

TRADE NAME	Stromberg-Carlson Model K-1	
MANUFACTURER	Stromberg-Carlson Co. -Service Dept. , 302 N. Goodman St. , Rochester, N. Y.	
TYPE SET	Color Television Receiver	
TUBES	Forty-four	
POWER SUPPLY	110-120 Volts AC - 60 Cycle	RATING 5.5 amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13, Video IF 45.75MC, Sound IF 41.25MC (intercarrier)	

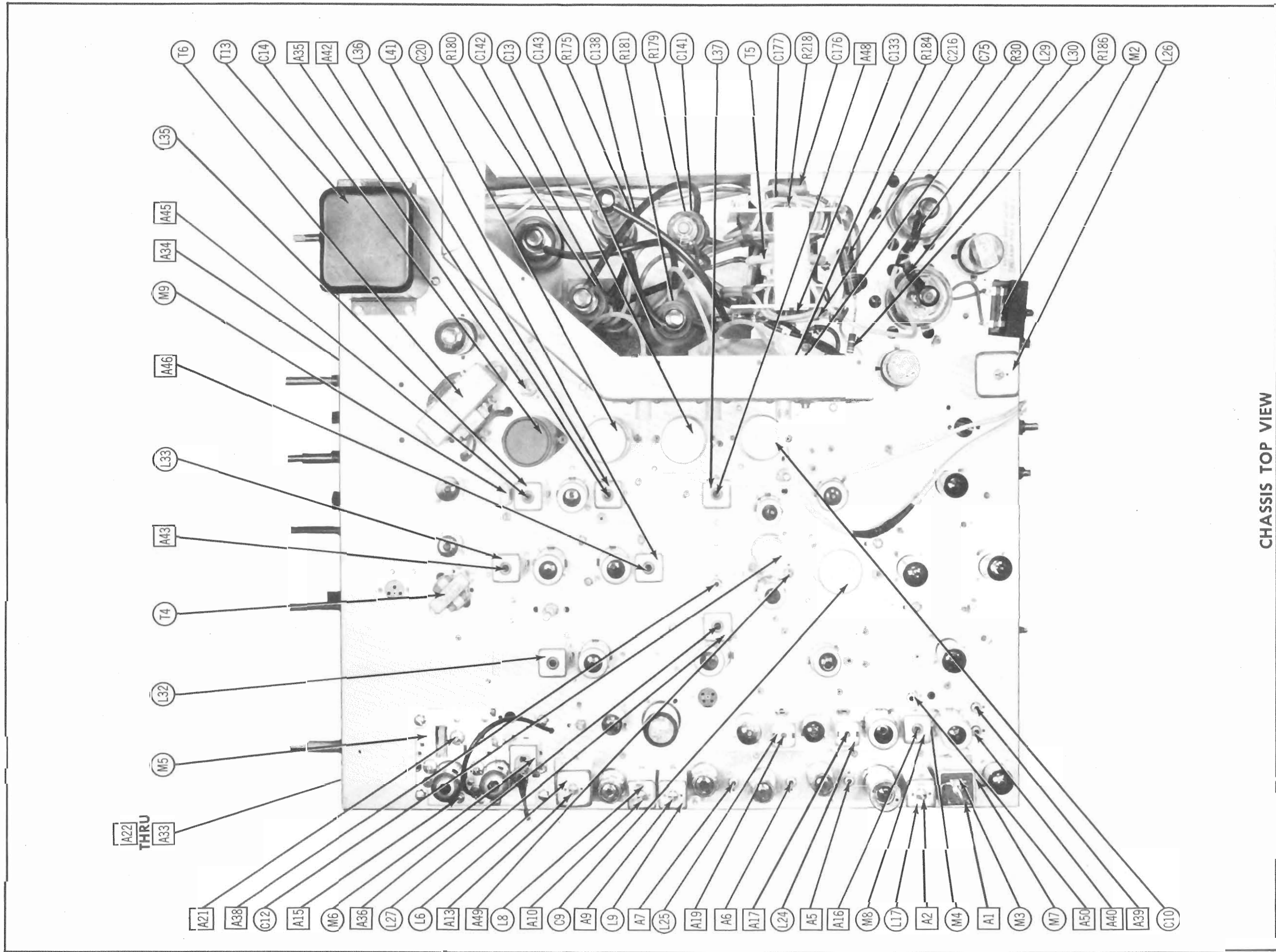
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STROMBERG-CARLSON  
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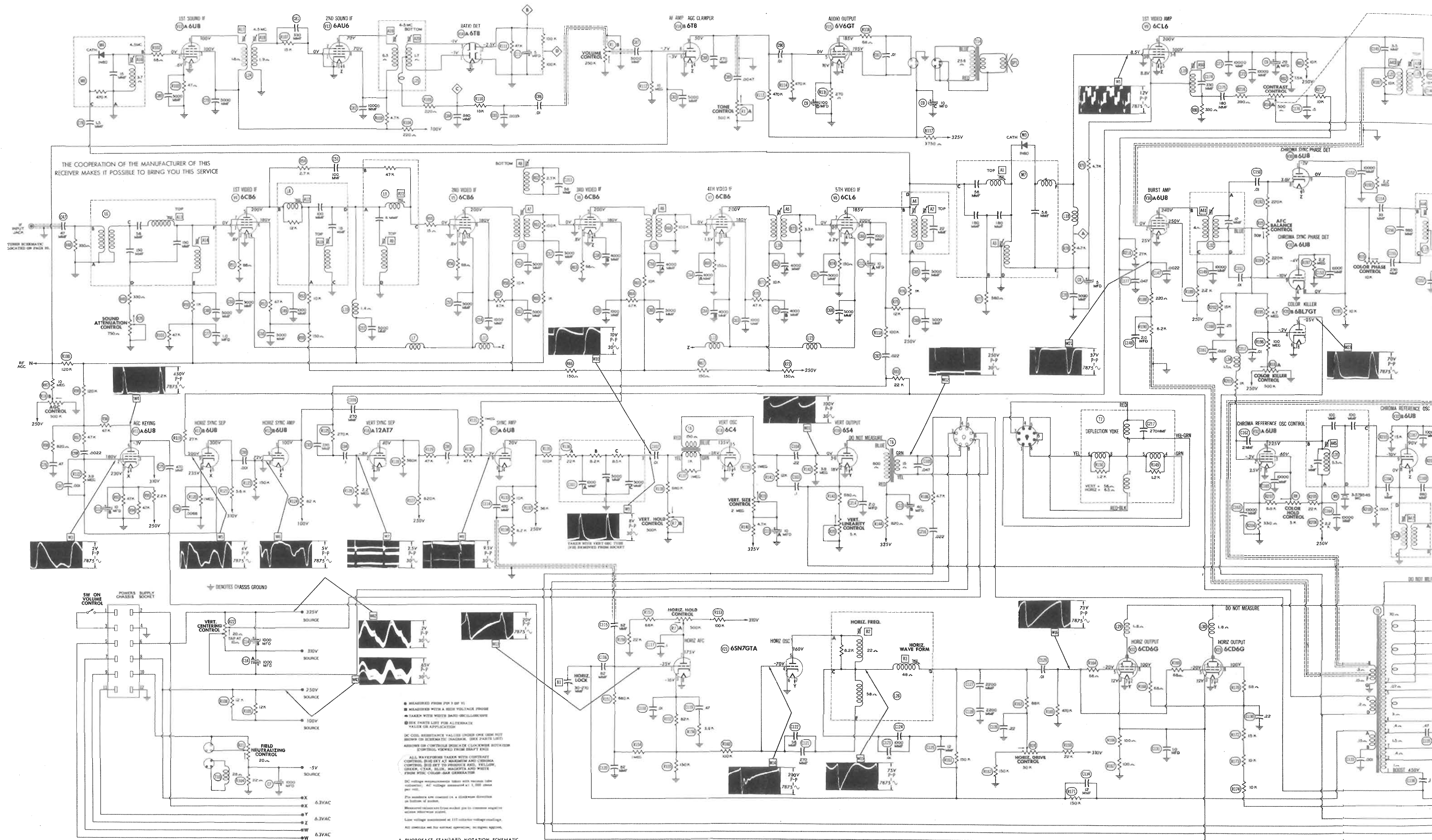
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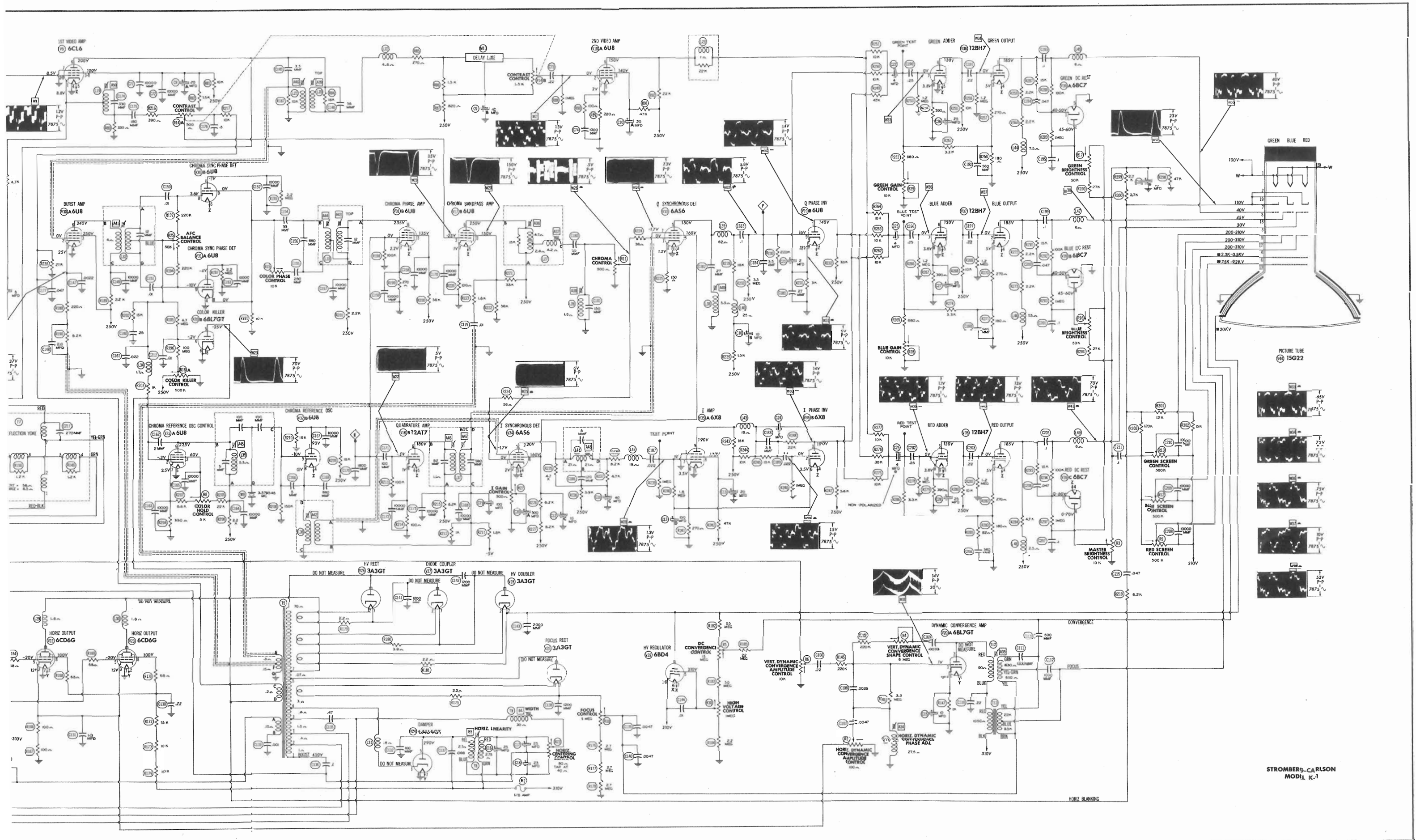
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CHASSIS TOP VIEW

