 21-CD-7936, U, 21-CD-7975, U
	Knob	101152-B	VHF channel selector, Models 21-CD-7936, U, 21-CD-7956, U, 21-CD-7996, U
	Knob	101153-B	VHF channel selector, Models 21-CD-7958, U, 21-CD-7999, U
	Knob	102653	UHF fine tuning, Models 21-CD-7895U, 21-CD-7915U
	Knob	102578	UHF fine tuning, Models 21-CD-7897U, 21-CD-7916U, 21-CD-7917U
	Knob	101144-B	UHF fine tuning, Models 21-CD-7935U, 21-CD-7936U, 21-CD-7956U, 21-CD-7958U, 21-CD-7975U, 21-CD-7996U, 21-CD-7999U
	Knob	102274	Color, Contrast, Horiz. Hold, Hue and Tone - All Models
	Knob	101276-B	VHF fine tuning, Models 21-CD-7895, U, 21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U, 21-CD-7987, U
	Knob	101154-B	VHF fine tuning, Models 21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U, 21-CD-7958, U, 21-CD-7975, U, 21-CD-7996, U, 21-CD-7999, U
	Knob	101138-B	On-off volume, Models 21-CD-7895, U, 21-CD-7915, U
	Knob	100621-B	On-off volume, Models 21-CD-7897, U, 21-CD-7916, U, 21-CD-7917, U
	Knob	101139-B	On-off volume, Models 21-CD-7935, U, 21-CD-7975, U
	Knob	101137-B	On-off volume, Models 21-CD-7936, U, 21-CD-7956, U, 21-CD-7996, U
	Knob	101183-B	On-off volume, Models 21-CD-7958, U, 21-CD-7999, U

RCA VICTOR MODELS 21-CD-7895, U, 21-CD-7897, U, 21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U, 21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U, 21-CD-7958, U, 21-CD-7975, U, 21-CD-7995, U, 21-CD-7996, U, 21-CD-7999, U, (Ch. CTC5AA, AB, N, P, R, T, U, W)

PARTS LIST AND DESCRIPTIONS (Continued)
TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	RCA Victor PART No.	Hallderson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T14	8200Ω	3-4Ω	77821	Z1006	A-2901①	A-3823 ①	2456L	S-53X ①	① Tape center tap on primary winding.

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	RCA Victor PART No.	QUAM PART No.	
SP1	8"	PM	3-4Ω	74664 ①	8A21 ①	① Parallel and phase
SP2	3 1/2"	PM	9Ω	10218 ①	3A15TZ9 ①	
SP3	3 1/2"	PM	9Ω	10219 ①	3A1 ①	

COILS (RF-IF)

ITEM No.	USE	RCA Victor PART No.	NOTES	ITEM No.	USE	RCA Victor PART No.	NOTES
L1	UHF Ant. Coil	79564	Includes C9 Includes stator complete with rotor; R24 & C17 Wafer ass'y. #100696. Includes stator complete with rotor; R33 & C29.	L11	VHF RF Coils	100694	Includes stator complete with rotor; C32, C29, C33, C25, R31, R24 & R34.
L2	Fil. Choke	79565		L12	VHF Mixer Grid Coils	100695	Includes stator complete with rotor; C17, C32, C41, C31, C48, R35, R36, R37 & R38.
L3	Fil. Choke	79565		L13	VHF Osc. Coils	1002881	Includes stator complete with rotor; C39, C37, C35.
L4	Cathode Choke	79565		L14	Conv. Plate Trans.	102302	
L5	UHF Osc. Coil	79566					
L6	UHF IF Coil	79567					
L7	UHF Osc. Coil	79557					
L8	VHF Ant. Coils	100697					
L9	UHF IF Coil	100677					
L10	Neutralizing Coils	100698					

ITEM No.	USE	REPLACEMENT DATA				NOTES
		RCA Victor PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L15	4L 25MC Trap	102135				Includes 4L 25MC Trap and 150MMF Cap. 62 Microhenries 180 Microhenries 12 Microhenries 180 Microhenries; Wound on 1800Ω resistor. 180 Microhenries; Wound on 8200Ω resistor. 300 Microhenries 120 Microhenries 12 Microhenries Includes 27MMF Cap. 12 Microhenries Includes 4.5MC Trap. Includes 1.6MMF & 47MMF Caps. Includes 1000MMF and 680MMF Caps. Variable (Set @ 27 Microhenries) Note 1
L16	4T 25MC Trap	102136				
L17	1st Video IF	102257				
L18	2nd Video IF	102262				
L19	3rd Video IF	102258				
L20	4th Video IF	102265				
L21	Series Peaking Coil	102201	19-4060		6110	
L22	Shunt Peaking Coil	102351	19-3180	TV-184	6180	
L23	Series Peaking Coil	100441				
L24	Series Peaking Coil	100441				
L25	Series Peaking Coil	102196	19-3180*	TV-184	6180*	
L26	Shunt Peaking Coil	102198	19-3180	TV-184	6180	
L27	Series Peaking Coil	102197	19-3180▲	TV-184▲	6180▲	
L28	Series Peaking Coil	102200	19-3300		6155	
L29	Shunt Peaking Coil	102199	19-3125		6153	
L30	RF Coil	100441				
L31	RF Coil	100441				
L32	1st Sound IF	102255				
L33	2nd Sound IF	102254				
L34	Ratio Det.	102253				
L35	RF Choke					
L36	Chroma Take-off Trans.	102261				
L37	Low Freq. Peaking Coil	102242				
L38	1st Band-pass Trans.	102264				
L39	2nd Band-pass Trans.	102259				
L40	Burst Amp. Trans.	102252				
L41	Demod. Driver Trans.	102267				
L42	Ref. Osc. Screen Coil					
L43	Series Peaking Coil	102248	19-3660		6146	
L44	Shunt Peaking Coil	102247	19-3180	TV-184	6180	
L45	Shunt Peaking Coil	102247	19-3180	TV-184	6180	
L46	Series Peaking Coil	102248	19-3660		6146	
L47	Shunt Peaking Coil	102246				
L48	Shunt Peaking Coil	102246				
L49	Shunt Peaking Coil	102246				
L50	RF Choke	100441				
L51	RF Choke	100441				

* Parallel with 8200Ω resistor.
▲ Parallel with 1800Ω resistor.
Note 1: Some versions use fixed peaking coil of 12 or 33 Microhenries.

