

**CABINET-REAR VIEW**

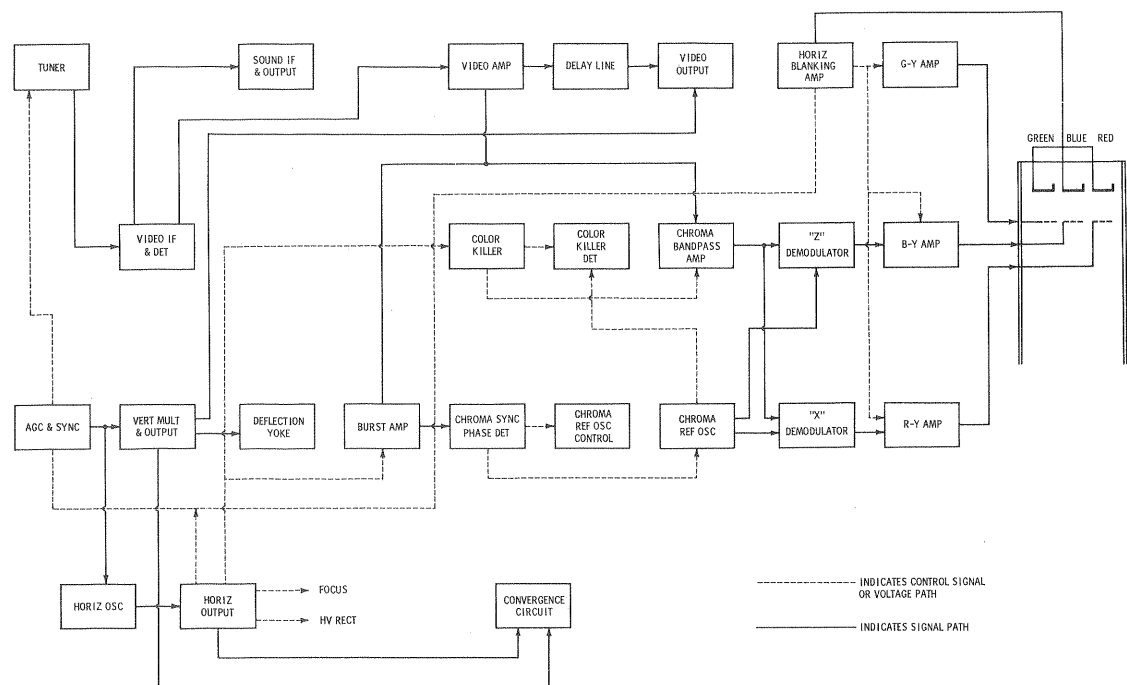
**DISASSEMBLY INSTRUCTIONS**

**CHASSIS REMOVAL**

1. Remove rear cover (14 screws) and control knobs from front of set.
2. Disconnect high voltage cable, picture tube socket, speaker leads, power plug to tuners, convergence board from chassis, and tuner input coax from chassis.
3. Remove control board bracket held by 2 screws on rear of cabinet. Remove control board on front of cabinet by removing 3 screws.
4. Remove wooden brace above power transformer. It is held by 2 screws on rear corner of chassis. Remove chassis.

**PICTURE TUBE REMOVAL**

1. Follow "Chassis Removal" instructions. Lay cabinet face down on a soft protective surface.
2. Remove convergence assemblies, yoke, and purity shield. Remove 4 corner bolts and lift picture tube shield from cabinet.
3. Loosen both mounting straps and lift mounting brackets from picture tube. Remove picture tube.



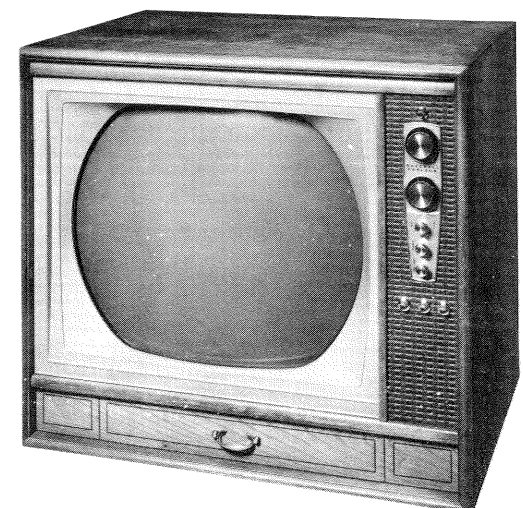
**BLOCK DIAGRAM**

SET 752 FOLDER 3

SETCHELL-CARLSON CHASSIS U800 (1965 Production)

PHOTOFACT® Folder with CIRCUITRACE®

SETCHELL-CARLSON CHASSIS U800 (1965 Production)



MODEL 3C65

|              |   |  |
|--------------|---|--|
| TRADE NAME   | Setchell-Carlson  | Models                                   |
| SUPPLIER     | For current address, see Master Index   |  |
| TYPE SET     | Color Television Receiver   |  |
| TUBES        | VHF: Thirty-One, UHF: One Transistor  |  |
| POWER SUPPLY | 110-120 Volts AC, 60 Cycles   | RATING 325 Watts, 3 Amps. @ 117 Volts AC |
| TUNING RANGE | Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier) |  |

**SERVICING IN THE FIELD**

**SAFETY GLASS**

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

**FUSE OR FUSE DEVICE**

A 1 1/4" length of fuse wire is used for low voltage power supply protection. (For location, see M1 in photo "Power Chassis - Bottom View".)

Three 1 1/4" lengths of fuse wire are used for filament protection. (For location, see M2, M3, and M4 in photo "Power Chassis - Bottom View".)

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

**VHF OSCILLATOR ADJUSTMENT**

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

**AGC**

No provision is made to vary the AGC on this receiver.

**HORIZONTAL OSCILLATOR FIELD ADJUSTMENT**

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Stabilizer Control. (See "Tube Placement Chart" for location.)

**FOCUS**

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

**CENTERING**

Centering is accomplished by a Horizontal and Vertical Centering control, located on chassis.

**HORIZONTAL LINEARITY**

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

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

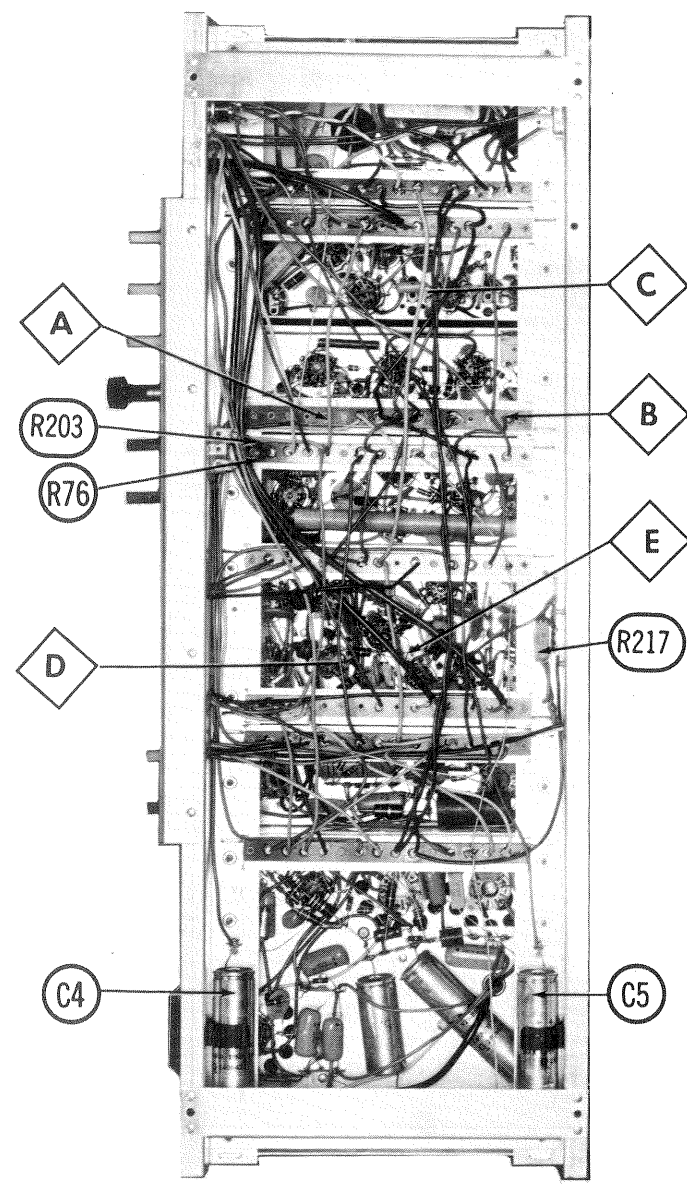


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. NB213

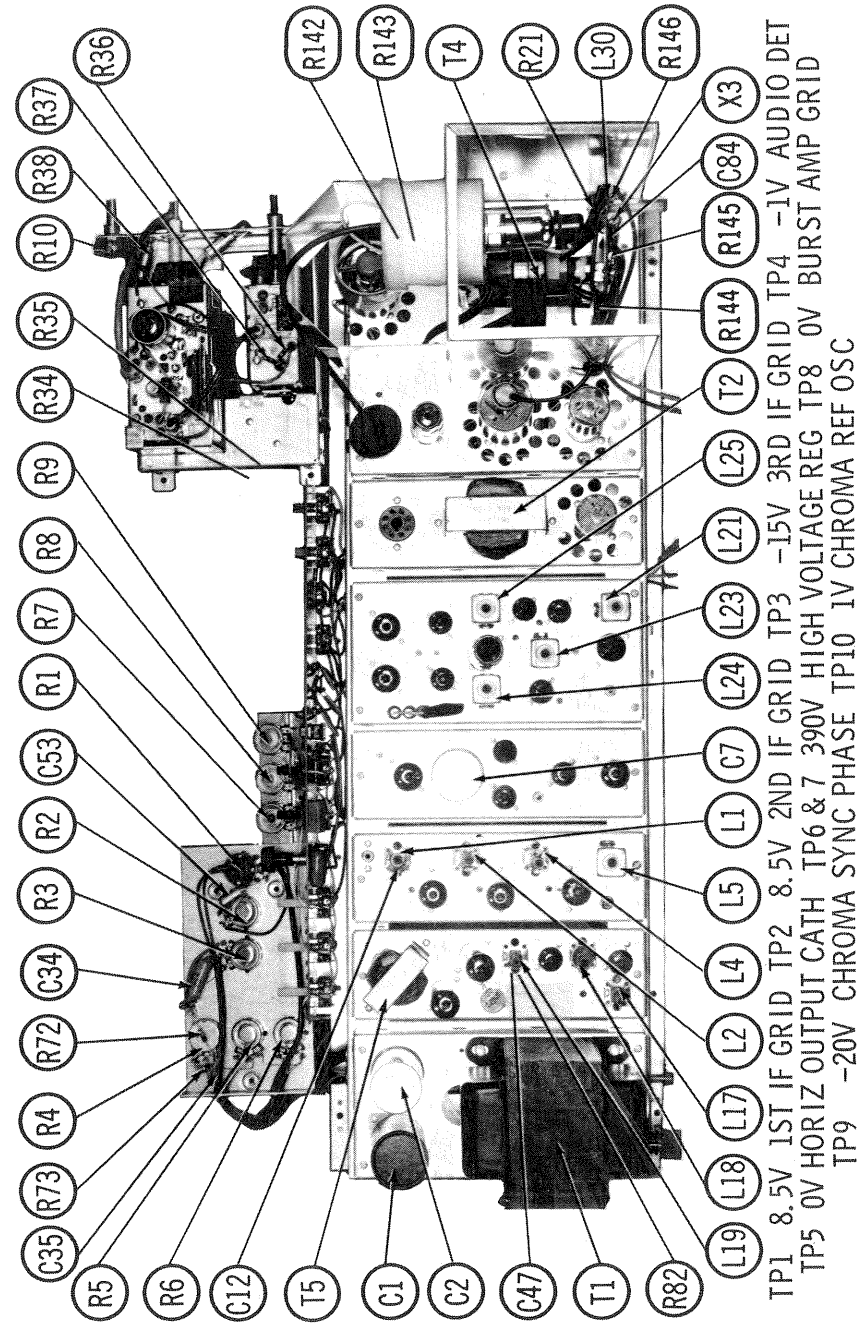
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SETCHELL-CARLSON CHASSIS U800 (1965 Production)