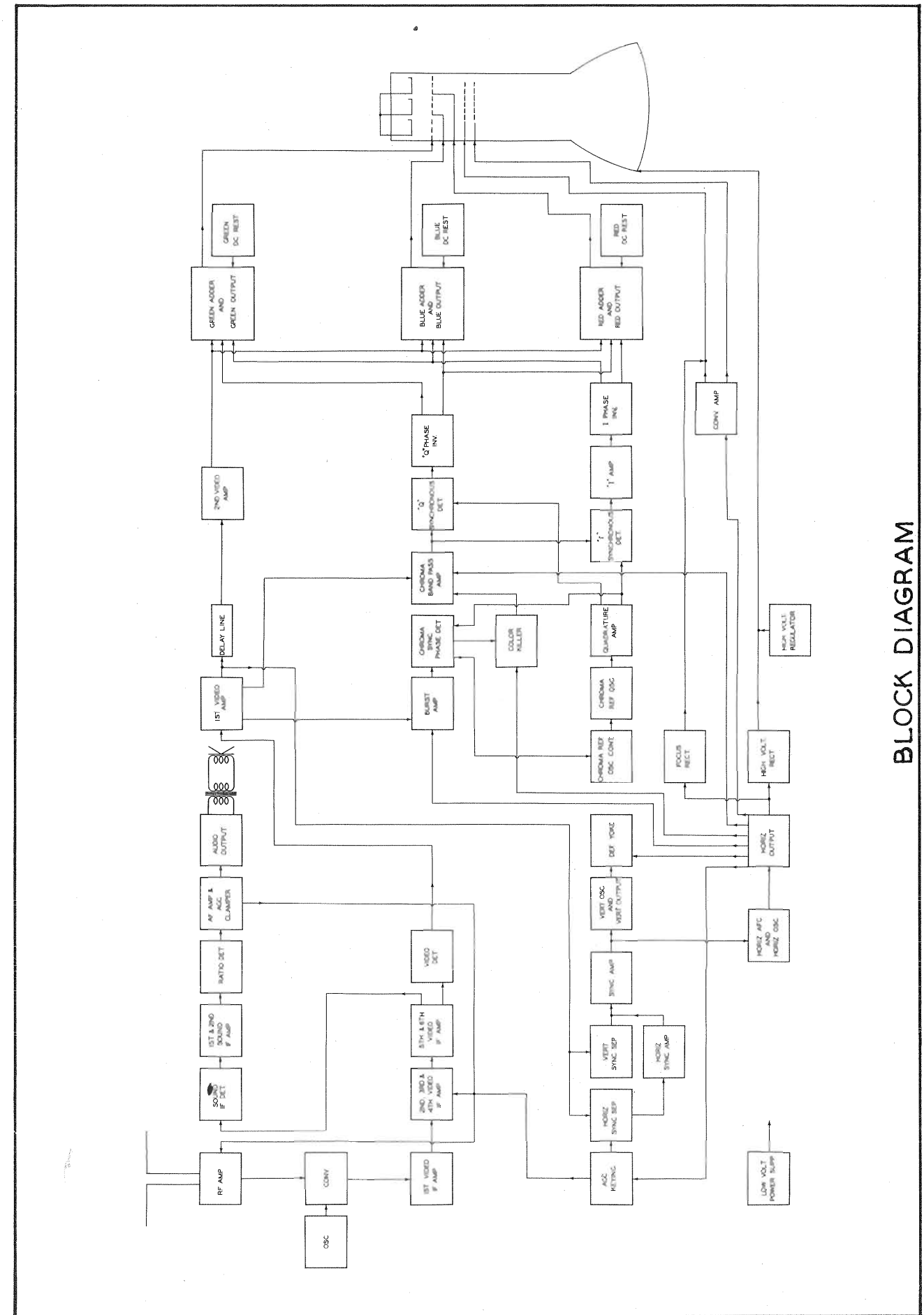
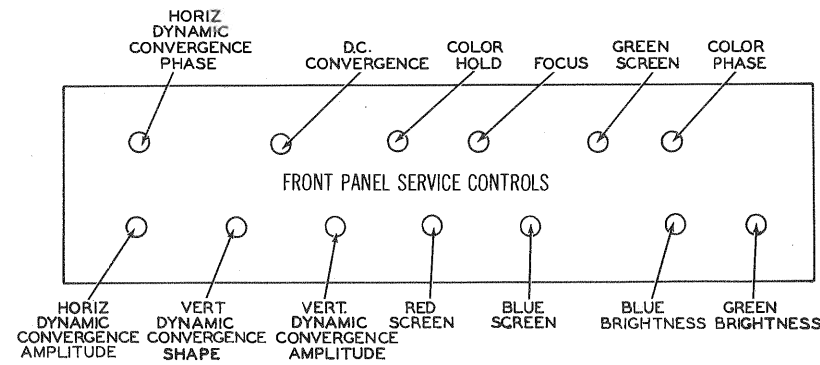
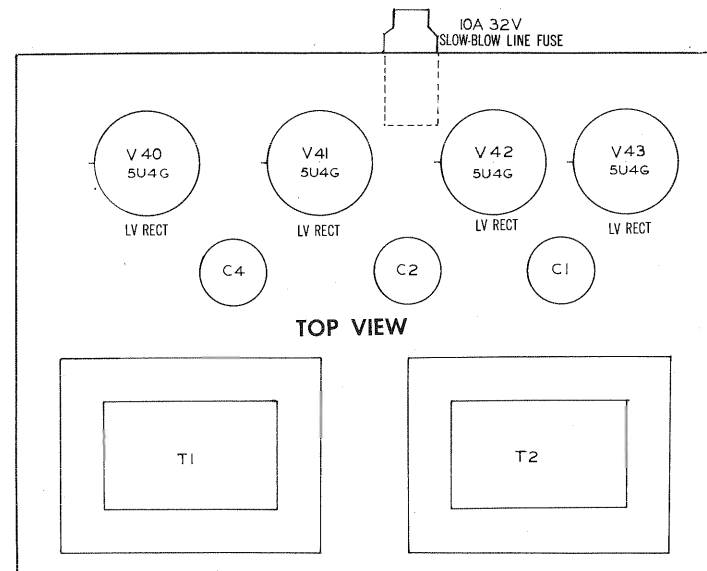
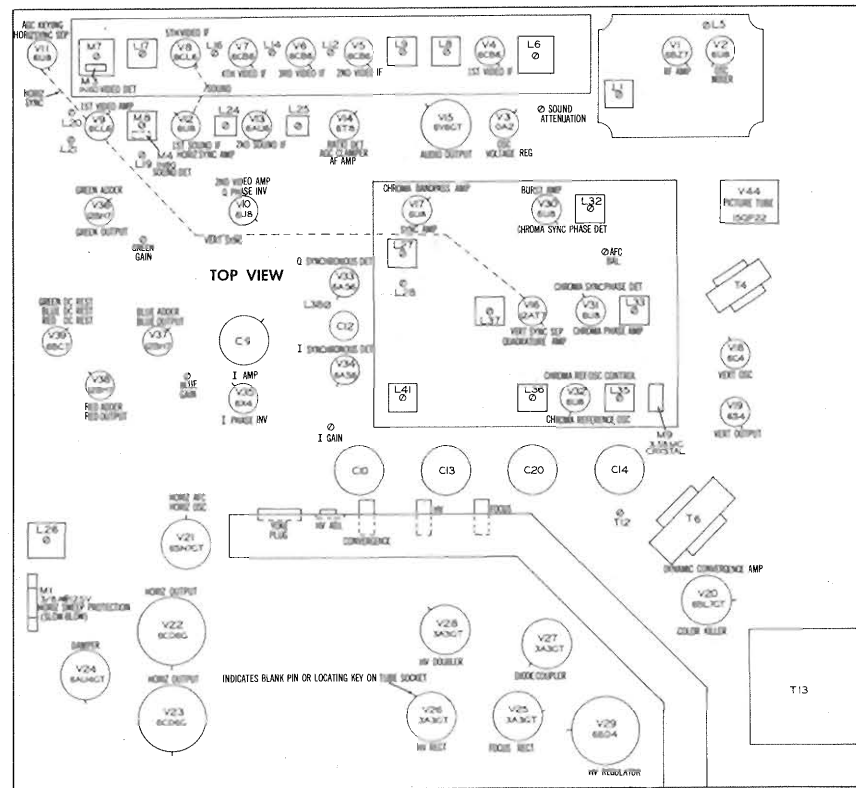