TRANSFORMER (HORIZ. OSC.)

ITEM No.	DC RES.		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	RCA Victor PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	RCA TYPE No.	Ram PART No.		Thordarson PART No.
L52	90Ω		79966			6211			HS-7	Tapped @ 63Ω Horiz. Freq. Waveform
L53	45Ω		102195							

PARTS LIST AND DESCRIPTIONS
TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
V1	UHF Osc.	6AF4A		V17	Horiz. Output	6CB5A	Note 1
V2	RF Amp.	6BQ7A		V18	Damper	6AU4GTA	
V3	Mixer-Osc.	6X8		V19	Focus Rectifier	1V2	
V4	1st Video IF Amp.	6DE6		V20	HV Rectifier	3A3	
V5	2nd Video IF Amp.	6DE6		V21	HV Regulator	6BK4	
V6	3rd Video IF Amp.	6CB6		V22	1st Chroma Bandpass Amp.	6AW8	
V7	Video Amp. - Noise Inverter	6AW8		V23	2nd Chroma Bandpass Amp.	6AW8	
V8	Video Output	12BY7A		V24	Burst Amp.	6CB6	
V9	AGC Keying-Sync Sep.	6U8		V25	Chroma Ref. Osc.	12BH7A	
V10	1st Sound IF Amp.	6AU6		V26	Blanking Amp. -R-Y Amp.	6BY6	
V11	2nd Sound IF Amp.	6AU6		V27	"X" Demodulator	6BY6	
V12	Ratio Det. -AGC Clamp - AF Amp.	6T8		V28	"Z" Demodulator	12BH7A	
V13	Audio Output	6AQ5		V29	G-Y Amp. - B-Y Amp.	5U4GB	
V14	Sync Amp. -Vert. Mult.	6CG7		V30	LV Rectifier	5U4GB	
V15	Vert. Mult. -Vert. Output	6AQ5					
V16	Horiz. AFC-Horiz. Osc.	6CG7					

Note 1: A 6AU8 used in early versions.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	RCA Victor PART No.	CBS PART No.	GENERAL ELECTRIC PART No.	SYLVANIA PART No.	
V31	21AXP22A			21AXP22A 21AXP22	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA							
	CAP.	VOLT.	RCA Victor PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.	
C1A	.40	450	102786	AFH2-94-45			TMD-58		TVL-2720	
B	.40	200								
C2A	.40	450	102786	AFH2-94-45	BO480	FP264.5	TMD-58	D-255	TVL-2720	
B	.40	200								
C3A	.50	450	102161	AFH3-154-40		FP240 TC70		T-760 MT-4504	R2365 †	
B	.50	350								
C	.50	450								
C4	5	50	78943	PRS50V5	BBR5-50	TC30	TD-5-50	MMT-0505	TVA-1303	
C5A	.40	450	102786	AFH2-94-45	BO480	FP264.5	TMD-58	T-743	TVL-2720	
B	.40	200								
C6	2	350	78920	PRS450V2	BR245	TC60	TD-2-450	MT-4502	TVA-1701	
C7	4	450	102843	PRS450V4	BR445	TC70	TD-4-450	FM-4504	TVA-1702	
C8	8	10VAC	102847	NP-PRS10	BR202	TC108		MT-1516 MT-1516*	R2201 †	

① Connect negative leads together.
② Non-catalog item.

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.	RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.		
C9	.8-3.5		79556		829-4		3115-E	CT551			
C10	1000		79559	EF-001	MFT-1000				503C-D1		
C11	1000		79559	EF-001	MFT-1000				503C-D1		
C12	1000		79559	EF-001	MFT-1000				503C-D1		
C13	18									NPO 5%	
C14	5				DD-050	L10V5	ED-5	ZT-555	5GA-V5		
C15	27			BPD-000025	DD-250	L10Q27	ED-27	UC-5427	5GA-Q27		
C16	33			SI 33	DD-330	L10Q33	ED-33	UC-5433	5GA-Q33		
C17	270	77838		SI 270	DD-271	L10T27	ED-270	UC-5327	5GA-T27		
C18	1-4	76532			829-4		3115-E	CT551			
C19	1000	77252		BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-D1		
C20	220	100672		BPD-0002	DD-221	L10T22	ED-220	UC-5322	5GA-T22		
C21	1000	77084		EF-001	MFT-1000				503C-D1		
C22	.47	101808		P288N-47		CUB2P47		GEM-2047	2TM-P47		
C23	220	100672		BPD-0002	DD-221	L10T22	ED-220	UC-5322	5GA-T22		
C24	220	100672		BPD-0002	DD-221	L10T22	ED-220	UC-5322	5GA-T22		
C25	1000	77252		BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-D1		
C26	10000	73960		BPD-01	DD-103	BYA6SI	GP-10000	DC511	5HK-S1		
C27	470	77293		BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	5GA-T47		
C28	.8-3	77151			829-4		532-A	CT565A			
C29	1000	77252		BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-D1		
C30	.68				TCZ-R68	C10V68C	TCO-.68				
C31	.68	71504			TCZ-R68	C10V68C	TCO-.68				
C32	270	77838		SI 270	DD-271	L10T27	ED-270	UC-5327	5GA-T27		
C33	1000	77252		BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-D1		
C34	10	102305		SI 10	DD-100	L10Q1	ED-10	UC-541	5GA-Q1		
C35	47	102882		N750-SI 47	TCN-47	C10Q47U	TCT-47	UC-5447	5GA-Q47		
C36	.8-3	77151			829-4		532-A	CT565A			
C37	10	102883		SI 10	DD-100	L10Q1	ED-10	UC-541	5GA-Q1		
C38	1.2	78532		NPO-SI 1							
C39	.8-3	77913			829-3		532-A	CT565A			
C40	1000	77084		EF-001	MFT-1000				503C-D1		
C41	.68	71504			TCZ-R68		TCO-.68				
C42	1-4	100671			829-4		3115-E	CT551			
C43	47	102882		SI 47	TCZ-47	L10Q47	ED-47		5GA-Q56		
C44	1000	77084		EF-001	MFT-1000				503C-D1		
C45	1000	77084		EF-001	MFT-1000				503C-D1		
C46	470	77293		BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	5GA-T47		
C47	12			BPD-00001	DD-100	L10Q12	ED-12	UC-5412	5GA-Q12		
C48	2	78047									
C49	8	103244									
C50	6	103244									
C51	22	100924		N080-SI 22					N080 5% ①		
C52	680	102237							N080 5% ②		
C53	1000	78623		BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-D1		
C54	680										