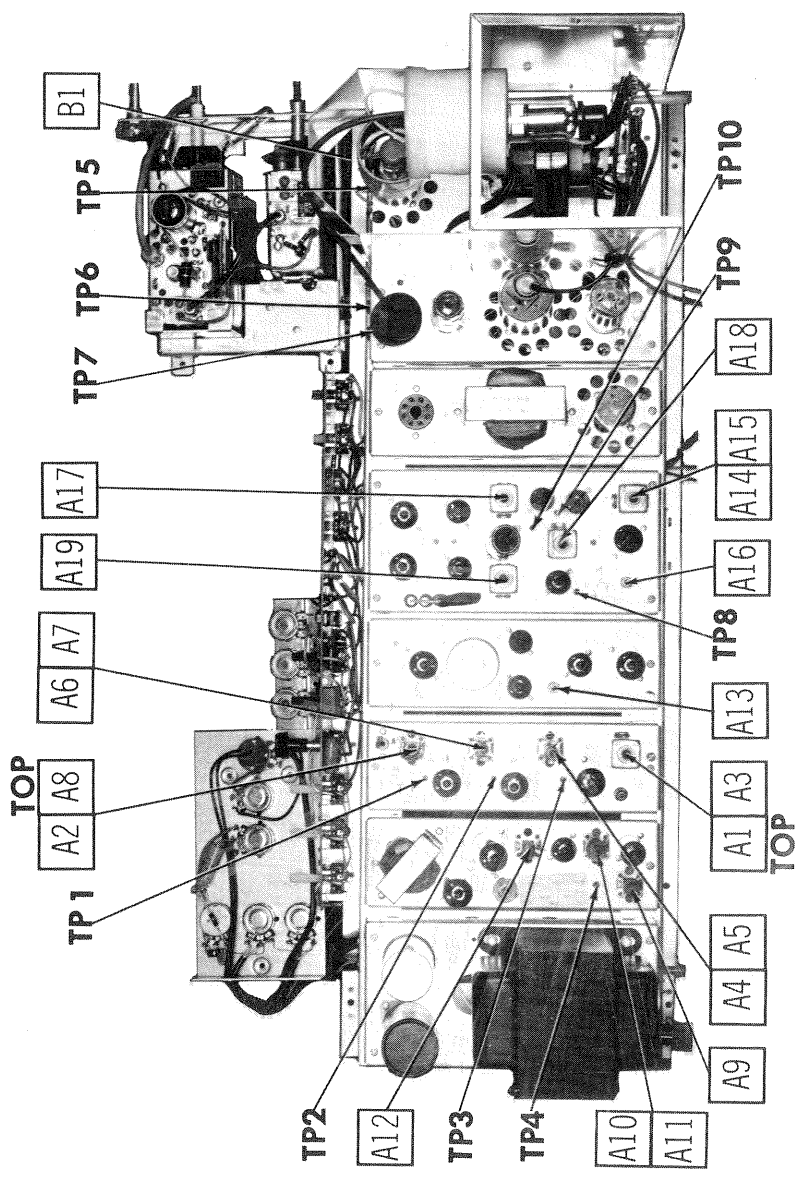
SET 752 FOLDER 3



CHASSIS-BOTTOM VIEW



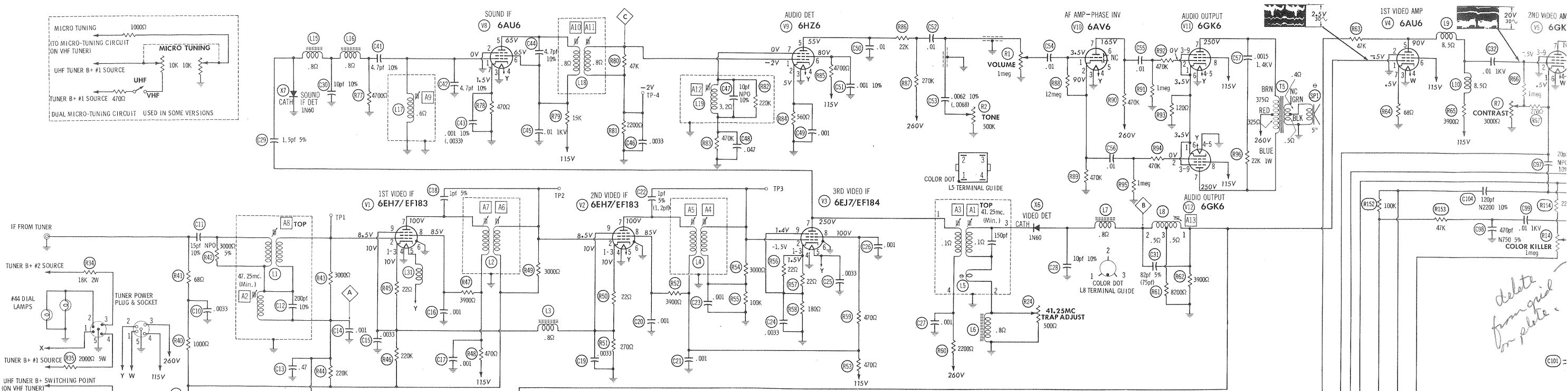
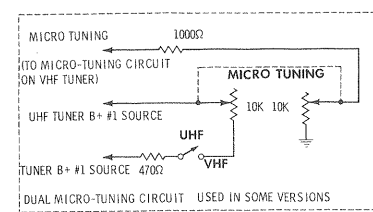
TP1 8.5V 1ST IF GRID TP2 8.5V 2ND IF GRID TP3 -15V 3RD IF GRID TP4 -1V AUDIO DET  
 TP5 0V HORIZ OUTPUT CATH TP6 & 7 390V HIGH VOLTAGE REG TP8 0V BURST AMP GRID  
 TP9 -20V CHROMA SYNC PHASE TP10 1V CHROMA REF OSC



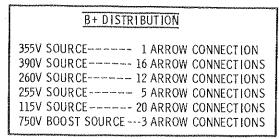
CHASSIS-TOP VIEW

SETCHELL-CARLSON  
 CHASSIS U800 (1965 Production)

- CHASSIS REMOVAL
1. Remove rear panel screws.
  2. Disconnect horizontal power plug and input coax from chassis.
  3. Remove control panel. Remove control panel screws.
  4. Remove wooden screws on rear panel.

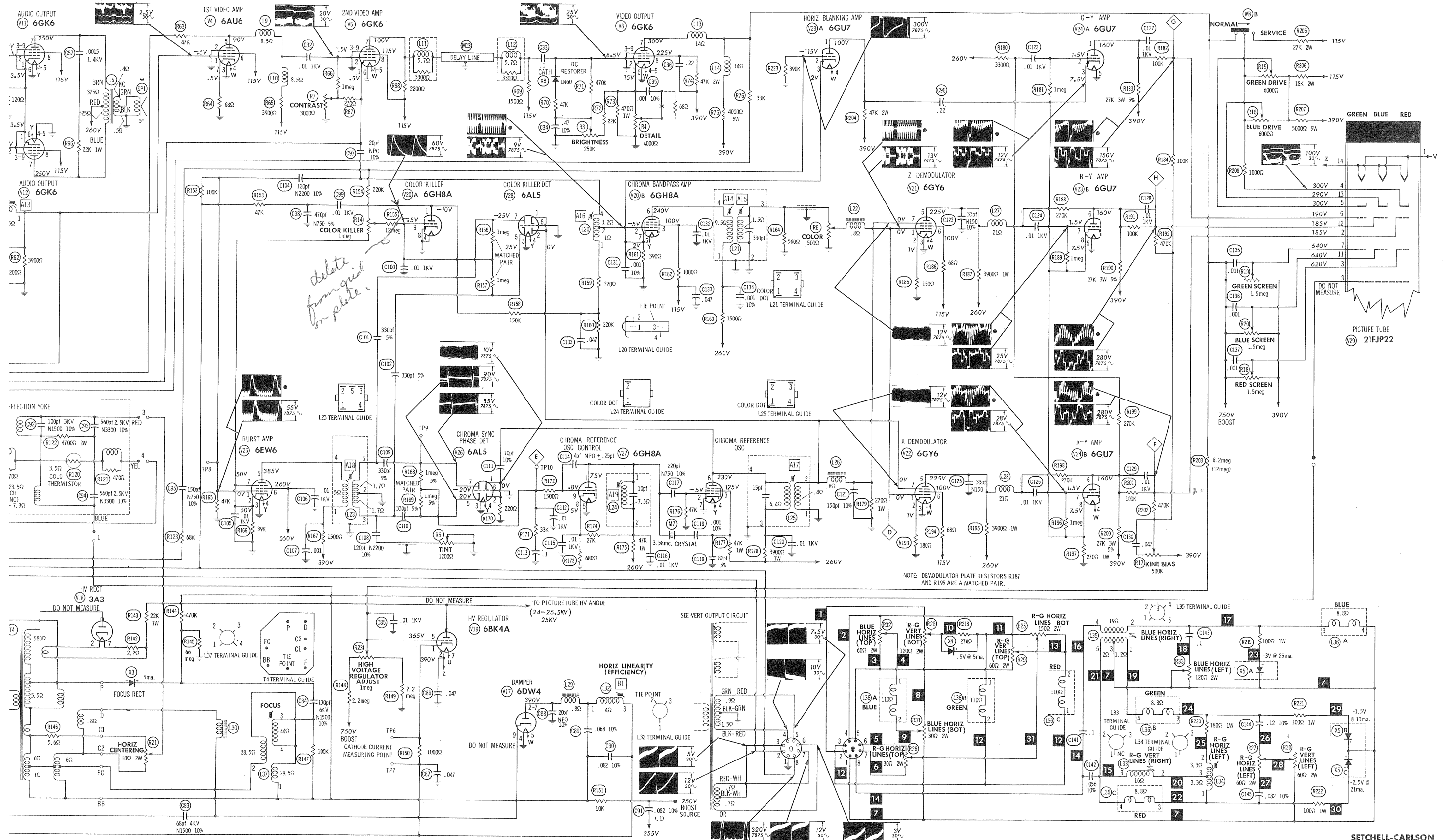


ALL WAVEFORMS EXCEPT COLOR CIRCUITS TAKEN WITH A BLACK AND WHITE TEST PATTERN WITH CONTROLS SET TO PRODUCE 100V PEAK TO PEAK AT PICTURE TUBE CATHODES. COLOR CIRCUIT WAVEFORMS TAKEN WITH A LOW CAPACITY PROBE AND A WIDE BAND OSCILLOSCOPE. CONTROLS WERE SET TO PRODUCE PROPER N. T. S. C. COLOR BAR PATTERN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



