

CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove back and all knobs.
2. Disconnect picture tube socket, anode lead, and speaker.
3. Remove convergence assemblies and board. Disconnect yoke.
4. Loosen 6 screws holding tuner bracket. Lift up and remove tuner assembly.

5. Remove 4 bolts from chassis bottom and remove chassis.

PICTURE TUBE REMOVAL

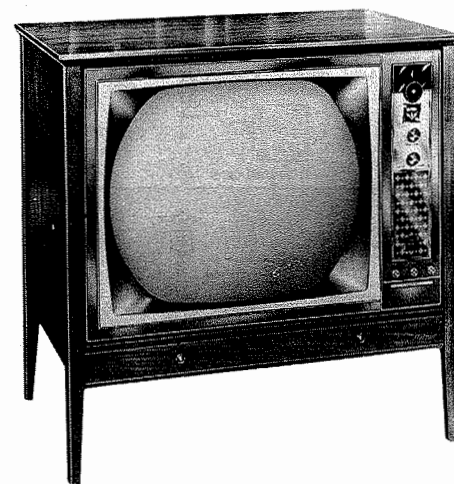
1. Remove chassis and yoke. Lay cabinet face down on soft protective cloth.
2. Remove 8 screws holding clamp assembly to cabinet and remove picture tube clamp assembly.
3. Loosen 2 clamp ring screws and remove clamp ring.

SET 724 FOLDER 3

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

PHOTOFACT® Folder

with CIRCUITRACE®



MODEL C-204

| TRADE NAME | DUMONT | MODELS | CHASSIS |
|--------------|---|---|----------|
| | | C-184/-185/-186/-187/-188 | 120699 |
| | | C-184A/-186A/-187A | 120722 |
| | | C-204/-206/-208/-210/-212/-214/-216/-218 | 120734A |
| | | C-205/-207/-209/-211/-213/-215/-217/-219 | 12073513 |
| SUPPLIER | For current address, see Master Index | | |
| TYPE SET | Color Television Receiver with AM-FM Radio and Power Amplifier used in some models | | |
| TUBES | VHF: Twenty-Six, UHF: Twenty-Seven | | |
| POWER SUPPLY | 110-120 Volts AC, 60 Cycles | | |
| TUNING RANGE | Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier) | | |

FOR SERVICE INFORMATION ON RECORD CHANGER - SEE SIMILAR UNIT PHOTOFACT SET 638, FOLDER 7

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

IMPORTANT FILING NOTICE

Some models covered by this PHOTOFACT Folder employ chassis in addition to the TV chassis. PHOTOFACT Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

INDEX

AM-FM Tuner Chassis 120727A,
FM Stereo Amp Chassis 120719 ... SET 724, FOLDER 3-A

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

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

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

VHF OSCILLATOR ADJUSTMENT

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

AGC

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

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

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

HORIZONTAL LINEARITY

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

FOCUS

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

CENTERING

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

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



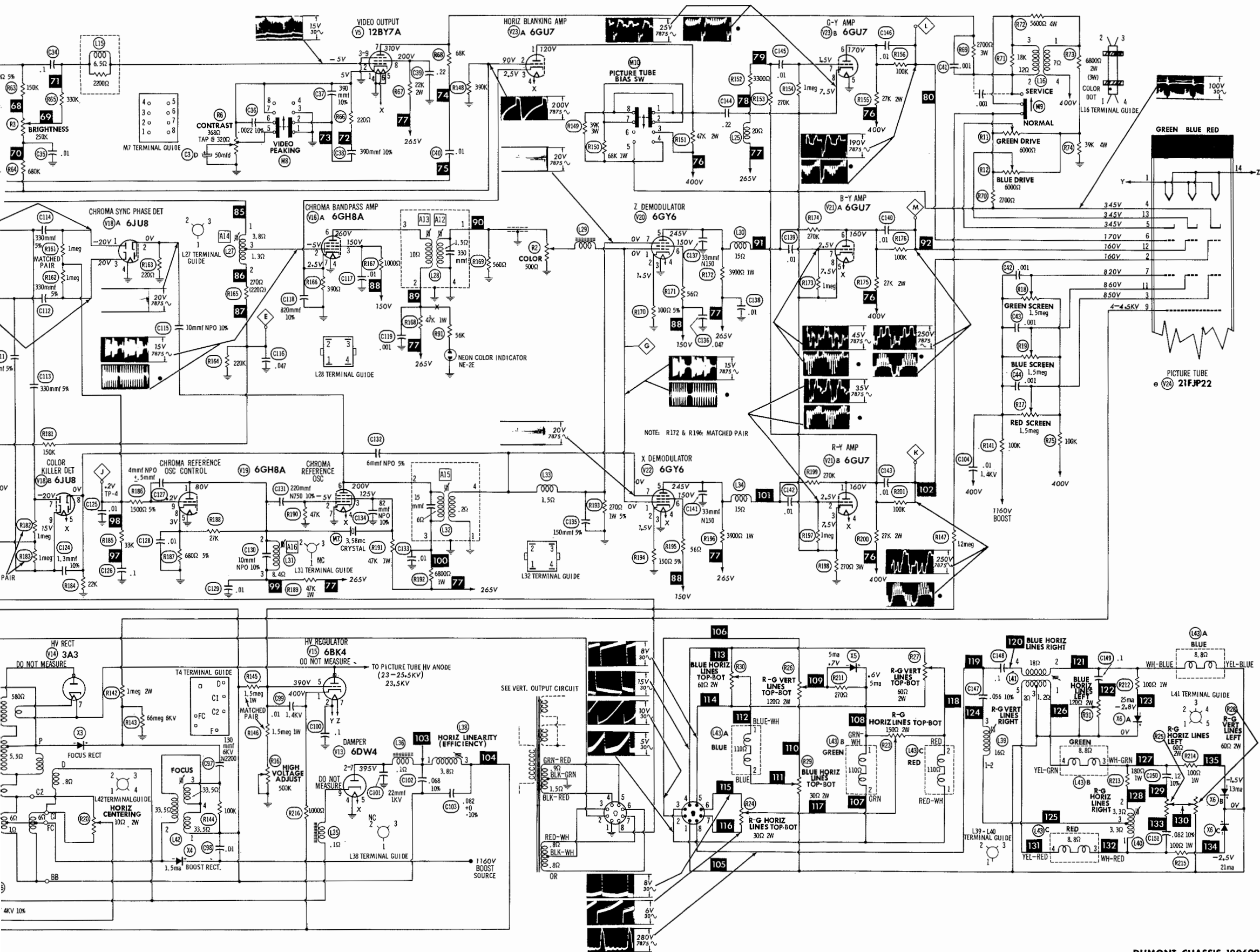
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MB908R

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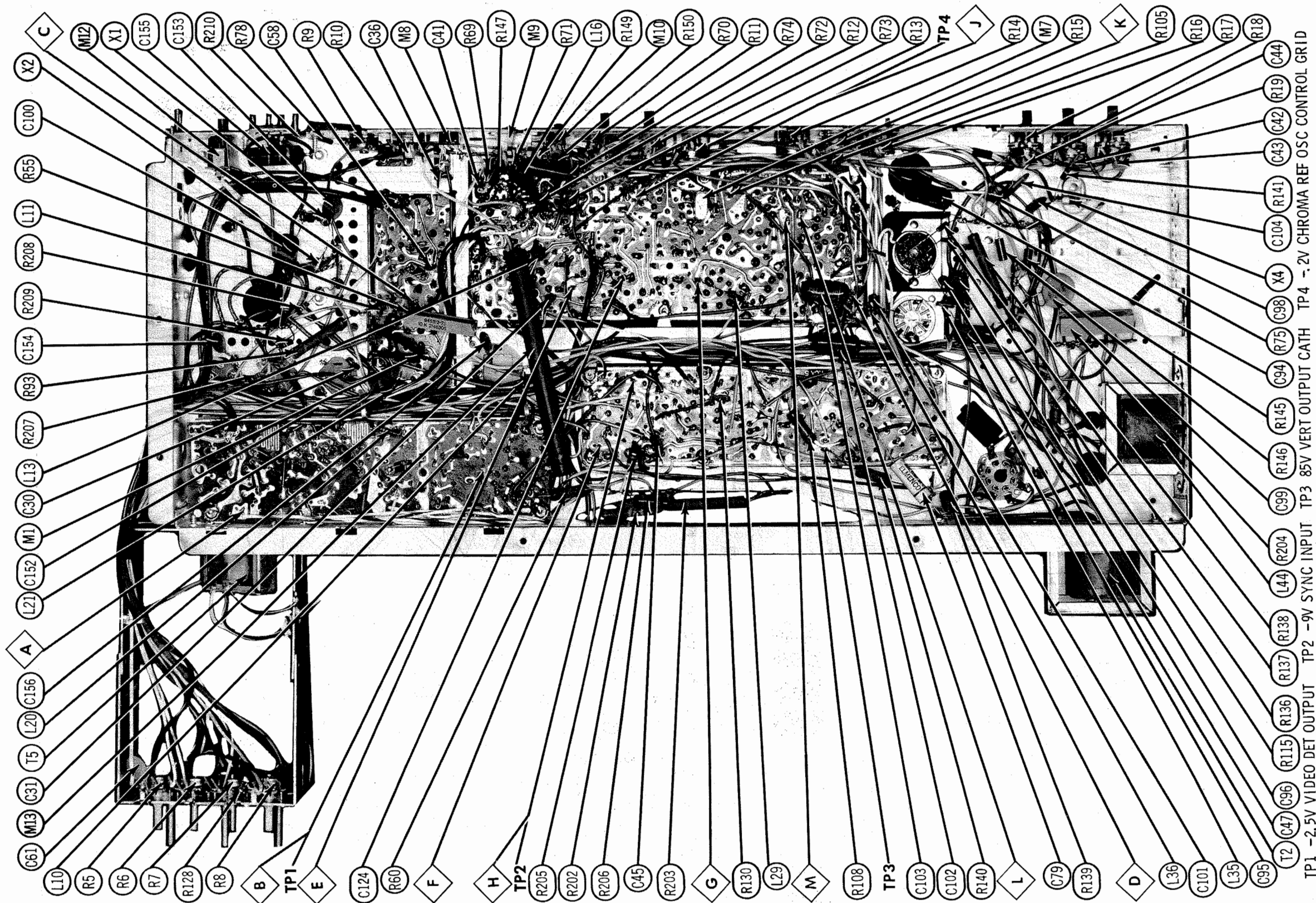
DATE 11-64 SET 724 FOLDER 3

SET 724 FOLDER 3





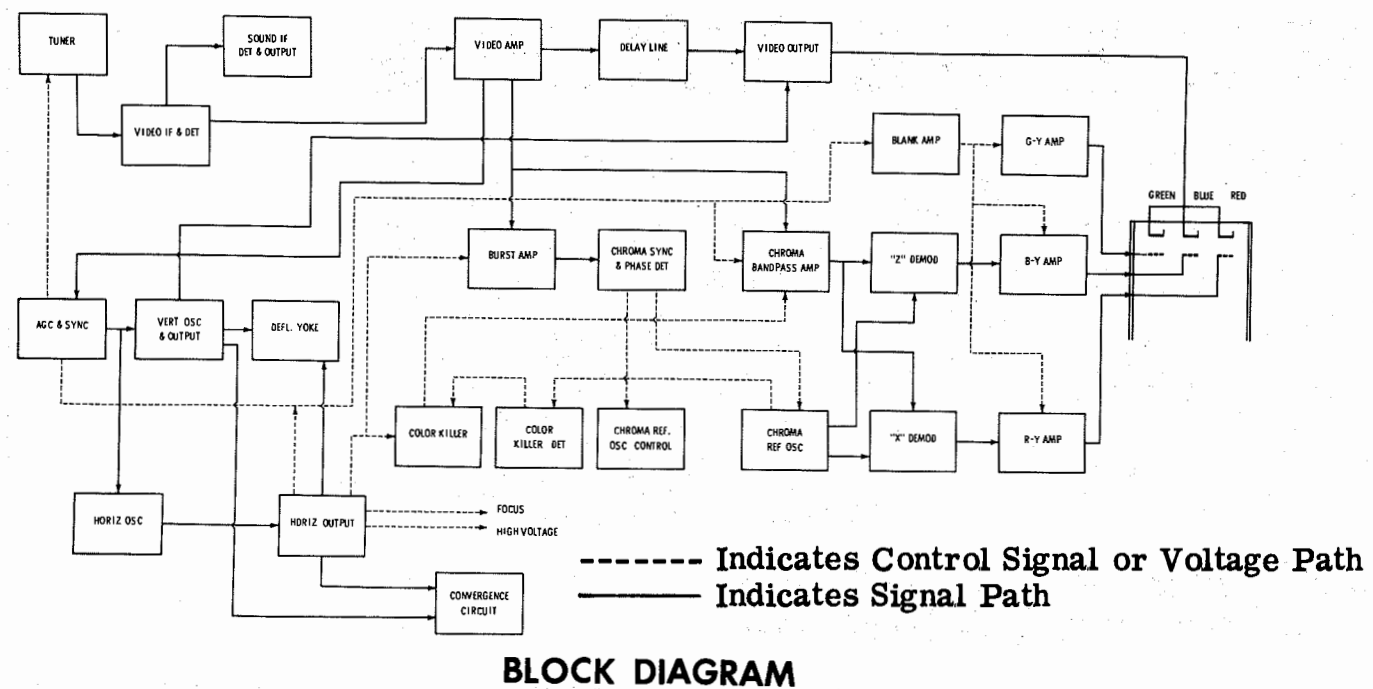
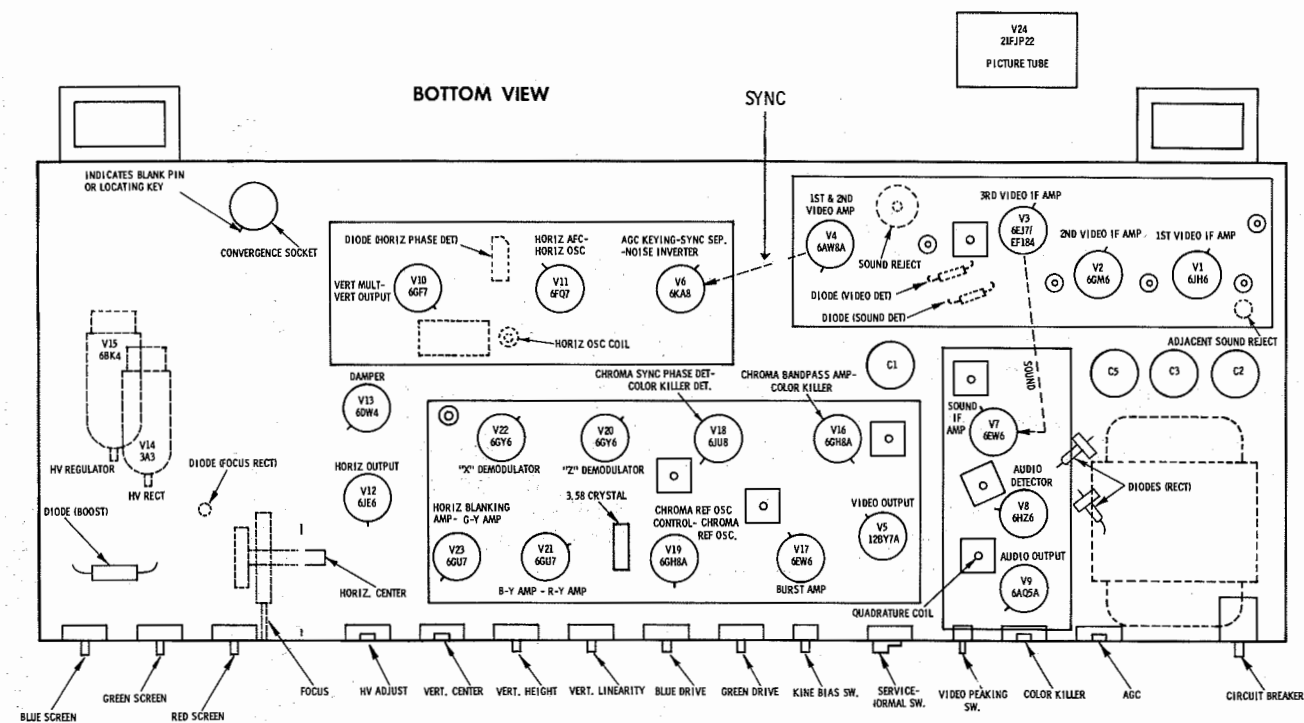
DUMONT CHASSIS 120699,
120722, 120734A, 120735B