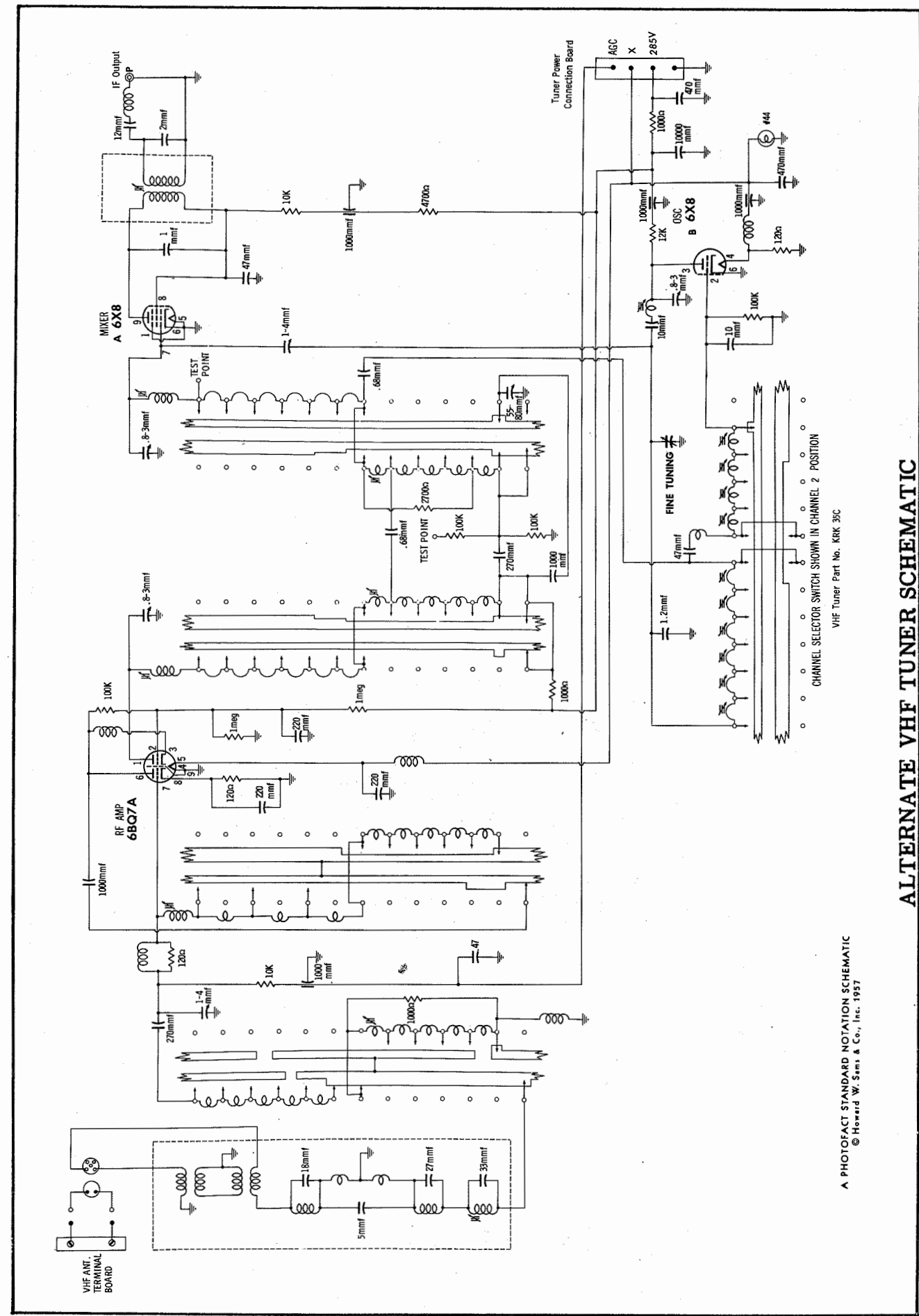
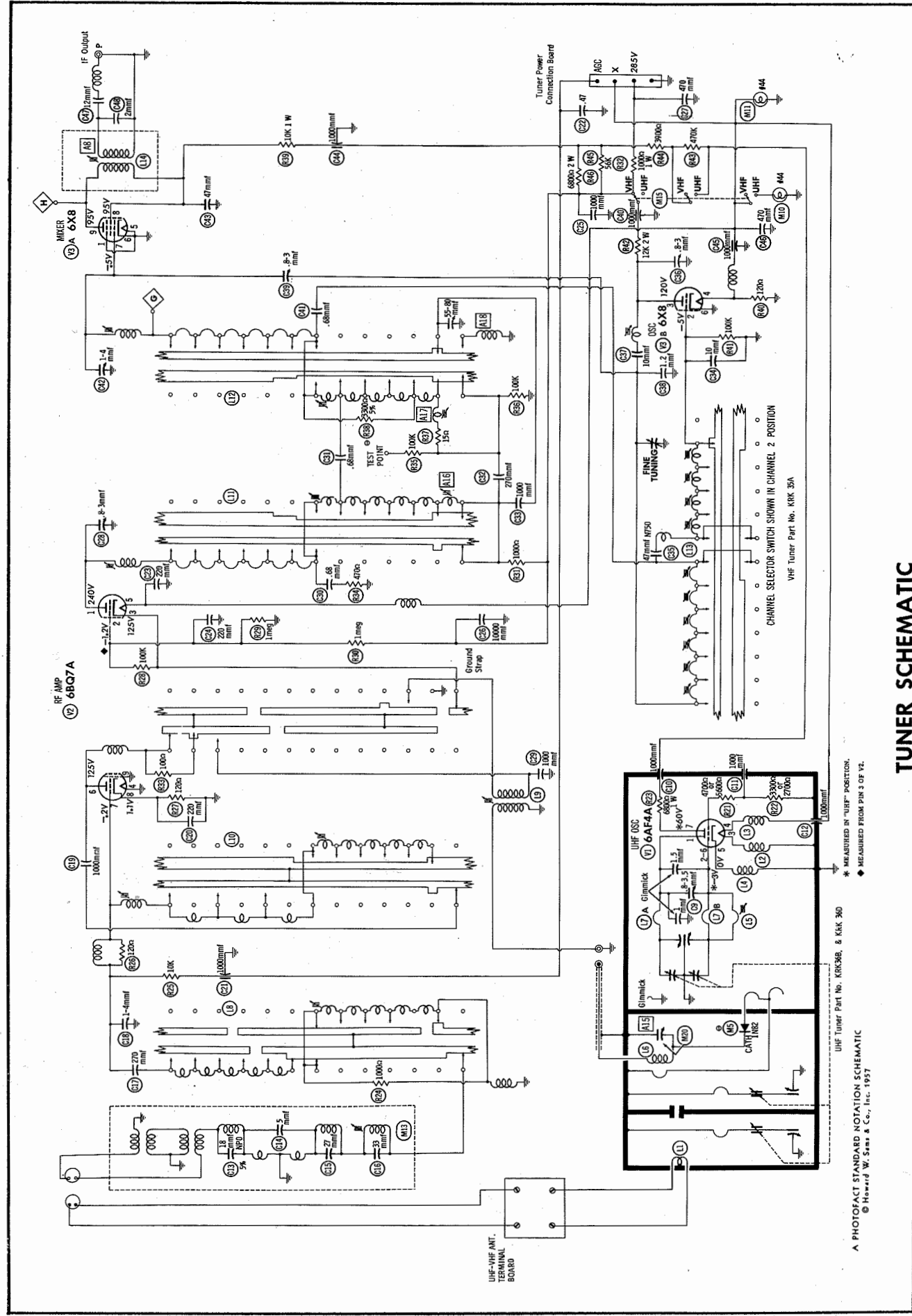
CAPACITORS (cont)