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# TUBE PLACEMENT CHART

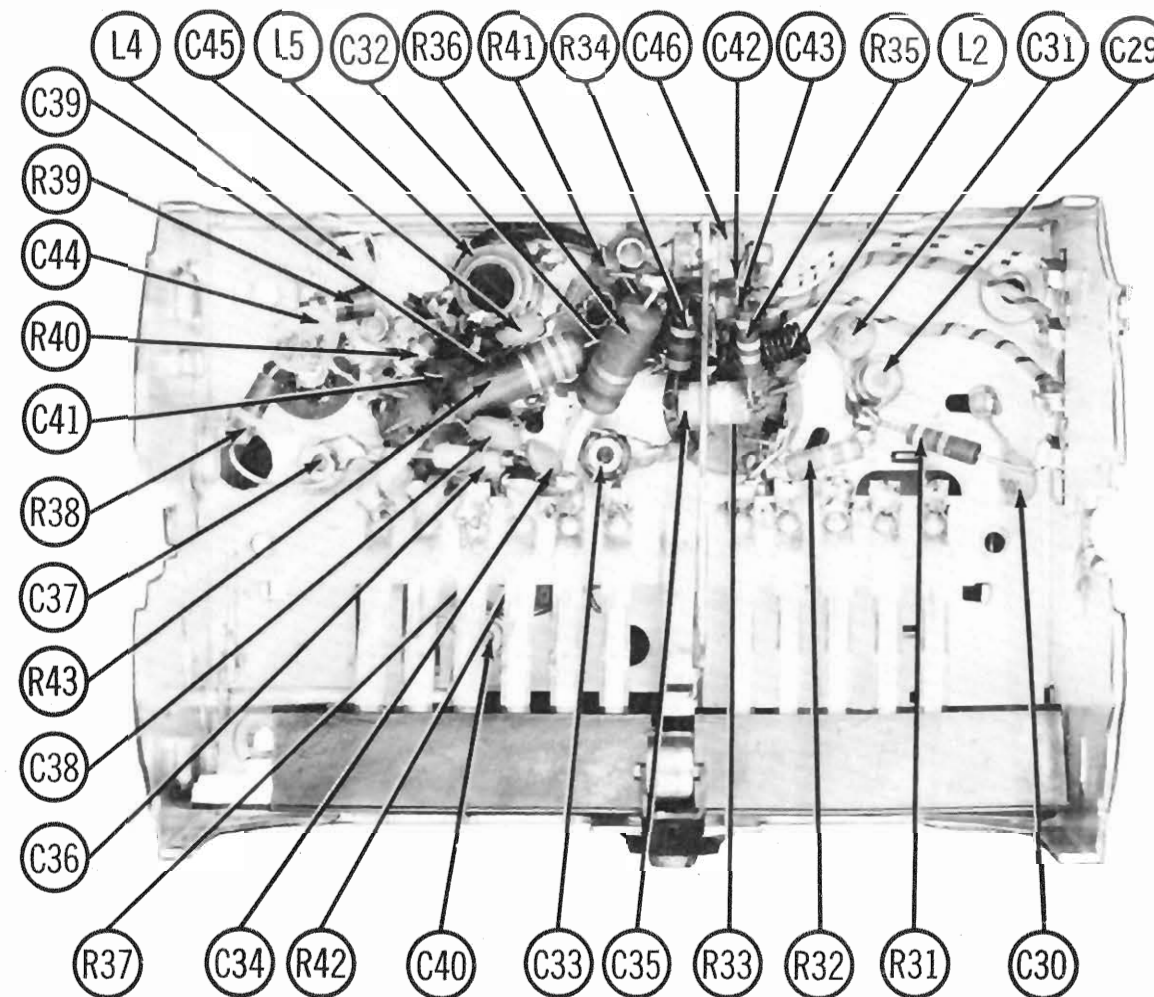


**STROMBERG-CARLSON  
MODEL K-1**

## RESISTANCE MEASUREMENTS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BZ7	†7.5KΩ	†300KΩ	INF	0Ω	.1Ω	INF	250KΩ	22Ω	0Ω
V 2	6U8	†12KΩ	200KΩ	†100KΩ	.1Ω	0Ω	†13KΩ	0Ω	0Ω	10KΩ
V 3	0A2	†10KΩ	0Ω	INF	0Ω	†10KΩ	INF	0Ω		
V 4	6CB6	48KΩ	88Ω	0Ω	.1Ω	†11KΩ	†47KΩ	0Ω		
V 5	6CB6	47KΩ	88Ω	0Ω	.1Ω	†10KΩ	†47KΩ	0Ω		
V 6	6CB6	48KΩ	88Ω	0Ω	.1Ω	†10KΩ	†47KΩ	0Ω		
V 7	6CB6	.1Ω	150Ω	0Ω	.1Ω	†10KΩ	†47KΩ	0Ω		
V 8	6CL6	150Ω	0Ω	†12KΩ	0Ω	.1Ω	†1KΩ	0Ω	†12KΩ	0Ω
V 9	6CL6	330Ω	9KΩ	†7KΩ	0Ω	.1Ω	†5KΩ	0Ω	†7KΩ	9KΩ
V 10	6U8	†13KΩ	1Meg	†47KΩ	.1Ω	0Ω	†16KΩ	220Ω	3KΩ	220KΩ
V 11	6U8	‡5.6KΩ	5Meg	‡140Ω	†70Ω	†70Ω	250KΩ	†2.2KΩ	1Meg	†32KΩ
V 12	6U8	†90KΩ	70Ω	†6.4KΩ	.1Ω	0Ω	†6.4KΩ	47Ω	150KΩ	0Ω
V 13	6AU6	15KΩ	0Ω	.1Ω	0Ω	†11KΩ	†11KΩ	0Ω		
V 14	6T8	INF	47KΩ	INF	.1Ω	0Ω	200KΩ	0Ω	10Meg	‡470KΩ
V 15	6Y8GT	470KΩ	.1Ω	‡4.2KΩ	‡3.9KΩ	470KΩ	‡140Ω	0Ω	270Ω	
V 16	12AT7	†400KΩ	2.2Meg	0Ω	.1Ω	.1Ω	†8.2KΩ	100KΩ	100Ω	0Ω
V 17	6U8	†20KΩ	40KΩ	†27KΩ	0Ω	.1Ω	†70Ω	100Ω	0Ω	†1Meg
V 18	6C4	‡1.2Meg	INF	0Ω	.1Ω	‡1.2Meg	1.5Meg	0Ω		
V 19	6S4	INF	2KΩ	3.9Meg	.1Ω	0Ω	3.9Meg	INF	INF	‡1.4KΩ
V 20	6BL7GT	3.3Meg	‡1.1KΩ	1KΩ	100Meg	27KΩ	0Ω	.1Ω	0Ω	
V 21	6SN7GTA	2Meg	‡75KΩ	250KΩ	230KΩ	‡100KΩ	0Ω	.1Ω	0Ω	
V 22	6CD6G	INF	.1Ω	80Ω	‡35KΩ	470KΩ	470KΩ	0Ω	‡35KΩ	Top Cap 7Ω
V 23	6CB6G	INF	.1Ω	80Ω	‡35KΩ	470KΩ	470KΩ	0Ω	‡35KΩ	Top Cap 7Ω
V 24	6AU4GT	‡150Ω	INF	INF	INF	‡300Ω	‡.8Ω	.1Ω	0Ω	
V 25	3A3GT	INF	13Meg	INF	INF	INF	INF	13Meg	INF	Top Cap 48Ω
V 26	3A3GT		PINS 1-8	HAVE	INFINITE	RESISTANCE				Top Cap 75Ω
V 27	3A3GT		PINS 1-8	HAVE	INFINITE	RESISTANCE				Top Cap INF
V 28	3A3GT	INF	120Meg	INF	INF	INF	INF	120Meg	INF	Top Cap INF
V 29	6BD4	‡140Ω	†70Ω	INF	INF	2.5Meg	INF	†70Ω	INF	Top Cap 120Meg
V 30	6U8	2.2Meg	3Ω	†70Ω	0Ω	.1Ω	†2.2KΩ	8.4KΩ	100Meg	10KΩ
V 31	6U8	2.2Meg	100KΩ	†50KΩ	0Ω	.1Ω	†2.2KΩ	270Ω	10KΩ	100Meg
V 32	6U8	†13KΩ	100Meg	†12KΩ	.1Ω	0Ω	†2.2KΩ	330Ω	.8Ω	†50KΩ
V 33	6AS6	250Ω	150Ω	0Ω	.1Ω	†20KΩ	†17KΩ	600Ω		
V 34	6AS6	250Ω	500Ω	0Ω	.1Ω	†6.5KΩ	†17KΩ	600Ω		
V 35	6X8	0Ω	1Meg	‡4KΩ	.1Ω	0Ω	270Ω	600KΩ	†47KΩ	†4.8KΩ
V 36	12BH7	†4.4KΩ	1.2Meg	450Ω	.1Ω	.1Ω	†10KΩ	1.2Meg	390Ω	0Ω
V 37	12BH7	†4.4KΩ	1.2Meg	450Ω	.1Ω	.1Ω	†10KΩ	1.2Meg	390Ω	0Ω
V 38	12BH7	†4.7KΩ	1.2Meg	450Ω	.1Ω	.1Ω	†10KΩ	1.2Meg	390Ω	0Ω
V 39	6BC7	‡1Meg	‡20-40KΩ	INF	.1Ω	0Ω	‡25KΩ	‡1Meg	‡20-40KΩ	‡1Meg
V 40	5U4G	25KΩ	25KΩ	INF	55Ω	INF	55Ω	‡140Ω	25KΩ	
V 41	5U4G	INF	25KΩ	INF	55Ω	‡70Ω	55Ω	INF	25KΩ	
V 42	5U4G	INF	5.5KΩ	INF	11Ω	INF	11Ω	INF	5.5KΩ	
V 43	5U4G	INF	5.5KΩ	INF	11Ω	INF	11Ω	INF	5.5KΩ	
V 44	15GP22	†6KΩ Pin 13 80Meg	‡10KΩ Pin 17 ‡140Ω-75KΩ	‡1.2Meg Pin 18 ‡1Meg	‡140Ω-75KΩ Pin 19 ‡20KΩ	10Meg	‡20KΩ	‡1Meg	‡140Ω-75KΩ	

† MEASURED FROM PIN 2 OF V43.  
‡ MEASURED FROM PIN 2 OF V41.  
‡ MEASURED FROM PIN 3 OF V24.



**RF TUNER-BOTTOM VIEW**

STROMBERG-CARLSON  
MODEL K-1

## DISASSEMBLY INSTRUCTIONS

### MAIN CHASSIS

1. Remove 9 push-on type control knobs from front of panel.
2. Remove 14 wood screws from rear cover. Remove rear cover.
3. Disconnect picture tube socket, HV lead, power supply plug, speaker plug, field neut. coil plug and deflection yoke plug.
4. Remove 1 metal screw from picture tube mounting ground lead.
5. Remove 5 chassis bolts. Remove chassis.

### POWER SUPPLY

1. Remove 4 chassis bolts.
2. Remove 3 wood screws from heat shield.
3. Remove shield and chassis.

### SPEAKER

1. Remove 4 speaker nuts. Remove speaker.

### PICTURE TUBE

1. Remove 6 wood screws from safety glass assembly moldings.
2. Remove moldings and safety glass.
3. Remove 2 wing nuts from front tube mounting band.
4. Remove convergence assembly and beam bender assembly.
5. Remove picture tube.

# ALIGNMENT INSTRUCTIONS (cont)

## COLOR CIRCUIT ALIGNMENT (CON'T)

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
Fig. 10	Use color bar generator across antenna terminals through matching network.	Not used.	Not used.	Any unused channel.	Vert. Amp. to pin 5 (plate) of "Q" synchronous det. (V33). Low side to chassis.	A46, A47	Adjust for maximum amplitude of pattern on scope.
17.	High side to pin 1 (grid) of "I" synchronous det. (V34). Low side to chassis.	0-5MC Swp	1.5MC	"	Vert. Amp. to pin 9 (plate) of "I" amp. (V35A). Low side to chassis.	A48	Short pin 2 (grid) of bandpass amp. (V17B) to chassis. Adjust A48 for response curve similar to Fig. 14.
18.	High side to pin 1 (grid) of "Q" synchronous det. (V33). Low side to chassis.	Not used	3.58MC	"	Vert. Amp. to pin 8 (cathode) of "Q" phase inverter (V10B). Low side to chassis.	A49	Adjust for MINIMUM 3.58MC indication on scope. Remove short from V17.

### HORIZONTAL DYNAMIC CONVERGENCE CIRCUIT ADJUSTMENTS

Connect the vertical input lead of an oscilloscope to pin 2 (plate) of convergence amplifier (V20A). Turn the vertical dynamic convergence amplitude control fully counter clockwise. Turn the vertical dynamic convergence shape control to the center of its range. Turn the horizontal dynamic convergence amplitude control to the center of its range. Adjust the horizontal dynamic convergence phase adjustment (A34) and the horizontal dynamic convergence output transformer core (A35) for maximum amplitude of waveform on scope.

### COLOR AFC BALANCE ADJUSTMENT

Connect a 10MMF capacitor across the chroma reference oscillator crystal. Connect the DC probe of a VTVM to the center arm of the AFC balance control, common to chassis. Adjust the AFC balance control for zero reading on VTVM.

### "I" & "Q" BALANCE ADJUSTMENT

Connect a color bar generator to the antenna terminals. Set the generator to produce I & Q color bars. Connect the vertical input lead of an oscilloscope to pin 9 (plate) of "I" amplifier (V35A). Adjust the color phase control to reduce the "Q" bar to zero as shown in Fig. 11. Slight adjustment of A41 may be necessary to obtain proper response. The most desirable condition is attained when proper waveform is obtained with the color phase control at the center of its range. Connect the oscilloscope vertical input lead to pin 8 (cathode) of the "Q" phase inverter (V10B). Adjust the secondary of the quadrature transformer (A45) to reduce the "I" bar to zero as shown in Fig. 12.

### MATRIX ADJUSTMENT

Connect a saturated color bar generator across the antenna terminal. Connect the vertical input lead of an oscilloscope to the grid (pin 18) of the picture tube blue gun. Adjust the chroma control and the "I" gain control until all of the bars containing blue are of equal amplitude. All bars containing no blue should be at zero amplitude. Move the scope to the blue and green guns in order and check for proper cancellation of undesired bars.