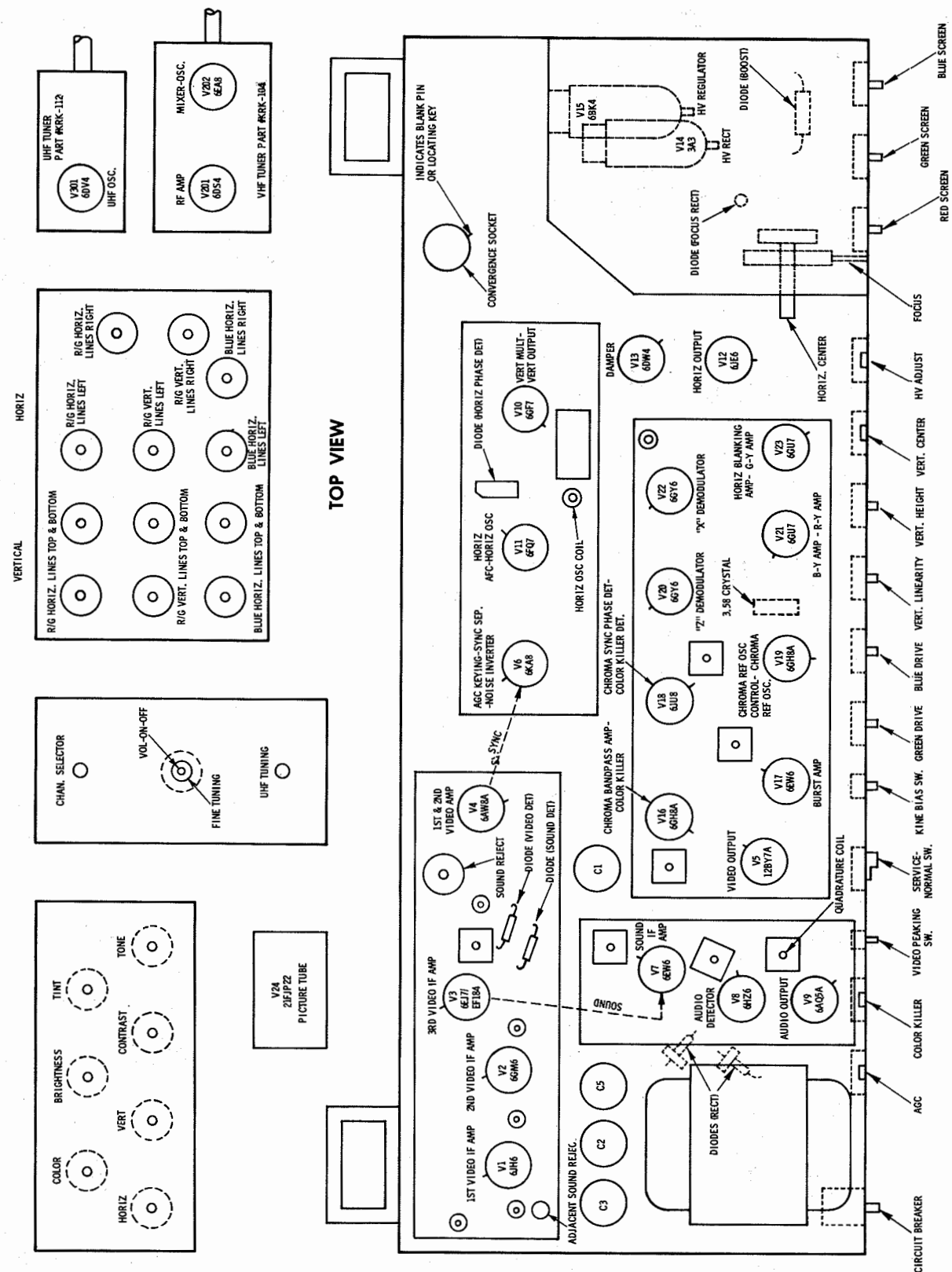
CHASSIS-BOTTOM VIEW

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

TUBE PLACEMENT CHART



TUBE PLACEMENT CHART

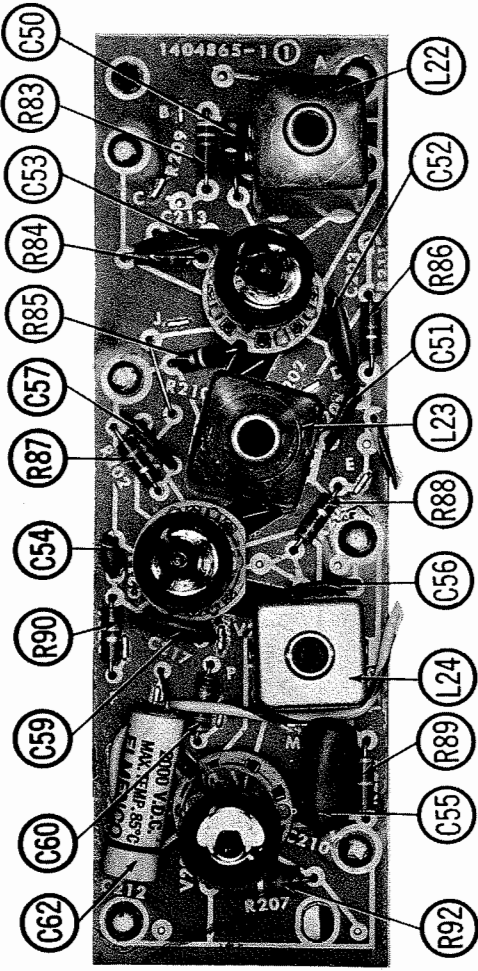
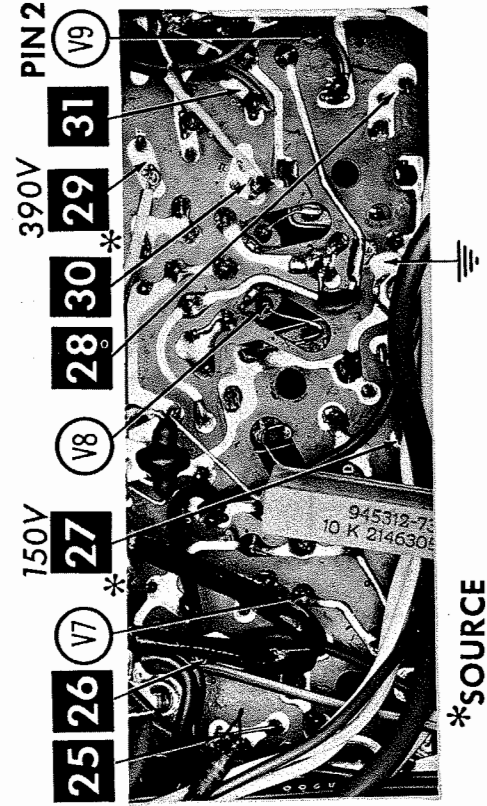


**DUMONT CHASSIS 120699,
120722, 120734A, 120735B**

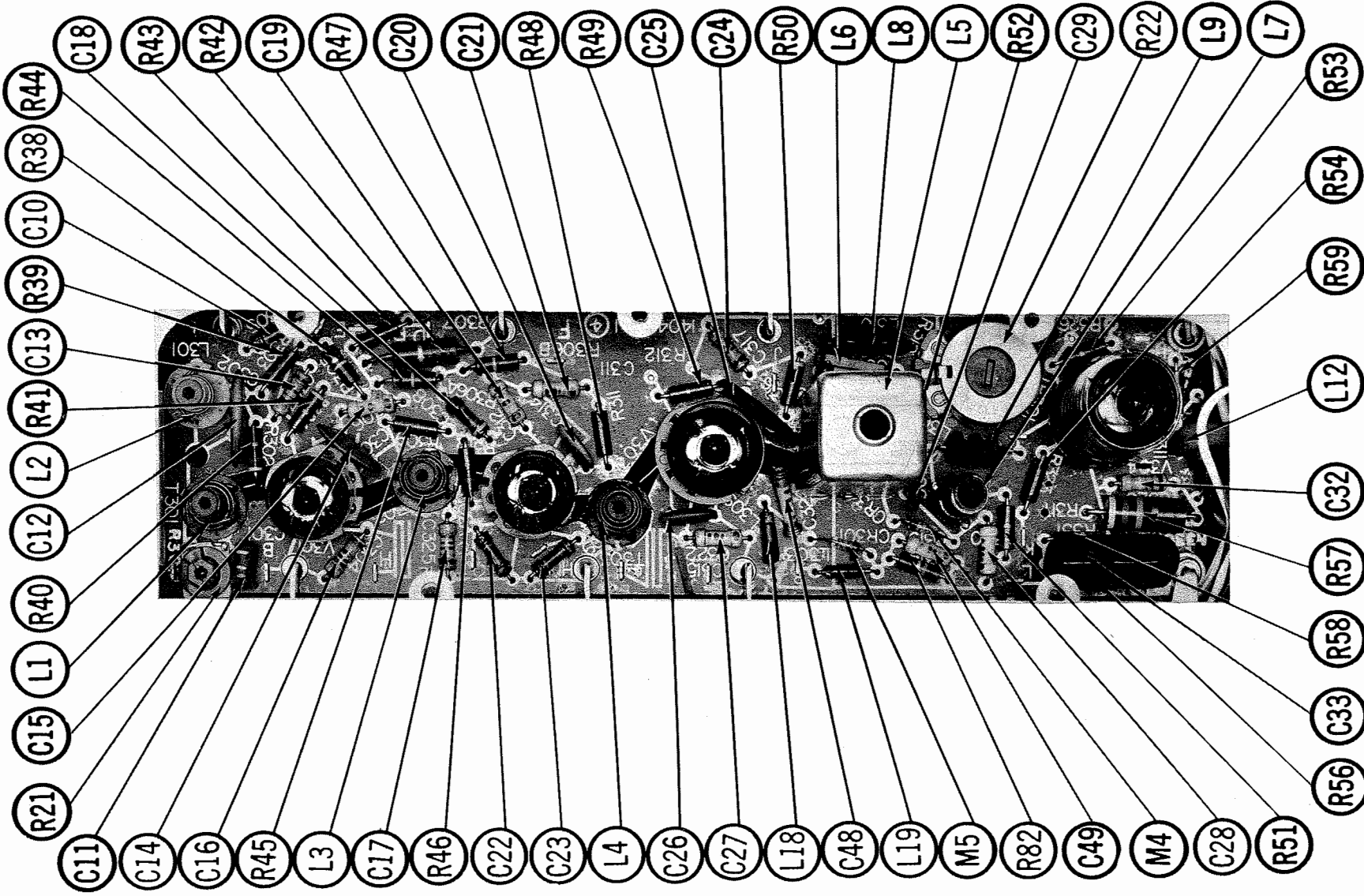
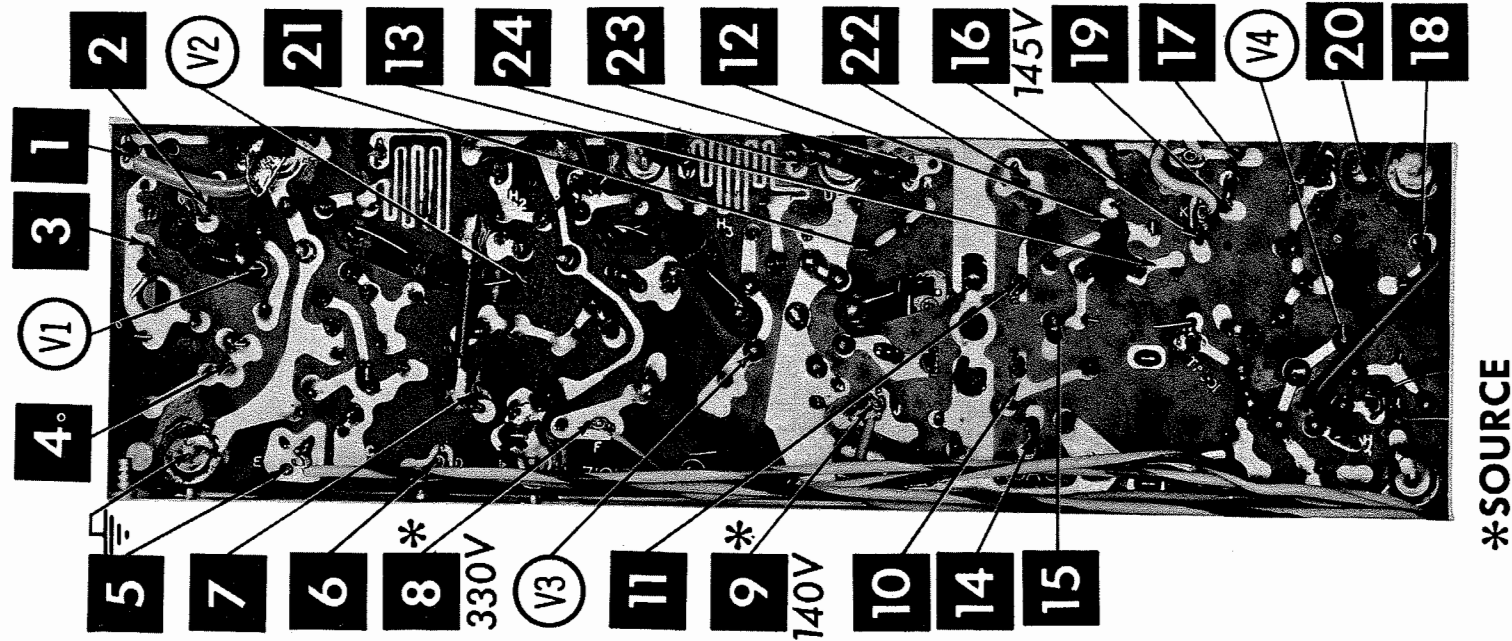
FOLDER 3

SET 724 FOLDER 3

PAGE 3

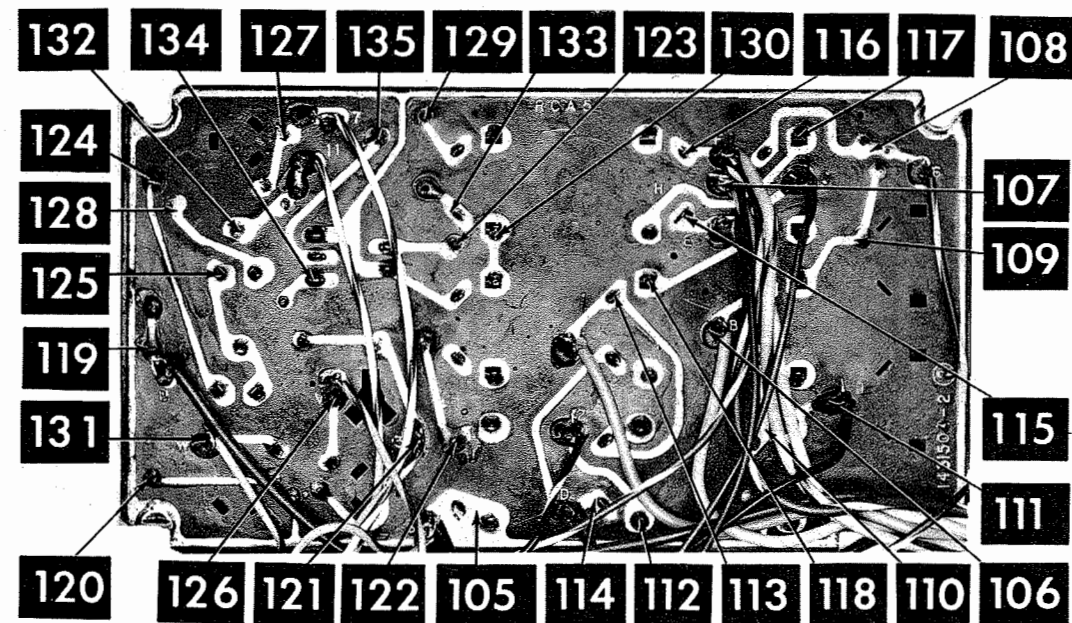


SOUND PRINTED BOARD

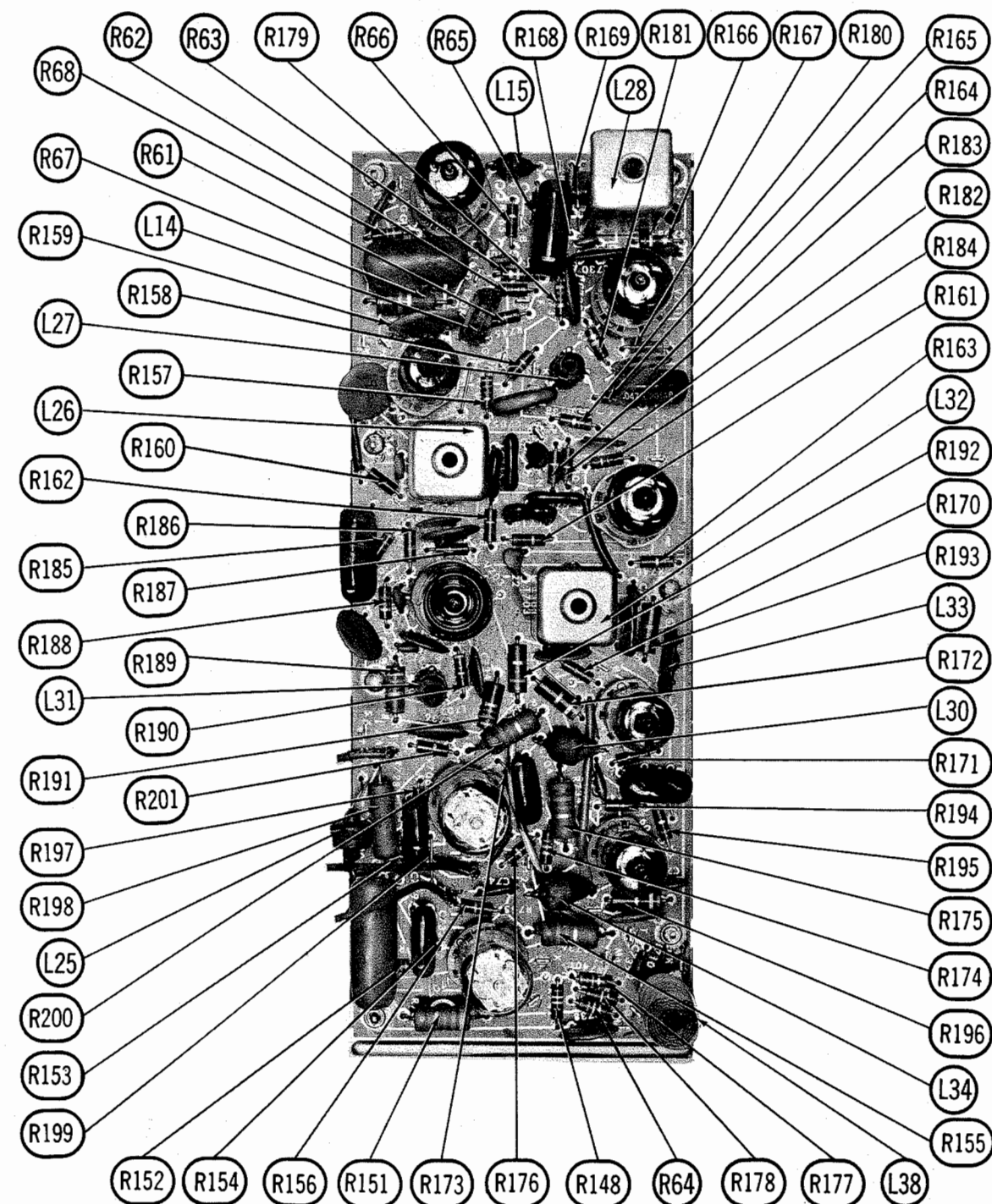
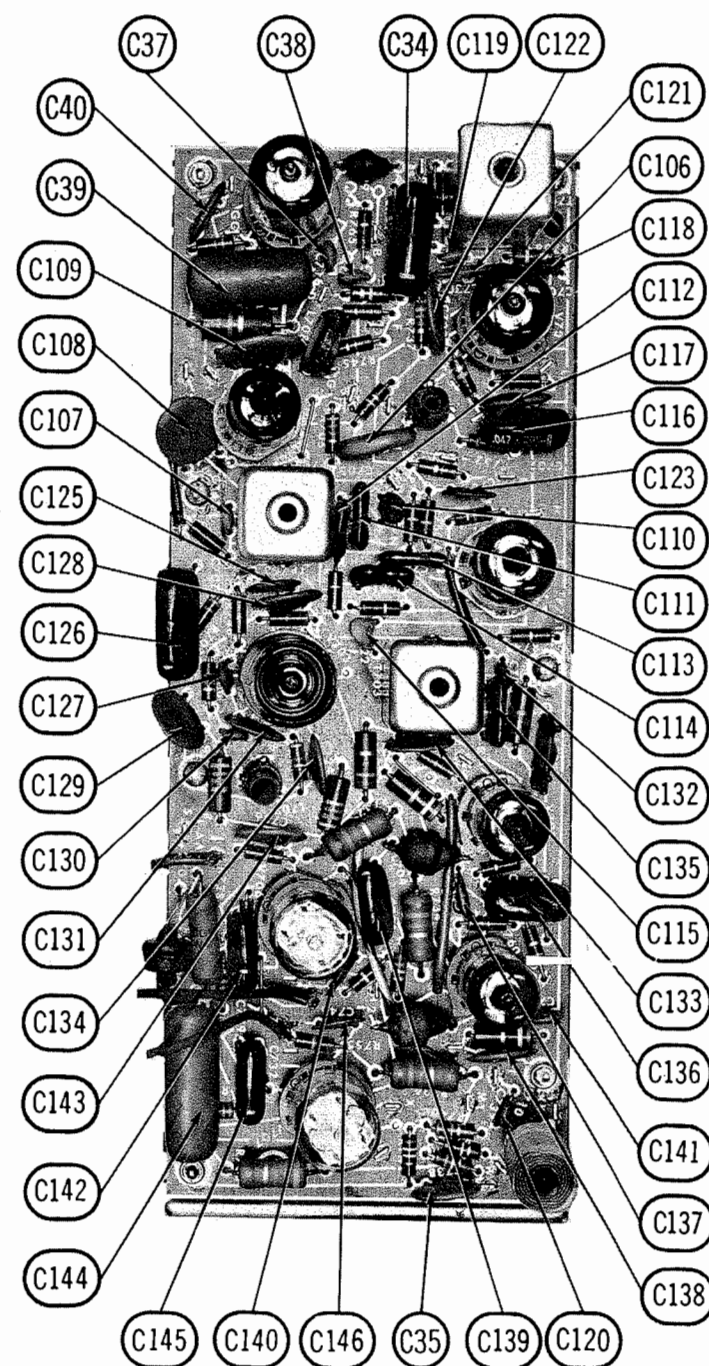
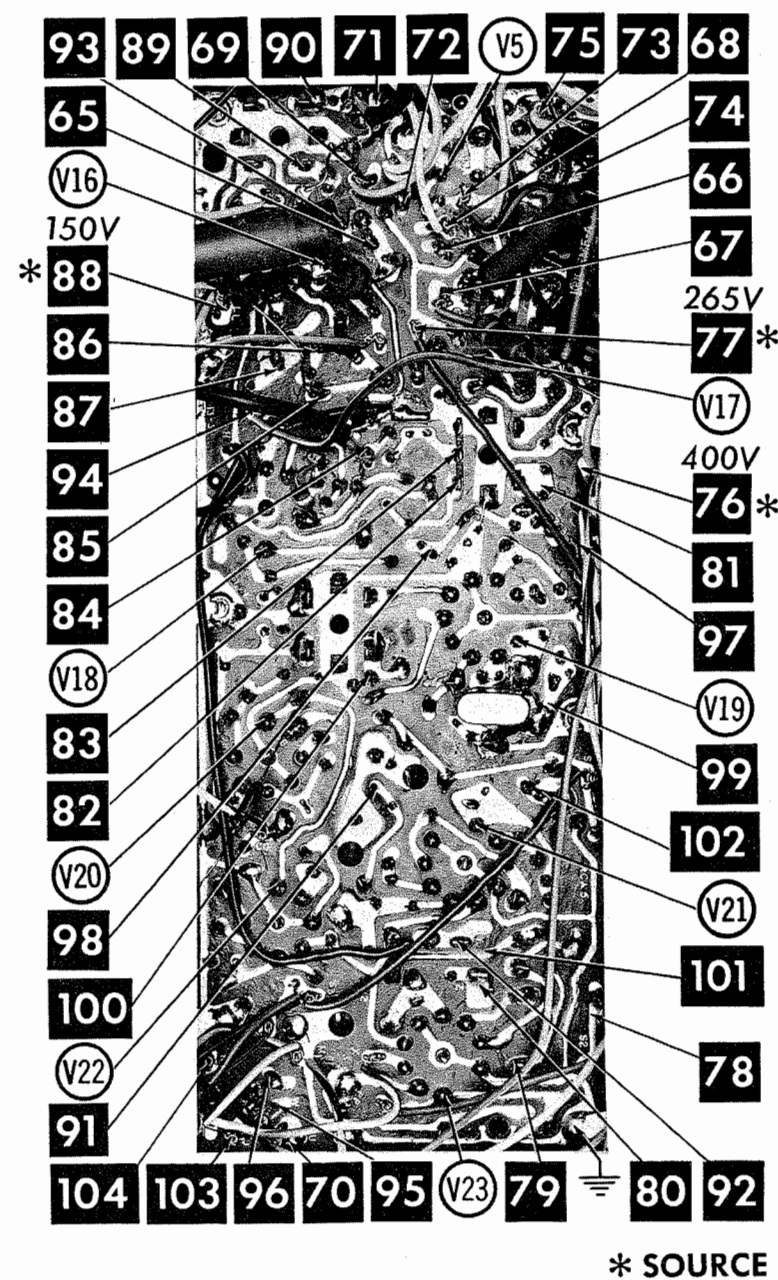