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA							NOTES
		RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C56	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-DI	N2200 10%
C57	1.5	71500	NPO-SI 1.5	TCZ-1R5	C10V15C	TCO-1.5	ZT-5515	5TCCB-V15	
C58	880	102237							
C59	1000	102234	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-DI	
C60	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-DI	
C61	10	102205	N750-SI 10	TCN-10	C10Q1U	TCY-10	NT-541	5TCU-Q1	N750
C62	10	102205	N750-SI 10	TCN-10	C10Q1U	TCY-10	NT-541	5TCU-Q1	N750
C63	22	102799	NPO-SI 22	DF-220	L10Q22	ED-22	UC-5422	5GA-Q22	
C64	880	79980	BPD-00068	DD-681	BYA10T68	ED-680	UC-5368	5GA-T68	
C65	3300	102233	BPD-0033	DD-332	BYA10D33	GP-3300	UC-5233	5HK-D33	
C66	.1	79251	P288N-1	DF-104	CUB2P1	DF-104	GEM-201	2TM-P1	
C67	22	102229	NPO-SI 22	TCZ-22	C10Q22C	TCO-22	UC-5333	5TCC-Q22	NPO
C68	330	102229	BPD-00033	DD-331	L10T33	ED-330	UC-5333	5GA-T33	
C69	22	100650	P288N-22	DF-220	CUB2P22	DF-220	GEM-2022	2TM-P22	
C70	880	79980	BPD-00068	DD-681	BYA10T68	ED-680	UC-5368	5GA-T68	
C71	2200	102173	BPD-0022	DD-222	BYA10D22	GP-2200	UC-5222	5HK-D22	
C72A	10000	75677	BPD-2X01	DDM2-103	BYD6D51	GP-10000	UC-5233	5HK-2S1	
C73	.01	77424	BPD-01	DD-103	CUB2S1	ED-01	GEM-211	2TM-S1	
C74	4.7	102235	NPO-SI 4.7	TCZ-4R7	L10V5	TCO-4.7	ZT-5547	5GA-V5	
C75	3300	102233	BPD-0033	DD-332	BYA10D33	GP-3300	UC-5233	5HK-D33	
C76	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C77	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C78	18	102213	BPD-01	DD-103	C10Q18C	TCY-18	NT-541	5TCU-Q18	NPO 10%
C79	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C80	3300	102233	BPD-0033	DD-332	BYA10D33	GP-3300	UC-5233	5HK-D33	
C81	1200	102232	BPD-001	DD-122	L10D12	ED-1200	UC-5212	5GA-D12	
C82	1000	102234	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C83	.0082	102219	BPD-0068	DD-103	CUB2S1	ED-01	GEM-211	2TM-S1	
C84	.01	400	101000	BPD-01	DD-103	CUB2D5	ED-005	GEM-225	
C85	.0056	200		BPD-005	DD-103	CUB2D5	ED-005	GEM-225	
C86	10000	79380	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C87	10047	102225	BPD-0047	DD-472	CUB2D47	ED-005	GEM-6247	6TM-D47	
C88	270	39653	BPD-0027	DD-272	CUB2D27	ED-0027	GEM-6233	6TM-D27	
C89	.0027	800	102234	BPD-0022	D6-272	CUB2D33	GEM-16233	16MB-D33	
C90	.0033	1600	79380	BPD-01	DD-103	BYA8S1	GP-10000	DC511	
C91	10000	79360	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C92	.047	200	78921-A	BPD-05	DF-503	CUB2S47	GEM-4147	4TM-S47	
C93	.0022	400	102232	BPD-0022	DD-222	CUB4D22	GEM-4222	6TM-D22	
C94	.47	200	100299	P288N-47	DF-470	CUB2P47	GEM-2047	2TM-P47	
C95	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C96	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C97	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C98	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C99	56	102207							
C100	330	102229	1469-00033	DF-303	5R5T33	ED-330	GEM-401	4TM-P1	
C101	.1	400	37423	P488N-1	DF-104	CUB4P1	GEM-401	4TM-P1	
C102	330	39640	1469-00033	DF-303	5R5T33	ED-330	GEM-401	4TM-P1	
C103	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C104	.033	400	100369	BPD-03	CUB4S33	GEM-4133	4TM-S33	4TM-S33	
C105	220	102228	DI -00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C106	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C107	.0039	400	102218	BPD-0033	DD-472	CUB4D4	GEM-424	6TM-D4	
C108	.01	400	102220	BPD-01	DD-103	CUB4S1	GEM-411	4TM-S1	