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

*delete from original for plate.*

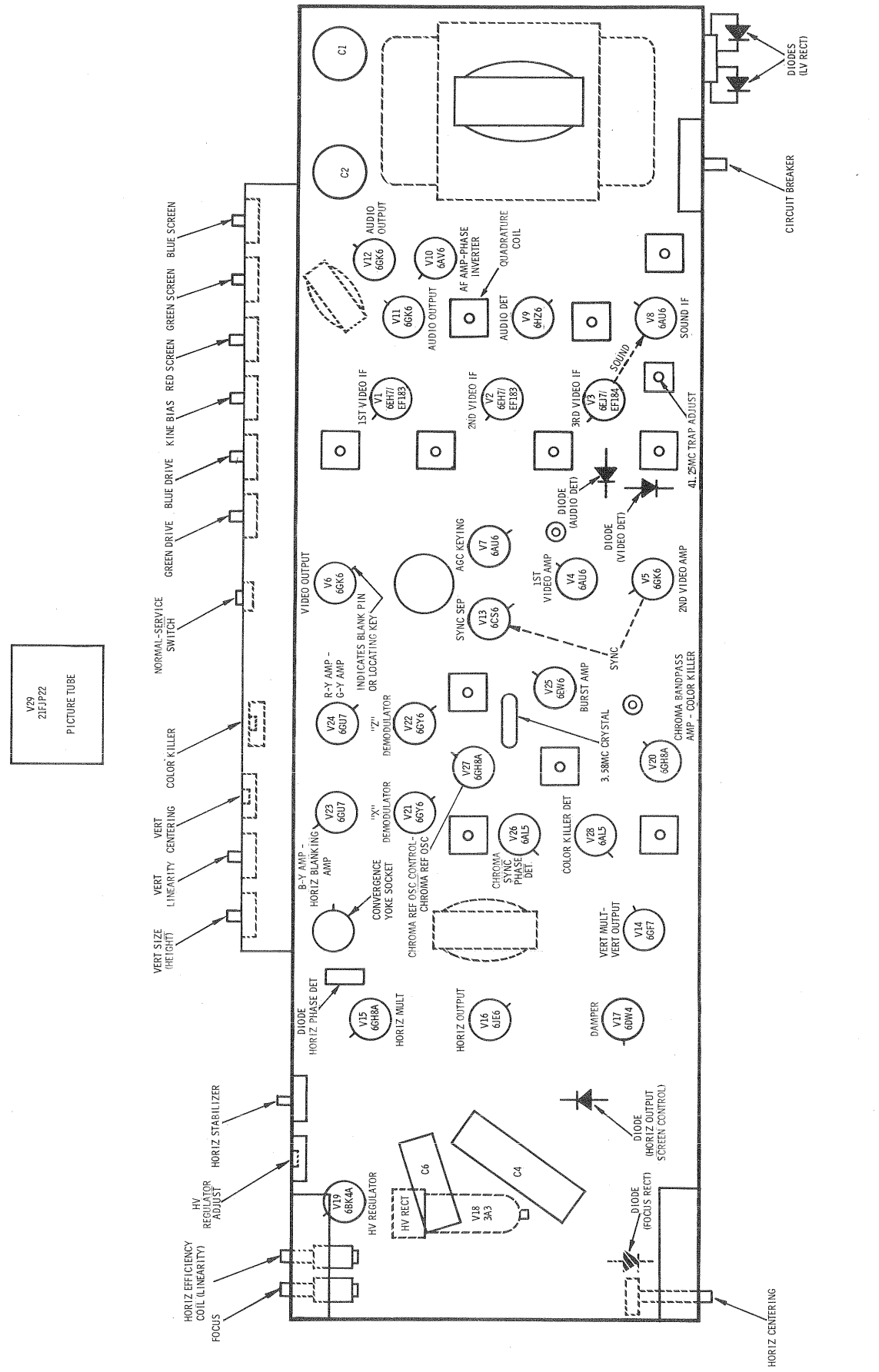


*delete  
from grid  
on plate*

NOTE: DEMODULATOR PLATE RESISTORS R187 AND R195 ARE A MATCHED PAIR.