VIDEO IF PRINTED BOARD

DUMONT CHASSIS 120699,
120722, 120734A, 120735B



CONVERGENCE PRINTED BOARD



PRINTED BOARD (COLOR CIRCUIT)

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

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 | Pin 13 | Pin 14 |
|------|----------------|--|--------|---------|---------|----------|---------|---------|----------|---------|--------|--------|--------|---------|-------------------|
| V1 | 6JH6 | 220K | 1450Ω | FIL | FIL | ● 216Ω | ● 216Ω | 1400Ω | | | | | | | |
| V2 | 6GM6 | 75K | 1NF | FIL | FIL | † 3400Ω | † 3400Ω | ● 56Ω | | | | | | | |
| V3 | 6EJ7/ EF184 | 180Ω | 0Ω | 180Ω | FIL | FIL | 0Ω | † 3100Ω | 3100Ω | 0Ω | | | | | |
| V4 | 6AW8A | 0Ω | # 22K | † 7500Ω | FIL | FIL | 22Ω | ● 1000Ω | † 32K | † 10K | | | | | |
| V5 | 12BY7A | 320Ω | 650K | 0Ω | FIL | FIL | FIL | † 6500Ω | † 23K | 0Ω | | | | | |
| V6 | 6KA8 | † 60K | 4meg | 3000Ω | FIL | FIL | 55K | 470K | † 30K | † 700K | | | | | |
| V7 | 6EW6 | 5Ω | 270Ω | FIL | FIL | † 14K | † 14K | 0Ω | | | | | | | |
| V8 | 6HZ6 | 4.5Ω | 270Ω | FIL | FIL | † 560K | † 7100Ω | 470K | | | | | | | |
| V9 | 6AQ5A | 60K | 270Ω | FIL | FIL | † 4700Ω | † 3800Ω | NC | | | | | | | |
| V10 | 6GF7 | 0Ω | 2.7meg | 2100Ω | FIL | FIL | † 1370Ω | NC | † 3.2meg | 280K | | | | | |
| V11 | 6FQ7 | # † 20K | 670K | 1000Ω | FIL | FIL | † 60K | 215K | 45Ω | 0Ω | | | | | |
| V12 | 6JE6 | † 13K | 9.5meg | 0Ω | FIL | FIL | 9.5meg | † 13K | 1600Ω | NC | | | | | TOP CAP † 6.9Ω |
| V13 | 6DW4 | NC | † 26Ω | NC | FIL | FIL | NC | † 26Ω | NC | 2.9meg | | | | | |
| V14 | 3A3 | PINS 1 THRU 8 HAVE INFINITE RESISTANCE | | | | | | | | | | | | | TOP CAP † 58Ω |
| V15 | 6BK4 | † 22Ω | FIL | NC | NC | # 1.5meg | NC | FIL | NC | | | | | | TOP CAP INF |
| V16 | 6GH8A | 370K | 220K | † 4800Ω | FIL | FIL | † 2900Ω | 390Ω | 0Ω | 11meg | | | | | |
| V17 | 6EW6 | 32K | 38K | FIL | FIL | † 1000Ω | † 1400Ω | 38K | | | | | | | |
| V18 | 6JU8 | ▲ 1meg | 220Ω | ▲ 1meg | FIL | FIL | 0Ω | 12meg | 22K | 12meg | | | | | |
| V19 | 6GH8A | † 20K | 47K | † 48K | FIL | FIL | † 8600Ω | 0Ω | 680Ω | 1NF | | | | | |
| V20 | 6GY6 | 135Ω | 100Ω | FIL | FIL | † 5300Ω | † 3900Ω | 2.2Ω | | | | | | | |
| V21 | 6GU7 | † 22K | 1meg | 270Ω | FIL | FIL | † 22K | 1meg | 270Ω | 0Ω | | | | | |
| V22 | 6GY6 | 135Ω | 150Ω | FIL | FIL | † 5300Ω | † 3900Ω | .6Ω | | | | | | | |
| V23 | 6GU7 | † 47K | 260K | 390Ω | FIL | FIL | † 22K | 1meg | 270Ω | 0Ω | | | | | |
| V24 | 21FJP22 | FIL | 127K | ■ 420K | † 6400Ω | † 4500Ω | † 127K | ■ 420K | NC | # 70meg | NC | ■ 420K | † 127K | † 4500Ω | FIL |

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

RESISTANCE MEASUREMENTS

VHF TUNER 471512 AND UHF TUNER 471513

| ITEM | TUBE | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 |
|------|-------|--------|-------|-------|-------|---------|-------|-------|-------|-------|
| V201 | 6HA5 | 1.8meg | 0Ω | FIL | FIL | † 3085Ω | 0Ω | 0Ω | | |
| V202 | 6GJ7 | 0Ω | 220K | 0Ω | FIL | FIL | † 32K | † 53K | † 35K | 82K |
| V301 | 6AF4A | † 30K | 5600Ω | FIL | FIL | 0Ω | 5600Ω | † 30K | | |

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect:
A 0-500MA meter in series with cathode lead of horizontal output tube.
A .47mfd capacitor across meter.
A 0-1500 microammeter in series with the cathode lead of the HV regulator tube.
A VTVM thru a high voltage probe to picture tube anode connector.
Point Ⓢ to ground.
A short across horizontal oscillator cathode coil (pin 8 to ground).
Tune in a TV station and set all controls for normal operation.
Adjust the Horizontal Hold control until the picture "floats" with the blanking bars vertical. Remove the short from the Horizontal Oscillator Cathode and adjust B1 until the picture "floats" horizontally. Remove the short from point Ⓢ. Adjust the Horizontal Linearity Coil for MINIMUM current in the horizontal output tube (should not exceed 210MA).
Adjust the High Voltage control for 23KV on picture tube anode with normal brightness. Check the High Voltage Regulator current. The current should not be less than 850 microamperes. If current is less than 850 microamperes, turn the Horizontal Linearity slug one-half turn clockwise. Check to see that horizontal output current does not exceed 210MA. If foldover occurs in picture, adjust Horizontal Linearity clockwise to eliminate foldover while checking to make sure horizontal output current does not exceed 210MA.
Adjust Focus, Height and Vertical Linearity controls.

AGC ADJUSTMENT

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

COLOR AFC ALIGNMENT

Set the Killer Threshold control to fully counterclockwise. Set the Tint control to the center of its range.
Connect a color bar generator to the antenna terminals. Adjust receiver for normal color reception. Short pin 1 of Burst Amp. (V17) to ground.
Connect DC probe of VTVM thru 470K to pin 1 of Phase Detector (V18). Adjust A15 for maximum deflection on VTVM. If no reading is obtained, oscillator is not operating. Adjust A16 to start oscillator, then adjust A15 for maximum. Remove the short from pin 1 of Burst Amp. Adjust A17 for maximum deflection on VTVM. Make sure the oscillator is running and locked in.
Short point Ⓢ to ground. Remove VTVM. Adjust A16 until color bars stand still or drift slowly. Remove the short from point Ⓢ and check to see that the color bars will "sync" with a low level input signal. If necessary, retouch A16 for best hold.
Connect the Vertical Input of a Scope to point Ⓢ. Check for proper waveform with the color bar generator being used. See waveform on schematic for pattern obtained from a standard NTSC signal. Check the range of the Tint control. The bars should move 30° either side of proper signal. If necessary, retouch A17 for proper range of control.
Check for proper waveform at G-Y, and B-Y outputs (points Ⓢ and Ⓢ). Tune in a weak signal, or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the Killer Threshold control to eliminate the color in the snow. Check with a color signal to make sure the killer is not eliminating picture coloring.

PURITY ADJUSTMENTS

Perform step one of Convergence Adjustments. If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets.
Connect the blue and green grids of the picture tube through individual 100K resistors to ground. Loosen the deflection yoke and move it rearward until it is against the convergence yoke assembly.
Adjust the tabs on the purity magnet, and rotate the assembly until a red spot appears at the center of the picture tube. Slide the deflection yoke forward to obtain a uniform red over entire picture tube face. A low power microscope is useful to observe the beam landings.

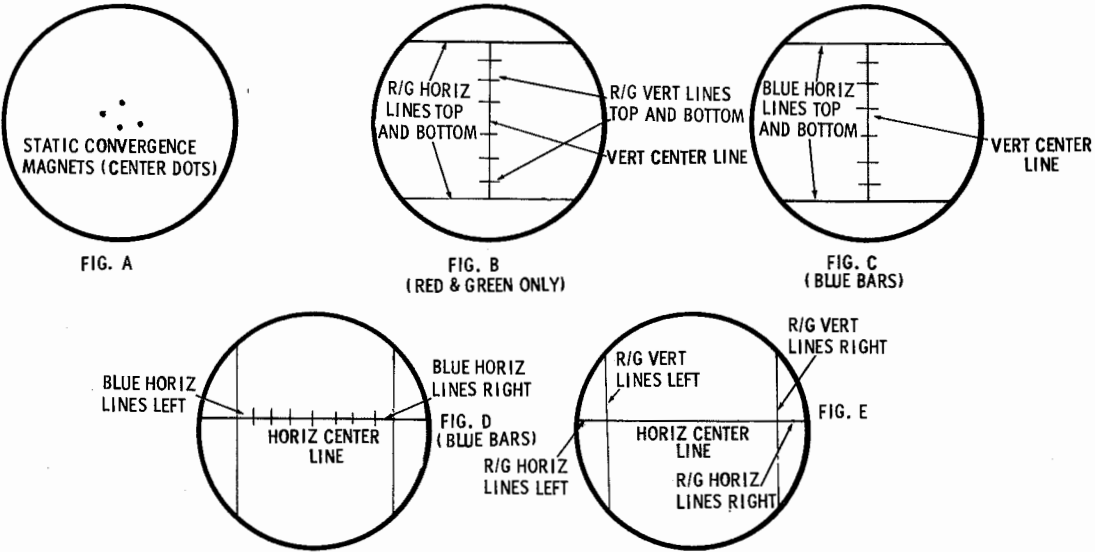
GRAY SCALE ADJUSTMENTS

Tune in a black and white picture or a color picture with the Color control set to MINIMUM. Switch the Kine bias switch to the "Up" position. Turn the red, blue and green screen controls fully counterclockwise. Move the "Normal-Service" switch to "Service". Advance the screen controls one at a time until each produces a barely visible line on the screen.

If one or more controls fail to produce a line, change the Kine bias switch to the center or possibly "Down" position and begin again. Return the Normal-Service switch to "Normal". Adjust the blue and green drive controls to eliminate coloring in the dark and bright areas of the picture.

CONVERGENCE ADJUSTMENTS

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



SET 724 FOLDER 3

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

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 A11 GENERAL CEMENT 8608, 8869, 9302 ... WALSCO 2511, 2543, 2588
Mixer Plate Coil GENERAL CEMENT 9298, 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 ④) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

| INDICATOR | GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | ADJUST | REMARKS |
|---|---|---------------------------|---|--|--|
| 1. Connect DC probe of a VTVM thru a 47K resistor to point ④. Common to ground. | Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground. | | 41.25MC 47.25MC | A1, R22 A2, R21 | Adjust for MINIMUM. Keep cores of L5 (A1) and L2 (A2) at coil end away from board. |
| 2. Connect DC probe of a VTVM thru a 47K resistor to point ④. Common to ground. | Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground. | | 43.8MC 42.5MC 45.75MC 44.0MC | A3 A4 A5 A6, Mixer Plate Coil | Adjust for maximum with core nearest printed board end of coil for A3, A4, A5 and A6. Adjust Mixer Plate Coil for maximum with core at top of coil. |
| 3. Connect vertical input of a scope to point ④. Low side to ground. | Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground. | 44MC (10MC Sweep) | 41.25MC 42.17MC 42.75MC 45.0MC 45.75MC 47.25MC | | Adjust for maximum gain and symmetry of response with markers as shown in Figure 1. In order to obtain a proper response, it may be necessary to slightly retouch A3, A4, A5, A6, and Mixer Plate Coil for optimum response. |

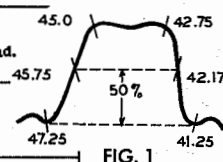


FIG. 1

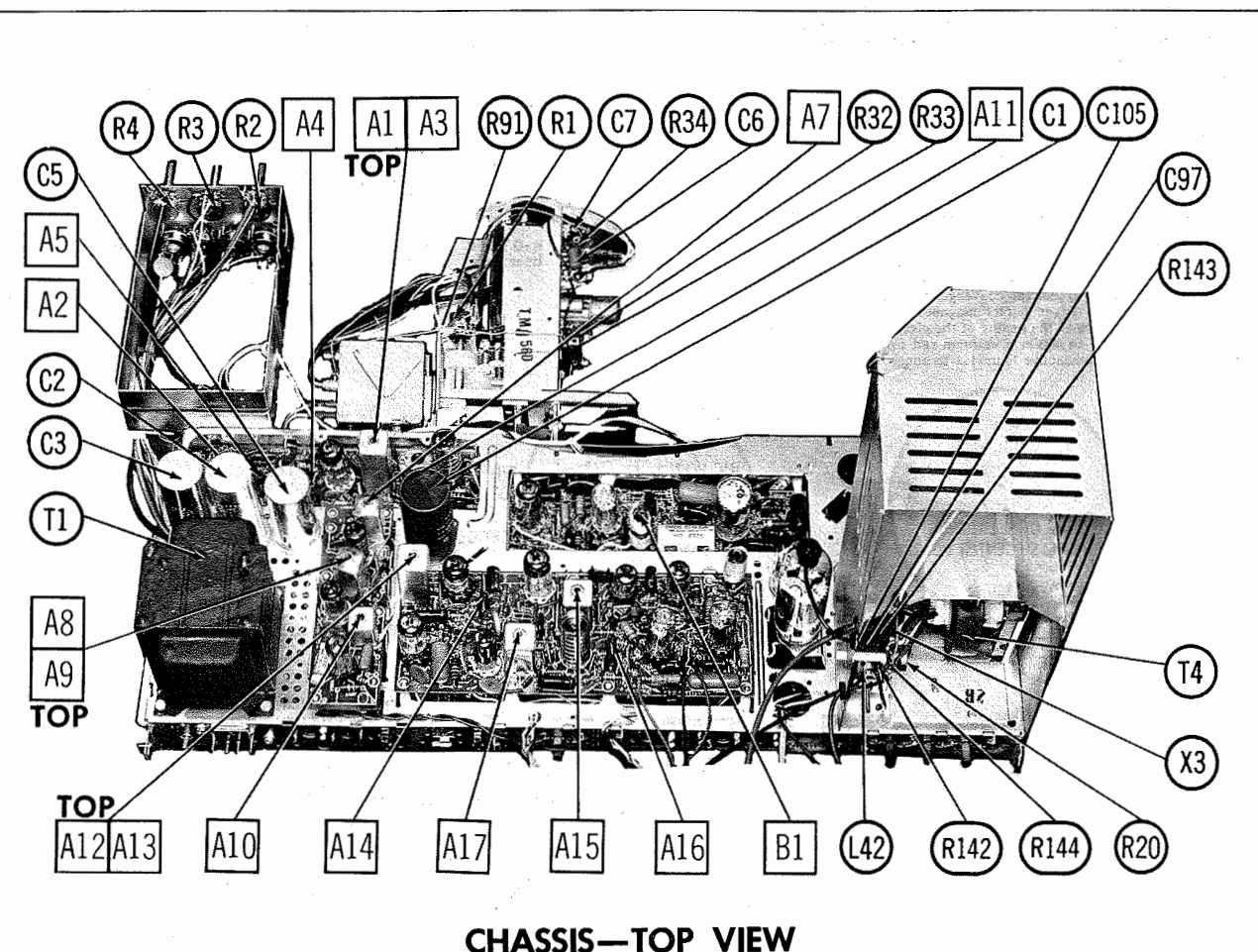
4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A11 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Connect a VTVM thru a detector probe to point ④. Tune in a TV station and adjust A7, A8, and A9 for maximum deflection. Remove VTVM. Reduce the signal at the antenna terminals until distortion occurs in the sound. Adjust A10 clockwise from the fully-out position to the second peak for maximum sound. Continue to reduce the signal and adjust A10 for MINIMUM distortion and maximum sound until no further improvement can be made.