C109	.033	600	102227	BPD-03	CUB4S33	GEM-4133	4TM-S33	4TM-S33	
C110	.33	200	102215	P288N-33	DF-303	CUB6S33	GEM-6033	6TM-S33	
C111	.056	400	102504	BPD-05	CUB4S5	GEM-4156	GEM-601	6TM-P1	
C112	.12	600	102175	P688N-1	DF-104	CUB6P1	GEM-601	6TM-P1	
C113	.0015	400	102216	BPD-0015	DD-152	CUB4D15	GEM-4215	6TM-D15	
C114	.0027	800	73818	BPD-0027	D6-272	CUB16D3	GEM-1623	6TM-D3	
C115	82	1000	76474						
C116	12	102886		TCN-12	C10Q12U	TCY-12	NT-541	5TCU-Q12	
C117	82	102203		TCN-82	C10Q82U	TCY-82	NT-541	5TCU-Q82	
C118	.047	400	77422	BPD-05	CUB4S47	GEM-4147	4TM-S47	4TM-S47	
C119	.01	200	77424	BPD-01	DD-103	CUB2S1	GEM-2047	2TM-P47	
C120	.47	200	100299	P288N-47	DF-470	CUB2P5	GEM-2047	2TM-P47	
C121	330	1000	76474						
C122	.01	800	73594	BPD-01	DD-103	CUB6S1	GEM-601	6TM-S1	
C123	.01	800	102221	BPD-01	DD-103	CUB6S1	GEM-601	6TM-S1	
C124	1000	39652	1464-0001	DF-104	5R5D1	MCE-251	MS-21	MS-21	
C125	.22	200	79740	P288N-22	DF-104	CUB2P22	GEM-6022	6TM-P22	
C126	.1	800	102178	P688N-1	DF-104	CUB6P1	GEM-601	6TM-P1	
C127	.22	600	102178	P688N-22	DF-104	CUB6P22	GEM-6022	6TM-P22	
C128	.15	600	102191	P688N-15	DF-104	CUB6P15	GEM-6015	6TM-P15	
C129	.1	600	102176	P688N-1	DF-104	CUB6P1	GEM-601	6TM-P1	
C130	.47	200	79148	P288N-47	DF-470	CUB2P47	GEM-2047	2TM-P47	
C131	.47	200	79148	P288N-47	DF-470	CUB2P47	GEM-2047	2TM-P47	
C132	360	2000	102791						
C133	360	2000	102791						
C134	56	6000	102790						
C135	.0033	800	102174	BPD-0033	D6-332	CUB6D33	GEM-6233	6TM-D33	
C136	470	5000	78622	BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	
C137	82	5000							
C138	82			TCN-82	C10Q82U	TCY-82	NT-541	5TCU-Q82	
C139	27	103243		TCN-27	C10Q27U	TCY-27	NT-541	5TCU-Q27	
C140	880	102231	BPD-00068	DD-681	BYA10T68	ED-680	UC-5368	5GA-T68	
C141	1	79251	P288N-1	DF-104	CUB2P1	DF-104	GEM-201	2TM-P1	
C142	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C143	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C144	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C145	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C146	.1	200	79980	P288N-1	DF-104	CUB2P1	GEM-201	2TM-P1	
C147	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C148	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C149	470	78622	DI -00047	DD-471	L10T47	ED-470	UC-5347	5GA-T47	
C150	100	102206	N750-SI 100	TCN-100	C10T10U	TCY-100	NT-531	5TCU-T1	
C151	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C152	2	78947							
C153	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C154	6	102839							
C155	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C156	10000	73960	BPD-01	DD-103	BYA8S1	GP-10000	DC511	5HK-S1	
C157	330	102229	DI -00033	DD-331	L10T33	ED-330	UC-5333	5GA-T33	
C158	10	102205	N750-SI 10	TCN-10	C10Q1U	TCY-10	NT-541	5TCU-Q1	
C159	1000	102234	DI -001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C160	10	102205	N750-SI 10	TCN-10	C10Q1U	TCY-10	NT-541	5TCU-Q1	
C161	1000	78623	BPD-001	DD-102	BYA8D1	ED-1000	DC521	5HK-D1	
C162	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C163	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C164	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C165	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C166	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C167	.047	400	78921-A	BPD-05	DF-503	CUB4S47	GEM-4147	4TM-S47	
C168	.47	200	79148	P288N-47	DF-470	CUB2P47	GEM-2047	2TM-P47	
C169	.39	200	102179						
C170	.39	200	102179						