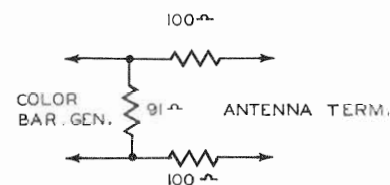


FIG. 10



FIG. 11

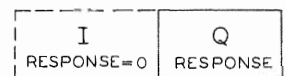


FIG. 12

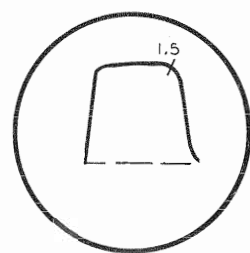
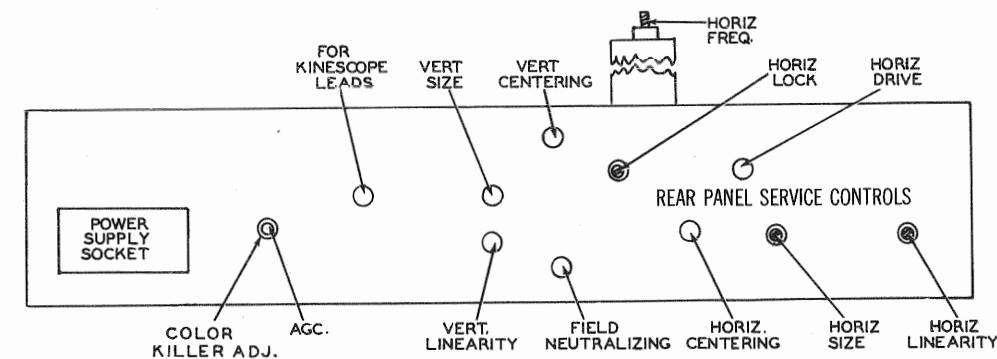
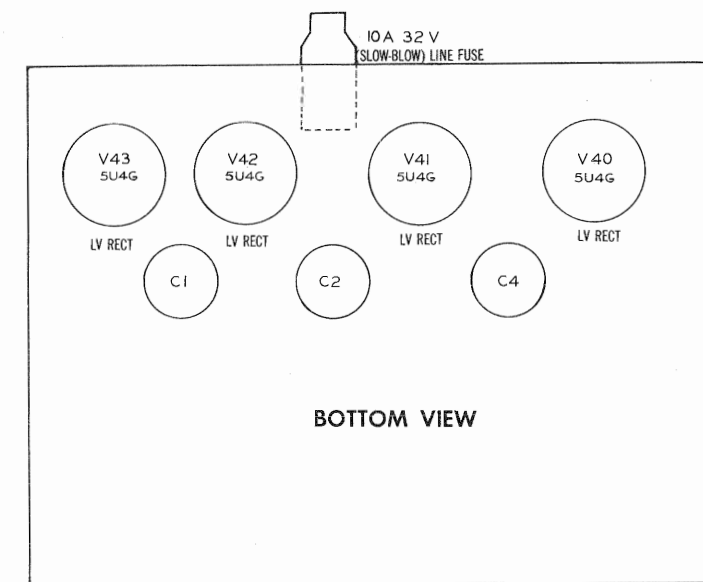
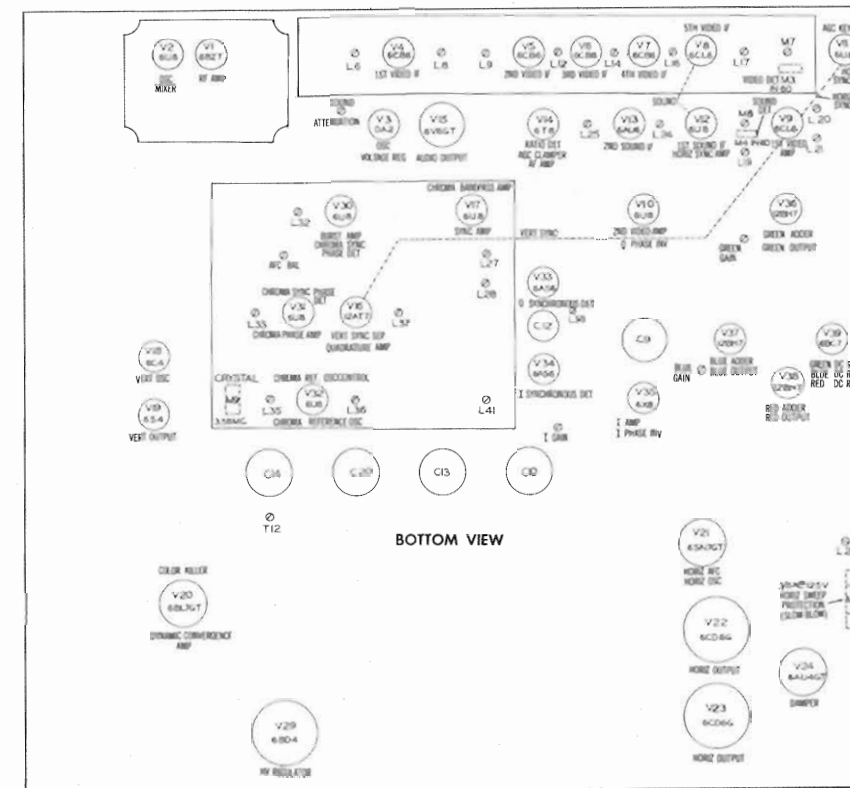


FIG. 14

# TUBE PLACEMENT CHART



SET 265 FOLDER 13

STROMBERG-CARLSON  
MODEL K-1

## ALIGNMENT INSTRUCTIONS

**ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT**

Allow a 15 minute warm-up period for receiver and test equipment.  
The high voltage lead should be securely taped and kept away from the chassis. Do not remove the horizontal oscillator tube (V21) to disable the high voltage.

### VIDEO IF ALIGNMENT

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. Attenuate sweep generator output to maintain 6 volts peak to peak on scope.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. .001MFD	High side to pin 2 (grid) of 6CB6 (V8). Low side to chassis.	44MC (10MC Swp)	41.25MC 41.65MC 47.25MC	Any non-interfering channel	Vert. Amp. thru 10KΩ to point Ⓢ. Low side to chassis.	A1, A2	Connect a short jumper from pin 1 (grid) of 6CB6 (V4) to chassis. If separate marker generator is used, couple it loosely to grid of V8. Adjust A1 and A2 for MINIMUM marker amplitude (Fig. 1).
2. "	"	"	41.25MC 41.65MC 46.25MC 47.25MC	"	"	A3, A4	Adjust for response similar to Fig. 1. Repeat step 1. Remove jumper from pin 1 of V4.
3. "	High side to pin 1 (grid) of 6CB6 (V5). Low side to chassis.	"	41.25MC 41.67MC 45.75MC 47.25MC	"	"	A5, A6, A7, A8	Connect the negative lead of a 7 volt bias supply to the ungrounded side of C77. Connect the positive side to chassis. Leave bias supply connected for remainder of video IF alignment. Adjust A5, A6 and A7 to obtain response similar to Fig. 2. Adjust A8 for MINIMUM marker amplitude at 47.25MC.
4. "	High side to pin 1 (grid) of 6CB6 (V4). Low side to chassis.	"	39.75MC 41.25MC 41.65MC 45.0MC 45.75MC 47.25MC	"	"	A9, A10, A11, A12	Remove IF output cable plug from tuner. Adjust A9 for MINIMUM marker amplitude at 47.25MC. Adjust A10 for MINIMUM marker amplitude at 39.75MC. Adjust A11 and A12 for response similar to Fig. 3. SLIGHTLY retouch A9 and A10 for MINIMUM marker amplitude. If necessary, increase sweep generator output and scope gain to view trap notches. Replace IF output cable plug on tuner.
5. Direct	High side to ungrounded tube shield floating over converter tube (V2). Low side to tuner chassis.	44MC (10MC Swp)	39.75MC 41.25MC 41.65MC 45.75MC 47.25MC	Any non-interfering channel	Vert. Amp. thru 10KΩ to point Ⓢ. Low side to chassis.	A13, R26, A14, A15	Increase sweep generator output and adjust scope gain until 41.25MC trap notch is clearly visible. Adjust A13 and sound attenuation control (R26) for MINIMUM marker amplitude at 41.25MC. Readjust sweep generator output for 6 volts peak to peak on scope. Adjust A14 and A15 for response similar to Fig. 4. Recheck adjustment of A13 and R26. Restore converter tube shield to its normal position.
6. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp) 207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	"	13 12 11 10 9 8 7 6 5 4 3 2	"	"	Connect the high side of the marker generator to the converter tube shield. Leave the low side floating (Be sure converter tube shield is pushed all the way down). Check for an overall response curve similar to Fig. 4 on all channels. Remove bias supply from C77.

### SOUND IF ALIGNMENT USING TV SIGNAL AND VTVM

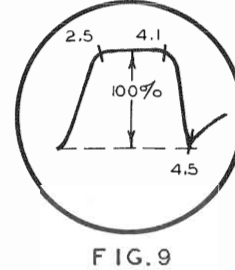
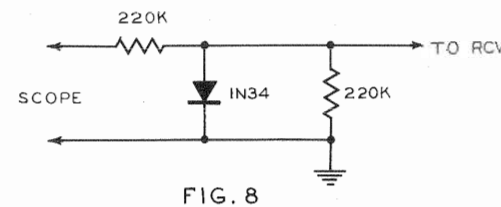
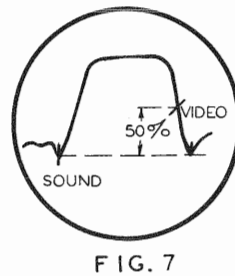
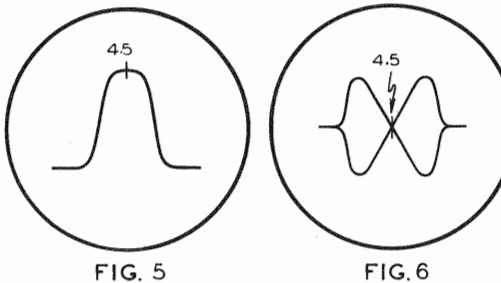
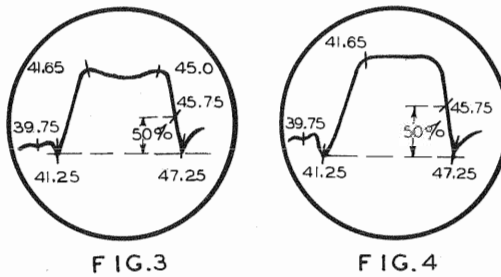
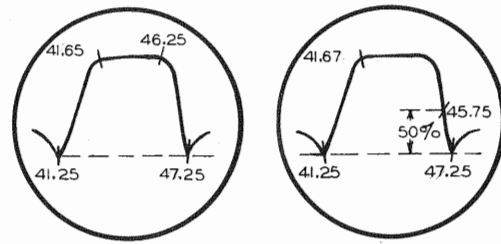
Connect two matched 100KΩ (±1%) resistors in series from point Ⓢ to chassis. The junction of these two resistors is alignment point Ⓢ as shown on the schematic. Tune in any local TV station.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
7. Not used	Not used	Not used	Any local channel	DC probe to point Ⓢ. Common to chassis.	A16, A17, A18, A19	Adjust for maximum deflection (use 0-50VDC scale on VTVM).
8. "	"	"	"	DC probe to point Ⓢ. Common to point Ⓢ.	A20	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. (Use 0-3VDC scale on VTVM).

### SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Connect two matched 100KΩ (±1%) resistors in series from point Ⓢ to chassis. The junction of these two resistors is alignment point Ⓢ as shown on the schematic. Remove IF output cable plug from tuner.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
7. .01MFD	High side to pin 2 (grid) of 6U8 (V12). Low side to chassis.	4.5MC (Unmod)	Any	DC probe to point Ⓢ. Common to chassis.	A16, A17, A18, A19	Adjust for maximum deflection.
8. "	"	"	"	DC probe to point Ⓢ. Common to point Ⓢ.	A20	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Replace IF output cable plug on tuner.



### 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. Remove IF output cable plug from tuner.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7. .01MFD	High side to pin 2 (grid) of 6U8 (V12). Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. Amp. to point Ⓢ. Low side to chassis.	A16, A17, A18, A19	Disconnect stabilizing capacitor C11. Adjust for curve of maximum amplitude and symmetry similar to Fig. 5.
8. "	"	"	"	"	Vert. Amp. to point Ⓢ. Low side to chassis.	A20	Reconnect stabilizing capacitor C11. Adjust so that 4.5MC occurs at center of crossover lines as in Fig. 6. SLIGHTLY retouch A19 for maximum amplitude and straightness of crossover lines. Replace IF output cable plug on tuner.

### OSCILLATOR ALIGNMENT

Connect the negative lead of a 7 volt bias supply to the ungrounded side of C77. Connect the positive side to chassis. Complete oscillator alignment may not be necessary. If the oscillator seems to be off frequency approximately the same amount for a majority of the channels it may be possible to correct them in one step using A21. It should be noted that A21 is an all channel oscillator circuit adjustment and should not be used by correct for any individual channel. If adjustment of A21 will not bring all channels well within the range of the fine tuning control it will be necessary to adjust the channel strip adjustment for each channel that is off frequency. The channel oscillator adjustment screws are reached thru a hole just above and slightly to the left of the channel switch shaft. The correct adjustment screw is accessible thru this hole as the channel switch is turned to each channel. 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. Set the fine tuning control to the mid-position of its range.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
9. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp) 207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	211.25MC 215.75MC 209.75MC 203.75MC 197.75MC 191.75MC 185.75MC 179.75MC 83.25MC 87.75MC 81.75MC 75.75MC 69.75MC 63.75MC 57.75MC	13 12 11 10 9 8 7 6 5 4 3 2	Vert. Amp. thru 10KΩ to point Ⓢ. Low side to chassis.	A22 A23 A24 A25 A26 A27 A28 A29 A30 A31 A32 A33	Adjust to place sound marker in trap notch as in Fig. 7. Video marker should be at 50%.

### RF AND MIXER ALIGNMENT

The RF and mixer portion of this receiver has been properly aligned at the factory and is very stable. Alignment of this portion of the receiver should not be required in the field.

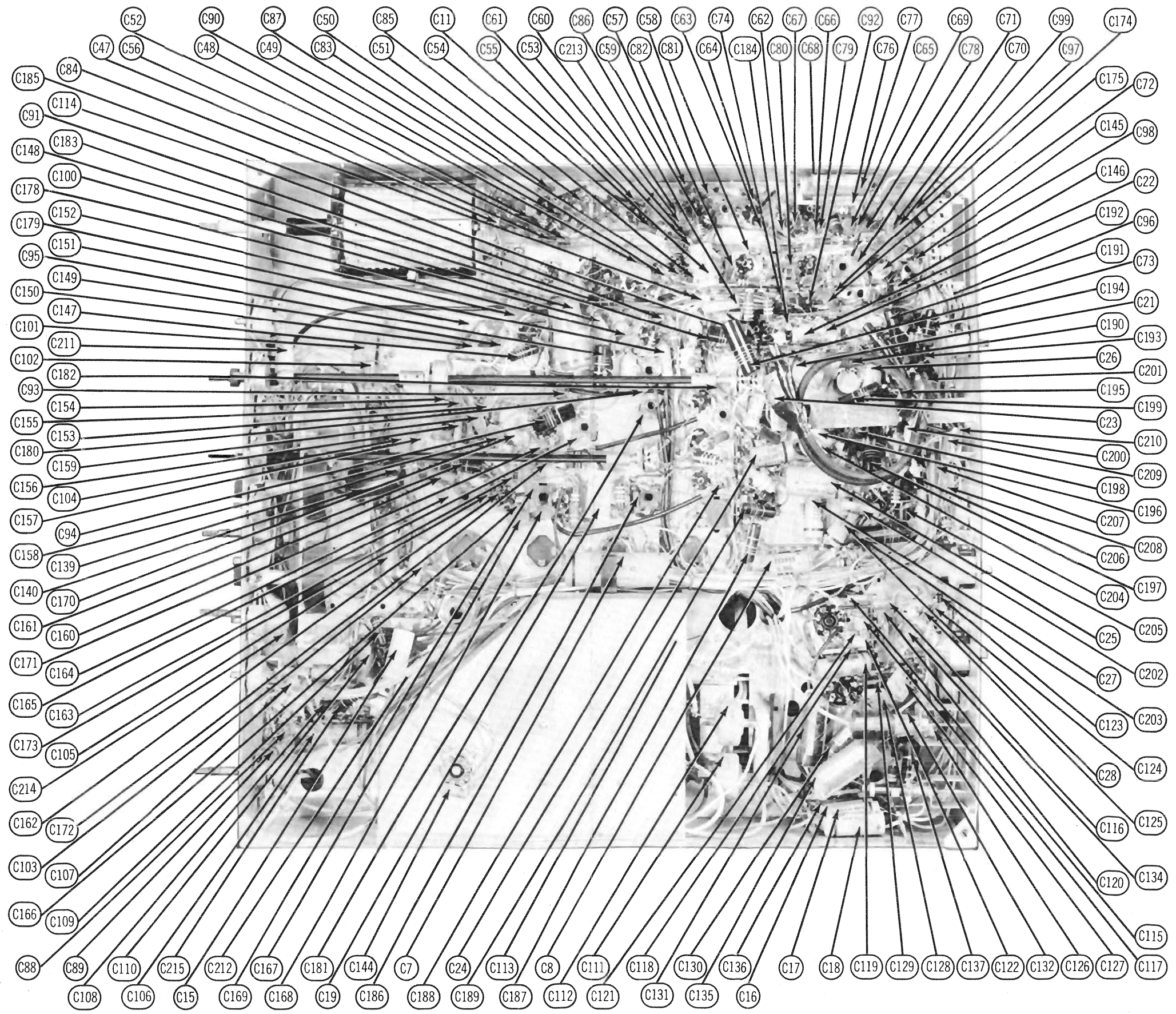
### COLOR CIRCUIT ALIGNMENT

Set the chroma control and the color hold controls to their mid-range position. Turn the contrast control maximum clockwise. Connect an NTSC color bar signal generator thru the matching pad (Fig. 10) to the receiver's antenna terminals.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10. .001MFD	High side to pin 2 (grid) of 6CL6 (V9). Low side to chassis.	0-5MC Swp.	2.5MC 4.1MC 4.5MC	Any	Vert. Amp. thru detector (Fig. 8) to pin 6 (plate) of 6U8 (V10A). Low side to chassis.	A36, A37, A38, A50	Couple marker generator loosely to sweep generator output cable. Short pin 2 (grid) of 6CL6 (V9) and pin 9 (grid) of 6U8 (V32B) to chassis. Connect the negative lead of a 12 volt bias supply to pin 4 (grid) of 6BL7 (V20B). Connect the positive lead to chassis. Adjust A36 and A37 for response similar to Fig. 9. Adjust A38 and A50 to place 4.5MC marker in center of trap notch. If necessary, SLIGHTLY retouch A36 and A37 to obtain desired response. Remove test equipment and bias supply. Remove short from pin 9 or V32.
11. Fig. 10	Use color bar generator across antenna terminals thru matching network (Fig. 10).	Not used	Not used	Any unused channel	Vert. Amp. thru detector (Fig. 8) to pin 6 (plate) of 6U8 (V10A). Low side to chassis.	A39	Adjust for MINIMUM 3.58MC (burst) indication on scope.
12. "	"	"	"	"	Use VTVM. DC probe to pin 8 (cathode) of 6U8 (V30B). Common to chassis.	A40, A41	Adjust for maximum deflection. Remove scope and VTVM.
13. "	"	"	"	"	Vert. Amp. thru 10KΩ to point Ⓢ. Low side to chassis.	A42	Short pin 2 (grid) of 6U8 (V30A) to chassis. Adjust for 5 volts peak to peak response on scope. Remove scope.
14. Fig. 10	Use color bar generator. Across antenna terminals thru matching network.	Not used	Not used	Any unused channel	Use VTVM. DC probe to pin 8 (cathode) of 6U8 (V30B). Common to chassis.	A43, A44	Short pin 2 (grid) of 6CL6 (V9) to chassis. Adjust A43 for maximum deflection. Adjust A44 for maximum deflection while rocking the phase control (R15A) thru its mid-range position. Remove VTVM. Remove short from pin 2 of V9 to chassis and short from pin 2 of V30A to chassis.
15. "	"	"	"	"	Vert. Amp. thru 10KΩ to point Ⓢ. Low side to chassis.	A45	Short center arm of AFC balance control to chassis. Adjust A45 until pattern on scope becomes stationary. Remove short from AFC balance control.

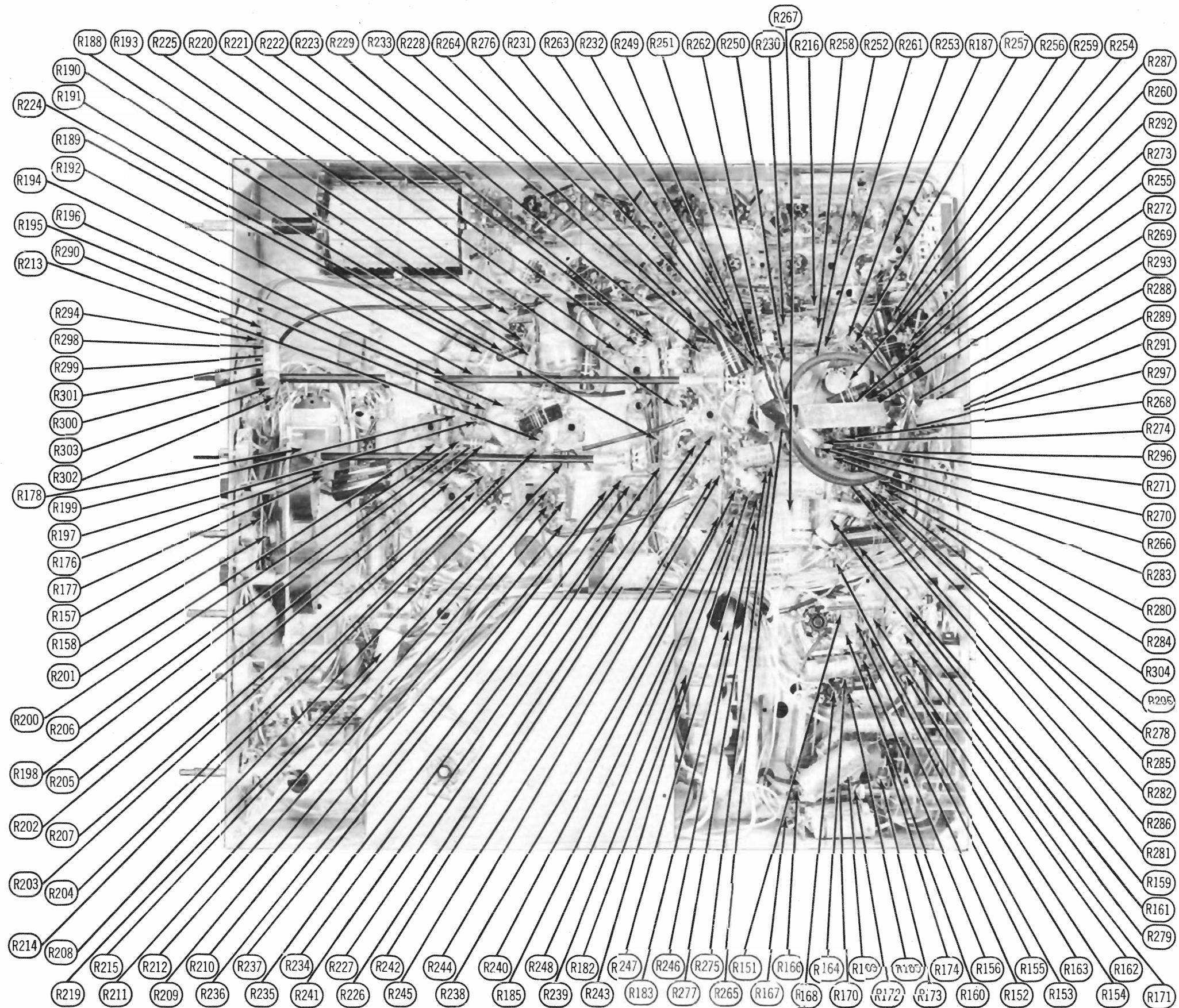
STROMBERG-CARLSON  
MODEL K-1





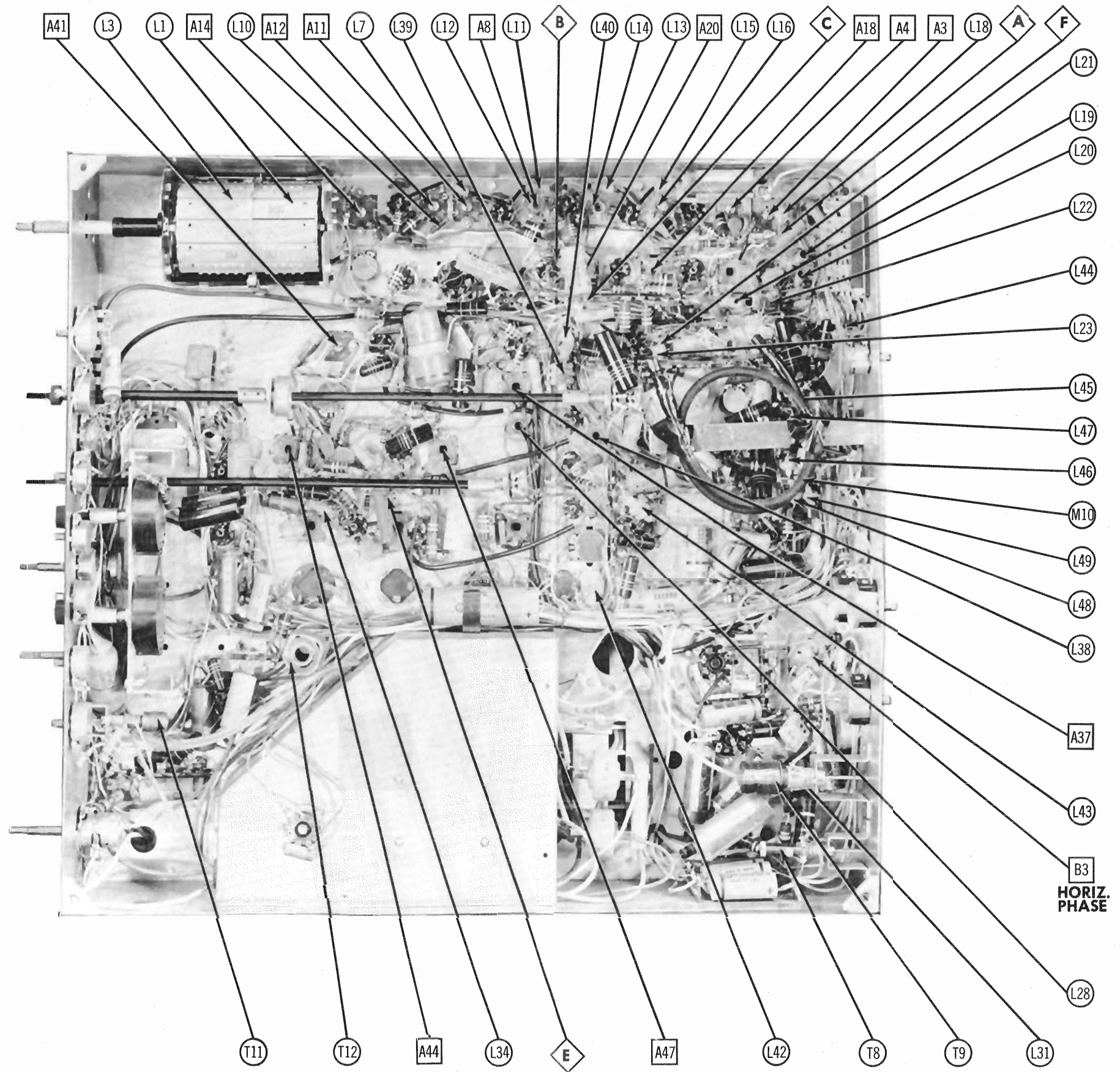
CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

STROMBERG-CARLSON  
MODEL K-1



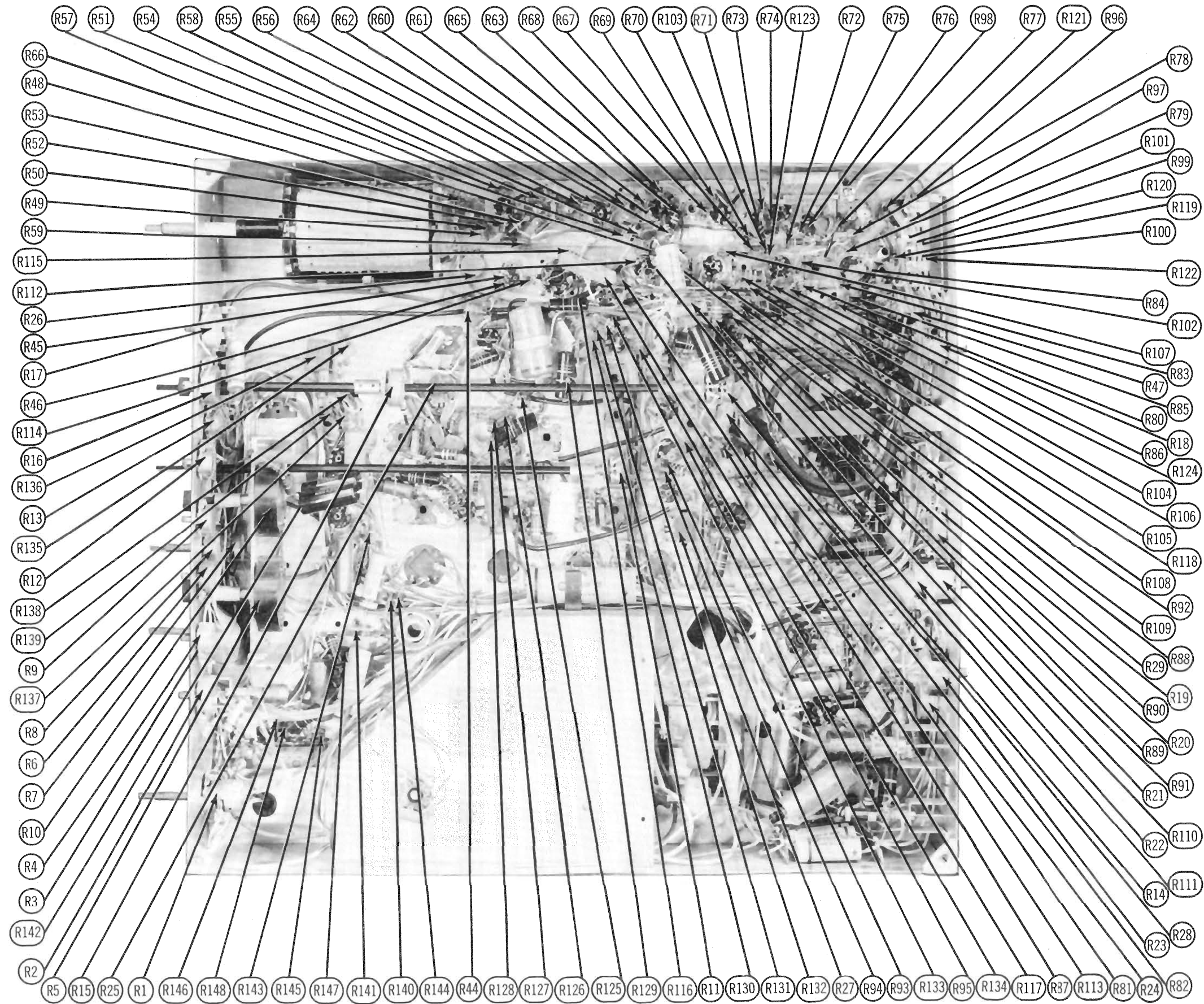
CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION (R151-R304)

STROMBERG-CARLSON  
MODEL K-1



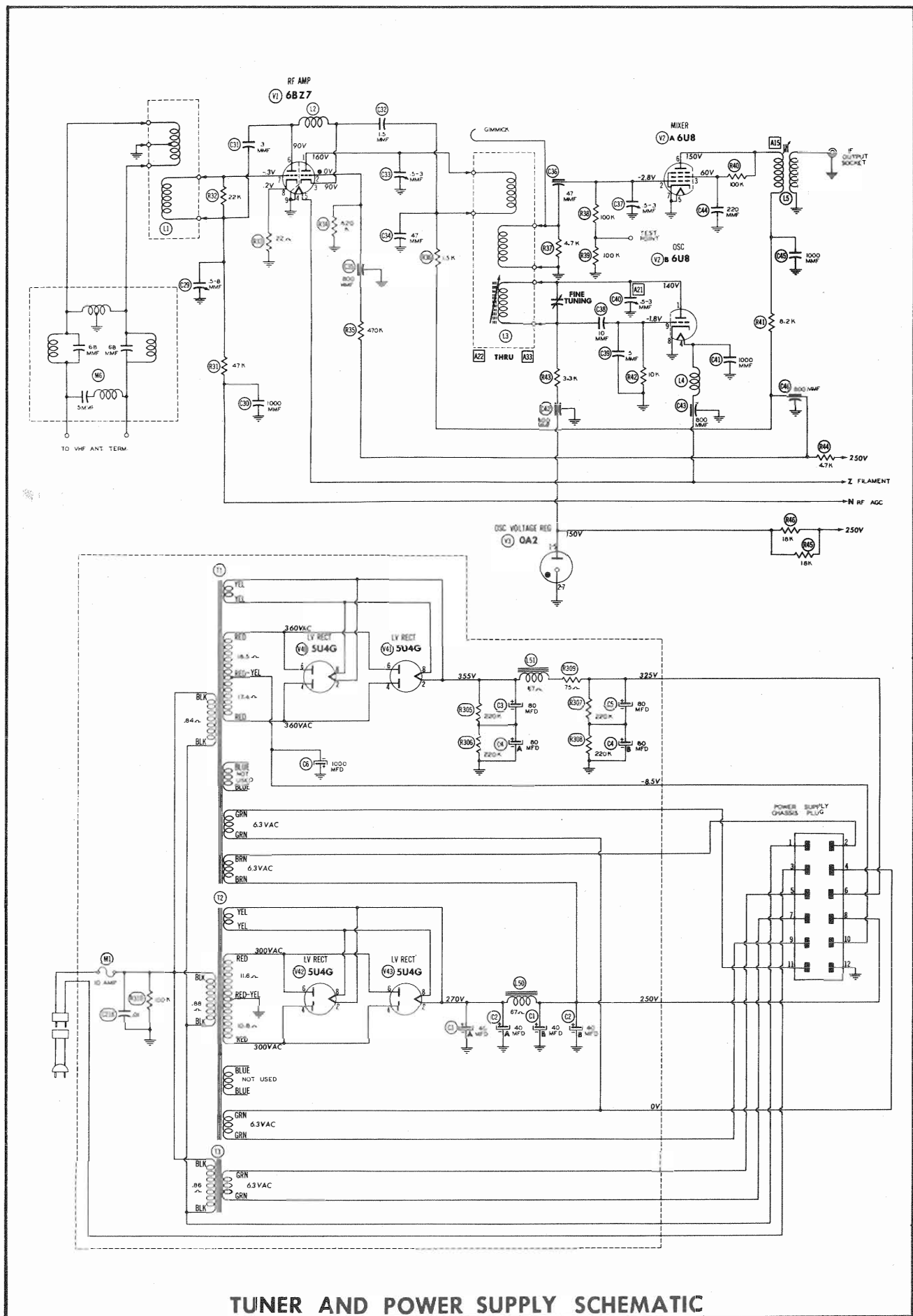
CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

STROMBERG-CARLSON  
MODEL K-1

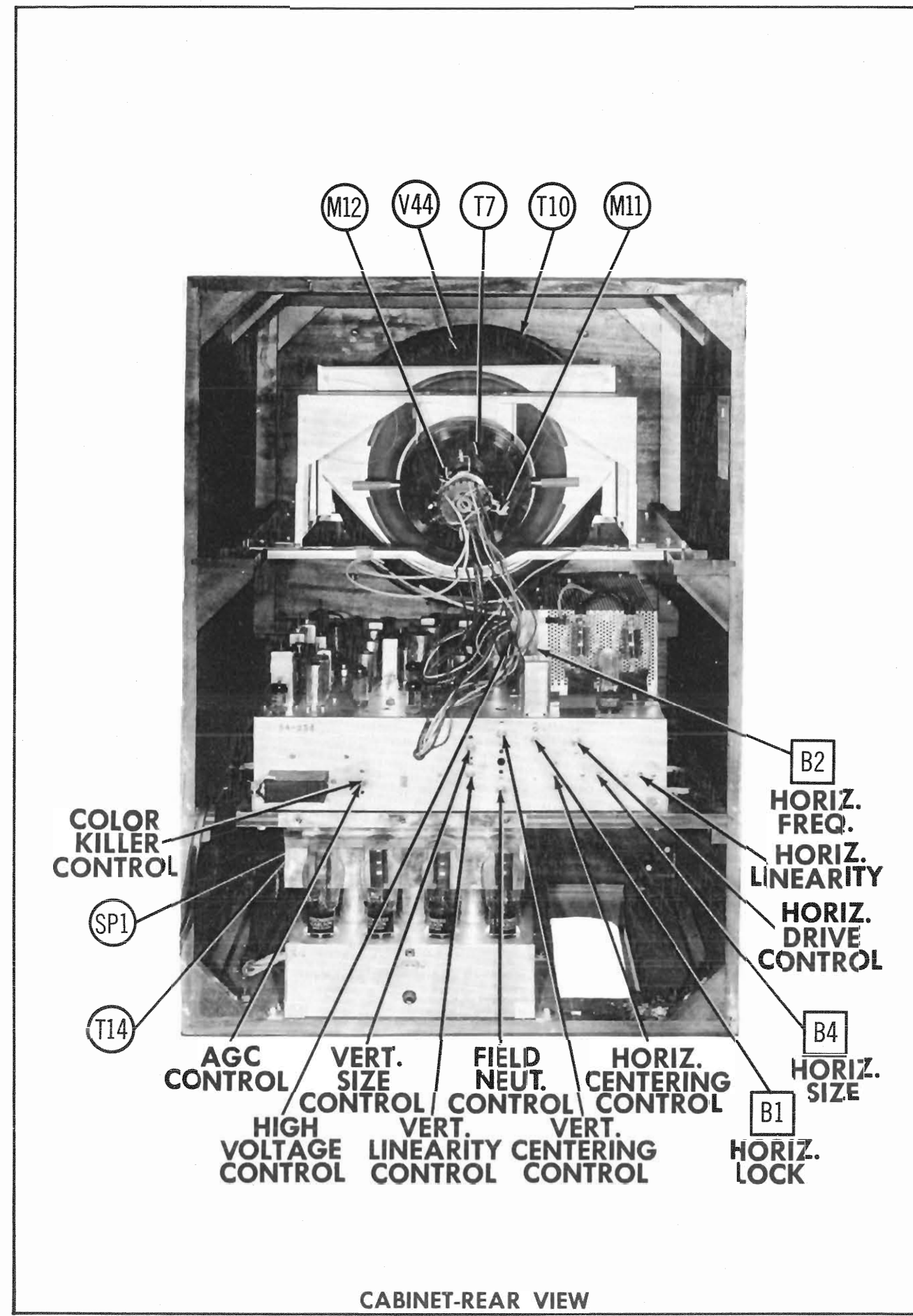


CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION (R1— R148)

STROMBERG-CARLSON  
MODEL K-1



TUNER AND POWER SUPPLY SCHEMATIC



CABINET-REAR VIEW

SET 265 FOLDER 13

STROMBERG-CARLSON  
MODEL K-1

## MISCELLANEOUS ADJUSTMENTS

### HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.

1. Preset the horizontal drive control (R24A) until the white fold-over line just disappears from the raster.
  2. Turn the horizontal locking range trimmer B1 fully clockwise then counter clockwise 2 turns. Adjust the width coil slug (B4) so that the adjusting screw is approximately 2/3 of the way out.
  3. Set the horizontal hold control to its mid-range position.
  4. If necessary, adjust the horizontal frequency slug (B2) until the picture synchronizes horizontally.
  5. Connect the high side of the vertical amplifier of an oscilloscope through 10MMF to terminal "C" of L26. Connect low side to chassis. Adjust the horizontal waveform slug (B3) for response similar to Fig. 13. While adjusting B4, keep picture in sync by readjusting the horizontal hold control or B3.
  6. Adjust B4 for picture slightly wider than necessary to fill picture mask horizontally. Adjust B5 for a picture that is symmetrical from left to right. If necessary, readjust horizontal drive control. Retouch B3 for response similar to Fig. 13. Remove scope.
  7. Turn the horizontal hold control fully counter clockwise. Momentarily remove signal by switching off channel and back again. If picture remains in sync adjust B2 slightly and again switch off channel and back.
- If necessary, repeat this process until picture falls out of sync with diagonal bars sloping down to the left. Turn the horizontal hold control clockwise noting the least number of diagonal bars obtained just before the picture falls in sync. Adjust B1 slightly clockwise if more than three diagonal bars were present just before picture pulled into sync. If less than two bars were present adjust B1 slightly counter clockwise.

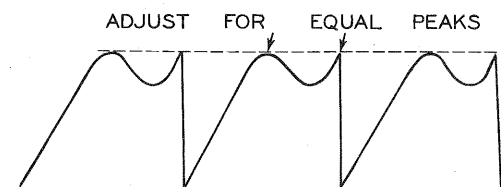


FIG. 13

### AGC ADJUSTMENT

Connect the vertical input lead of an oscilloscope thru a 10KΩ isolating resistor to point  $\diamond$ .

Turn the set on and tune in a TV station.

Adjust the AGC control to obtain 4.5 volts peak to peak signal on oscilloscope.

### RECEIVER SET UP ADJUSTMENTS

For high voltage adjustment turn the brightness and contrast controls fully counter clockwise. Turn the set off and connect the probe end of a high voltage probe through a short length of high voltage anode lead to the plate of the high voltage regulator tube (6BD4/V29). Slightly raise the cap on top of the tube to make this connection. Turn the set on. Turn the brightness and contrast controls clockwise until a picture appears on the picture tube.

Adjust the DC focus control and the DC convergence control for best focus and convergence in the center portion of the screen. Adjust the high voltage control (R30) for 18KV. Turn brightness control throughout its range. If more than a slight voltage change occurs, slightly readjust R30.

### COLOR PURITY ADJUSTMENTS

Turn the contrast control counter clockwise until picture is removed from screen.

Turn the red screen control fully clockwise and the blue and green screen controls fully counter clockwise.

Slide the yoke mounting bracket to the rear as far as possible. (Slide magnet on tube neck toward tube base to provide yoke clearance.)

Alternately slide the yoke mounting bracket forward and adjust the purity magnet until red screen purity is obtained.

If necessary, adjust the field neutralizing control (R21) to remove any contamination at the outer edges of the screen.

Check the blue screen purity by turning the blue screen control fully clockwise and the red and green screen controls fully counter clockwise. Check the green screen purity by turning green screen control fully clockwise and the red and blue screen controls fully counter clockwise.

Turn chroma and contrast controls fully counter clockwise. Turn brightness control fully clockwise.

Adjust red, blue and green screen controls for a low brightness white raster.

CONTINUED ON PAGE 29

## MISCELLANEOUS ADJUSTMENTS (cont.)

### DC CONVERGENCE ADJUSTMENTS

Connect the RF output of a white dot generator across the antenna terminals.

Turn the horizontal dynamic convergence control fully counter clockwise. Turn the vertical dynamic convergence control, the vertical shaping control and the DC convergence control to their mid-range positions. Position the convergence magnets until the red, blue and green dots of a dot triad near the center of the screen are super-imposed on each other forming a single white dot. Frequent readjustment of the DC focus and DC convergence controls may be necessary while positioning the convergence magnets due to interaction. Final positioning of the convergence magnets should not leave them too close to the neck of the picture tube or beam focus distortion may result.

### DYNAMIC CONVERGENCE ADJUSTMENTS

Leave the white dot generator connected as under "DC Convergence Adjustments".

During adjustment of dynamic convergence, it may be helpful to frequently vary the DC convergence control to obtain best convergence on various parts of the screen.

Adjust the vertical convergence amplitude control so that the dots along a vertical center line show equal dot displacement from top to bottom of center line. If necessary, readjust focus control. If equal dot displacement does not occur on the vertical center line adjust the vertical convergence shape control to obtain the most uniform dot displacement.

If necessary, readjust the vertical convergence amplitude control. Readjust the DC convergence control so that the dots converge to form white dots along the vertical lines near the center of the picture. Adjust the focus control to keep dots in focus. Slight readjustment of the vertical amplitude and vertical shape controls may be required to obtain best vertical convergence.

Adjust the horizontal dynamic convergence amplitude control until the dots along a horizontal line near the center of the picture show an equal displacement from left to right. Readjust the DC convergence control until the dots along this line converge to form a single line of white dots. Slight readjustment of A34 and A35 may be necessary to obtain optimum horizontal convergence. Readjust the focus and DC convergence as necessary to obtain best picture.

### WHITE ADJUSTMENT

Disconnect generator from antenna.

Turn the brightness control to maximum.

Turn the chroma and contrast controls to minimum.

Adjust the red, blue and green screen controls to obtain a low brightness white, (grey).

Turn the contrast control to mid-position.

Tune in a black and white picture.

Adjust the blue and green gain controls until the high brightness high-lights in the picture are white.

Turn the brightness control down to a reduced setting.

Adjust the blue and green brightness controls until the low brightness portions of the picture are white.

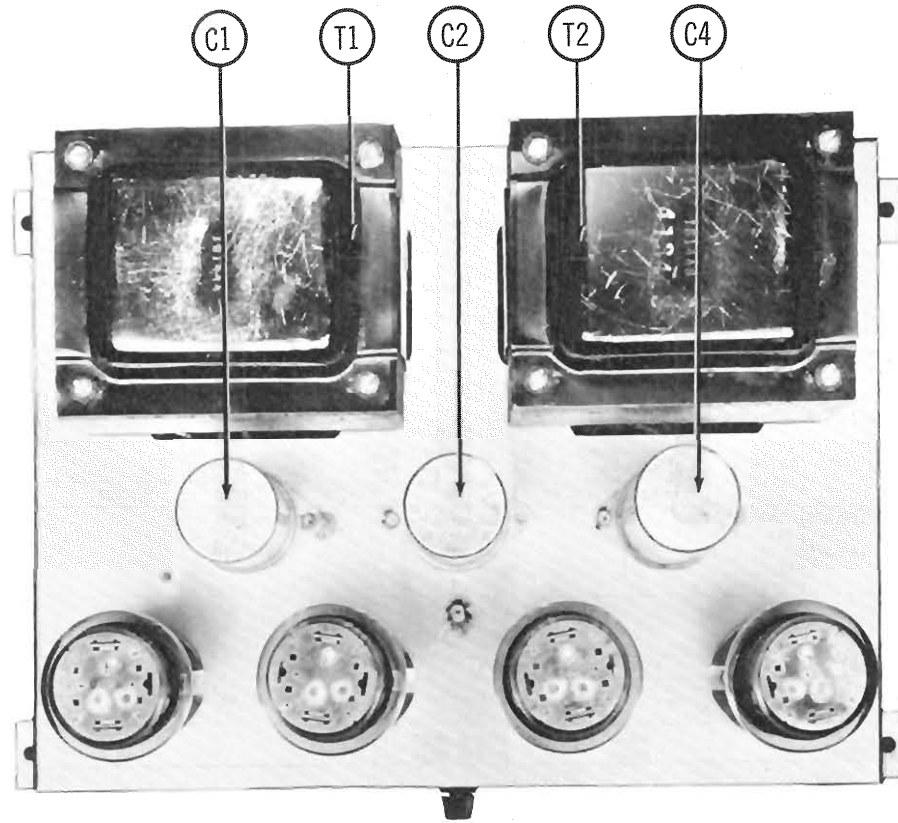
The entire procedure should be repeated until the picture remains black and white over all settings of the contrast and brightness controls.

### COLOR KILLER ADJUSTMENT

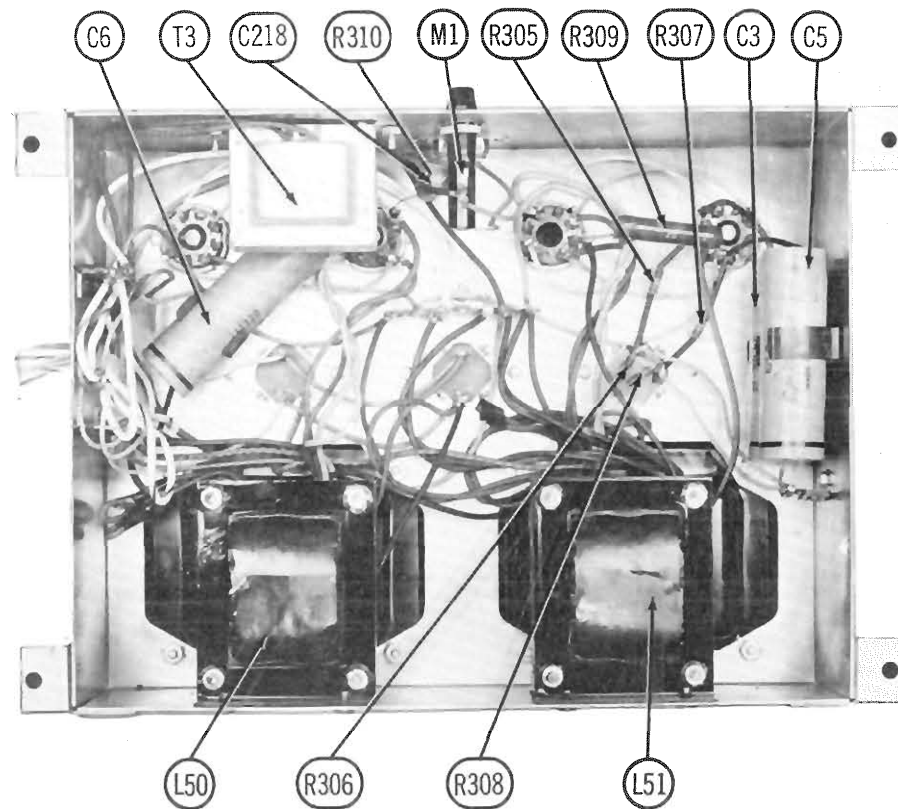
Set the color killer control to maximum clockwise position.

Tune in a color program, (if no color program is available a color bar generator may be used).

Adjust the control counter clockwise to the point where color just appears.



POWER SUPPLY CHASSIS-TOP VIEW



POWER SUPPLY CHASSIS-BOTTOM VIEW

**PARTS LIST AND DESCRIPTIONS**  
TUBES (SYLVANIA, GENERAL ELECTRIC, WESTINGHOUSE)

ITEM No.	USE	REPLACEMENT DATA		RETMA BASE TYPE	NOTES
		Stromberg-Carlson PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	6BZ7	6BZ7	9AJ	
V2	Mixer Osc.	6U8	6U8	9AE	
V3	Osc. Voltage Reg.	0A2	0A2	5B0	
V4	1st. Video IF Amp.	6CB6	6CB6	7CM	
V5	2nd. Video IF Amp.	6CB6	6CB6	7CM	
V6	3rd. Video IF Amp.	6CB6	6CB6	7CM	
V7	4th. Video IF Amp.	6CB6	6CB6	7CM	
V8	5th. Video IF Amp.	6CL6	6CL6	6CL6	
V9	1st. Video Amp.	6CL6	6CL6	6CL6	
V10	2nd. Video Amp. - "Q" Phase Inv.	6U8	6U8	9AE	
V11	AGC Keying - Horiz. Sync Sep.	6U8	6U8	9AE	
V12	1st. Sound IF Amp. - Horiz. Sync Amp.	6U8	6U8	9AE	
V13	2nd. Sound IF Amp.	6AU6	6AU6	7BK	
V14	Ratio Det. - AGC Clamper - AF Amplifier	6T8	6T8	9E	
V15	Audio Output	6V6GT	6V6GT	7S	
V16	Vert. Sync Sep. - Quadrature Amp.	12AT7	12AT7	9A	
V17	Sync Amp. - Chroma Bandpass Amp.	6U8	6U8	9AE	
V18	Vert. Oscillator	6C4	6C4	6BG	
V19	Vert. Output	6S4	6S4	9AC	
V20	Dynamic Convergence Amplifier - Color Killer	6BL7GT	6BL7GT	8BD	
V21	Horiz. AFC - Horiz. Osc.	6SN7GTA	6SN7GTA	8BD	
V22	Horiz. Output	6CD6G	6CD6G	5BT	
V23	Horiz. Output	6CD6G	6CD6G	5BT	
V24	Damper	6AU4GT	6AU4GT	4CG	
V25	Focus Rectifier	3A3GT	3A3GT	8EZ	
V26	HV Rectifier	3A3GT	3A3GT	8EZ	
V27	Diode Coupler	3A3GT	3A3GT	8EZ	
V28	HV Doubler	3A3GT	3A3GT	8EZ	
V29	HV Regulator	6BD4	6BD4	8FU	
V30	Burst Amplifier - Chroma Sync Phase Detector	6U8	6U8	9AE	
V31	Chroma Sync Phase Detector - Chroma Phase Amplifier	6U8	6U8	9AE	
V32	Chroma Reference Osc. Control - Chroma Reference Osc.	6U8	6U8	9AE	
V33	"Q" Synchronous Detector	6AS6	6AS6	7CM	
V34	"I" Synchronous Detector	6AS6	6AS6	7CM	
V35	"I" Amp. - "I" Phase Inverter	6X8	6X8	9AK	
V36	Green Adder - Green Output	12BH7	12BH7	9A	
V37	Blue Adder - Blue Output	12BH7	12BH7	9A	
V38	Red Adder - Red Output	12BH7	12BH7	9A	
V39	Green DC Rest. - Blue DC Rest. - Red DC Rest.	6BC7	6BC7	9AX	
V40	LV Rectifier	5U4G	5U4G	5T	
V41	LV Rectifier	5U4G	5U4G	5T	
V42	LV Rectifier	5U4G	5U4G	5T	
V43	LV Rectifier	5U4G	5U4G	5T	

**CATHODE-RAY TUBE**

ITEM No.	Stromberg-Carlson PART No.	REPLACEMENT DATA				RETMA BASE TYPE	NOTES
		CBS-HYTRON PART No.	GENERAL ELECTRIC PART No.	SYLVANIA PART No.	WESTINGHOUSE PART No.		
V44	15GP22		15GP22	15GP22			

**CAPACITORS**

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

ITEM No.	RATING		REPLACEMENT DATA								NOTES
	CAP.	VOLT	Stromberg-Carlson PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.		
C1A	.40	450	111095	AFH2-57		B045		FP238	TVL-2764		
B	.40	450									
C2A	.40	450	111095	AFH2-57		B045		FP238	TVL-2764		
B	.40	450									
C3	80	300	111086	PRS450/80		BR8045		TCD2274	TVA-1716		
C4A	.80	300	111087	AFH2-34		B027		FP227.6	TVL-2585		
B	.80	300									
C5	80	300	111086	PRS450/80		BR8045		TCD2274	TVA-1716		
C6	1000	15	111120			BRH1510		TC1505	TVA-1163		
C7	1000	15	111120			BRH1510		TC1505	TVA-1163		
C8	5	50	111093	PRS150/4		BR550		TC30	TVA-1303		
C9A	.20	450	111104	AFH4-83		D062		FP432.9	TVL-4622		
B	.40	450									
C	.10	450									
D	100	50							TVA-1310		

STROMBERG-CARLSON  
MODEL K-1







PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (cont)

Table with columns: ITEM No., RATING (CAP, VOLT), REPLACEMENT DATA (Stromberg-Carlison, AEROVOX, CENTRALAB, CORNELL-DUBILIER, ERIE, MALLORY, SPRAGUE), NOTES.

Note 1. C20B is not used. Note 2. Non-polarized unit. \* Items C101A, C101B, C101C, R136A, R136B, R136C are combined in one unit.

CONTROLS

Table with columns: ITEM No., RATING (RESISTANCE, WATTS), REPLACEMENT DATA (Stromberg-Carlison, IRC, CLAROSTAT, CENTRALAB, MALLORY), INSTALLATION NOTES.

RESISTORS

Table with columns: ITEM No., RATING (OHMS, WATT), REPLACEMENT DATA (Stromberg-Carlison, IRC), NOTES.

RESISTORS (cont)

Table with columns: ITEM No., RATING (OHMS, WATT), REPLACEMENT DATA (Stromberg-Carlison, IRC), NOTES.

RESISTORS (cont)

Table with columns: ITEM No., RATING (OHMS, WATT), REPLACEMENT DATA (Stromberg-Carlison, IRC), NOTES.

\* Items R136A, R136B, R136C, C101A, C101B and C101C are combined in one unit.

TRANSFORMER (POWER)

Table with columns: ITEM No., RATING (PRI, SEC. 1, SEC. 2), REPLACEMENT DATA (Stromberg-Carlison, Stancor, Merit, Triad, RCA, Halldorson, Thordarson).

- 1 Use HV secondary taps for sec. #2. 2 Parallel and phase 5V 3A windings for Sec. #3. 3 Parallel and phase 6.3V 7A windings for Sec. #4. 4 Tap 6.3V 2.7A winding. 5 Drill new mounting holes. 6 Tape extra 6.3V winding.

TRANSFORMER (POWER)

Table with columns: ITEM No., RATING (PRI, SEC. 1, SEC. 2), REPLACEMENT DATA (Stromberg-Carlison, Stancor, Merit, Triad, RCA, Halldorson, Thordarson).

- 1 Taps 6.3V 4.5A winding. 2 Parallel and phase 3-6.3V 3A windings for Sec. #3. Tape extra 5V winding.

TRANSFORMER (FILAMENT)

Table with columns: ITEM No., RATING (PRI, SEC. 1, SEC. 2), REPLACEMENT DATA (Stromberg-Carlison, Stancor, Merit, Triad, RCA, Halldorson, Thordarson).

- 1 Drill one new mounting hole. 2 Tape 6.3VCT, use original shield.

TRANSFORMERS (SWEEP CIRCUITS)

Table with columns: ITEM No., USE, REPLACEMENT DATA (Stromberg-Carlison, Halldorson, Merit, RCA, Ram, Stancor, Thordarson, Triad).

- 1 Drill new mounting hole(s). 2 Two windings, bifilar. 3 Enlarge mounting hole. 4 Connect to coded blue and red terminals. 5 Connect to coded terminals #1 and #2. 6 Connect to coded terminals #3 and #4.

TRANSFORMER (AUDIO OUTPUT)

Table with columns: ITEM No., IMPEDANCE (PDI, SEC.), REPLACEMENT DATA (Stromberg-Carlison, Stancor, Merit, Triad, Halldorson, Thordarson), NOTES.

STROMBERG-CARLISON MODEL K-1