TV ALIGNMENT CONT'D ON PAGE 17



CHASSIS—TOP VIEW

ALIGNMENT INSTRUCTIONS (cont)

CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RF Modulator (RCA WG304A or equivalent). Connect a -15 volt supply to point ④. Connect a -2 volt supply to point ④. Connect a -15 volt supply to point ④. Positive of all supplies to ground. Connect a jumper from point ④ to ground. Turn the color intensity to maximum. Remove the Horizontal Output tube and connect a 2000Ω 100W resistor from 400V source to ground.

| SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|---|---------------------------------------|----------------------------|---------|---|----------|---|
| 4. High side thru .1mfd to grid of Bandpass Amp. (V17). Low side to ground. | 3.58MC (3-5MC Sweep) | 3.08MC 4.08MC | | Vert. Amp. to pin 1 of demodulators, point ④, low side to ground. | A12, A13 | Adjust for response curve similar to Fig. 2. |
| 5. High side of sweep gen. to Video Sweep Input of RF demodulator. High side of signal gen. to picture carrier input. Output of RF modulator to mixer grid test point on tuner. Low side to ground. | Sweep generator to 3MC (6MC Sweep) | 45.75MC | | " | A14 | Adjust for response curve similar to Fig. 3. If necessary retouch A12 to flatten top of response. |

FIG. 2

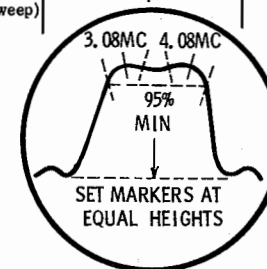
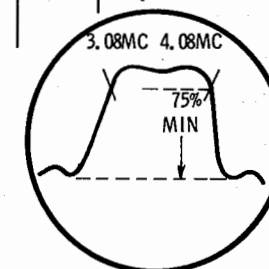


FIG. 3



VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: ... GENERAL CEMENT #8868, 9087, 9089 ... WALSCO #2528, 2541, 2587
TUNERS 471512, 471515

OSCILLATOR ALIGNMENT TUNER 471512 & 471515

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.

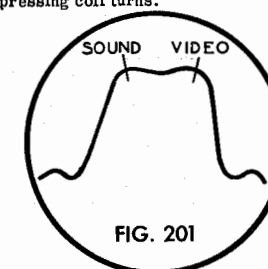
OSCILLATOR ALIGNMENT TUNER KRK107D & 108D

Starting with the highest available channel in area, check to see that all high band channels (7-13) can be tuned in with the Fine Tuning Control. If any channel cannot be tuned in with the Fine Tuning, switch to Channel 13 and adjust the oscillator slug (accessible through a hole in the indicator drive gear) and recheck all high band channels. Check all available low band channels to see if they are well within the range of the Fine Tuning. If not, switch to Channel 6 and adjust the Channel 6 slug and recheck all low band channels.

RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point ④. Adjust bias to obtain response curve which shows no indication of overloading.

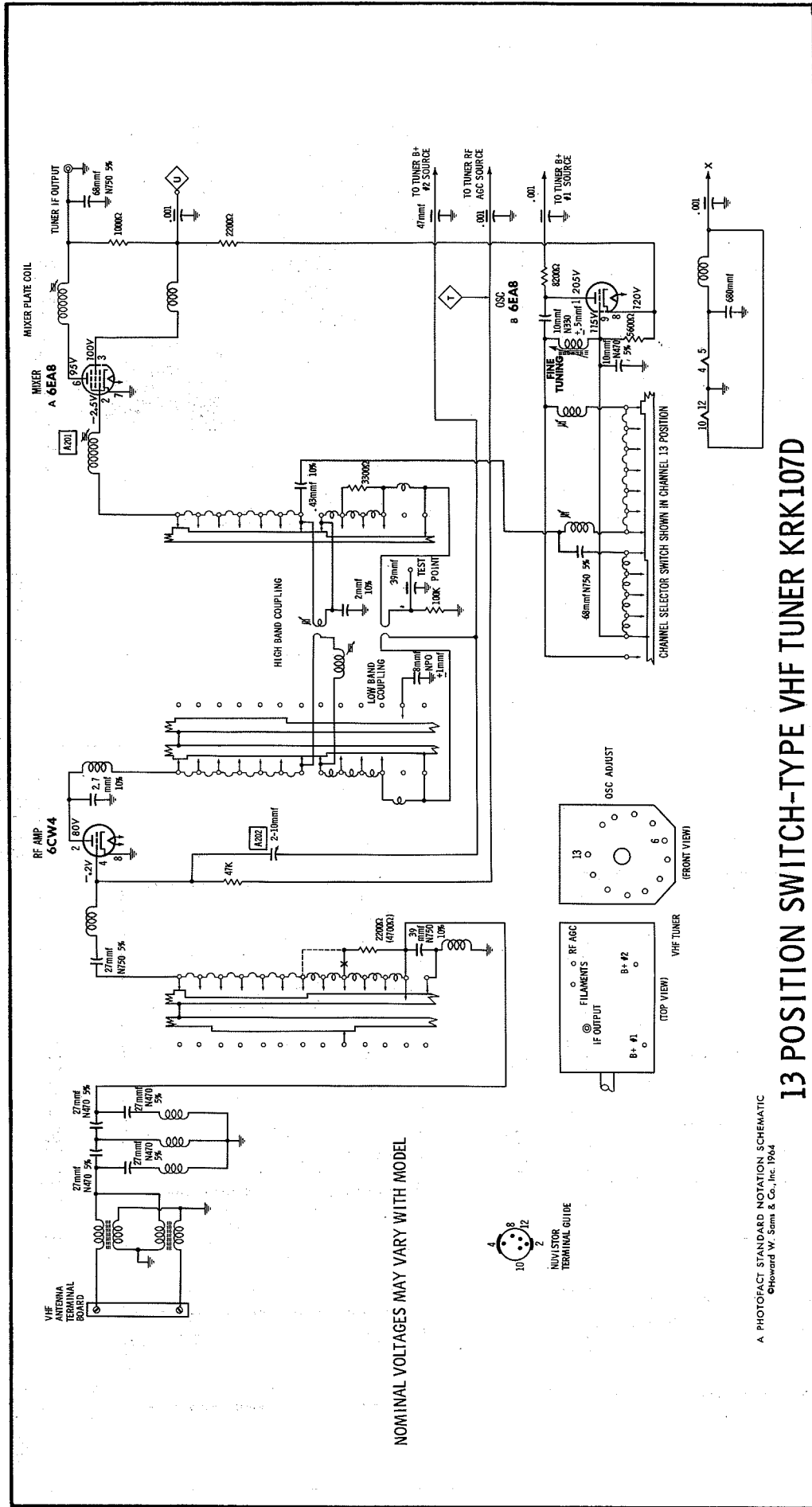
| SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|---|---|--|--|---|------------------|--|
| 1. Across antenna terminals with 120Ω in each lead. | 213MC | 211.25MC 215.75MC | 13 | Vert. input to point ④, low side to ground. | A201 | Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. |
| 2. " | 195MC | 193.25MC 197.75MC | 10 | Across video det. load resistor. | A202 | Increase bias to -15 volts and adjust for MINIMUM response. |
| 3. " | 85MC | 83.25MC 87.75MC | 6 | Vert. input to point ④, low side to ground. | A203, A204, A205 | Decrease bias. Adjust for response curve similar to Fig. 201. If necessary, adjust low band coupling for best response. |
| 4. " | 207MC 201MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC | 205.25MC 209.75MC 199.25MC 203.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC 83.25MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC | 12 11 9 8 7 6 5 4 3 2 | Vert. input to point ④, low side to ground. | | Decrease bias. Check response on all channels. Adjust appropriate coils for each channel. Coils not containing adjustable cores are adjusted by expanding or compressing coil turns. |



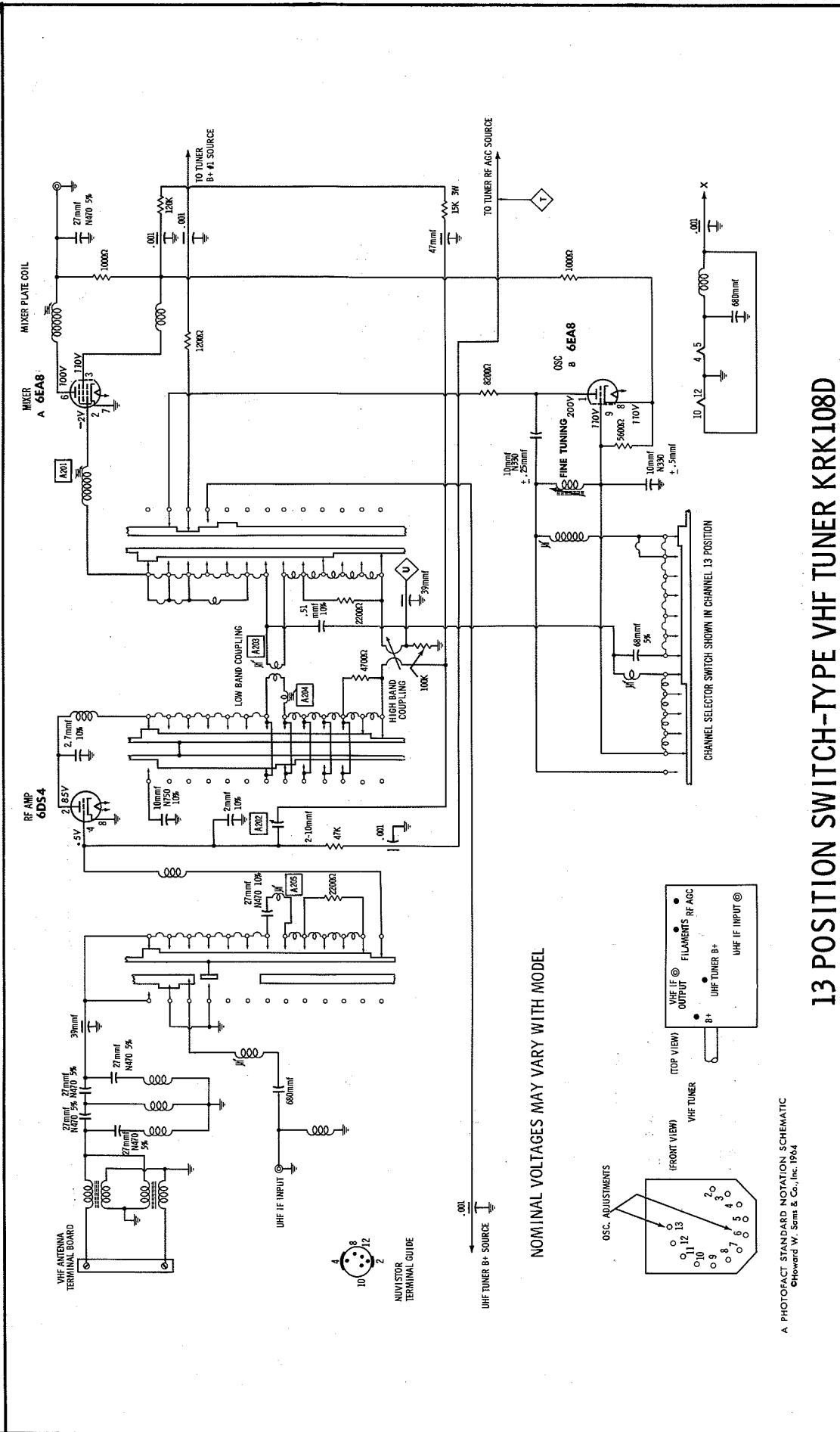
In UHF equipped tuners, tune to a UHF station and adjust VHF IF Input Coil for best picture and sound.

DUMONT CHASSIS 120699,
120722, 120734A, 120735B

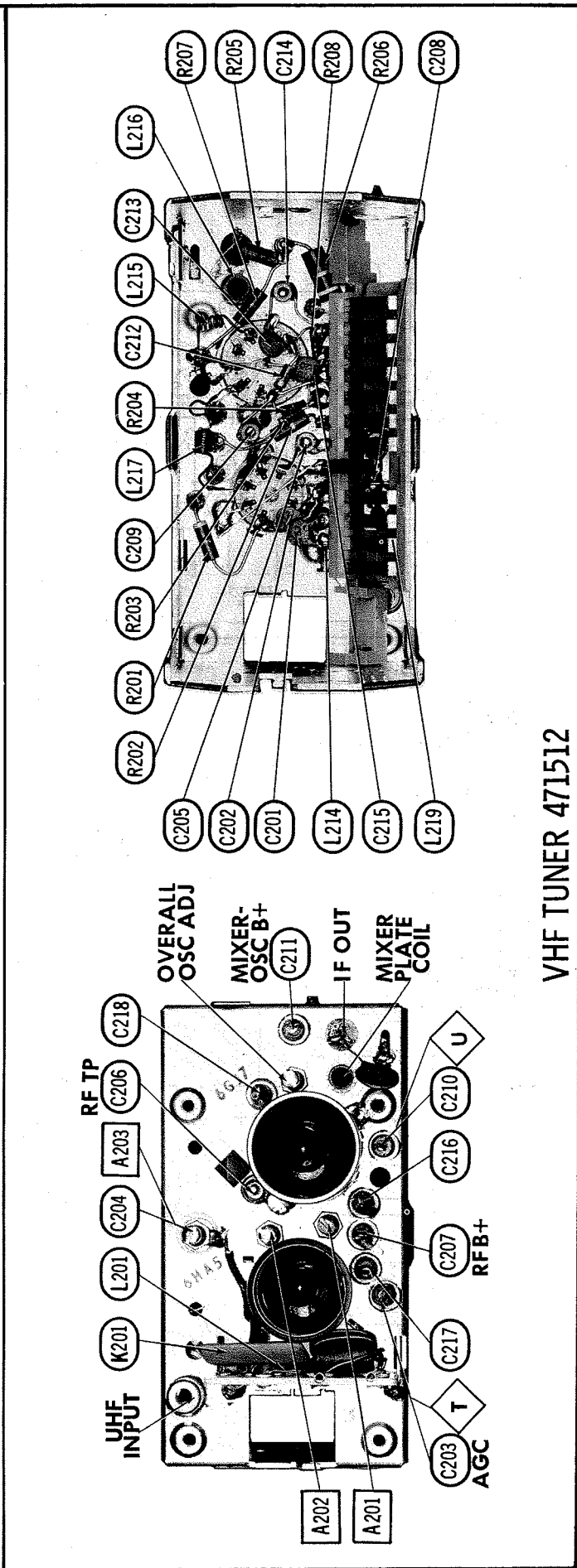
FOLDER 3



13 POSITION SWITCH-TYPE VHF TUNER KRK107D



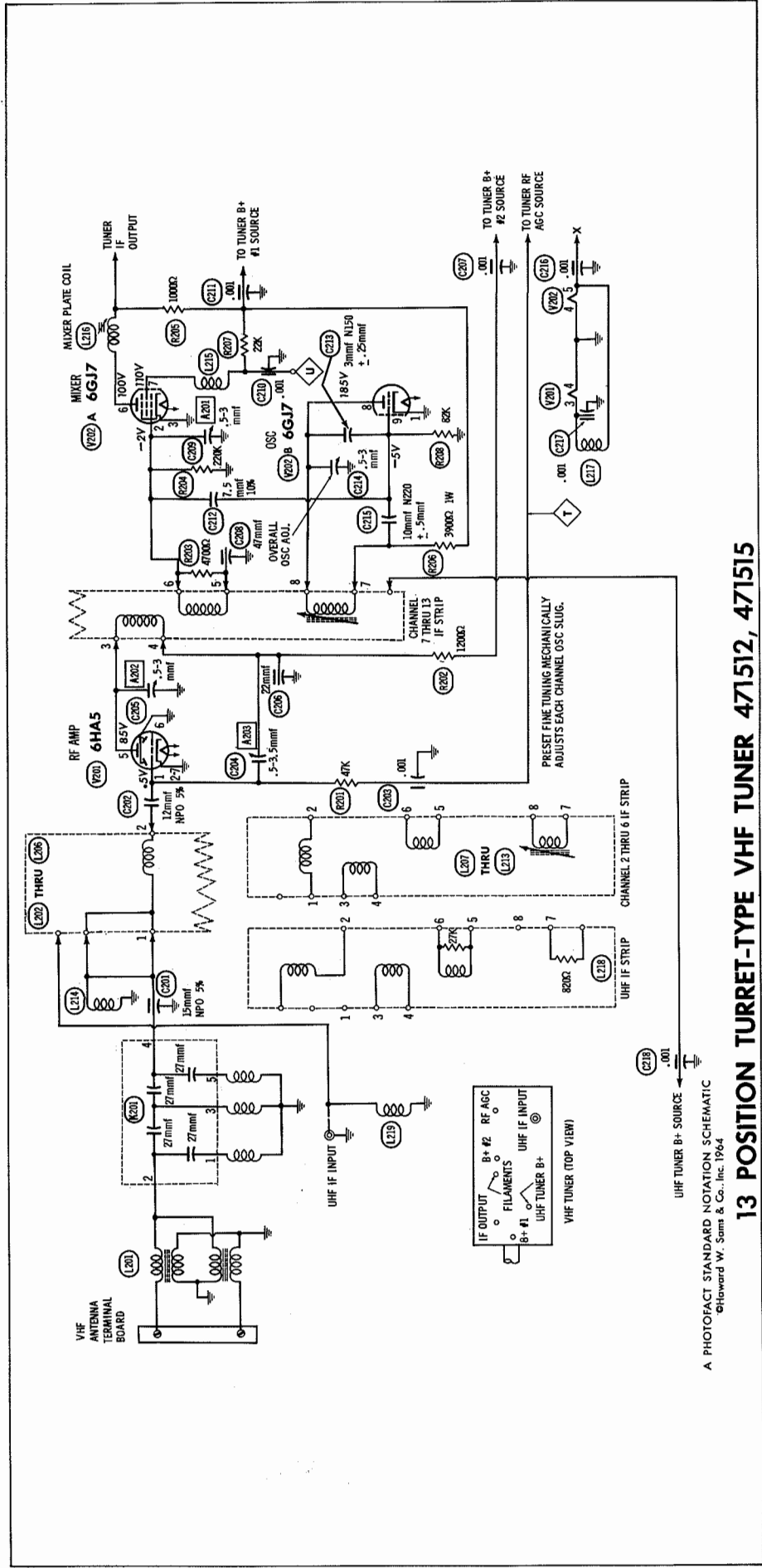
13 POSITION SWITCH-TYPE VHF TUNER KRK108D



120722, 120734A, 120735B

VHF TUNER 471512

FOLDER 3



VHF TUNER PARTS LIST

| TUNER 471512 | | | |
|--------------|------------|------|---------|
| TUBES | | | |
| ITEM No. | USE | TYPE | REMARKS |
| V201 | RF Amp. | 6BA5 | |
| V202 | Mixer-Osc. | V202 | |

| FIXED CAPACITORS | | | |
|------------------|------------------|---------|-----------------------------------|
| ITEM No. | RATING | REMARKS | REPLACEMENT DATA |
| C201 | 15 NPO 5% | | CORNELL-DUBILIER PART No. C10Q15C |
| C202 | 12 NPO 5% | | ELMCO PART No. CCF-102 |
| C203 | .001 | | CV-1 |
| C204 | .5-3.5 | | CT280A |
| C205 | 22 | | CT585 |
| C206 | 5-3 | | CT280A |
| C207 | 47 | | CT585 |
| C208 | 5-3 | | CT280A |
| C209 | .001 | | CV-1 |
| C210 | .001 | | CT280A |
| C211 | .001 | | CT280A |
| C212 | 7.5 | | CT585 |
| C213 | 3, N150, ±.25mmf | | 107CC-Q15 |
| C214 | 5-3 | | 107CC-Q15 |
| C215 | 10, N220, ±.5mmf | | 107CC-Q15 |
| C216 | .001 | | CT280A |
| C217 | .001 | | CT280A |
| C218 | .001 | | CT280A |

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

COILS (RF-IF)

| ITEM No. | USE | PART No. | NOTES | ITEM No. | USE | PART No. | NOTES |
|----------|-----------------------|----------|-------------------|----------|-----------------------|----------|-----------------------|
| L201 | Ant. Input As's'y | 984549 | Chan. 2, IF Strip | L211 | Ant., RF, Mixer, Osc. | 984561 | Chan. 11, IF Strip |
| L202 | Ant., RF, Mixer, Osc. | 984552 | Chan. 3, " | L212 | " | 984562 | Chan. 12, " |
| L203 | " | 984553 | Chan. 4, " | L213 | RF Choke | 984563 | Chan. 13, " |
| L204 | " | 984554 | Chan. 5, " | L214 | " | | |
| L205 | " | 984555 | Chan. 6, " | L215 | RF Choke | | |
| L206 | " | 984556 | Chan. 7, " | L216 | Mixer Plate | 984550 | |
| L207 | " | 984557 | Chan. 8, " | L217 | UHF IF Strip | 984551 | Ant., RF, Mixer, Osc. |
| L208 | " | 984558 | Chan. 9, " | L218 | UHF IF Strip | 984551 | |
| L209 | " | 984559 | Chan. 10, " | L219 | UHF Output | 984576 | |
| L210 | " | 984560 | | | | | |

COMPONENT COMBINATIONS

| ITEM No. | USE | DESCRIPTION | EMERSON PART NO. | REPLACEMENT DATA |
|----------|-----------------|----------------------------|------------------|------------------|
| E201 | Antenna Network | 27mmf, 27mmf, 27mmf, 27mmf | 13P-010-01 | |

UHF TUNER PARTS LIST

TUNER 471513

TUBES

| TUBES | | | |
|----------|----------|-------|---------|
| ITEM No. | USE | TYPE | REMARKS |
| V301 | UHF Osc. | 6AF4A | |

FIXED CAPACITORS

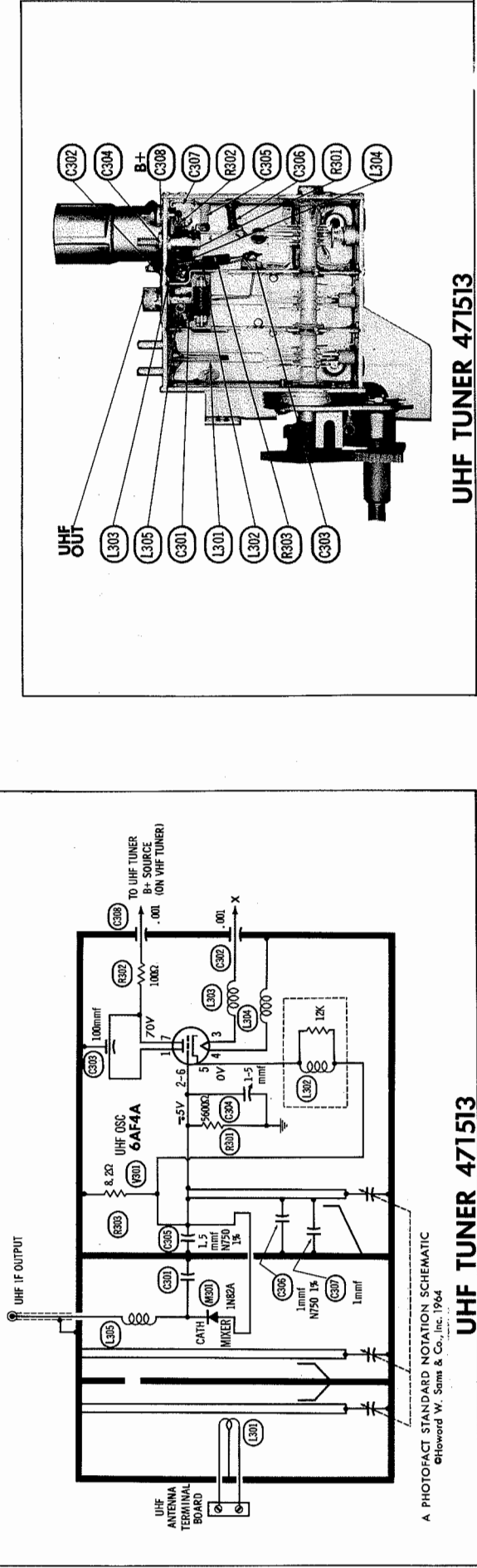
| ITEM No. | RATING | REMARKS | REPLACEMENT DATA |
|----------|--------|---------|-----------------------------------|
| C301 | .001 | | CORNELL-DUBILIER PART No. CCF-102 |
| C302 | 100 | | CT280A |
| C303 | 1-5 | | CT585 |
| C304 | 1-5 | | CT280A |
| C305 | 1.5 | | CT585 |
| C306 | 1.5 | | CT280A |
| C307 | 1.5 | | CT585 |
| C308 | .001 | | CT280A |

COILS (RF-IF)

| ITEM No. | USE | PART No. | NOTES | ITEM No. | USE | PART No. | NOTES |
|----------|---------------|----------|--------------------|----------|------------|----------|-------|
| L301 | Ant. RF Choke | 984552 | Chan. 11, IF Strip | L303 | FIL. Choke | CT280A | |
| L302 | RF Choke | 984553 | Chan. 12, IF Strip | L304 | FIL. Choke | CT585 | |
| | | | | L305 | UHF Output | CT280A | |

MISCELLANEOUS

| ITEM No. | PART NAME | PART No. | NOTES |
|----------|-----------|----------|-------------------|
| M301 | Diode | 984158 | UHF Mixer (1882A) |



PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (SWEEP CIRCUITS) (cont)

| ITEM No. | USE | REPLACEMENT DATA | | | | | | | NOTES |
|----------|--|--------------------------------|----------------|-----------------|------------------|---------------------|----------------|------------------|-------|
| | | PART No. | Merit PART No. | Miller PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | Workman PART No. | |
| L40 | Dynamic Converg. (Right Red & Green Horiz. Line) | R113394 | | | | | | | |
| L41 | Dynamic Converg. (Horiz. Right Blue) (Pri. 3.8MH-9.5MH (Sec. 13MH-.17MH) Focus | R109180 | | | | | | | |
| L42 | | 708424 (R113640) | | | | | | | |
| L43 | Convergence Yoke A Blue Section B Green Section C Red Section | 471490 R109164 R109164 R109164 | | | | | | | |

FILTER CHOKE

| ITEM No. | RATINGS | | REPLACEMENT DATA | | | | | NOTES |
|----------|--------------------|---------|------------------------------|---------------------|----------------|------------------|---------------------|-------|
| | CURRENT (Measured) | DC RES. | INDUCTANCE (0 CURRENT 1000~) | PART No. | MERIT PART No. | STANCOR PART No. | THORDARSON PART No. | |
| L44 | .4A DC | 15.2Ω | .4 Hy. | R112829 (1104965-3) | C-4133 | C-2708 | 28C81 | C-40X |

TRANSFORMER (POWER)

| ITEM No. | RATING | | | REPLACEMENT DATA | | | | NOTES |
|----------|----------------------------|------------------|---------------|----------------------|----------------|------------------|---------------------|-------|
| | PRI. | SEC. 1 | SEC. 2 | PART No. | MERIT PART No. | STANCOR PART No. | THORDARSON PART No. | |
| T1 | 128VAC Tap @ 117VAC @ 3.1A | 180VAC @ .44A DC | 8.3VAC @ 2.3A | R113383 (906153-501) | | R8000C | | |
| | | 8.3VAC @ 12A | | | | | R-300A | |

TRANSFORMERS (SWEEP CIRCUITS)

| ITEM No. | USE | REPLACEMENT DATA | | | | | NOTES |
|----------|--|------------------|----------------|------------------|---------------------|----------------|---|
| | | PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| T2 | Vert. Output (961415-3) | 738196 (R113390) | | VO-700C | | A-305X | |
| T3 | Yoke (Horiz. 12.4MH) 70° (Vert. 40MH) (903562-507) | 708448 (R109457) | | DY-90AC | | YC-300-1 ① | ① Remove two 580Ω resistors and connect same as original. |
| T4 | Horiz. Output (906152-501) | 738196 (R113382) | | | | D-304 | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | | | | NOTES |
|----------|-----------|------|----------------------|----------------|------------------|---------------------|----------------|-------|
| | PRI. | SEC. | PART No. | MERIT PART No. | STANCOR PART No. | THORDARSON PART No. | Triad PART No. | |
| T5 | 1400Ω | 3-4Ω | R112822 (D-961429-3) | A-2901 | A-3823 | 24861 | S-53X | |

SPEAKER

| ITEM No. | TYPE | REPLACEMENT DATA | | NOTES |
|----------|---|--------------------------------------|---------------|---|
| | | PART No. | QUAM PART No. | |
| SP1 | 5" PM 3-4Ω ① 4" x 8" PM ② 6" x 9" PM ③ 3 1/2" PM ④ | 180299 180282 160284 180283 | 5A07R | ① Used in Models J-1857/-1858/-1859/-1862/-1863, H-1857/-1858/-1859. ② Used in Models H-1847/-1847A/-1848/-1848A. ③ Used in Models H-1849/-1849A. |

FUSES

| ITEM No. | TYPE | RATING | REPLACEMENT DATA | | | |
|----------|--------------------|-------------------|------------------|--------|---------------------|--------|
| | | | PART No. | | LITTELFUSE PART No. | |
| | | | FUSE | HOLDER | FUSE | HOLDER |
| M1 | 1 1/2" of #28 wire | 471478 (R-102792) | | | | |

MISCELLANEOUS

| ITEM No. | PART NAME | PART No. | NOTES |
|----------|-----------------|---|---|
| M2 | VHF Tuner | 471512 ① | ① Used in Models J-1857/-1858/-1859/-1862/-1863. |
| M3 | VHF Tuner | 471515 ② | ② Used in Models H-1857/-1858/-1859. |
| M3 | UHF Tuner | 471513 ① | |
| M3 | UHF Tuner | 471528 ① | |
| M4 | VHF Tuner | KRK-107D ③ | ③ Used in Models H-1847/-1848/-1849. |
| M4 | VHF Tuner | KRK-108D ④ | ④ Used in Models H-1847A/-1848A/-1849A. |
| M4 | Diode | 817125 (R-112524) | Video Detector |
| M5 | Diode | 817125 (R-112524) | Sound Detector |
| M6 | Diode | (R-109474) | Dual |
| M7 | Crystal | 817129 (R-105330) | 3.58MC Oscillator |
| M8 | Switch | R-113398 | Video Peaking |
| M9 | Switch | R-48760 | Normal-Service |
| M10 | Switch | R-113398 | Picture Tube Bias |
| M11 | Switch | | UHF Tuner |
| M12 | Circuit Breaker | 808022 (R-109835) | 3 Amp. |
| M13 | Delay Line | 709007 (R-109837) | |
| M14 | Magnet | 471490 414822 708445 461828 587236 587238 708446 461839 587237 585405 471491 414823 414825 708447 587239 414826 | Complete Convergence Assembly (Includes following): Bracket-Convergence Mounting Coil Assembly, 3 required Coil Holder, 3 required Spring - Coil Holder, 6 required Spring - Coil Assembly (3 required) Magnet - Static Convergence, 3 required Magnet Holder - Static Convergence, 3 required Spring - Magnet, 3 required Cable Assembly Complete Blue Lateral Assembly (Includes following): Bracket Holder Magnet Spring Clip |
| M15 | Magnet | R-113407 R-113408 R-113409 R-113410 R-113411 | Sound, less tubes IF, less tubes Sweep, less tubes Color, less tubes Convergence, less tubes |

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

| MODELS | PART NUMBER | H-1847 | H-1847A | H-1848 | H-1848A | H-1849 | H-1849A | H-1857 | H-1858 | H-1859 | J-1857 | J-1858 | J-1859 | J-1862 | J-1863 |
|---|-------------|--------|---------|--------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | | | | | | | | | | |
| MASK | 461944 | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF CHANNEL SEL. | 964291 | X | X | X | X | X | X | | | | | | | | |
| KNOB, VHF CHANNEL SEL. | 461810C | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF CHANNEL SEL. | 461947B ▲ | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF FINE TUNING | 461762 | X | X | X | X | X | X | | | | | | | | |
| KNOB, UHF TUNING | 461789C ▲ | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF DIAL | 461812 | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF DIAL | 461776 ▲ | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF DIAL | 461777 ▲ | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, VHF FINE TUNING | 461764 | | | | | | | X | X | X | X | X | X | X | X |
| KNOB, ON-OFF VOL | 461764 | X | X | X | X | X | X | | | | | | | | |
| KNOB, TINT | 461760 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| KNOB, BRIGHTNESS | 461761 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| KNOB, COLOR | 461763 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| KNOB, CONTRAST, HORIZ. & VERT. HOLD, TONE | 461633 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

▲ UHF MODELS ONLY

WIRING DATA

| | |
|---|--|
| High Voltage Lead | Use BELDEN No. 8869 (17KV) or 8868 (25KV) |
| Shielded Hook-up Wire | Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor) |
| General-use Unshielded Hook-up Wire | Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors |
| Power Cord (Interlock Type) | Use BELDEN No. 8874 (Rubber) or 8896 (Plastic) |
| 300Ω Tuner Input Lead | Use BELDEN No. 8225 |
| 300Ω Antenna Lead-in | Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed) |
| Antenna Rotor Cable | Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8466 (Round) - 8 Conductor |

PARTS LIST AND DESCRIPTION

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

TUBES

| AMPEREX | | GENERAL ELECTRIC | | RCA | | SYLVANIA | |
|----------|---|------------------|--|----------|--|----------|--|
| ITEM No. | USE | TYPE | | ITEM No. | USE | TYPE | |
| V1 | 1st Video IF Amp. | 6JH8 | | V14 | HV Rectifier | 3A3 | |
| V2 | 2nd Video IF Amp. | 6CM6 | | V15 | HV Regulator | 6BK4 | |
| V3 | 3rd Video IF Amp. | 6EJ7/EF184 | | V16 | Chroma Bandpass Amp. - Color Killer | 6GH8A | |
| V4 | 1st & 2nd Video Amp. | 8AW8A | | V17 | Burst Amp. | 6EW6 | |
| V5 | Video Output | 12BY7A | | V18 | Chroma Sync Phase Det. - Color Killer Detector | 6JU8 | |
| V6 | AGC Keying - Sync Sep. - Noise Inverter | 6KA8 | | V19 | Chroma Ref. Osc. Control - Chroma Ref. Osc. | 6GH8A | |
| V7 | Sound IF | 6EW6 | | V20 | "Z" Demodulator | 6GY6 | |
| V8 | Audio Detector | 6H28 | | V21 | B-Y Amp. - R-Y Amp. | 6GU7 | |
| V9 | Audio Output | 6AQ5A | | V22 | "X" Demodulator | 6GY8 | |
| V10 | Vert. Mult. - Vert. Output | 6GF7 | | V23 | Horiz. Blanking Amp. - G-Y Amp. | 6GU7 | |
| V11 | Horiz. AFC - Horiz. Osc. | 6FQ7 | | | | | |
| V12 | Horiz. Output | 6JE6 | | | | | |
| V13 | Damper | 6DW4 | | | | | |

PICTURE TUBE

| ITEM No. | REPLACEMENT DATA | | | | NOTES |
|----------|-------------------|---------------------------|----------------------------|---------------------|-----------------------------------|
| | PART No. | GENERAL ELECTRIC PART No. | RCA PART No. | SYLVANIA PART No. | |
| V24 | 21FBP22 + 21FJP22 | 21FBP22 ① 21FJP22 ① | 21FBP22/21FJ22 ① 21FJP22 ① | 21FBP22 ② 21FJP22 ② | ① Aluminized ② Silver Screen "65" |

▲ Used in Models H-1857/-1858/-1859, J-1857/-1858/-1859/-1862/-1863.
■ Used in Models H-1847/-1847A/-1848/-1848A/-1849/-1849A.

POWER RECTIFIERS

| ITEM No. | MEASURED CURRENT | ORIGINAL Part or Type No. | RECTIFIERS | | |
|----------|------------------|---------------------------|-----------------------------|----------------------------|-------------------------|
| | | | MALLORY PART No. | RCA PART No. | SARKIS TARZIAN PART No. |
| X1 | .44A | 817122 (R106379) | 1N540 or 1N2070 or 1N2094 ① | 1N1764 or 1N2864 or 1N3196 | 60H or F-6 |
| X2 | .44A | 817122 (R106379) | 1N540 or 1N2070 or 1N2094 ① | 1N1764 or 1N2864 or 1N3196 | 60H or F-6 |
| X3 | | 817123 (R113397) | | CR208 | PG33-140H-Q |
| X4 | .0015A | 817124 (R113391) | | CR203 | PG33-18H-Q |
| X5 | .005A | 817128 (R113392) | 1N2091 or A100 | 1N2859 or 1N3754 | 20H or F-2 |
| XB | .025A | 817127 | A50 or D50 | 1N2858 | S-648 or S-654 |
| B | .013A | (R-113321) | A50 or D50 | 1N2858 | |
| C | .021A | | A50 or D50 | 1N2858 | |

① A dual unit, VB600, may be used for X1 and X2.

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | |
|----------|--------|-------|--------------------|------------------|---------------------------|---------------------------|-----------------------------|------------------|
| | CAP. | VOLT. | PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | GENERAL ELECTRIC PART No. | GENERAL INSTRUMENT PART No. | MALLORY PART No. |
| C1 | 180 | 250 | 925587 (R112825) | AFHS1-37-25 ① | AA0315 ① | XC1-19 ① | TMS-1480 ① | WP131.5 ① |
| C2A | 180 | 250 | 925585 (R112828) | AFH4-108-38 | CC0330 | XC3-29 | TMT-3739 | FFP427.69 |
| B | 30 | 450 | | | BR200-250 | QT1-26 | TD-200-300 | TVLS4714.4* |
| C | 20 | 450 | | | | | | |
| D | 40 | 150 | | | | | | |
| C3A | 80 | 450 | 925586 (R112827) | AFH4-108-35 | CC0370 | XC3-30 | TMT-3763 | FP427.67 |
| B | 50 | 450 | | | BR50-50 | QT1-15 | TD-50-150 | TVLS4714.6* |
| C | 20 | 250 | | | | | | |
| D | 50 | 50 | | | | | | |
| C4 | 50 | 150 | 925588 (R109227) ② | PRS1480 | BR50-150 | QT1-17 | TD-50-150 | TC49 |
| C5A | 80 | 450 | 925584 (R112861) | AFH2-98 ③ | AA0510 | XC1-8 | TMS-1800 | FFP230.7 |
| B | 2 | 350 | | | BR2-450 | QT1-1 | TD-2-450 | TVLS2738.5* |

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
① Use insulating sleeve and mounting wafer. ③ Use MW-4 mounting wafer.
② Alternate Part #925599.

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|----------|--------|-----------|------------------|--------------------|---------------------------|-------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCOR PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C8 | .033 | 200V | P288N-033 | DD-303 | WMF2833 | 4DP-2-333 | PVC2133 | 4PS-S33 |
| C7 | .001 | | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B210 | 5HK-D10 |
| C8 | .01 | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C9 | .1 | 200V | P288N-1 | DF-104 | PKM2P1 | 2DP-3-104 | GEM201 | 2TM-P10 |
| C10 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C11 | 9 | NPO | | TCZ-10 | C10Q1C | CCD-100 | CNO410 | 10TCC-V82 |
| C12 | 150 | NPO 5% | | DTZ-150 | C10T15C | | CNO315 | 10TCC-T15 |
| C13 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C14 | 680 | N2200 10% | #R102237 | | | | | |
| C15 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C16 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C17 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C18 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C19 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C20 | 220 | N1500 10% | #R112878 | | | | | |
| C21 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C22 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C23 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C24 | .001 | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C25 | 580 | N1500 5% | #R109142 | | | | | |
| C26 | .0022 | 10% | | DI-2200 | CF-222 | JB6D22 | CCD-222 | GP222 |

PARTS LIST AND DESCRIPTION (CONTINUED)

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

FIXED CAPACITORS (cont)

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|-----------|-----------------|----------|------------------|--------------------|---------------------------|-----------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCOPART No. | MALLORY PART No. | SPRAGUE PART No. |
| C27 .001 | | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C28 10 | NPO 5% | | | TCZ-10 | C10Q1C | * | CNO410 | 10TCC-Q10 |
| C29 100 | N330 10% | #R105304 | | TCZ-100 | | | | 10TCC-Q10 |
| C30 .001 | | Note 1 | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B210 | 5HK-D10 |
| C31 7 | NPO 5% | | | TCZ-6R7 | C10V88C | | CNO568 | 10TCC-V68 |
| C32 3.5 | NPO 5% | (3.3) † | | TCZ-3R3 | C10V33C | CCTO-3R3 | CNO533 | 10TCC-V33 |
| C33 .1 | 400V | | P488N-1 | DF-104 | CUB4P1 | 4DP-3-104 | GEM401 | 4TM-P10 |
| C34 .1 | 200V | | P288N-1 | DF-104 | PKM2P1 | 2DP-3-104 | GEM201 | 2TM-P10 |
| C35 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C36 .0022 | 10% | | DI-2200 | CF-222 | JB8D22 | CCD-222 | GP222 | 10TS-T22 |
| C37 390 | 10% | | DI-390 | DD-391 | LA10T39-C4 | CCD-391 | GP339 | 10TS-T39 |
| C38 390 | 10% | | DI-390 | DD-391 | LA10T39-C4 | CCD-391 | GP339 | 10TS-T39 |
| C39 .22 | 200V | | P288N-22 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C40 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C41 .001 | | | BPD-001 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C42 .001 | | | BPD-001 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C43 .001 | | | BPD-001 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C44 .001 | | | BPD-001 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C45 220 | 10% | | DI-220 | DD-221 | LA10T22-S3 | CCD-221 | GP322 | 10TS-T22 |
| C46 .001 | | | SI 1000 | D6-102 | LA10D1-C4 | CCD-102 | B210 | 5HK-D10 |
| C47 180 | 1KV 10% | #R103411 | DI-180 | DD-181 | LA10T18-S3 | CCD-181 | GP318 | 10TS-T18 |
| C48 1.5 | N3300 | | | TCZ-10 | C10Q1C | * | CNO410 | 10TCC-Q10 |
| C49 10 | NPO 5% | #R106384 | | | | | | |
| C50 5 | N1500 | | | | | | | |
| C51 .01 | | #R112450 | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C52 750 | N2200 5% | | | | | | | |
| C53 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C54 560 | | | DI-560 | DD-561 | LA10T56-C4 | CCD-561 | B356 | 5GA-T56 |
| C55 .047 | 200V | | P288N-047 | DD-503 | CUB2S47 | 2TM-S47 | GEM2147 | 2TM-S47 |
| C56 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C57 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C58 47 | N750 10% | | N750-DI 47 | DTN-47 | C10Q47U | CCTN-470 | CN7447 | 10TCU-Q47 |
| C59 .0068 | | | SI 1000 | DD-682 | BYA10D68 | CCD-682 | B268 | 5HK-D68 |
| C60 .001 | | | BPD-0008 | DD-102 | BYA10D1 | CCD-102 | B210 | 5HK-D10 |
| C61 .0047 | | #R105320 | SI 1000 | DD-472 | BYA10D47 | CCD-472 | B247 | 5HK-D47 |
| C62 .001 | 2KV 10% | | BPD-0033 | DD-332 | BYA10D33 | CCD-332 | B233 | 5HK-D33 |
| C63 .0033 | 10% | | DI-390 | DD-391 | LA10T39-C4 | CCD-391 | GP339 | 10TS-T39 |
| C64 .001 | | | BPD-001 | DD-102 | BYA10S1 | CCD-102 | B210 | 5HK-D10 |
| C65 47 | NPO 10% | | NPO-DI 47 | DTZ-47 | C10Q47C | CCTO-470 | CNO447 | 10TCC-Q47 |
| C67 .0022 | | | BPD-0022 | DD-222 | LA10D22-C4 | CCD-222 | B222 | 10TS-D22 |
| C68 .0015 | | | BPD-0015 | DD-152 | LA10D15-C4 | CCD-152 | B215 | 10TS-D15 |
| C69 .036 | 600V 10% | #R113387 | BE8839 | DD-152 | PM6S39 | 6DP-3-393 | PVC6139 | 6PS-S35 |
| C70 .0027 | N5600 10% | | | | | | | |
| C71 .1 | 600V | | P688N-1 | DF-104 | CUB6P1 | 6DP-4-104 | GEM601 | 6TM-P10 |
| C72 .1 | 600V | | P688N-1 | DF-104 | CUB6P1 | 6DP-4-104 | GEM601 | 6TM-P10 |
| C73 .47 | 200V | | P288N-47 | DD-822 | PKM16D82 | 16DP-3-802 | GEM1682 | MB-D8 |
| C74 .0082 | 1KV | | P288N-008 | DD-503 | CUB2S47 | 2TM-S47 | GEM2147 | 2TM-S47 |
| C75 .047 | 200V | | P288N-047 | DD-681 | BYA10T68 | CCD-681 | B368 | 10TS-T68 |
| C76 600 | | | BPD-00068 | DD-681 | BYA10T68 | CCD-681 | B368 | 10TS-T68 |
| C77 680 | | | BPD-00068 | DD-681 | BYA10T68 | CCD-681 | B368 | 10TS-T68 |
| C78 .0068 | 400V 10% | | BE8D68 | | WMF4D68 | 6DP-1-682 | PVC4268 | 6PS-D68 |
| C79 .001 | 2KV 10% | #R105320 | | | PKM50D1 | | TVM-216 | |
| C80 100 | 3KV N1500 5% | #R106306 | | | | | | |
| C81 560 | 2.5KV N3300 10% | #R109843 | | | | | | |
| C82 560 | 2.5KV N3300 10% | #R109843 | | | | | | |
| C83 68 | NPO 10% | | NPO-DI 68 | DTZ-68 | C10Q68C | CCTO-680 | CNO468 | 10TCC-Q68 |
| C84 820 | 10% | | DI-820 | DD-821 | JB8T8 | CCD-821 | GP382 | 10TS-T82 |
| C85 820 | 10% | | DI-820 | DD-821 | JB8T8 | CCD-821 | GP382 | 10TS-T82 |
| C86 27 | N750 10% | | N750-DI 25 | NCN-27 | C10Q247U | CCTN-270 | CN7427 | 10TCU-Q27 |
| C87 .001 | | | P288N-15 | DD-102 | JB8D1 | CCD-102 | GP210 | 10TS-D10 |
| C88 .15 | 200V | | | | PM2P15 | 2DP-3-154 | GEM2015 | 2PS-P15 |
| C89 390 | 1.5KV 5% | #R109808 | P488N-01 | DD-103 | PM4S1 | 4DP-1-103 | GEM411 | 4PS-S10 |
| C90 .01 | 400V | | ADM-19-681 | CPR-680J | CD15F681J | DM-19-681J | MCJ249 | MS-388 |
| C91 680 | 5% | | BE8D15 | DD-152 | PM6D15 | 6DP-1-152 | PVC6215 | 6PS-D15 |
| C92 .0015 | 600V 10% | | P688N-01 | DD-103 | PM6S1 | 6DP-2-103 | GEM611 | 6PS-S10 |
| C93 .01 | 600V | | P688N-1 | DF-104 | CUB6P1 | 6DP-4-104 | GEM601 | 6TM-P10 |
| C94 .1 | 600V | | P688N-047 | DD-503 | CUB6S47 | 6DP-3-473 | GEM6147 | 6TM-S47 |
| C95 .047 | 600V | #R112847 | | | | | 6DY468 | |
| C96 68 | 4KV 10% | #R109229 | | | | | | |
| C97 130 | 6KV N2200 | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C98 .01 | 1.4KV | | DAC-27 | DD16-103 | HVE16S1 | 16DP-3-103 | UAC110 | BL-S10 |
| C99 .01 | 1.4KV | | P688N-1 | DF-104 | CUB6P1 | 6DP-4-104 | GEM601 | 6TM-P10 |
| C100 .1 | 600V | | BPD-000022 | DD-220 | LA10Q22-SL | CCD-220 | GP422 | 5GA-Q22 |
| C101 .22 | 1KV | Note 2 | | | | | | |
| C102 .068 | 600V 10% | Note 2 | DAC-27 | DD16-103 | HVE16S1 | 16DP-3-103 | UAC110 | BL-S10 |
| C103 .082 | 600V 10% | Note 2 | N750-DI 25 | TCN-27 | C10Q25U | CCTN-270 | CN7427 | 10TCU-Q27 |
| C104 .01 | 1.4KV | | | | | | | |
| C105 27 | N750 | Note 1 | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B210 | 5HK-D10 |
| C106 120 | 4KV N1500 10% | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C107 .001 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C108 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C109 .01 | | | DI-120 | DD-121 | LA10T12-S3 | CCD-121 | GP312 | 10TS-T12 |
| C110 120 | 10% | | ADM-15-331 | CPR-330J | CD15F331J | DM-15-331J | MS-333 | MS-333 |
| C111 330 | 5% | | ADM-15-331 | CPR-330J | CD15F331J | DM-15-331J | MS-333 | MS-333 |
| C112 330 | 5% | | ADM-15-331 | CPR-330J | CD15F331J | DM-15-331J | MS-333 | MS-333 |
| C113 330 | 5% | | ADM-15-331 | CPR-330J | CD15F331J | DM-15-331J | MS-333 | MS-333 |
| C114 330 | 5% | | ADM-15-331 | CPR-330J | CD15F331J | DM-15-331J | MS-333 | MS-333 |
| C115 10 | NPO 10% | | NPO-DI 10 | DTZ-10 | C10Q1C | CCTO-100 | CNO410 | 10TCC-Q10 |
| C116 .047 | 200V | | P688N-047 | DD-503 | CUB2S47 | 2TM-S47 | GEM2147 | 2TM-S47 |
| C117 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C118 820 | 10% | | DI-820 | DD-821 | JB8T8 | CCD-821 | GP382 | 10TS-T82 |
| C119 .001 | | | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B210 | 5HK-D10 |
| C120 150 | 10% | | DI-150 | DD-151 | LA10T15-S3 | CCD-151 | GP315 | 10TS-T15 |
| C121 470 | N750 5% | | | TCN-470 | | | | |
| C122 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C123 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C124 1.3 | 10% | #R112864 | | | | | | |
| C125 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C126 1 | 200V | | P288N-1 | DF-104 | PKM2P1 | 2DP-3-104 | GEM201 | 2TM-P10 |
| C127 4 | NPO ±.5mmf | #R105247 | | | | | | |
| C128 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C129 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C130 10 | NPO 10% | | NPO-DI 10 | DTZ-10 | C10Q1C | CCTO-100 | CNO410 | 10TCC-Q10 |
| C131 220 | N750 10% | | N750-DI 220 | DTN-220 | C10T22U | CCTN-221 | CN7332 | 10TCU-T22 |
| C132 6 | NPO 5% | | | | | | | |

FIXED CAPACITORS (cont)

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|-----------|----------|----------|------------------|--------------------|---------------------------|-----------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCOPART No. | MALLORY PART No. | SPRAGUE PART No. |
| C133 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C134 82 | NPO 10% | | ADM-15-151 | CPR-150J | CD15F151J | DM-15-151J | MS-151 | MS-151 |
| C135 150 | 5% | | P288N-047 | DD-503 | CUB2S47 | 2TM-S47 | GEM2147 | 2TM-S47 |
| C136 .047 | 200V | #R109280 | | | | | | |
| C137 33 | N150 | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C138 .01 | | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C139 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C140 .01 | | #R109280 | | | | | | |
| C141 33 | N150 | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C142 .01 | 600V | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C143 .01 | | | P688N-22 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C144 .22 | 400V | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C145 .01 | 600V | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C146 .01 | | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C147 .056 | 400V 10% | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C148 .1 | 400V | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C149 .1 | 200V | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C150 .12 | 200V 10% | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C151 .062 | 200V 10% | | P688N-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C152 .01 | | #R109230 | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C153 .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B110 | 5HK-S10 |
| C154 47 | 2KV 10% | | P688N-047 | DD-503 | CUB2S47 | 2TM-S47 | GEM2147 | 2TM-S47 |
| C155 .047 | 600V | Note 1 | DI-220 | DD-221 | LA10T22-S3 | CCD-221 | GP322 | 10TS-T22 |
| C156 220 | 10% | | | | | | | |

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
Note 1. Not used in some versions. Part Number
Note 2. Matched Pair, Part #R113595.
† Alternate Value

CONTROLS

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

| ITEM No. | USE | RESIST-ANCE | REPLACEMENT DATA | | | | |
|----------|-------------------|------------------|---------------------|---|-------------------------|---|---|
| | | | PART No. | CENTRALAB PART No. | CLAROSTAT PART No. | CTS-IRC PART No. | MALLORY PART No. |
| R1 | Volume, Switch | 1meg 200K Tap | 390812 ① | F12-1meg, SP212, KR-8 or (APL-72, AK-33) | C47SF1-1meg, RS-3/16 | B13-137X, SK8 or (PPQ13-137X, SK8) or (BU2, CF44T, SS11, K)* | PP16T25, DS37 or (RUP16T254, SL35) |
| R2 | Color | 500Ω | 390775 (R112836) | F1-500, SFS212 or (AB-4, AK-33) | A47-500-S RS-3/16 | B11-103, SK9 or (BU2, CF4, SS4, DC1) * | UA52L, SD3500 or (RU52L, SL35, IS1625) (U2, DS37) |
| R3 | Brightness | 250K | 390776 (R112837) | F1-250K, SFS212 or (AB-50, AK-33) | A47-250K-S RS-3/16 | B11-130, SK9 or (BU2, CF15, SS4, DC1) * | UA284L, SD3500 or (RU254L, SL35, IS1625) or (U46, DS37) |
| R4 | Tint | 1200Ω | 390777 (R112838) | F5-1500, SFS212 or (AB-515, AK-33) | | B17-206, SK9 or (BU2, CF53, SS4, DC1) * | UA152R, SD3500 or (RU152R, SL35, IS1625) or (U5, DS37) |
| R5 | Tone | 2.5meg | 390773 (R112835) | F1-2.5meg SFS212 or (AB-83, AK-33) | A47-2.5meg-S RS-3/16 | B11-238, TM10 or (BU11, CF20, SS16, DC1) * | TA255L, DS37 or (RU255L, SL37, IS1062) or (UA255L, SD3500) |
| R6 | Contrast | 368Ω 250Ω Tap | 390771 (R112840) | | | B17-103X, TM10 or (BU11, CF48T, SS16, DC1) * | |
| R7 | Vert. Hold | 750K | 390772 (R112834) | F1-750K, SFS212 or (AB-66, AK-33) | A47-750K-S RS-3/16 | B11-136, TM10 or (BU11, CF64, SS16, DC1) * | RU754L, SL37, IS1062 or (TA16L, DS37) or (UA16L, SD3500) |
| R8 | Horiz. Hold | 35K | 390774 (R112839) | F1-50K, SFS212 or (AB-31, AK-33) | A47-40K-S RS-3/16 | B11-122, TM10 or (BU11, CF12, SS16, DC1) * | TA54L, DS37 or (RU54L, SL37, IS1062) or (UA54L, SD3500) |
| R9 | AGC | 6000Ω 2W | 390781 (R112830) | WN-502 or (WW-502) | A43-5000 FKS-1/2 | W11-214, SK5 or (BU1, WF8, SS6)* | CBM4, or (VW5K) or (WW65L, SF3000) |
| R10 | Color Killer | 1meg | 390780 (R112841) | TT-69 or (F1-1meg, SN010) | B47-1meg-S | B11-137, TM4 or (BU11, CF17, SS8) * | PTA1254L or (RU16L, SL37, SN1000) or (UA16L, SN1000) |
| R11 | Green Drive | 6000Ω | 390783 (R113380) | TT-10 or (F1-5000, SN010) | B47-5000-S | B11-115, TM4 or (BU11, CF8, SS8) * | PTA53L or (RU63L, SL37, SN1000) or (UA53L, SN1000) |
| R12 | Blue Drive | 6000Ω | 390786 (R113380) | TT-10 or (F1-5000, SN010) | B47-5000-S | B11-115, TM4 or (BU11, CF8, SS8) * | PTA53L or (RU63L, SL37, SN1000) or (UA53L, SN1000) |
| R13 | Vert. Linearity | 3.4meg | 390784 (R113552) | TT-84 or (F1-3meg, SN010) | B47-3meg-S | HLCS | PTA355L or (RU36L, SL37, SN1000) or (UA36L, SN1000) |
| R14 | Vert. Height | 100K | 390785 (R112843) | TT-40 or (F1-10K, SN010) | B47-100K-S | B11-128, TM4 or (BU11, CF13, SS8) * | PTA15L or (RU15L, SL37, SN1000) or (UA15L, SN1000) |
| R15 | Vert. Centering | 10Ω 2W | 390778 (R112400) | V-10 ② | | W11-010, SK5 or (BU1, WF16, SS8) * | VW10 |
| R16 | Hi-Voltage Adjust | 500K | 390782 (R112842) | TT-59 or (F1-500K, SN010) | B47-500K-S | B11-133, TM4 or (BU11, CF16, SS8) * | PTA55L or (RU55L, SL37, SN1000) or (UA55L, SN1000) |
| R17 | Red Screen | 1.5meg | 390779 (R113253) | TT-742 or (F1-1.5meg, SN010) | B47-1.5meg-S | B11-138, TM4 or (BU11, CF18, SS8) * | PTA155L or (RU155L, SL37, SN1000) or (UA155L, SN1000) |
| R18 | Green Screen | 1.5meg | 390787 (R113253) | TT-742 or (F1-1.5meg, SN010) | B47-1.5meg-S | B11-138, TM4 or (BU11, CF18, SS8) * | PTA155L or (RU155L, SL37, SN1000) or (UA155L, SN1000) |
| R19 | Blue Screen | 1.5meg | 390786 (R113253) | TT-742 or (F1-1.5meg, SN010) | B47-1.5meg-S | B11-138, TM4 or (BU11, CF18, SS8) * | PTA155L or (RU155L, SL37, SN1000) or (UA155L, SN1000) |

PHOTOFACT® Folder

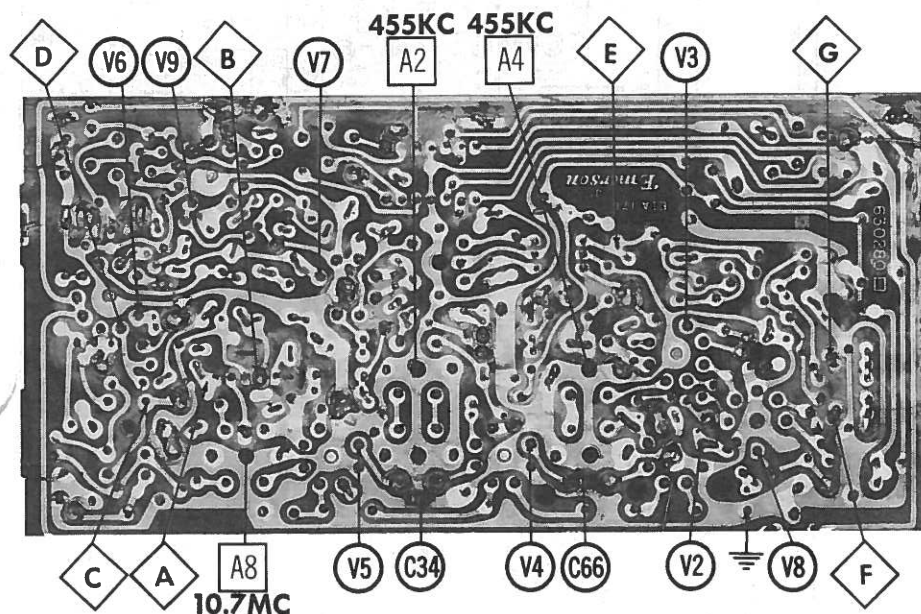
with CIRCUITRACE®

**DUMONT AM-FM
FM STEREO CHASSIS 120727A,
STEREO AMP CHASSIS 120719**

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 724 FOLDER 3. File this Folder with the TV Folder in the yellow filing jacket provided.

**DUMONT AM-FM - FM STEREO CHASSIS
120727A, STEREO AMP CHASSIS 120719**



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

| | |
|--------------|---|
| TRADE NAME | Dumont |
| SUPPLIER | For current address, see Master Index |
| TYPE SET | AM-FM Tuner Chassis 120727A, Power Amp Chassis 120719 |
| TUBES | Tuner Chassis - Nine, Amp Chassis - Four |
| POWER SUPPLY | 110-120 Volts AC, 60 Cycle |
| TUNING RANGE | AM: 530-1650KC (IF 455KC), FM: 88-108MC (IF 10.7MC) |
| | RATING 104 Watts, 1 Amp. @ 117 Volts AC |

**DUMONT AM-FM
FM STEREO CHASSIS 120727A,
STEREO AMP CHASSIS 120719**

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

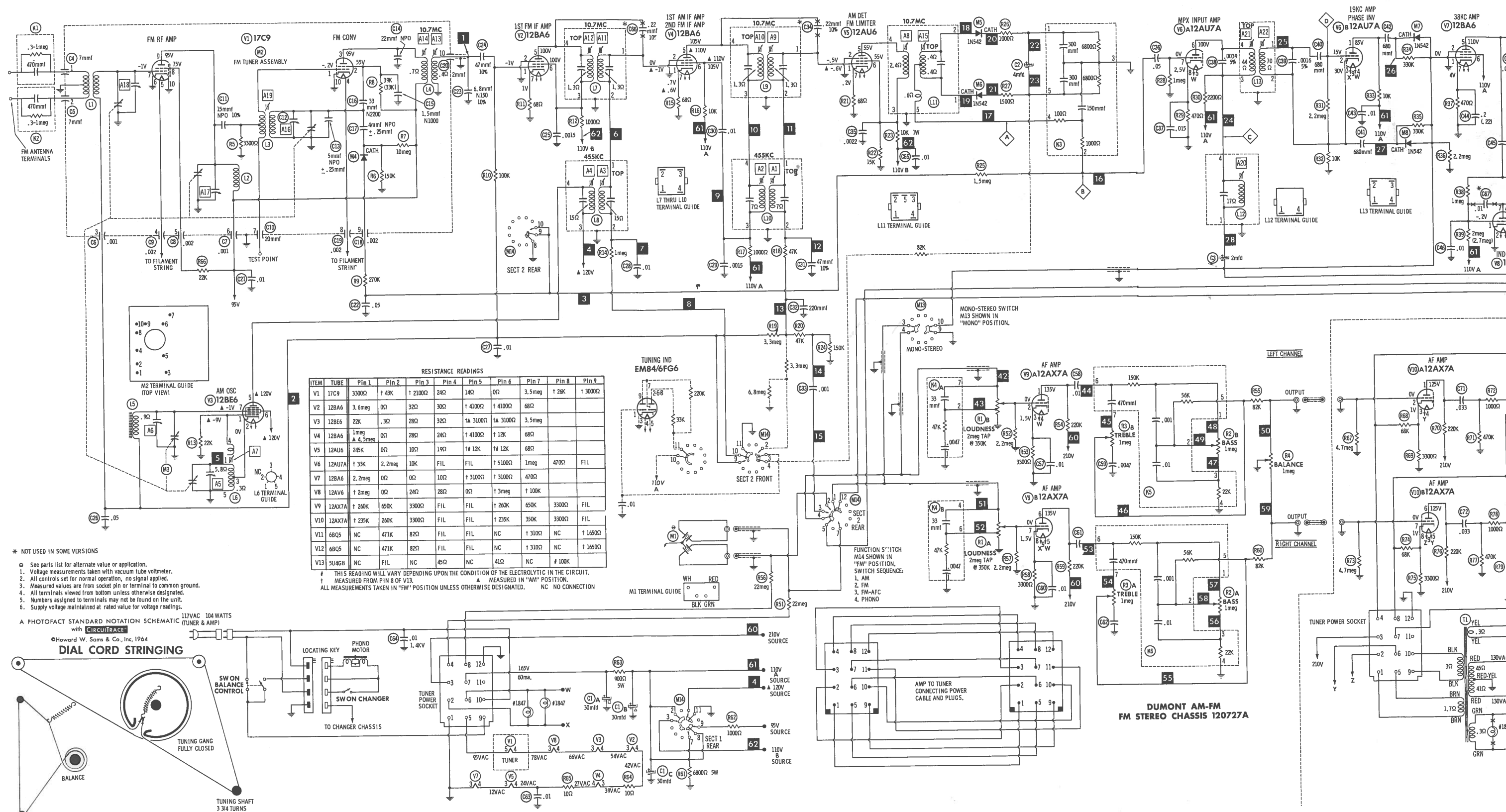


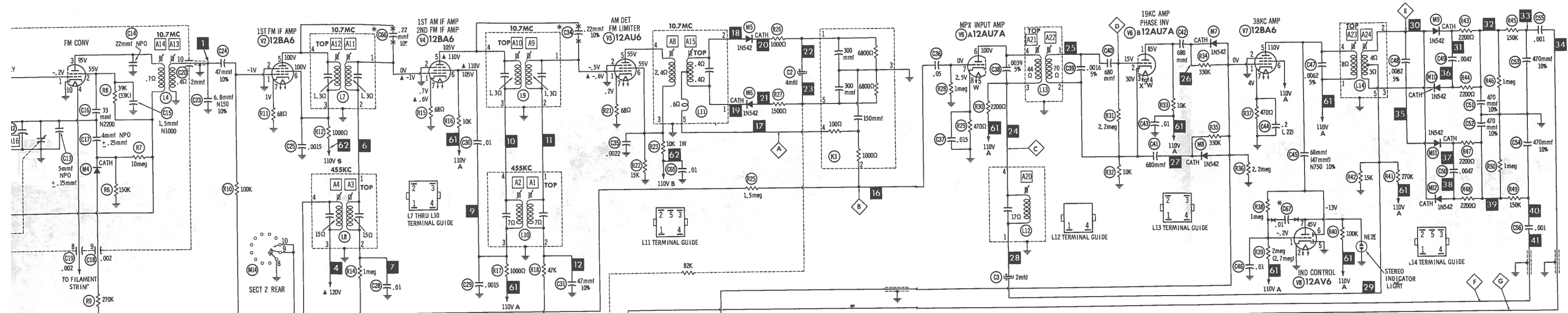
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MN730 MB908R

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DATE 11-64

SET 724 FOLDER 3-A

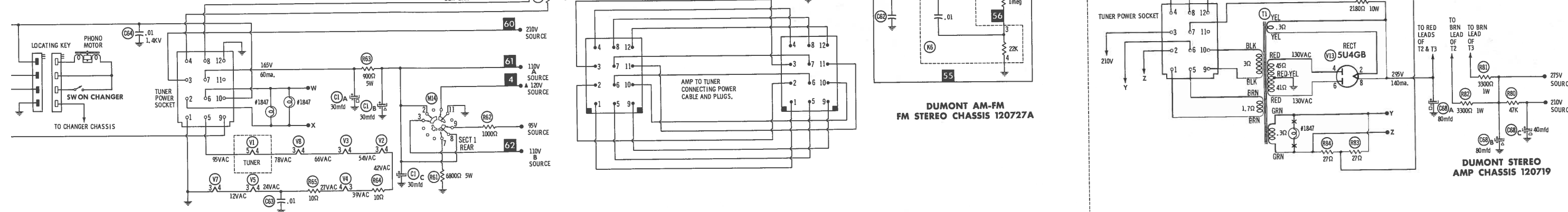




RESISTANCE READINGS

| ITEM | TUBE | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 |
|------|--------|--------|--------|---------|-------|---------|---------|--------|--------|---------|
| V1 | 17C9 | 3300Ω | † 43K | † 2100Ω | 24Ω | 14Ω | 0Ω | 3.5meg | † 26K | † 3000Ω |
| V2 | 12BA6 | 3.6meg | 0Ω | 32Ω | 30Ω | † 4100Ω | † 4100Ω | 68Ω | | |
| V3 | 12BE6 | 22K | .3Ω | 28Ω | 32Ω | † 3100Ω | † 3100Ω | 3.5meg | | |
| V4 | 12BA6 | 1meg | 0Ω | 28Ω | 24Ω | † 4100Ω | † 12K | 68Ω | | |
| V5 | 12AU6 | 245K | 0Ω | 10Ω | 19Ω | † 12K | † 12K | 68Ω | | |
| V6 | 12AU7A | † 33K | 2.2meg | 10K | FIL | FIL | † 5100Ω | 1meg | 470Ω | FIL |
| V7 | 12BA6 | 2.2meg | 0Ω | 0Ω | 10Ω | † 3100Ω | † 3100Ω | 470Ω | | |
| V8 | 12AV6 | † 2meg | 0Ω | 24Ω | 28Ω | 0Ω | † 3meg | † 100K | | |
| V9 | 12AX7A | † 260K | 650K | 3300Ω | FIL | FIL | † 260K | 650K | 3300Ω | FIL |
| V10 | 12AX7A | † 235K | 260K | 3300Ω | FIL | FIL | † 235K | 350K | 3300Ω | FIL |
| V11 | 6BQ5 | NC | 471K | 82Ω | FIL | FIL | NC | † 310Ω | NC | † 1650Ω |
| V12 | 6BQ5 | NC | 471K | 82Ω | FIL | FIL | NC | † 310Ω | NC | † 1650Ω |
| V13 | 5U4GB | NC | FIL | NC | 45Ω | NC | 41Ω | NC | † 100K | |

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 † MEASURED FROM PIN 8 OF V13. † MEASURED IN "AM" POSITION.
 ALL MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED. NC NO CONNECTION



ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment.
CAUTION: Use isolation transformer, if available. If not, observe polarity when connecting test equipment.
Suggested Alignment Tools:
A1 thru A6, A8, A15 thru A18, A20 GENERAL CEMENT: #8868, 9087, 9089 WALSCO#2528, 2541, 2587
A7, A9 thru A14, A19, A21 thru A24 GENERAL CEMENT: #8606, 8606L, 8669 WALSCO: #2543, 2544, 2588

AM ALIGNMENT — SELECTOR IN AM POSITION

Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.

| GENERATOR FREQUENCY | DIAL SETTING | INDICATOR | ADJUST | REMARKS |
|----------------------|-------------------------|---------------------------------|----------------|--|
| 1. 455KC (400v Mod.) | Tuning gang fully open. | Output Meter across Voice coil. | A1, A2, A3, A4 | Adjust for maximum. Repeat until no further improvement can be made. |
| 2. 1650KC | " | " | A5 | Adjust for maximum. |
| 3. 1400KC | Tune to signal. | " | A6 | " |
| 4. 800KC | " | " | A7 | Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made. |

FM ALIGNMENT USING AM SIGNAL GENERATOR — SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter tube, low side to ground.

| GENERATOR FREQUENCY | DIAL SETTING | INDICATOR | ADJUST | REMARKS |
|---------------------|----------------------------|--|---------------------------------|---|
| 5. 10.7MC (Unmod.) | Point of non-interference. | DC probe of VTVM to point Δ ; common to ground. | A8, A9, A10, A11, A12, A13, A14 | Adjust for maximum. |
| 6. " | " | DC probe to point \oplus ; common to ground. | A15 | Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting. |

FM IF ALIGNMENT USING FM SIGNAL GENERATOR — SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter, low side to ground. Use only enough marker signal to obtain indication. Use 60v frequency modulated signal with 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.

| GENERATOR FREQUENCY | DIAL SETTING | INDICATOR | ADJUST | REMARKS |
|------------------------|---------------------------|---|---------------------------------|--|
| 5. 10.7MC (450KC Swp.) | Point of non-interference | Vert. amp. of Scope to point Δ ; low side to ground. | A8, A9, A10, A11, A12, A13, A14 | Disconnect stabilizing capacitor C2. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C2. |
| 6. " | " | Vert. amp. to point \oplus ; low side to ground. | A15 | Adjust A15 (Secondary) to place marker at center of crossover lines similar to Fig. 2. Adjust A 8 (Primary) for maximum amplitude and straightness of crossover lines. |

FM RF ALIGNMENT

Connect generator across antenna terminals with 1200 carbon resistors in series with each lead.

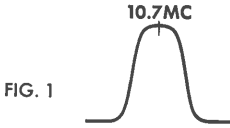
| GENERATOR FREQUENCY | DIAL SETTING | INDICATOR | ADJUST | REMARKS |
|---------------------|------------------|--|---------------|--|
| 7. 108.5MC | Set at high end. | DC probe of VTVM to point Δ ; common to ground. | A16, A17, A18 | Adjust for maximum. |
| 8. 90MC | Tune to signal. | " | A19 | Rock tuning and adjust for maximum. Repeat steps 7 and 8 until no further improvement can be made. |

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR ($\pm .0001\%$) ACCURACY

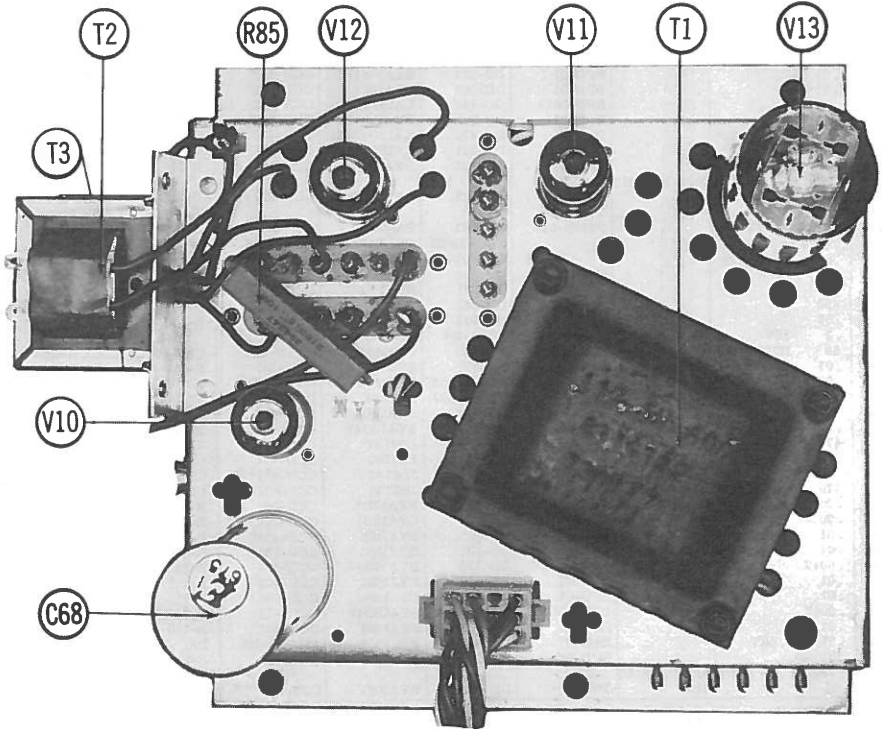
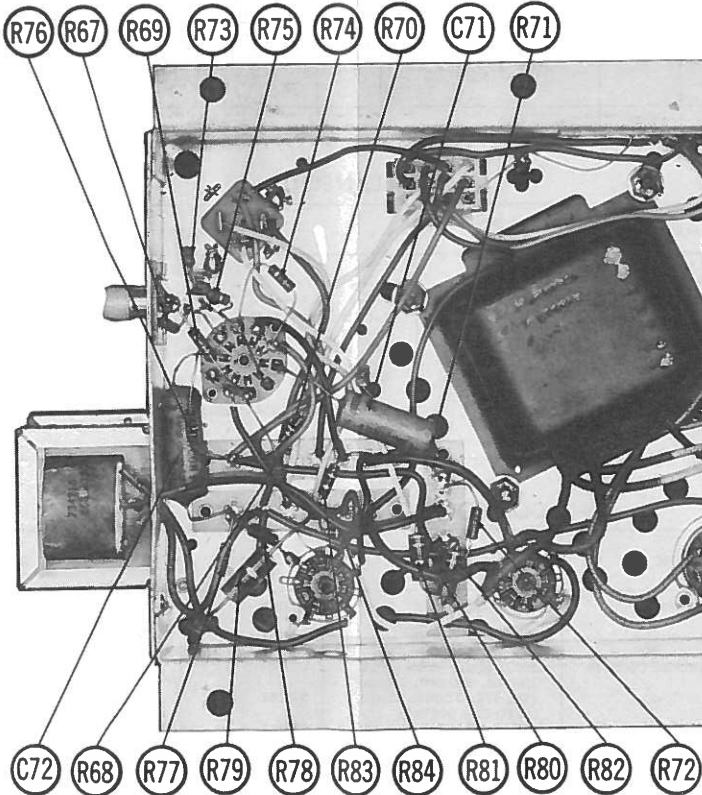
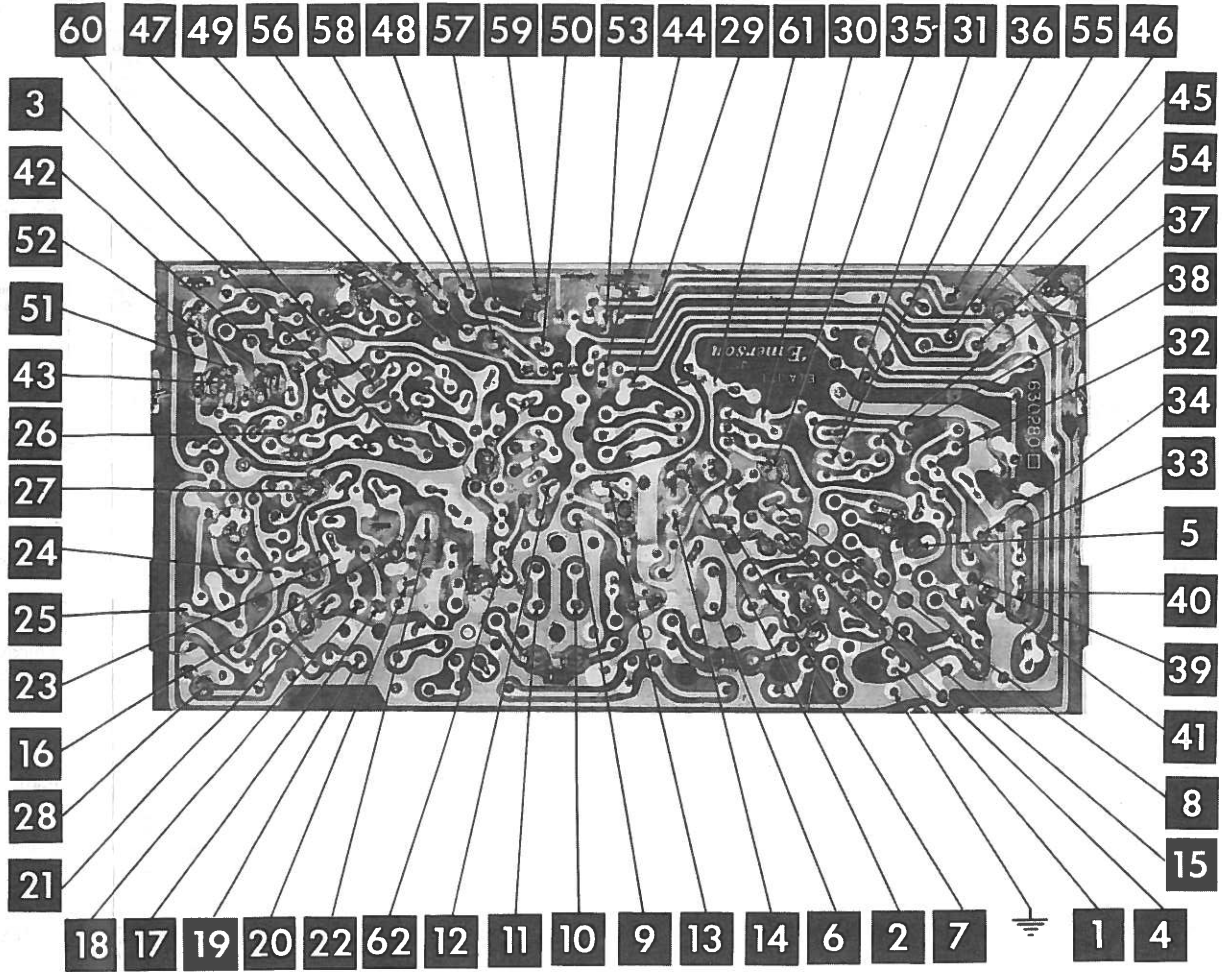
Connect high side of generator to point \oplus , low side to ground.

| GENERATOR FREQUENCY | INDICATOR | ADJUST | REMARKS |
|-----------------------------|--|--------------------|---|
| 9. 87KC | Vert. amp. of Scope thru a 1 meg to point Δ ; low side to ground. | A20 | Adjust for MINIMUM. |
| 10. 19KC | Vert. amp. thru 47K to point \oplus ; low side to ground. | A21, A22 | Adjust for maximum. |
| 11. " | Vert. amp. thru 47K to point \oplus ; low side to ground. | A23, A24 | Adjust maximum for 38KC response. |
| 12. Modulated Left Channel | Vert. amp. to point \oplus ; low side to ground. | A12, A22, A23, A24 | Adjust for MINIMUM. Requires only slight adjustment. |
| 13. Modulated Right Channel | Vert. amp. to point \oplus ; low side to ground. | | Check for MINIMUM. Make compromise adjustment of A21, A22, A23, A24 if necessary. |

To align multiplex section using an air signal, first make sure FM section is properly aligned. Tune in a strong FM stereo signal. Follow steps 9 thru 13 above except in step 9 adjust to eliminate whistle or interference.



A Howard W. Sams CIRCUITRACE® Photo



DUMONT AM-FM-FM STEREO CHASSIS
120727A, STEREO AMP CHASSIS 120719

FOLDER 3-A

TUNER PARTS LIST AND DESCRIPTION

WIRING DATA

| | |
|--|---|
| General-use Unshielded Hook-up Wire | Use BELDEN No. 8530 (Solid) Available in 12 Colors |
| Power Cord | Use BELDEN No. 1706 (Plastic) or 17126 (Rubber) - 6 Ft. |
| Power Cord (Interlock Type) | Use BELDEN No. 8874 (Rubber) or 8895 (Plastic) |
| Low-Loss Shielded Lead (Interconnecting) | Use BELDEN No. 8401 or 8421 |
| Phono Pick-up Arm Cable | Use BELDEN No. 8430 (Two Conductor-Unshielded) |
| | 8429 (Two Conductor-Shielded) |
| | 8419 (Three Conductor-Shielded) |

TUBES

| ITEM No. | USE | TYPE | ITEM No. | USE | TYPE |
|----------|---------------------|-------|----------|--------------------|--------|
| V1 | FM RF Amp FM Conv | 17C9 | V6 | MPX Amp. 19KC Amp. | 12AU7A |
| V2 | 1st FM IF | 12BA6 | V7 | 38KC Amp. | 12BA6 |
| V3 | AM Conv | 12BE6 | V8 | Indicator Control | 12AV6 |
| V4 | 1st AM IF 2nd FM IF | 12BA6 | V9 | AF Amp. | 12AX7A |
| V5 | AM Det. FM Limiter | 12AU6 | | | |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | REPLACEMENT DATA |
|----------|--------|--|
| CAP. | VOLT. | DUMONT PART No. AEROVOX PART No. CORNELL-DUBILIER PART No. GENERAL ELECTRIC PART No. GENERAL INSTRUMENT PART No. MALLORY PART No. SPRAGUE PART No. |
| C1A | 30 400 | 925590 |
| B | 30 400 | |
| C | 30 400 | |
| C2 | 4 50 | 925509 |
| C3 | 2 400 | 925591 |

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

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA |
|----------|---------------|------------------|--|
| | | | AEROVOX PART No. CENTRALAB PART No. CORNELL-DUBILIER PART No. ELMENCO PART No. MALLORY PART No. SPRAGUE PART No. |
| C4 | 7 | #964292 | |
| C5 | .001 | #964292 | |
| C6 | .001 | | EF-001 MFT-1000 |
| C7 | .001 | | EF-001 MFT-1000 |
| C8 | .002 | #964295 | |
| C9 | .002 | #964295 | |
| C10 | 20 | #964293 | |
| C11 | 15 NPO 10% | | NPO-D115 DTZ-15 |
| C12 | 5 NPO ±.25 | #964299 | |
| C13 | 22 NPO | | NPO-D122 DTZ-22 |
| C14 | 1.5 N1000 | | |
| C15 | 33 N2200 | | |
| C16 | 4 NPO ±.25mmf | | |
| C17 | .002 | #964295 | |
| C18 | .002 | #964295 | |
| C19 | .002 | #964291 | |
| C20 | .01 | | BPD-01 TTD-05 |
| C21 | .05 100V | | DD-103 BYA1081 CCD-103 |
| C22 | 6.8 N150 10% | #929014 | |
| C23 | .0015 | | DI-47 DD-470 LA10Q47-S3 CCD-470 |
| C24 | .05 100V | | DD-152 LA10D15-C4 CCD-152 |
| C25 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C26 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C27 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C28 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C29 | .0015 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C30 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C31 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C32 | .220 | 10% | DI-47 DD-470 LA10Q47-S3 CCD-470 |
| C33 | .001 | | DD-220 LA10T22-S3 CCD-221 |
| C34 | .22mmf | 10% | BPD-001 DD-102 BYA10D1 CCD-102 |
| C35 | .0022 | Note 1 (#928186) | |
| C36 | .05 100V | | BPD-0022 DD-222 LA10D22-C4 CCD-222 |
| C37 | .015 400V | | TTD-05 DD-153 PM4815 4DP-1-153 |
| C38 | .0039 | 5% | P488N-015 CPR-3900J CD19F392J DM-19-392J |
| C39 | .0016 | 5% | CPR-1600J CD19F162J DM-19-162J |
| C40 | .680 | | DD-681 BYA10T68 CCD-681 |
| C41 | .680 | | BPD-00068 DD-681 BYA10T68 CCD-681 |
| C42 | .680 | | BPD-00068 DD-681 BYA10T68 CCD-681 |
| C43 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C44 | .2 | | UK10-204 HCC10224Z |
| C45 | .68 N750 10% | (.22) † | DTN-68 C10Q88U CCTN-680 |
| C46 | .01 | (.47) † | DD-103 BYA1081 CCD-103 |
| C47 | .0062 | 5% | CPR-6200J CD30F622J DM-30-622J |
| C48 | .0082 | 5% | CPR-8200J CD30F822J DM-30-822J |
| C49 | .0047 | | DD-472 BYA10D47 CCD-472 |
| C50 | .0047 | | BPD-0047 DD-472 BYA10D47 CCD-472 |
| C51 | .470 | 10% | DI-470 DD-471 JB8T47 CCD-471 |
| C52 | .470 | 10% | DI-470 DD-471 JB8T47 CCD-471 |
| C53 | .470 | 10% | DI-470 DD-471 JB8T47 CCD-471 |
| C54 | .470 | 10% | DI-470 DD-471 JB8T47 CCD-471 |
| C55 | .001 | | BPD-001 DD-102 BYA10D1 CCD-102 |
| C56 | .001 | | BPD-001 DD-102 BYA10D1 CCD-102 |
| C57 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C58 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C59 | .0047 | | BPD-0047 DD-472 BYA10D47 CCD-472 |
| C60 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C61 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C62 | .0047 | | BPD-0047 DD-472 BYA10D47 CCD-472 |
| C63 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C64 | .01 1.4KV | | DAC-27 DD16-103 HVE1681 16DP-3-103 |
| C65 | .01 | | BPD-01 DD-103 BYA1081 CCD-103 |
| C66 | .22mmf | 10% | |
| C67 | .01 | Note 1 (#928186) | BPD-01 DD-103 BYA1081 CCD-103 |

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
Note 1 Not used in some versions † Alternate Value # Dumont Part Number

CONTROLS

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

| ITEM No. | USE | RESISTANCE | REPLACEMENT DATA |
|----------|-----------------|------------------------|---|
| | | | DUMONT PART No. CENTRALAB PART No. CLAROSTAT PART No. CTS-IRC PART No. MALLORY PART No. |
| R1A | Loudness, Right | 2meg | 390800 F12-2meg, R12-2meg, TU304 |
| B | Loudness, Left | 350K Tap 2meg 350K Tap | |
| R2A | Bass, Right | 1meg | 390798 F1-1meg, R1-1meg, TU304 or (B-69②, SR-69) |
| B | Bass, Left | 1meg | DA-1meg-S R-1meg-S FS-3 |
| R3A | Treble, Right | 1meg | 390798 F1-1meg, R1-1meg, TU304 or (B-69②, SR-69) |
| B | Treble, Left | 1meg | DA-1meg-S R-1meg-S FS-3 |
| R4 | Balance, Switch | 1meg | 390801 |

*"SNAPTROL" ① Use QCBI instead of Tab Mount Plate in TM5.
② Use Base Elements with "PC" Terminals

RESISTORS (Power and Special)

| ITEM No. | RATING | REPLACEMENT DATA | ITEM No. | RATING | REPLACEMENT DATA |
|----------|--------------|---------------------------------------|----------|-------------|---------------------------------------|
| | | IRC PART No. WORKMAN PART No. REMARKS | | | IRC PART No. WORKMAN PART No. REMARKS |
| R61 | 6800Ω 5W W/W | PW5-6800 5W-SQ-6800 #394271 | R63 | 900Ω 5W W/W | PW5-900. 5W-SQ-900 #394270 |

Dumont Part Number

COILS (RF-IF)

| ITEM No. | USE | REPLACEMENT DATA | NOTES |
|----------|----------------|--|----------|
| | | DUMONT PART No. MERIT PART No. MILLER PART No. STANCOR PART No. WORKMAN PART No. | |
| L1 | FM Ant. | | |
| L2 | FM RF | 964298 | |
| L3 | FM Osc. | 964297 | |
| L4 | 1st FM IF | 700189 | |
| L5 | Loopstick | BC-419 | 2007 |
| L6 | AM Osc. | 716150 | |
| L7 | 2nd FM IF | FM-256 | 1463-PC |
| L8 | 1st AM IF | BC-356 | 13-PC9 |
| L9 | 3rd FM IF | FM-256 | 1463-PC |
| L10 | 2nd AM IF | BC-357 | 13-PC10 |
| L11 | Ratio Detector | 708419 | 1465-PC |
| L12 | 67KC Trap | 708450 | RTC-8915 |
| L13 | 19KC | 708420 | RTC-8915 |
| L14 | 38KC | 708421 | TA529 |

PHONO CARTRIDGE & NEEDLES

*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

| ITEM No. | REPLACEMENT DATA | NOTES |
|----------|---|------------------------------------|
| | DUMONT PART No. ASTATIC PART No. ELECTRO-VOICE PART No. SONOTONE PART No. | |
| M1 | 820073 820074 | Used in Models 524, 525 |
| | | |
| | 820080 820081 | Replacement for original cartridge |
| | | Used in Model 526 |

MISCELLANEOUS

| ITEM No. | PART NAME | DUMONT PART No. | NOTES |
|----------|------------------|-----------------|-------|
| M2 | FM Tuner | 471470 | |
| M3 | AM-FM Tuning Cap | | |
| M4 | Diode | 964298 | |
| M5 | Diode | 817082 | |
| M6 | Diode | 817082 | |
| M7 | Diode | 817082 | |
| M8 | Diode | 817082 | |
| M9 | Diode | 817082 | |
| M10 | Diode | 817082 | |
| M11 | Diode | 817082 | |
| M12 | Diode | 817082 | |
| M13 | Switch | 510218 | |
| M14 | Switch | 510226 | |

COMPONENT COMBINATIONS

| ITEM No. | USE | DESCRIPTION | DUMONT PART No. | REPLACEMENT DATA |
|----------|-------------------------|--|-----------------|------------------|
| K1 | Antenna Isolation | .3-1meg, 470mmf | 923152 | Centralab RC-471 |
| K2 | Antenna Isolation | .3-1meg, 470mmf | 923152 | Sprague AC1-1 |
| K3 | Ratio Detector Couplate | 100Ω, 100Ω, 6800Ω, 6800Ω, 150mmf, 300mmf, 300mmf, 47K, 47K, 33mmf, 33mmf, .0047mfd, .0047mfd | 923187 | Centralab RC-471 |
| K4 | Loudness Comp. | 22K, 56K, 150K, 470mmf, .001mfd, .01mfd | 923188 | Sprague AC1-1 |
| K5 | Tone Comp. | 22K, 56K, 150K, 470mmf, .001mfd, .01mfd | 923189 | |
| K6 | Tone Comp. | 22K, 56K, 150K, 470mmf, .001mfd, .01mfd | 923189 | |

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

| | PART No. | PART No. |
|-----------------------------------|----------|----------|
| Dial Glass | 524 | 520323 |
| Dial Glass | 525, 526 | 520321A |
| Knob, Function, Balance | 524 | 461849 |
| Volume, Bass, Treble, Mono/Stereo | 525, 526 | 461844 |
| Knob, Function | 524 | 461848 |
| Knob, Tuning | 525, 526 | 461845 |
| Knob, Tuning | 525, 526 | 461846 |
| Knob, Volume, Bass, Treble | 525, 526 | 461847 |
| Cabinet, Balance | 524 | 141532Y |
| Cabinet, Satin Walnut | 524 | 141533P |
| Cabinet, Oiled Walnut | 525 | |

AMP PARTS LIST AND DESCRIPTION

TUBES

| ITEM No. | USE | TYPE | ITEM No. | USE | TYPE |
|----------|---------|--------|----------|-----------|-------|
| V10 | AF Amp. | 12AX7A | V12 | Output | 6BQ5 |
| V11 | Output | 6BQ5 | V13 | Rectifier | 5U4GB |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | REPLACEMENT DATA |
|----------|------------|--|
| | CAP. VOLT. | DUMONT PART No. AEROVOX PART No. CORNELL-DUBILIER PART No. GENERAL ELECTRIC PART No. GENERAL INSTRUMENT PART No. MALLORY PART No. SPRAGUE PART No. |
| C68A | 80 400 | 925566 AFH84-57-91 |
| B | 400 400 | PR81770 |
| C | 400 400 | DO477.5 BR80-450 |
| D | 100 50 | XC4-42 QT1-21 |
| C69 | 4 25NP | 925391 PR87405 |
| C70 | 4 25NP | 925391 PR87405 |

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA |
|----------|-----------|---------|--|
| | | | AEROVOX PART No. CENTRALAB PART No. CORNELL-DUBILIER PART No. ELMENCO PART No. MALLORY PART No. SPRAGUE PART No. |
| C71 | .033 400V | | P488N-033 DD-303 PM4833 |
| C72 | .033 400V | | P488N-033 DD-303 PM4833 |

RESISTORS (Power and Special)

| ITEM No. | RATING | REPLACEMENT DATA | ITEM No. | RATING | REPLACEMENT DATA |
|----------|---------------|---------------------------------------|----------|--------|---------------------------------------|
| | | IRC PART No. WORKMAN PART No. REMARKS | | | IRC PART No. WORKMAN PART No. REMARKS |
| R85 | 2180Ω 10W W/W | PW10-2200 10W-SQ-2180 #394247 | | | |

Dumont Part Number

TRANSFORMER (POWER)

| ITEM No. | RATING | REPLACEMENT DATA | NOTES |
|----------|--------------------------------|--|-------|
| | PRI. SEC. 1 SEC. 2 | DUMONT PART No. MERIT PART No. STANCOR PART No. THORDARSON PART No. TRIAD PART No. | |
| T1 | 117VAC 280VCT 1A .142ADC .150A | 730117 | |
| | SEC. 3 SEC. 4 SEC. 5 | | |
| | 5VAC 6.3VAC 3A 2.7A | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | REPLACEMENT DATA | NOTES |
|----------|----------------|--|-------|
| | PRI. SEC. | DUMONT PART No. MERIT PART No. STANCOR PART No. THORDARSON PART No. TRIAD PART No. | |
| T2 | 4400Ω Tap 9.1% | 734216 | |
| T3 | 4400Ω Tap 9.1% | 734224 | |