PARTS LIST AND DESCRIPTIONS (Continued)
CAPACITORS (cont)

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA							NOTES
		PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C171	.47	200	79148	P288N-47	DF-470	CUB2P47	GEM-2047	2TM-P47	N3300 ③
C172	.047	800	102172	BP-05	DF-503	CUB6S47	GEM-6147	6TM-S47	
C173	.047	800	73592	BP-05	DF-503	CUB6S47	GEM-6147	6TM-S47	N150 ③
C174	1								
C175	1.5								
C176	2.2								

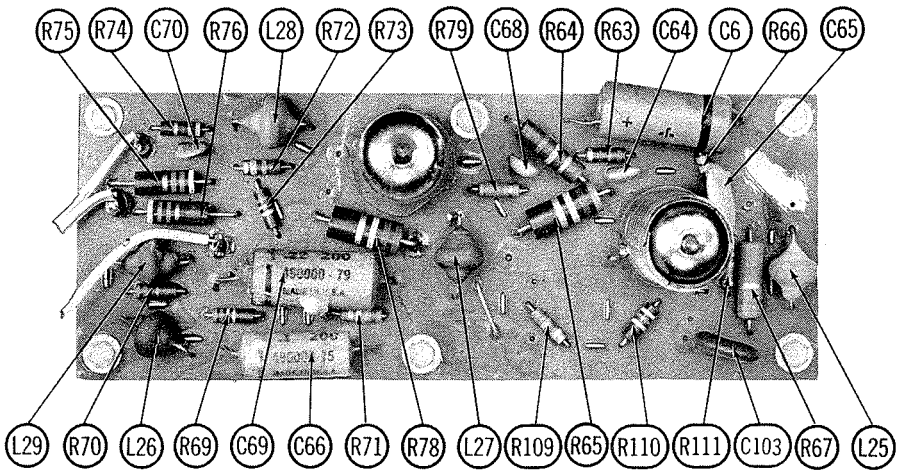
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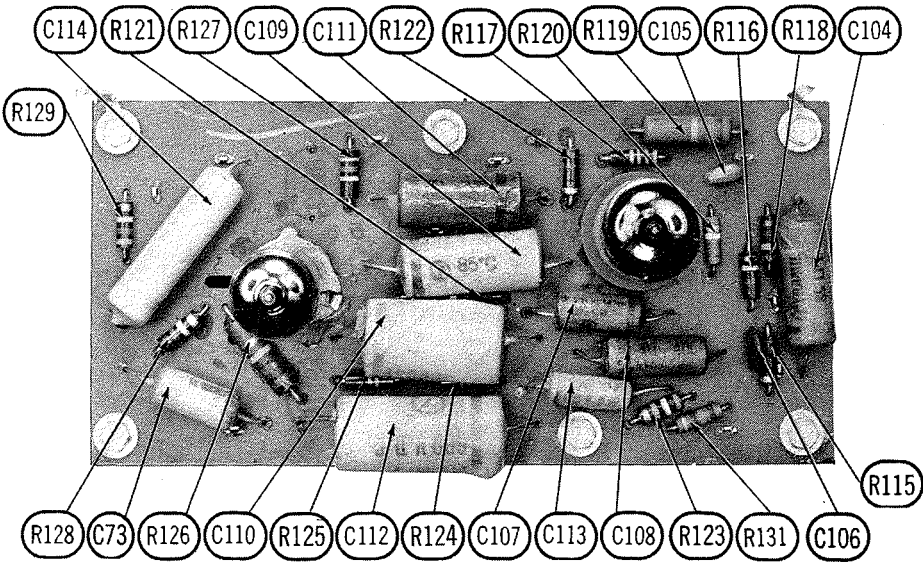
A PHOTOFACT STANDARD NOTATION SCHEMATIC
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ALTERNATE VHF TUNER SCHEMATIC

RCA VICTOR MODELS 21-CD-7895, U, 21-CD-7897, U, 21-CD-7915, U, 21-CD-7916, U, 21-CD-7917, U, 21-CD-7935, U, 21-CD-7936, U, 21-CD-7956, U, 21-CD-7958, U, 21-CD-7975, U, 21-CD-7996, U, 21-CD-7999, U (Ch. CTC5AA, AB, N, P, R, T, U, W)