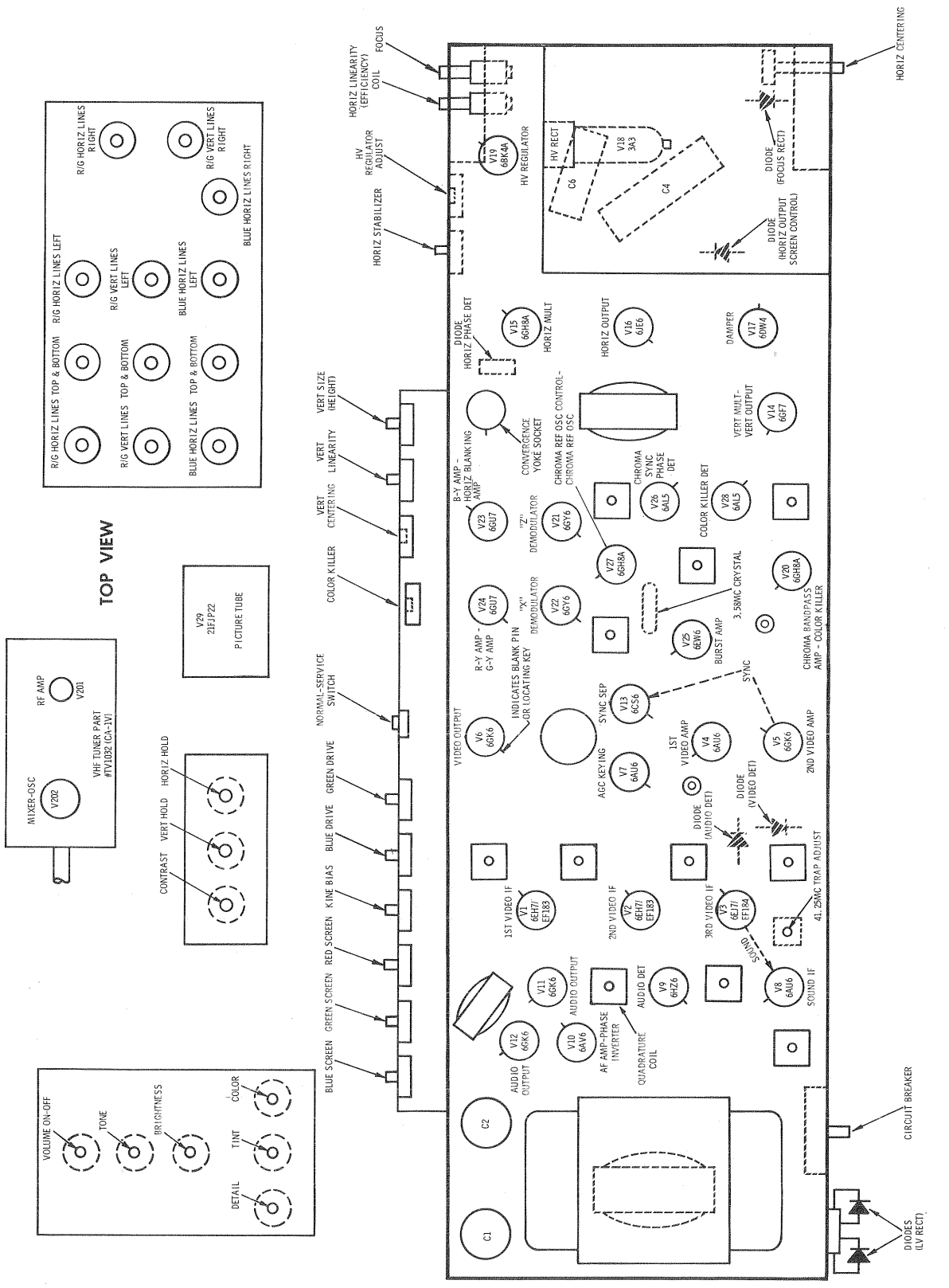
TUBE PLACEMENT CHART

BOTTOM VIEW



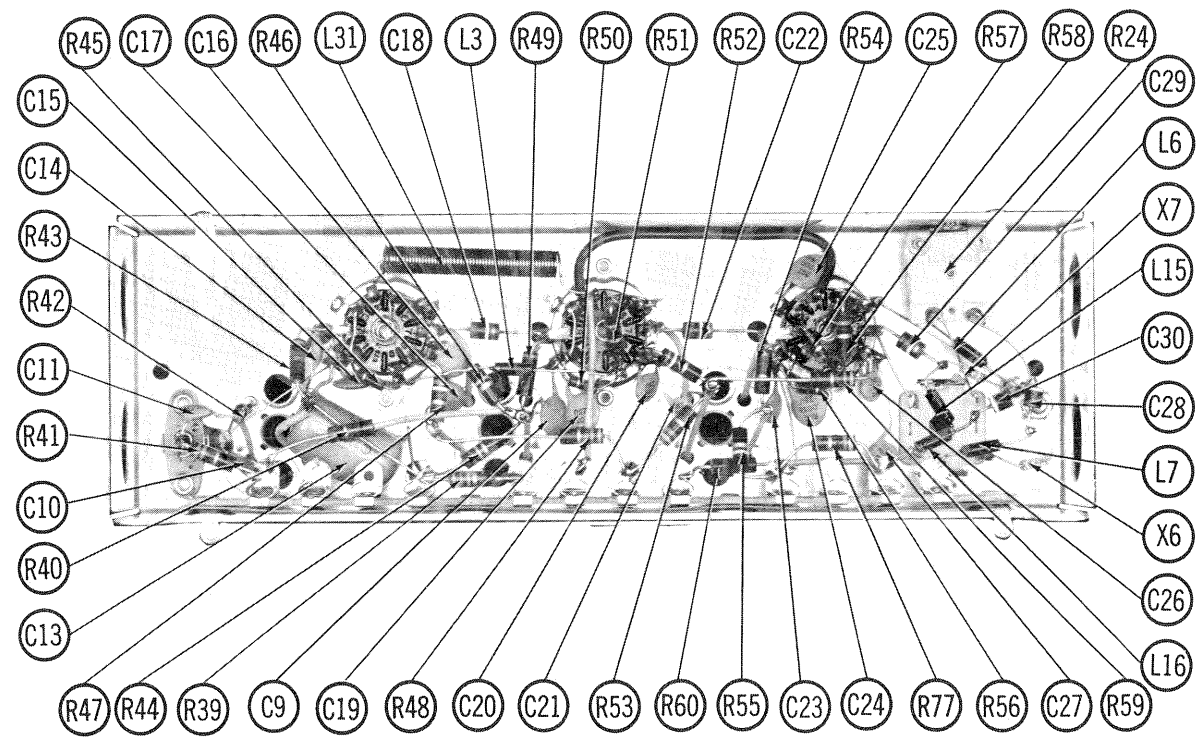
TUBE PLACEMENT CHART

TOP VIEW

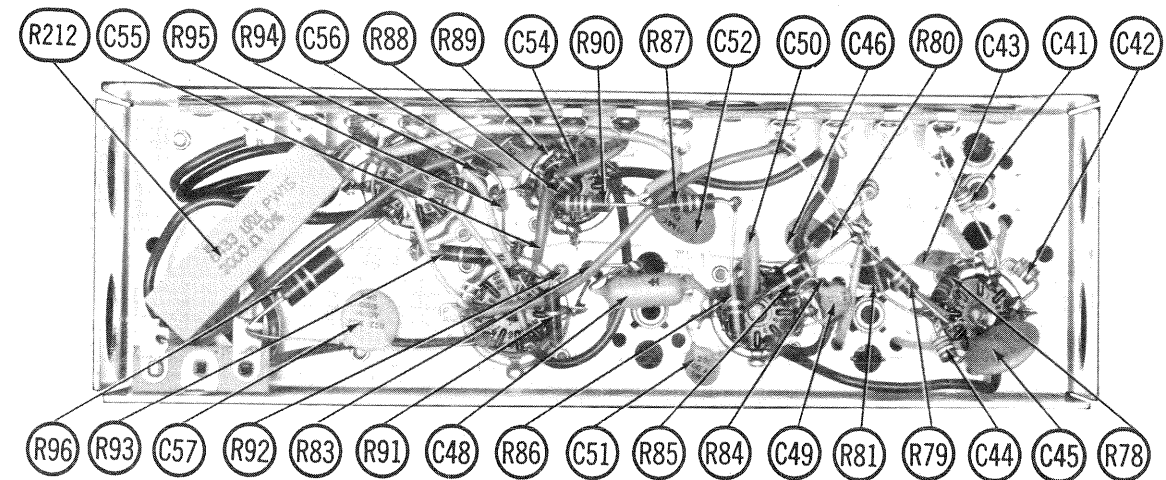


SFTCHELL-CARLSON CHASSIS UB800 (1965 Production)

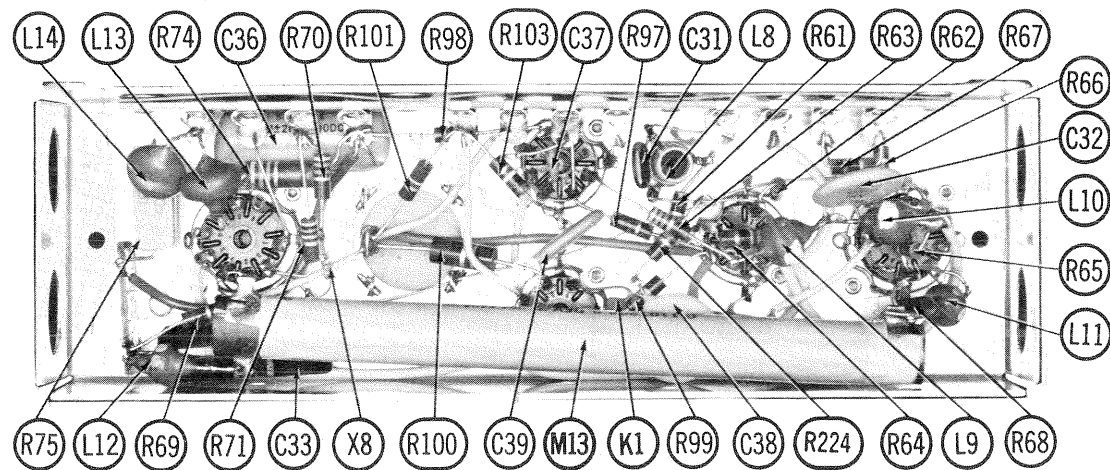
FOLDER 3



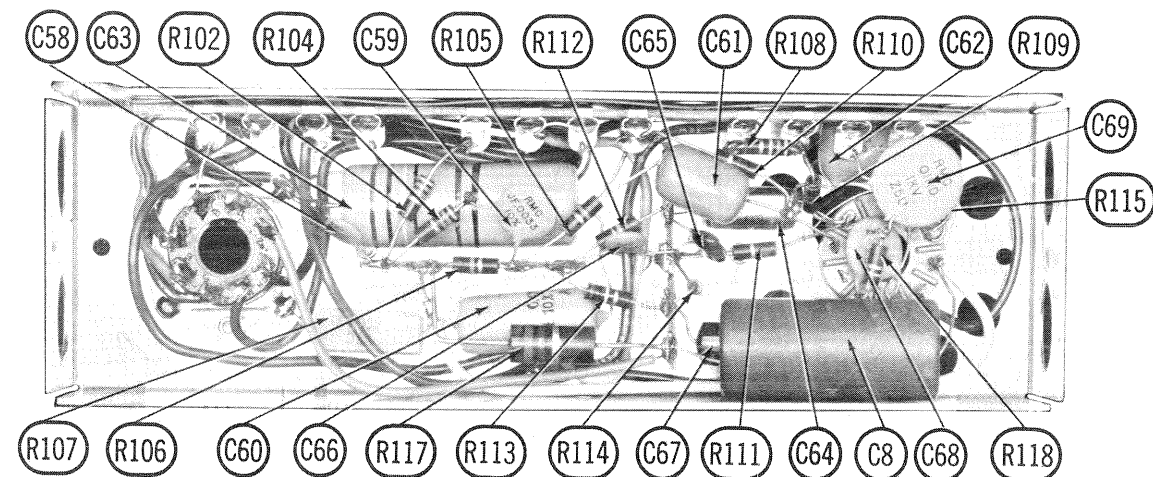
VIDEO IF SUBCHASSIS-BOTTOM VIEW



SOUND IF SUBCHASSIS-BOTTOM VIEW



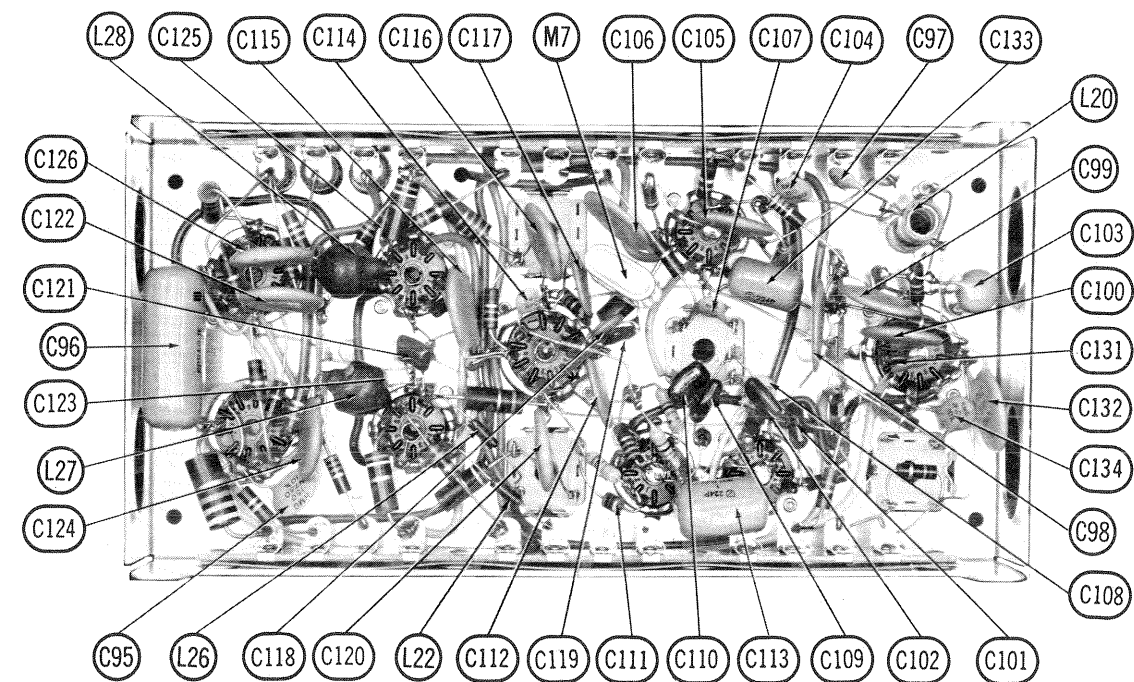
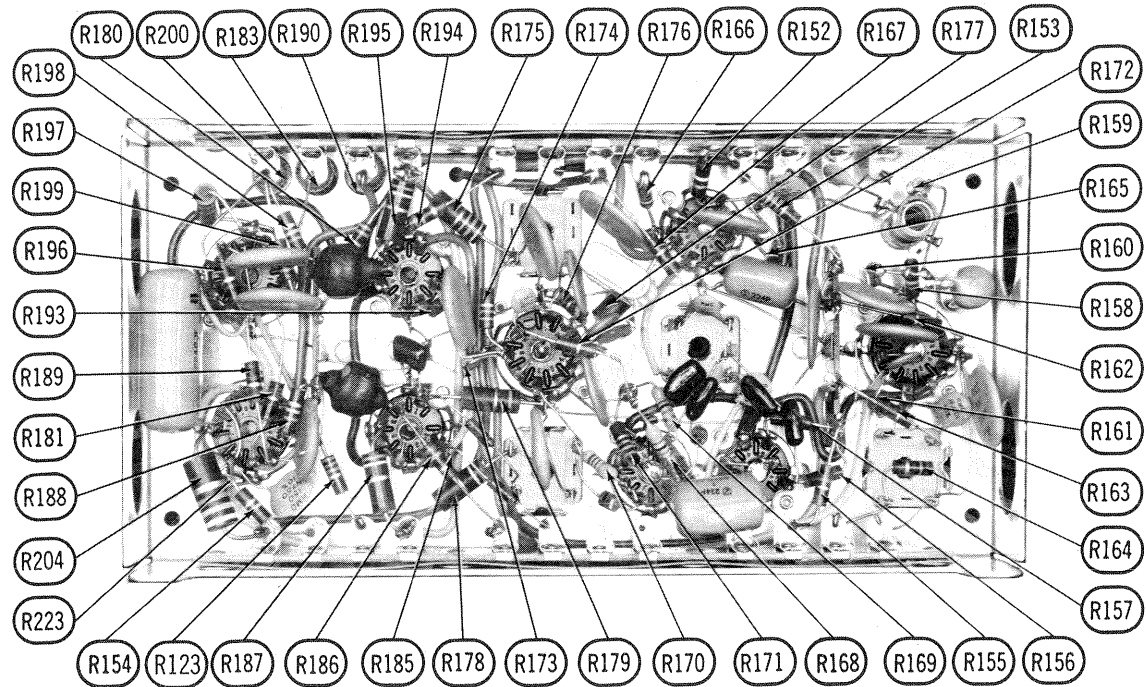
VIDEO AMP, AGC, SYNC SUBCHASSIS-BOTTOM VIEW



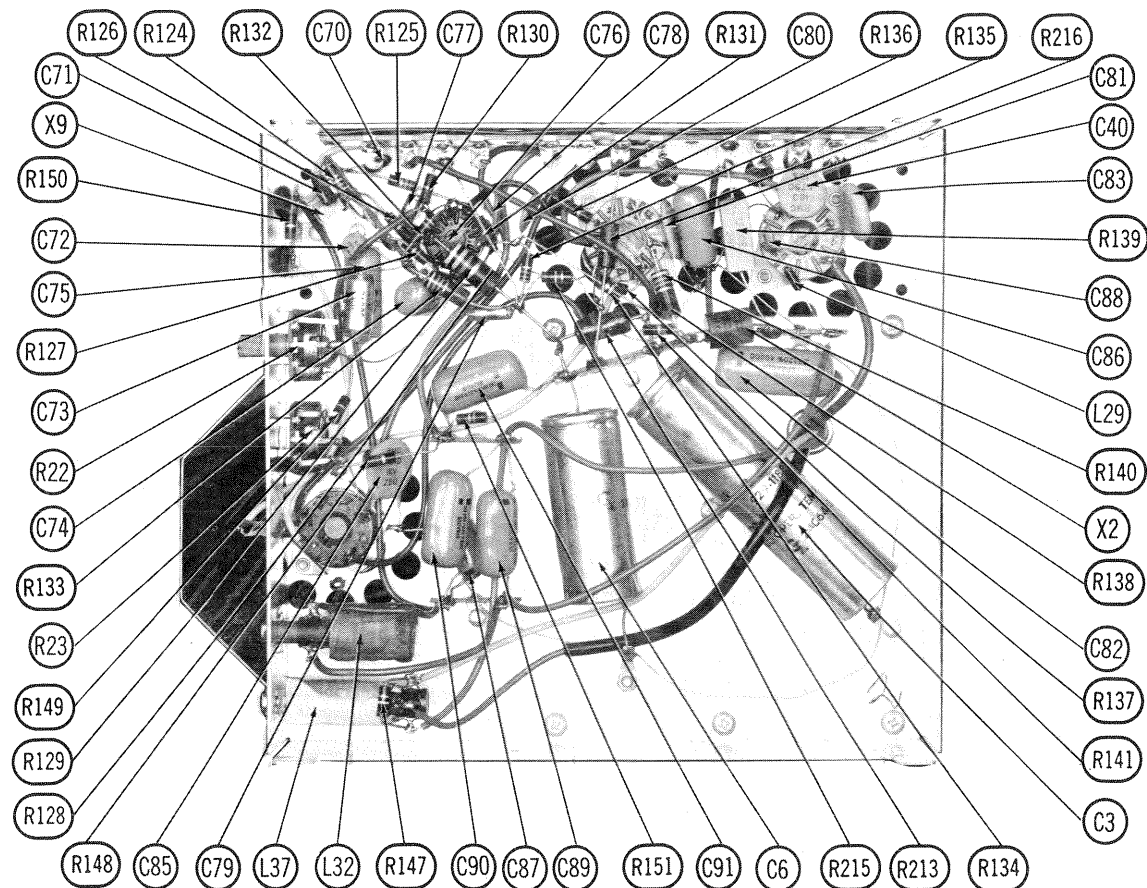
VERT OUTPUT SUBCHASSIS-BOTTOM VIEW

SETCHELL-CARLSON  
CHASSIS U800 (1965 Production)

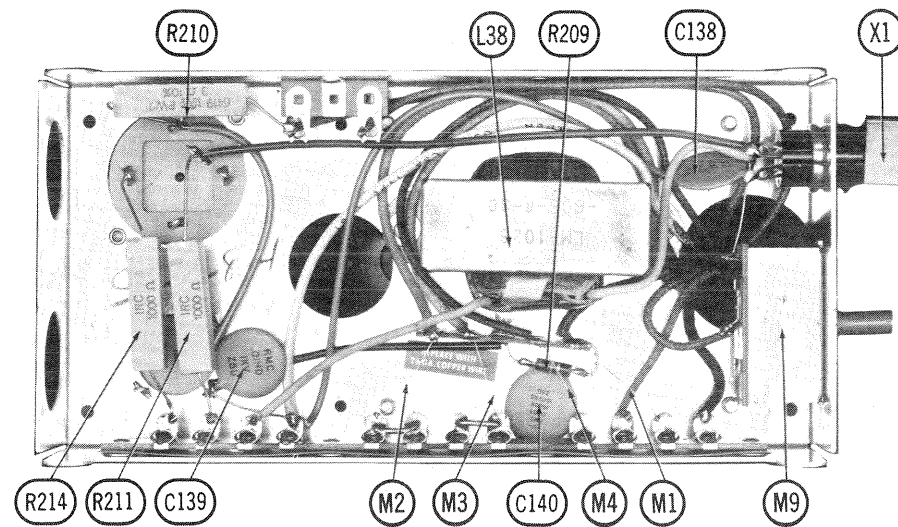
FOLDER 3



COLOR CIRCUIT SUBCHASSIS-BOTTOM VIEW



HORIZ OUTPUT SUBCHASSIS-BOTTOM VIEW



L. V. POWER SUPPLY SUBCHASSIS-BOTTOM VIEW

FITCHELL-CARLSON  
 CHASSIS U800 (1965 Production)

FOLDER 3

# ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: A1 thru A13 ..... GENERAL CEMENT #8606, 8869, 9302 ... WALSCO #2511, 2543, 2588  
Mixer Plate Coil ... GENERAL CEMENT #9206, 9300, 9302 ... WALSCO #2510, 2511, 2547

## VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown.  
Connect a variable bias supply to the IF AGC line (point Ⓢ, off pin #2, 1st Video IF) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

| INDICATOR | GENERATOR COUPLING  | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY               | ADJUST                   | REMARKS  |
|-----------|---|---------------------------|--|--------------------------|--|
| 1.        | Connect DC probe of a VTVM thru a 47K res. to point Ⓢ, off plate side of Video Det. Common to ground. | 44MC (10MC Sweep)         | 41.25MC<br>42.17MC<br>45.75MC<br>47.25MC | A1, A3                   | Adjust for maximum gain and symmetry of response with markers as shown in Fig. 1. Adjust R24 for maximum 41.25MC Trap attenuation. |
| 2.        | Connect DC probe of a VTVM thru a 47K resistor to point Ⓢ. Common to ground.                          | 44MC (10MC Sweep)         | "  | A4, A5                   | Adjust for maximum gain and symmetry of response with markers as shown in Fig. 2.  |
| 3.        | Connect vertical input of a scope to point Ⓢ. Low side to ground.                                     | 44MC (10MC Sweep)         | "  | A6, A7                   | Adjust for maximum gain and symmetry of response with markers as shown in Fig. 3.  |
| 4.        | Connect vertical input of a scope to point Ⓢ. Low side to ground.                                     | 44MC (10MC Sweep)         | "  | A2, A8, Mixer Plate Coil | Adjust for maximum gain and symmetry of response with markers as shown in Figure 4.  |

## 4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A13 for MINIMUM beat interference.

## SOUND IF ALIGNMENT

Connect a TVTM thru a detector probe to point Ⓢ, pin #1 (grid) Audio Detector. Tune in a TV station and adjust A9, A10 and A11 for maximum deflection. Remove the VTVM. Reduce the signal at the antenna terminals until distortion occurs in the sound. Adjust A12 clockwise from the fully out position to the second peak. Continue to reduce the signal and adjust A10 for MINIMUM distortion until no further improvement can be made.

## CHROMA BANDPASS ALIGNMENT

The following alignment uses RCA Video Multimarker WG-295C. Remove Video IF Strip (Unit CB-2) from chassis. Turn Color and Color Killer Controls to maximum clockwise position.  
Suggested Alignment Tools: A14, A15, A16 ... GENERAL CEMENT 8606, 8606L, 8869 ... WALSCO 2543, 2544, 2588

| SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY  | MARKER GENERATOR FREQUENCY | CHANNEL                                     | CONNECT SCOPE   | ADJUST   | REMARKS  |
|--------------------------|--|----------------------------|---|---|----------|--|
| 5.                       | High side to TP4 (pin 1, V22, Burst Amp.), low side to ground.                 | 3.58MC (3-5MC)             | 3.08MC<br>4.08MC                            | Vert. Amp. thru detector probe to point Ⓢ, pin 1 of X & Z Demodulators, low side to ground. | A14, A15 | Adjust for response curve similar to Fig. 5 with markers as shown. Cores must be on opposite ends of coil.     |
| 6.                       | High side to point Ⓢ, off plate side of Video Det. (1N60), low side to ground. | "                          | 1.5MC<br>2.5MC<br>3.08MC<br>4.08MC<br>4.5MC | "   | A16      | Adjust for response curve similar to Fig. 6 with markers as shown. Core must be peaked at chassis end of coil. |

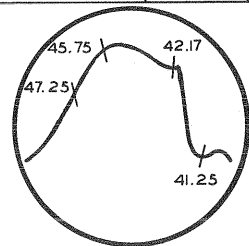


FIG. 1

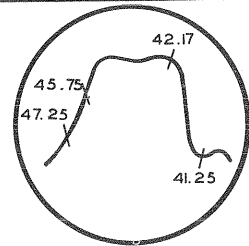


FIG. 2

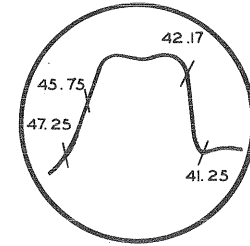


FIG. 3

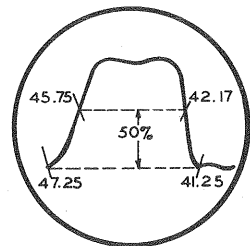


FIG. 4

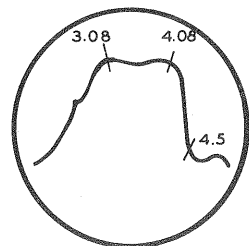


FIG. 5

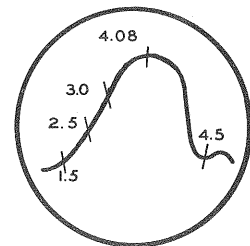


FIG. 6

# MISCELLANEOUS ADJUSTMENTS

## HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

CONNECT:  
A 0-500MA meter in series with cathode of horizontal output tube, TP5.  
A .47 mfd. capacitor across meter.  
A 0-1500 microammeter in series with the cathode lead of the HV regulator tube.  
A VTVM through a high voltage probe to picture tube anode connector.

Tune in a TV station and set all controls for normal operation. Set the Horizontal Hold control, R8, to the center of its range. Adjust the Horizontal Stabilizer control, R22, until the picture is in proper sync.

Adjust the Horizontal Linearity Coil Slug, B1, for MINIMUM current in the Horizontal Output Tube. (Current should not exceed 225MA.)

Adjust the High Voltage control, R23, for 23KV in picture tube anode with normal brightness. Check High Voltage regulator current. The current should not be less than 850 microamperes. If current is less than 850 microamperes, turn the Horizontal Linearity slug one-half turn clockwise. Check to see that Horizontal Output current does not exceed 225MA. If foldover occurs in picture, adjust Horizontal Linearity clockwise to eliminate foldover while checking to make sure Horizontal Output current does not exceed 225MA.

Adjust Focus, Height, and Vertical Linearity controls.

## COLOR AFC ALIGNMENT

Suggested Alignment Tools:  
A17, A18, A19 ..... GENERAL CEMENT #8606, 8606L, 8869  
WALSCO #2543, 2544, 2588

Connect Color Bar generator across antenna terminals. Tune generator and receiver to an unused channel. Adjust Color control and Killer control fully clockwise. Set the Tint control to the center of its range.

Connect DC probe of VTVM through 470K to pin 7 of Phase Detector, TP9, V26. Adjust A17 for maximum deflection on VTVM. If no reading is obtained, oscillator is not operating. Adjust A19 to start oscillator, then adjust A17 for maximum. Adjust A18 for maximum deflection on VTVM. Make sure oscillator is running and locked in.

Short point Ⓢ, pin #9 (grid) Chroma Reference Oscillator control, to ground. Remove VTVM. Adjust A19 until Color bars stand still or drift slowly. Remove the short from point Ⓢ and check to see that the Color bars will sync with low level input signal. If necessary, retouch A19 for best hold.

Connect Vertical Input of Scope to point Ⓢ. Check for proper waveform with Color Bar generator being used. See waveform on schematic for pattern obtained from a standard NTSC signal. Check the range of the Tint control. The bars should move 30° either side of proper signal. If necessary, retouch A18 for proper range of control.

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

## PURITY ADJUSTMENTS

Perform step 1 of Convergence Adjustments. If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets.

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

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

## GRAY SCALE ADJUSTMENTS

Tune in a Black and White picture or a Color picture with the Color control set to MINIMUM. Turn Kine Bias and Red, Green, and Blue screen controls fully counterclockwise. Turn Green and Blue Cathode Drive controls fully clockwise. Set Service-Normal Switch in "Service" position. Advance Red screen control fully clockwise, then retard the control approximately 20% from maximum position. Advance the Kine Bias control until a Red line is just visible. Adjust the Green and Blue screen controls until the green and blue lines are also just visible.

NOTE: The Red gun is ordinarily the least sensitive of the three. Because of variations in tubes, however, the Kine Bias control should be adjusted to ignite the weakest color with the screen control setting described for the Red gun. Return Service-Normal switch to "Normal" position.

Check Black and White picture from high lights to low lights at all normal brightness and contrast levels. If proper tracking is not obtained, alternately adjust Green and Blue Cathode Drive controls for best black and white picture.

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

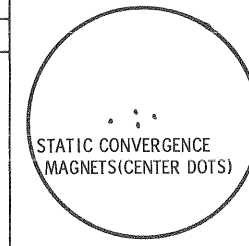


FIG. A

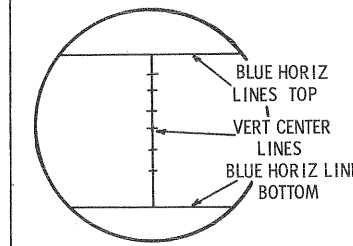


FIG. C (BLUE BARS)

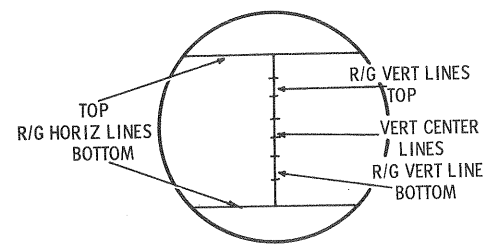


FIG. B (RED & GREEN ONLY)

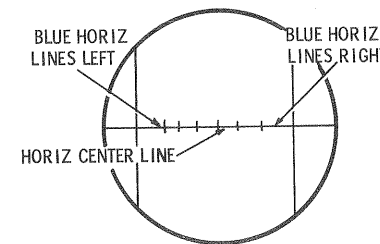


FIG. D (BLUE BARS)

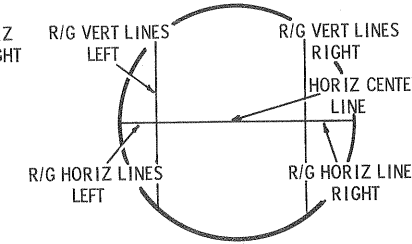


FIG. E

SEITCHELL-CARLSON CHASSIS U800 (1965 Production)

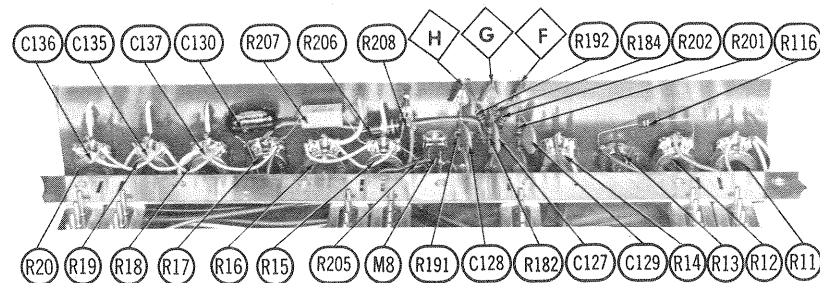
FOLDER 3



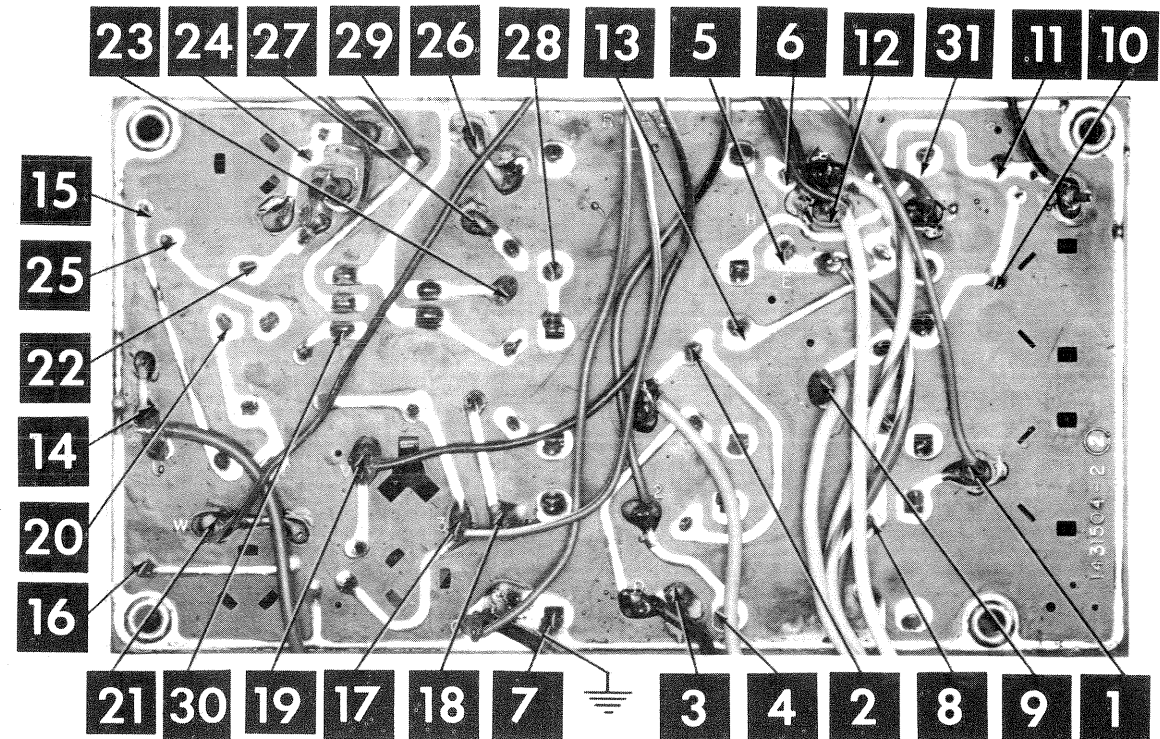
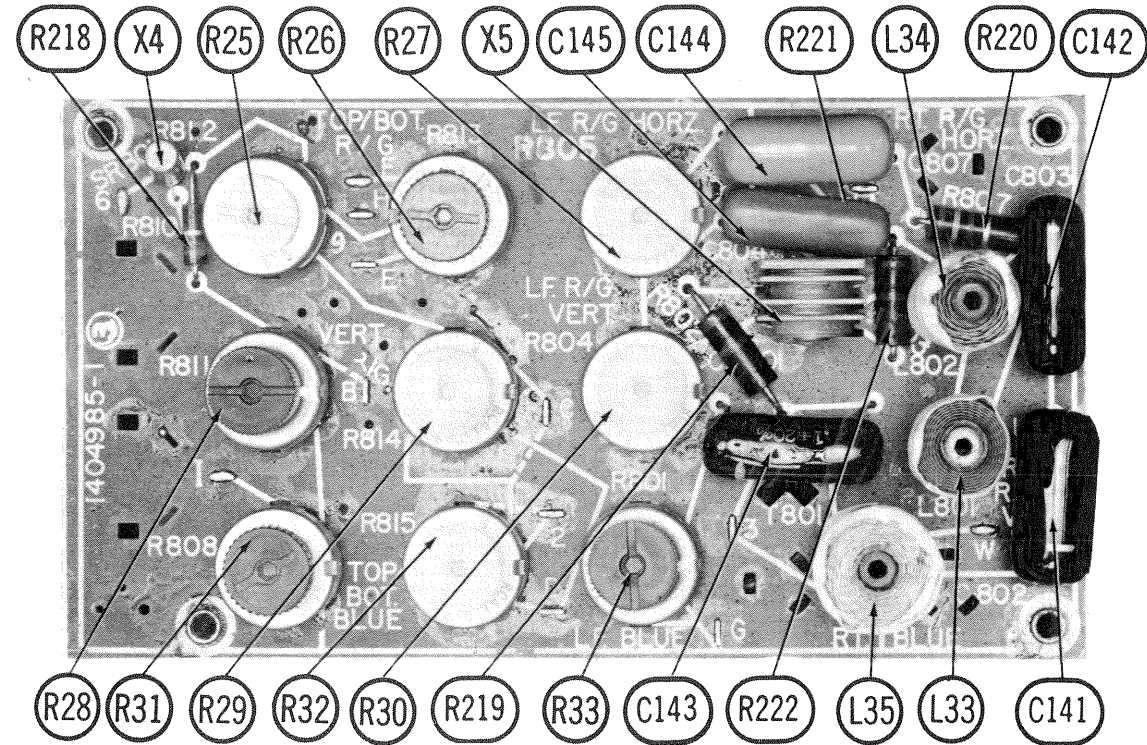
### RESISTANCE MEASUREMENTS

| ITEM | TUBE    | Pin 1                                  | Pin 2    | Pin 3    | Pin 4   | Pin 5   | Pin 6    | Pin 7    | Pin 8    | Pin 9  | Pin 10 | Pin 11 | Pin 12             |
|------|---------|--|----------|----------|---------|---------|----------|----------|----------|--------|--------|--------|--------------------|
| V1   | 6EH7    | 292Ω                                   | 470K     | 292Ω     | FIL     | FIL     | 0Ω       | 1470Ω †† | 5370Ω †† | 270Ω   |        |        |                    |
| V2   | 6EH7    | 292Ω                                   | 240K     | 292Ω     | FIL     | FIL     | 0Ω       | 1470Ω †† | 5370Ω †† | 270Ω   |        |        |                    |
| V3   | 6EJ7    | 191Ω                                   | 103K     | 191Ω     | FIL     | FIL     | 0Ω       | 4216Ω †  | 1940Ω †† | 180Ω   |        |        |                    |
| V4   | 6AU6    | 1500Ω ●                                | 0Ω       | FIL      | FIL     | FIL     | 4900Ω †† | 1000Ω †† | 68Ω      |        |        |        |                    |
| V5   | 6GK6    | 1000Ω                                  | 1meg     | 0Ω       | FIL     | FIL     | FIL      | 1000Ω †† | 1000Ω †† | NC     |        |        |                    |
| V6   | 6GK6    | 400Ω                                   | 300K ●   | 0Ω       | FIL     | FIL     | FIL      | 3000Ω †  | 47K †    | NC     |        |        |                    |
| V7   | 6AU6    | 53K ††                                 | 2200Ω †† | FIL      | FIL     | FIL     | 1meg     | 47K †    | 2200Ω †† |        |        |        |                    |
| V8   | 6AU6    | .6Ω                                    | 0Ω       | FIL      | FIL     | FIL     | 16K ††   | 16K ††   | 470Ω     |        |        |        |                    |
| V9   | 6HZ6    | 2200Ω                                  | 560Ω     | FIL      | FIL     | FIL     | 294K †   | 4700Ω †† | 470K     |        |        |        |                    |
| V10  | 6AV6    | 12meg                                  | 470K     | FIL      | FIL     | NC      | NC       | 470K †   |          |        |        |        |                    |
| V11  | 6GK6    | 120Ω                                   | 1.5meg   | 120Ω     | FIL     | FIL     | FIL      | 2391Ω †  | 1000Ω †† | NC     |        |        |                    |
| V12  | 6GK6    | 120Ω                                   | 1.5meg   | 120Ω     | FIL     | FIL     | FIL      | 234Ω †   | 1000Ω †† | NC     |        |        |                    |
| V13  | 6CS6    | 2.2meg ††                              | 0Ω       | FIL      | FIL     | FIL     | 80K ††   | 22K ††   | 2.2meg   |        |        |        |                    |
| V14  | 6GF7    | 0Ω                                     | 2.4meg   | 2500Ω    | FIL     | FIL     | 1365Ω †  | NC       | 1.9meg † | 2meg   |        |        |                    |
| V15  | 6GH8A   | 65K †                                  | 60K      | 65K †    | FIL     | FIL     | 220K †   | 180Ω     | 180Ω     | 1.5meg |        |        |                    |
| V16  | 6JE6    | 2.2meg †                               | 2.2meg   | 0Ω       | FIL     | FIL     | 2.2meg   | 2.2meg † | 2.2meg † | NC     |        |        | TOP CAP<br>19.1Ω † |
| V17  | 6DW4    | NC                                     | 26Ω †    | NC       | FIL     | FIL     | NC       | 26Ω †    | NC       | 500K   |        |        |                    |
| V18  | 3A3     | PINS 1 THRU 8 HAVE INFINITE RESISTANCE |          |          |         |         |          |          |          |        |        |        | TOP CAP<br>609.1Ω  |
| V19  | 6BK4A   | 1026Ω †                                | FIL      | NC       | NC      | 1.3meg  | NC       | FIL      | NC       |        |        |        | TOP CAP<br>INF     |
| V20  | 6GH8A   | 370K                                   | 220K     | 2000Ω †† | FIL     | FIL     | 3516Ω †  | 390Ω     | 0Ω       | 12meg  |        |        |                    |
| V21  | 6GY6    | 100Ω                                   | 150Ω     | FIL      | FIL     | FIL     | 5900Ω †  | 1068Ω †† | 1.1Ω     |        |        |        |                    |
| V22  | 6GY6    | 100Ω                                   | 180Ω     | FIL      | FIL     | FIL     | 5900Ω †  | 1068Ω †† | .4Ω      |        |        |        |                    |
| V23  | 6GU7    | 47K †                                  | 390K     | 390Ω     | FIL     | FIL     | 27K †    | 1meg     | 270Ω     | 390K   |        |        |                    |
| V24  | 6GU7    | 27K †                                  | 1meg     | 270Ω     | FIL     | FIL     | 27K †    | 1meg     | 270Ω     | NC     |        |        |                    |
| V25  | 6EW6    | 47K                                    | 39K      | FIL      | FIL     | FIL     | 1516Ω †  | 2016Ω †  | 39K      |        |        |        |                    |
| V26  | 6AL5    | 220Ω                                   | 220Ω     | FIL      | FIL     | FIL     | INF      | 0Ω       | INF      |        |        |        |                    |
| V27  | 6GH8A   | 22K † ●                                | 47K      | 49K †    | FIL     | FIL     | 5900Ω †  | 0Ω       | 680Ω     | INF    |        |        |                    |
| V28  | 6AL6    | .4Ω                                    | .4Ω      | FIL      | FIL     | FIL     | 12meg    | 0Ω       | 12meg    |        |        |        |                    |
| V29  | 21FJP22 | FIL                                    | 100K †   | 500K †   | 3500Ω † | 2500Ω † | 110K †   | 450K †   | NC       | 470K ▲ | NC     | 400K † | 105K †             |
| V201 | 6CG8A   | 4700Ω                                  | 7700Ω †† | 0Ω       | FIL     | FIL     | 4000Ω †† | 3000Ω †† | 0Ω       |        |        |        |                    |
| V202 | 6DS4    | NC                                     | 21K †    | NC       | 2.4meg  | NC      | NC       | NC       | 0Ω       | NC     | FIL    | NC     | FIL                |

● READING DEPENDS ON POLARITY OF METER CONNECTIONS.  
† MEASURED FROM OUTPUT OF X1 (PIN 3 OF RECTIFIER SOCKET).  
NC NO CONNECTION  
‡ MEASURED FROM PIN 9 OF V17.  
†† MEASURED FROM JUNCTION OF C1 & R210.  
▲ MEASURED FROM OUTPUT OF X3 (FOCUS RECT.)



CONTROL PANEL



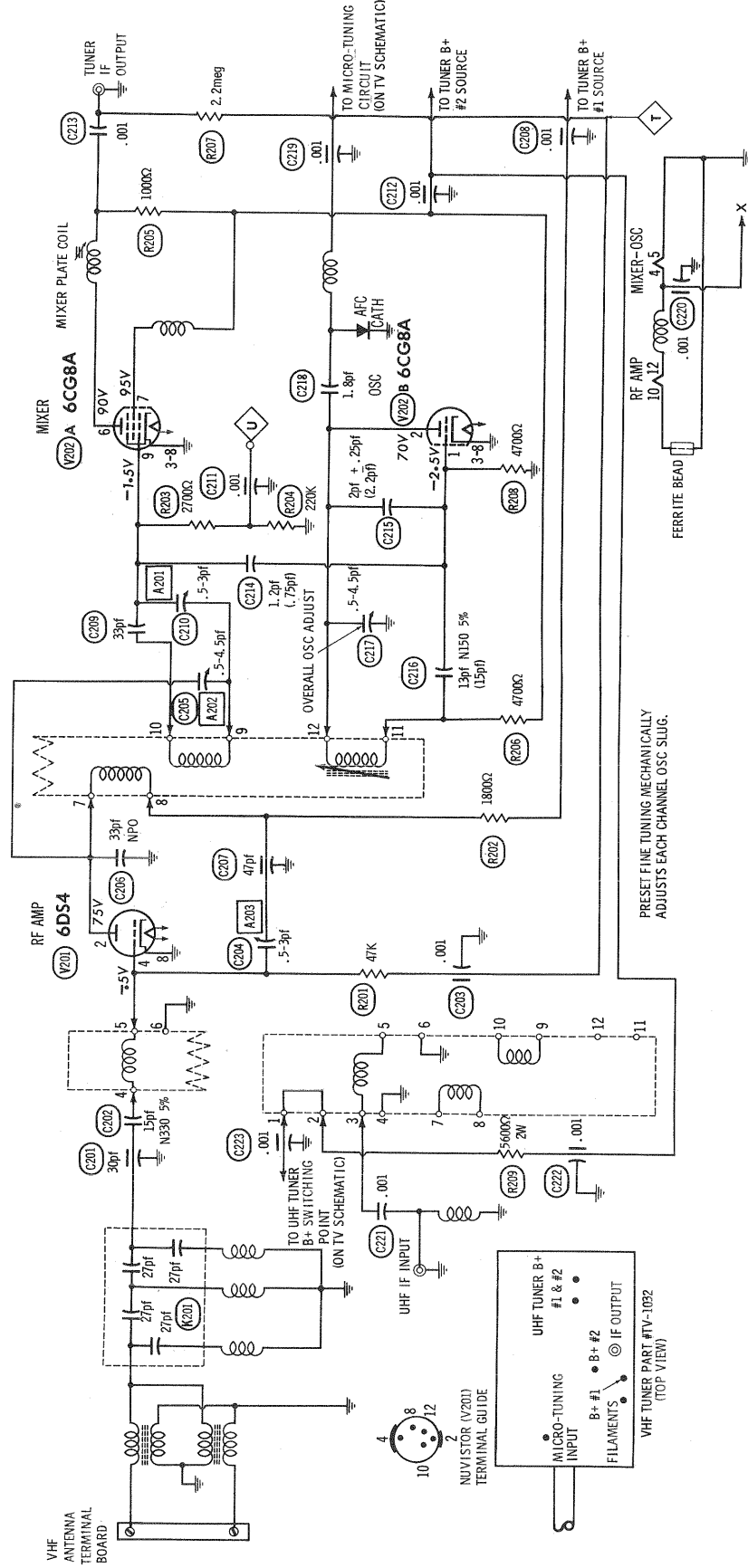
A Howard W. Sams CIRCUITRACE Photo

CONVERGENCE PANEL

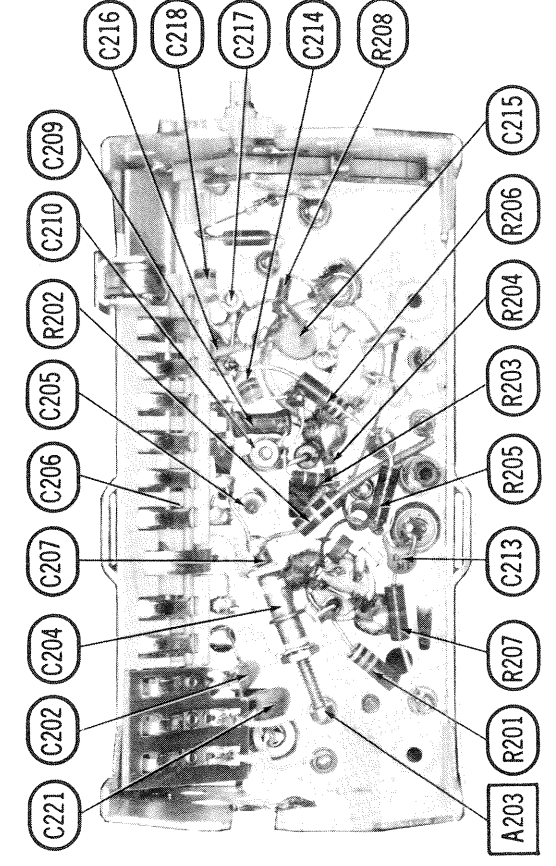
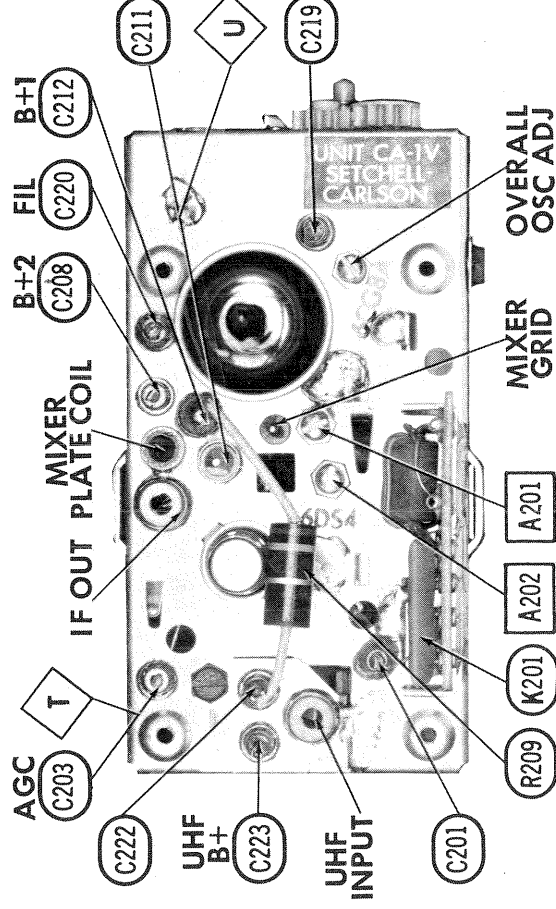
SET 752 FOLDER 3

SEICHELL-CARLSON  
CHASSIS U800 (1965 Production)

FOLDER 3



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13 POSITION TURRET-TYPE VHF TUNER TV1032 (CA-IV)

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201 thru A203 ... GENERAL CEMENT #8868, 8887, 9089 ... WALLSCO #2531-X, 2541, 2587

OSCILLATOR ADJUSTMENTS

The oscillator for each channel is preset by means of the fine tuning control. Adjust fine tuning for best picture and sound on each channel. If any channel cannot be properly tuned in with the fine tuning, adjust overall oscillator adjustment and recheck all available channels.

RF AND MIXER ALIGNMENT

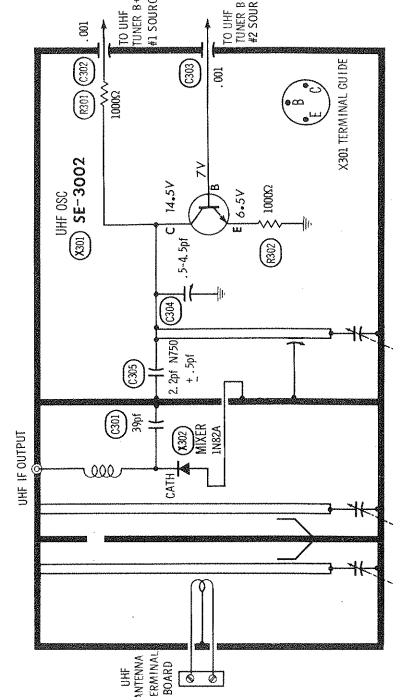
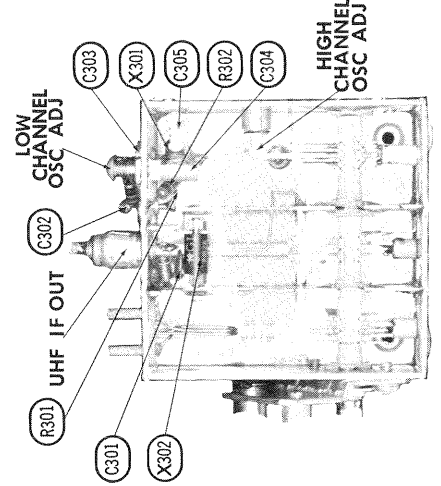
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use IOMC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at point U. Adjust bias to obtain response curve which shows no indication of overloading.

| SWEEP GENERATOR COUPLING                                  | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL   | CONNECT SCOPE                               | ADJUST     | REMARKS   |
|---|---------------------------|----------------------------|-----------|---|------------|---|
| Across antenna terminals with 1200 $\Omega$ in each lead. | 213MC                     | 211.25MC<br>215.75MC       | 13        | Vert. Input to point U, low side to ground  | A201, A202 | Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.                 |
| "   | 195MC                     | 187.25MC<br>197.75MC       | 10        | Across Video Del. load resistor.            | A203       | Increase bias to -15 volts and adjust for MINIMUM amplitude of response.                                    |
| "   | "                         | "                          | 12 thru 2 | Vert. Input to Point U, low side to ground. | "          | Decrease bias. Check response on all channels and make compromise adjustments of A201 and A202 if required. |

CHANNEL & FREQUENCY CHART

| SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | MARKER GENERATOR FREQUENCY | CHANNEL | MARKER GENERATOR FREQUENCY | CHANNEL | REMARKS  |
|---------------------------|----------------------------|---------|----------------------------|---------|----------------------------|---------|----------|
| 57MC                      | 55.25MC                    | 2       | 81.25MC                    | 6       | 195MC                      | 10      | SOUND    |
| 63MC                      | 59.75MC                    | 3       | 87.25MC                    | 7       | 187.25MC                   | 11      |          |
| 69MC                      | 64.25MC                    | 4       | 93.25MC                    | 8       | 199.25MC                   | 12      |          |
| 75MC                      | 68.75MC                    | 5       | 99.25MC                    | 9       | 205.25MC                   | 13      | FIG. 201 |
|                           | 77.25MC                    |         | 105.25MC                   |         | 209.75MC                   |         |          |
|                           | 81.75MC                    |         | 111.25MC                   |         | 211.25MC                   |         |          |
|                           |                            |         | 117.25MC                   |         | 215.75MC                   |         |          |

Tune UHF Channel Selector to the lowest UHF channel (low end of dial) operating in the area. Adjust UHF Low Channel Oscillator for best picture and sound. Tune to the highest UHF channel (high end of dial) in the area and adjust UHF High Channel Oscillator. Repeat above steps until no further improvement can be made.



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SETCHELL-CARLSON CHASSIS U800 (1965 Production)

UHF TUNER U-62-1

PARTS LIST AND DESCRIPTION (CONTINUED)

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

\* TRANSFORMERS (SWEEP CIRCUITS)

Table with columns: ITEM No., USE, REPLACEMENT DATA (Setchell-Carlson, MERIT, STANCOR, THORDARSON, TRIAD), NOTES. Includes items T2, T3, T4.

\* COMPONENT CONNECTION DATA

Table for component connections with columns: ORIGINAL, HV TRANSFORMER, VERTICAL OUTPUT, YOKE, MERIT, STANCOR, THORDARSON, TRIAD. Includes color coding for pins.

TRANSFORMER (AUDIO OUTPUT)

Table for audio output transformer with columns: ITEM No., IMPEDANCE, REPLACEMENT DATA, NOTES. Includes item T5.

SPEAKER

Table for speaker with columns: ITEM No., TYPE, REPLACEMENT DATA, NOTES. Includes item SP1.

FUSES

Table for fuses with columns: ITEM No., TYPE, RATING, REPLACEMENT DATA, BUSS, NOTES. Includes items M1-M4.

MISCELLANEOUS

Table for miscellaneous parts with columns: ITEM No., PART NAME, REPLACEMENT DATA, NOTES. Includes items M5-M13.

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

WIRING DATA

Table for wiring data with columns: Description, Use, BELDEN No. Includes items for High Voltage Lead, Shielded Hook-up Wire, etc.

VHF TUNER PARTS LIST AND DESCRIPTION

TUBES

Table for VHF tuner tubes with columns: ITEM No., USE, TYPE, AMPEREX, GENERAL ELECTRIC, RCA, SYLVANIA.

FIXED CAPACITORS

Table for fixed capacitors with columns: ITEM No., RATING, REMARKS, REPLACEMENT DATA (AEROVOX, CENTRALAB, CORNELL-DUBILIER, ELMENCO, MALLORY, SPRAGUE).

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer. † Alternate Value

COMPONENT COMBINATIONS

Table for component combinations with columns: ITEM No., USE, DESCRIPTION, Setchell-Carlson PART NO., REPLACEMENT DATA.

UHF TUNER PARTS LIST AND DESCRIPTION

TRANSISTORS

Table for transistors with columns: ITEM No., ORIG. TYPE, USE, REPLACEMENT DATA (DELCO, GENERAL ELECTRIC, RCA), NOTES.

POWER RECTIFIERS & SIGNAL DIODES

Table for power rectifiers and signal diodes with columns: ITEM No., MEASURED CURRENT, ORIGINAL Part or Type No., RECTIFIERS, DIODES, NOTES.

FIXED CAPACITORS

Table for fixed capacitors with columns: ITEM No., RATING, REMARKS, REPLACEMENT DATA (AEROVOX, CENTRALAB, CORNELL-DUBILIER, ELMENCO, MALLORY, SPRAGUE).

PARTS LIST AND DESCRIPTION

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

TUBES

Table for picture tube tubes with columns: ITEM No., USE, TYPE, AMPEREX, GENERAL ELECTRIC, RCA, SYLVANIA.

PICTURE TUBE

Table for picture tube replacement data with columns: ITEM No., REPLACEMENT DATA (Setchell-Carlson, GENERAL ELECTRIC, RCA, SYLVANIA), NOTES.

POWER RECTIFIERS & SIGNAL DIODES

Table for power rectifiers and signal diodes with columns: ITEM No., MEASURED CURRENT, ORIGINAL Part or Type No., RECTIFIERS, DIODES, NOTES.

ELECTROLYTIC CAPACITORS

Table for electrolytic capacitors with columns: ITEM No., RATING, REPLACEMENT DATA (Setchell-Carlson, AEROVOX, CORNELL-DUBILIER, GENERAL ELECTRIC, GENERAL INSTRUMENT, MALLORY, SPRAGUE).

① Use insulating sleeve and mounting wafer.

FIXED CAPACITORS

Table for fixed capacitors with columns: ITEM No., RATING, REMARKS, REPLACEMENT DATA (AEROVOX, CENTRALAB, CORNELL-DUBILIER, ELMENCO, MALLORY, SPRAGUE).

SETCHELL-CARLSON CHASSIS U800 (1965 Production)

FOLDER 3

PARTS LIST AND DESCRIPTION (CONTINUED)

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

FIXED CAPACITORS

Table of fixed capacitors including columns for item no., rating, remarks, and replacement data (Aerovox, Centralab, Cornell-Dubilier, Elmenco, Mallory, Sprague).

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer. † Alternate Value

CONTROLS

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

Table of controls including columns for item no., use, resistance, and replacement data (Setchell-Carlson, Centralab, Clarostat, CTS, Mallory).

† Insulate control from chassis and solder individual center terminal lead to metal case of control. \* "SNAPTROL"

RESISTORS (Power and Special)

Table of resistors with columns for item no., rating, remarks, and replacement data (IRC, Workman, Remarks).

COILS (RF-IF)

Table of RF-IF coils including columns for item no., use, and replacement data (Setchell-Carlson, Meissner, Merit, Stancor, Workman).

① Alternate may be TL1001. ② Wound on 3300Ω resistor. # Shunt with 3300Ω resistor. \* Disconnect 4.7pF capacitor in set.

COILS (SWEEP CIRCUITS)

Table of sweep circuit coils including columns for item no., use, and replacement data (Setchell-Carlson, Merit, Miller, Stancor, Thordarson, Meissner, Triad, Workman).

FILTER CHOKE

Table of filter chokes with columns for item no., ratings, and replacement data (Setchell-Carlson, Merit, Stancor, Thordarson, Triad, Workman, Notes).

COMPONENT COMBINATIONS

Table of component combinations including columns for item no., use, description, and replacement data (Setchell-Carlson, Merit, Stancor, Thordarson, Triad, Workman).

TRANSFORMER (POWER)

Table of power transformers including columns for item no., rating, and replacement data (Setchell-Carlson, Merit, Stancor, Thordarson, Triad, Workman, Notes).

SETCHELL-CARLSON CHASSIS U800 (1965 Production)

FOLDER 3