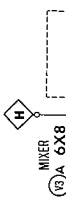


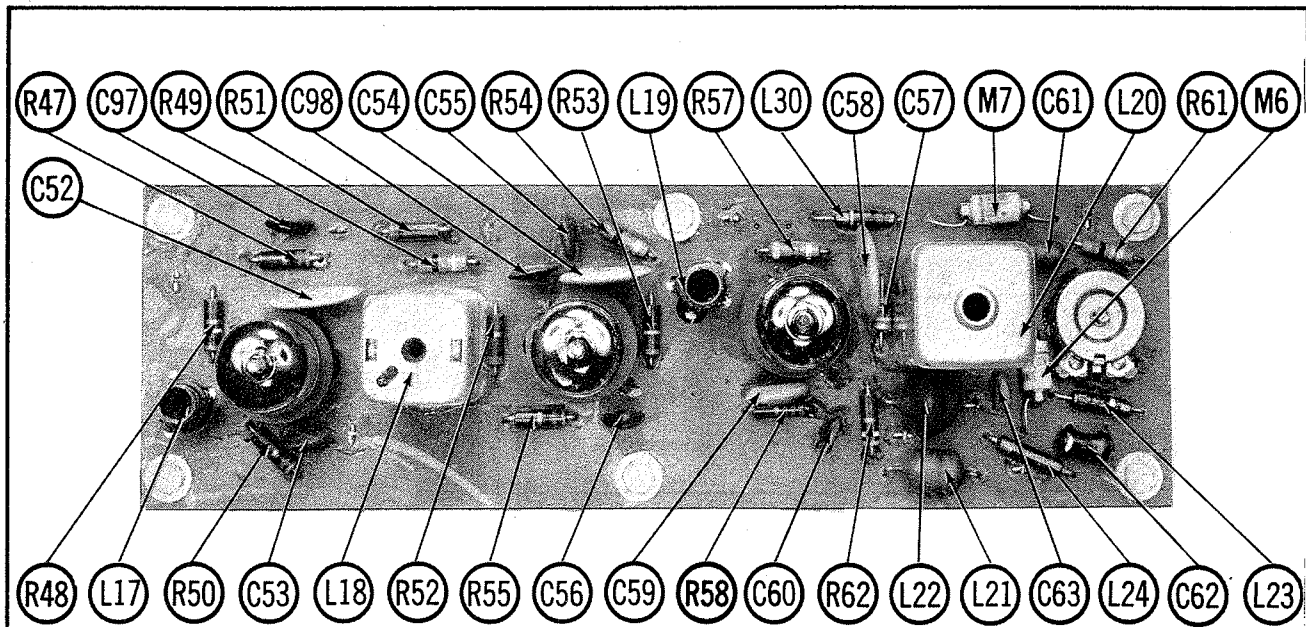
VIDEO & BLANKING PRINTED BOARD



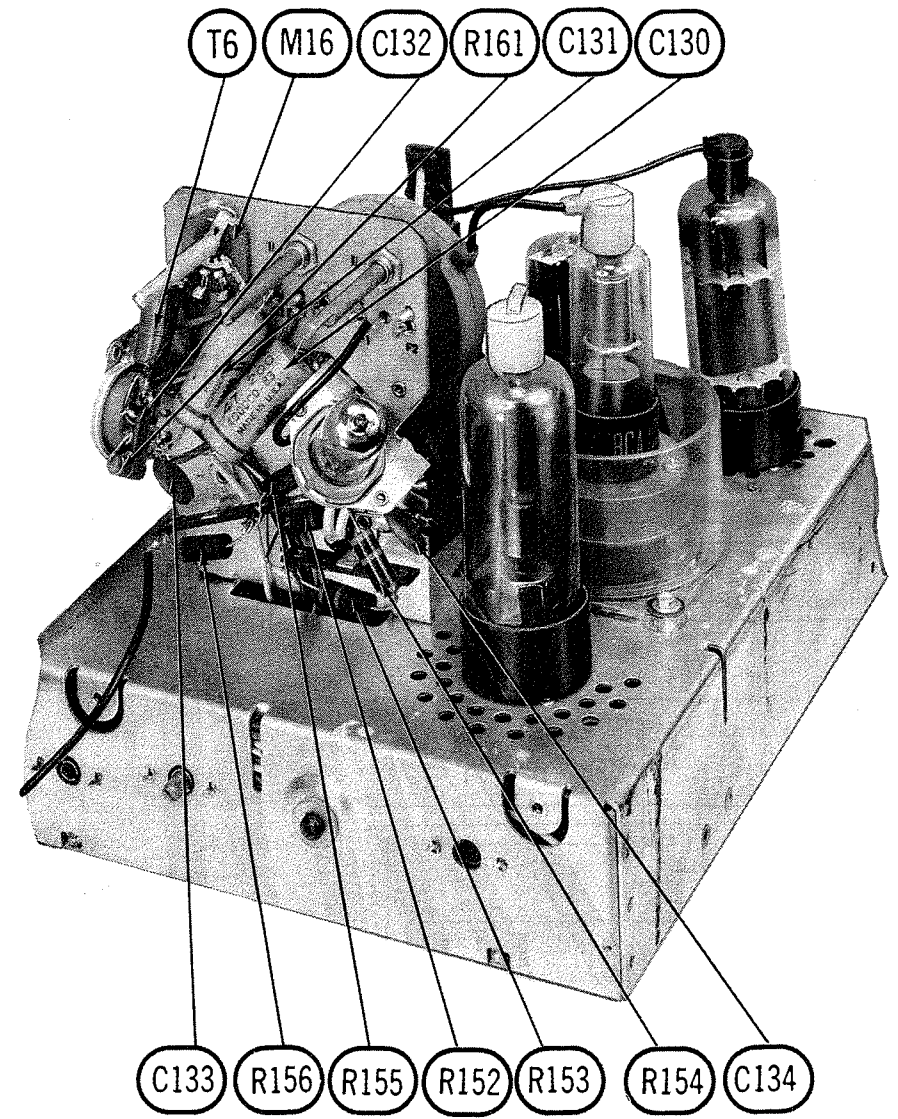
VERTICAL PRINTED BOARD

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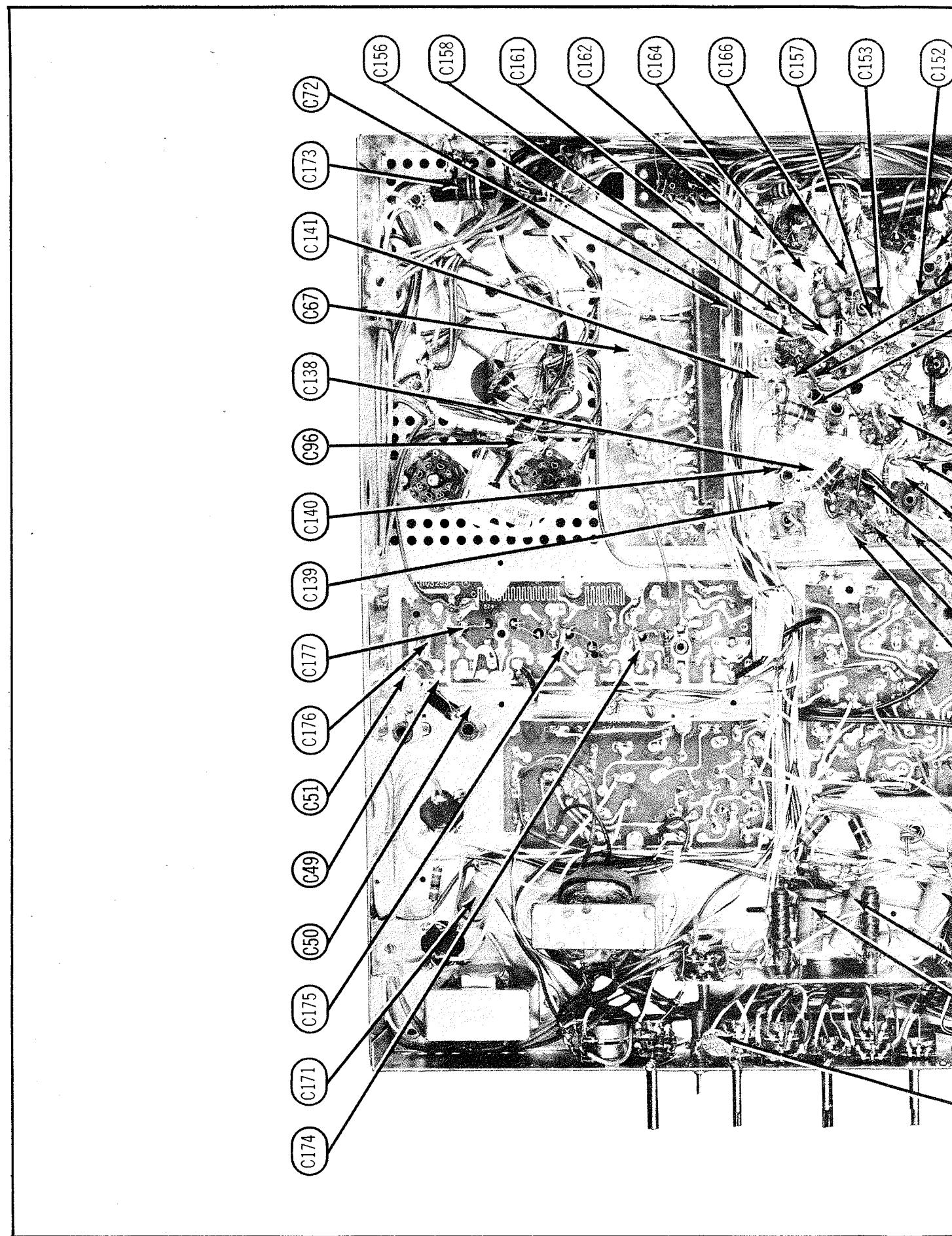


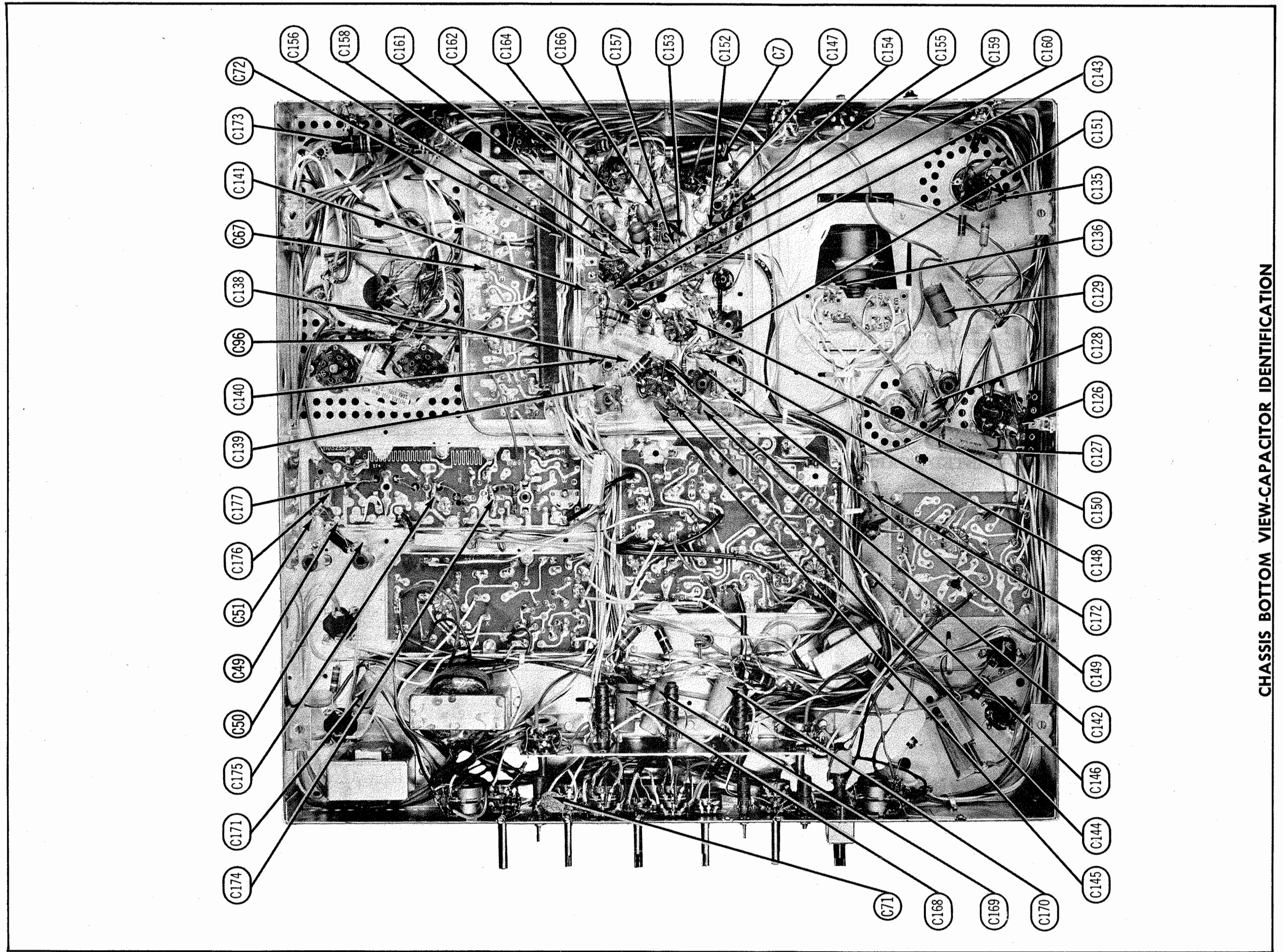


VIDEO IF PRINTED BOARD



HIGH VOLTAGE COMPARTMENT





CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION