

CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove 9 screws holding back cover and remove back cover. Disconnect antenna leads. Remove all knobs.
2. Remove yoke plug, convergence board plug, high-voltage anode lead, picture-tube socket, speaker leads, ground wire, degaussing coil plug, and color sentry clips.
3. Remove 3 bolts securing chassis to cabinet and remove tuner assembly. Remove 4 fasteners holding tuner assembly to cabinet.
4. Remove 3 bolts securing control panel to cabinet front. Remove 1 screw securing switch panel and 1 screw from indicator tube mounting panel. Lift out chassis, tuner, and controls.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" procedure. Lay set face down on a soft protective surface.
2. Remove purity and lateral magnet assembly from picture-tube neck. Loosen convergence and deflection-yoke clamp screws and remove convergence and deflection yoke from picture tube. Remove convergence board from cabinet.
3. Remove picture-tube shield and remove 4 nuts securing 4 picture-tube mounting brackets to front of cabinet.
4. Using mounting brackets as hand holds, remove picture-tube assembly from cabinet. Do not lift picture tube out by the neck of the tube.

SET 1039 FOLDER 2

OLYMPIC MODELS CC5400/01,
CD5404, CK3386 (Ch. CTC31)

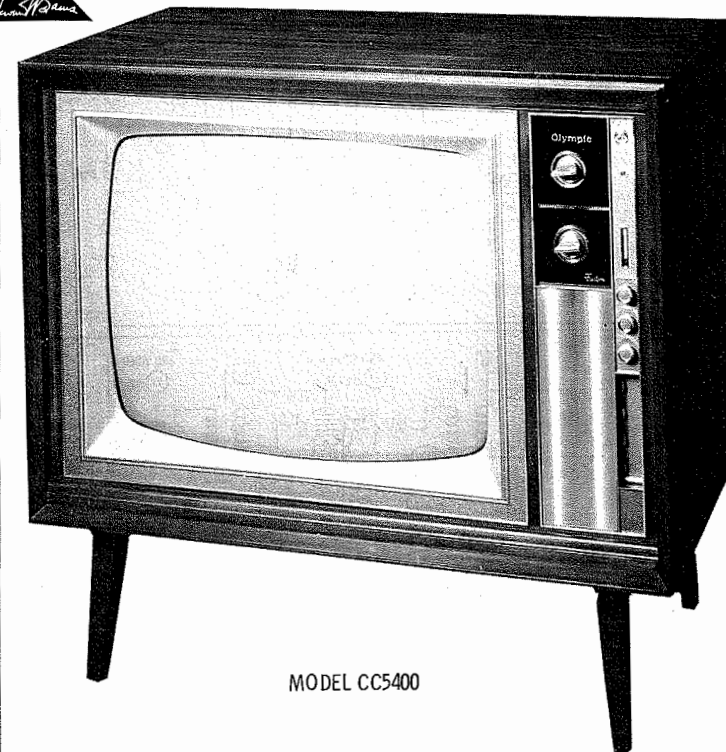
PHOTOFACT® Folder

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OLYMPIC MODELS CC5400/01,
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COLOR TV



MODEL CC5400

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-FM Stereo
Chassis 323/MX12 SET 1039, FOLDER 2-A

MODEL	CHASSIS	RADIO CHASSIS
CC5400	CTC31	
CC5401	CTC31	
CD5404	CTC31	
CK3386	CTC31	323/MX12

SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set.

Check high-voltage regulation and adjust to correct value.

Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

Caution: One side of AC line connected to chassis. Use isolation transformer for servicing. Make certain isolation networks are in place and exposed metal is safe to touch before returning set to customer.

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A 3½" length of fuse wire is used for filament protection. (For location, see F2 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 "Cabinet - Rear View" photo for location.)

VHF OSCILLATOR ADJUSTMENT

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

AGC

The AGC may be varied by means of an AGC control. (See "Cabinet - Rear View" photo for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

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

FOCUS

The focus may be varied by means of a Focus coil. (See "Cabinet - Rear View" photo for location.)

REMEMBER TO ASK— "What else needs fixing?"

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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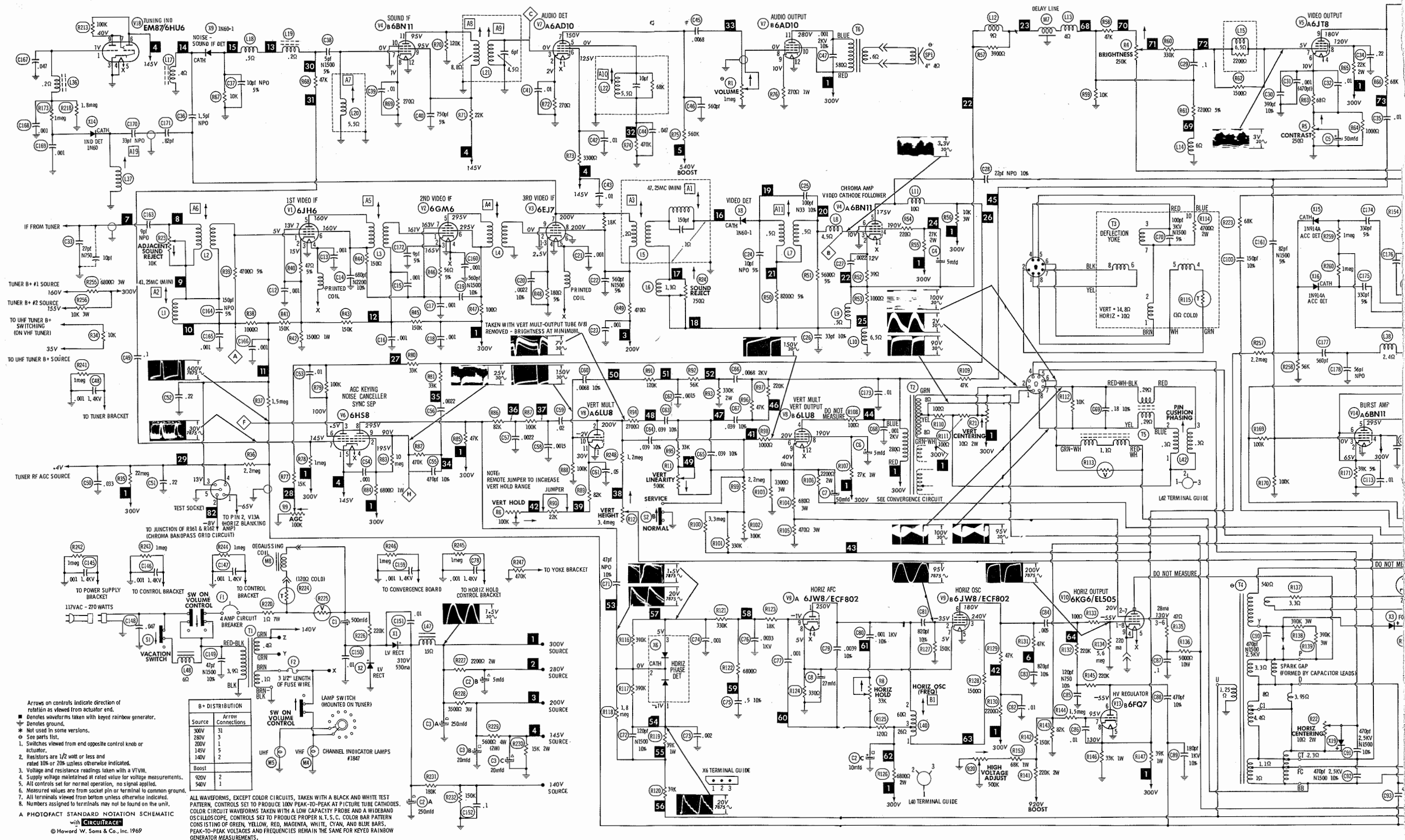


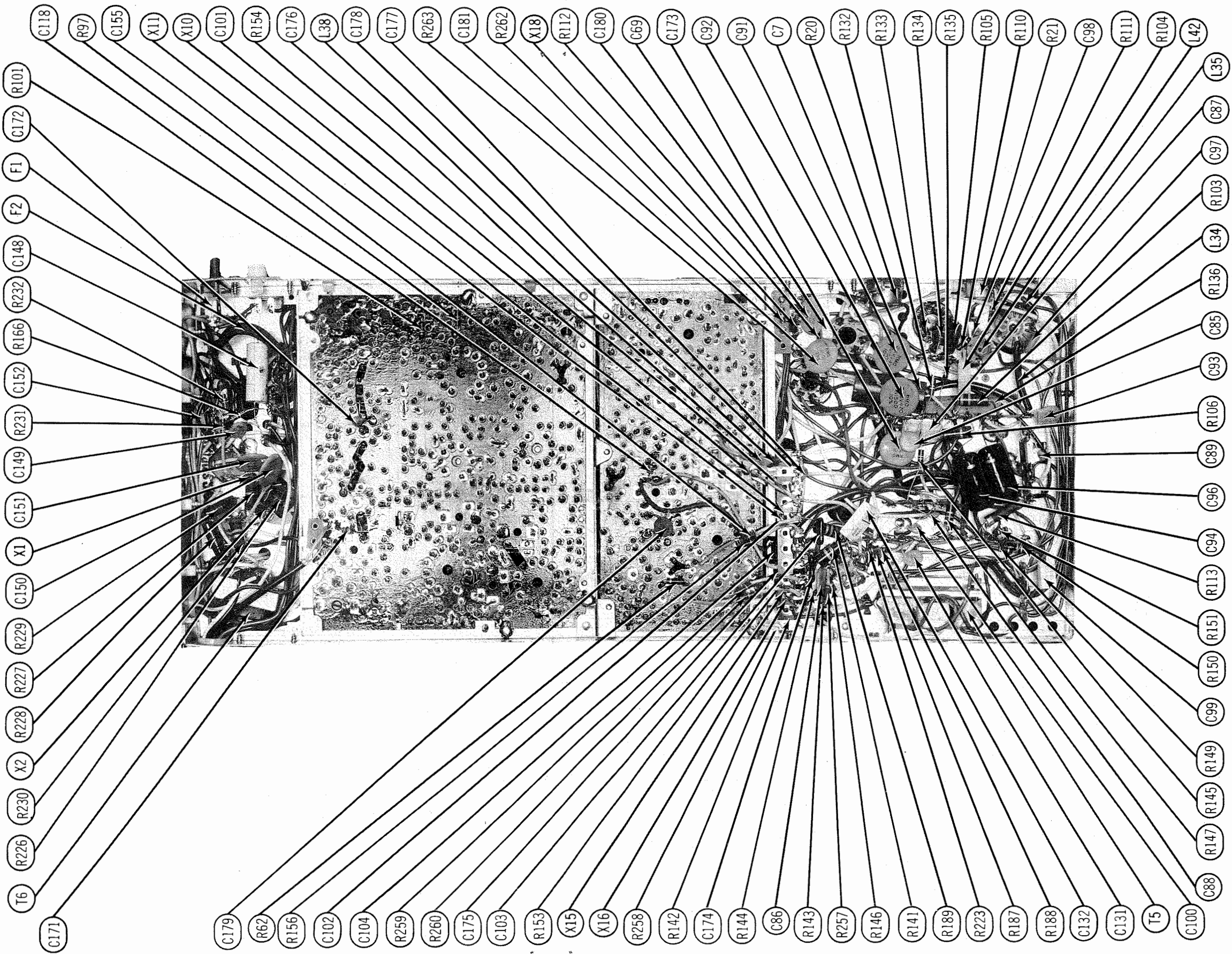
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DATE 7-69 SET 1039 FOLDER 2

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SET 1039 FOLDER 2

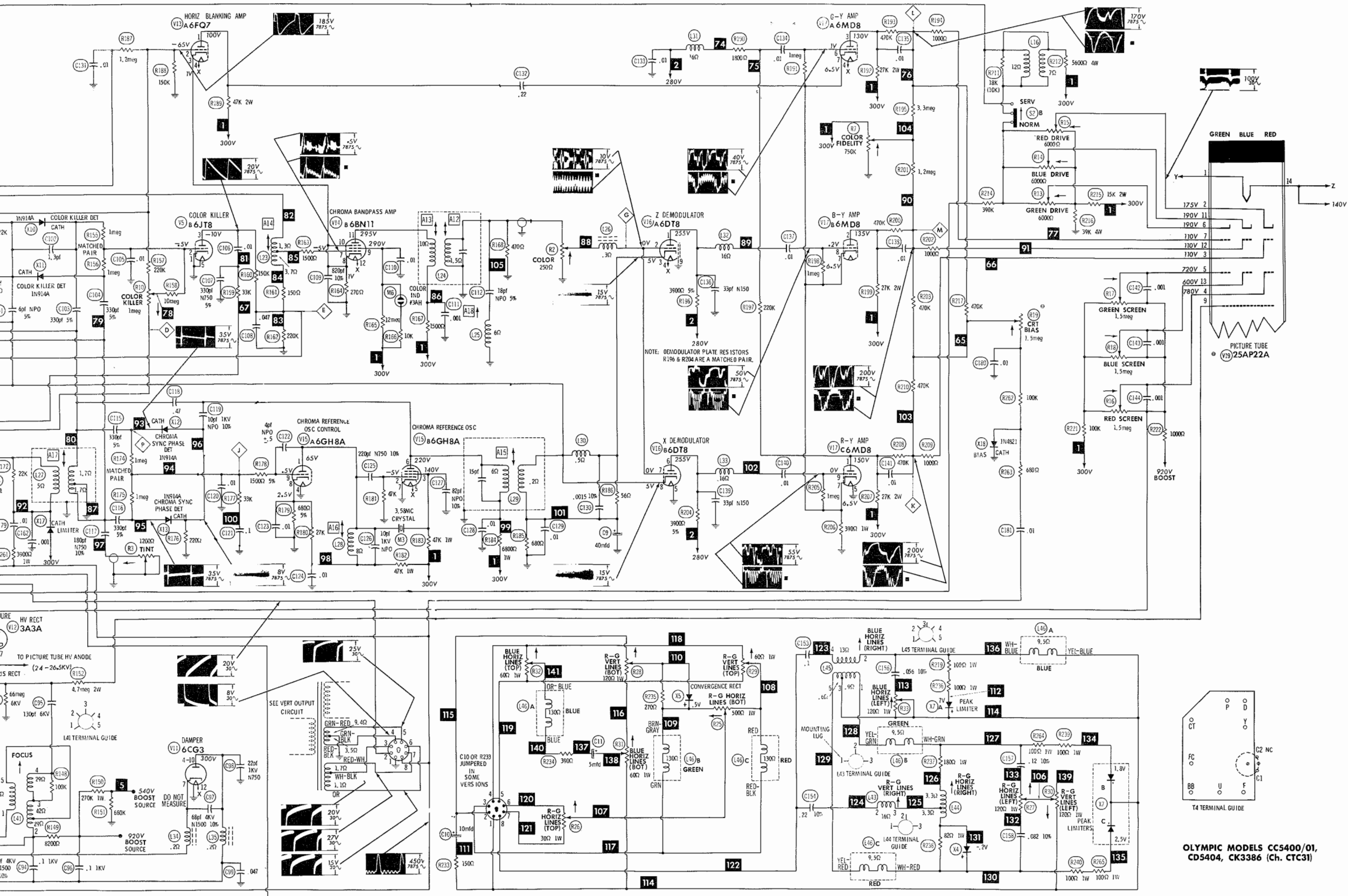




CHASSIS - BOTTOM VIEW

OLYMPIC MODELS CC5400/01,
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FOLDER 2

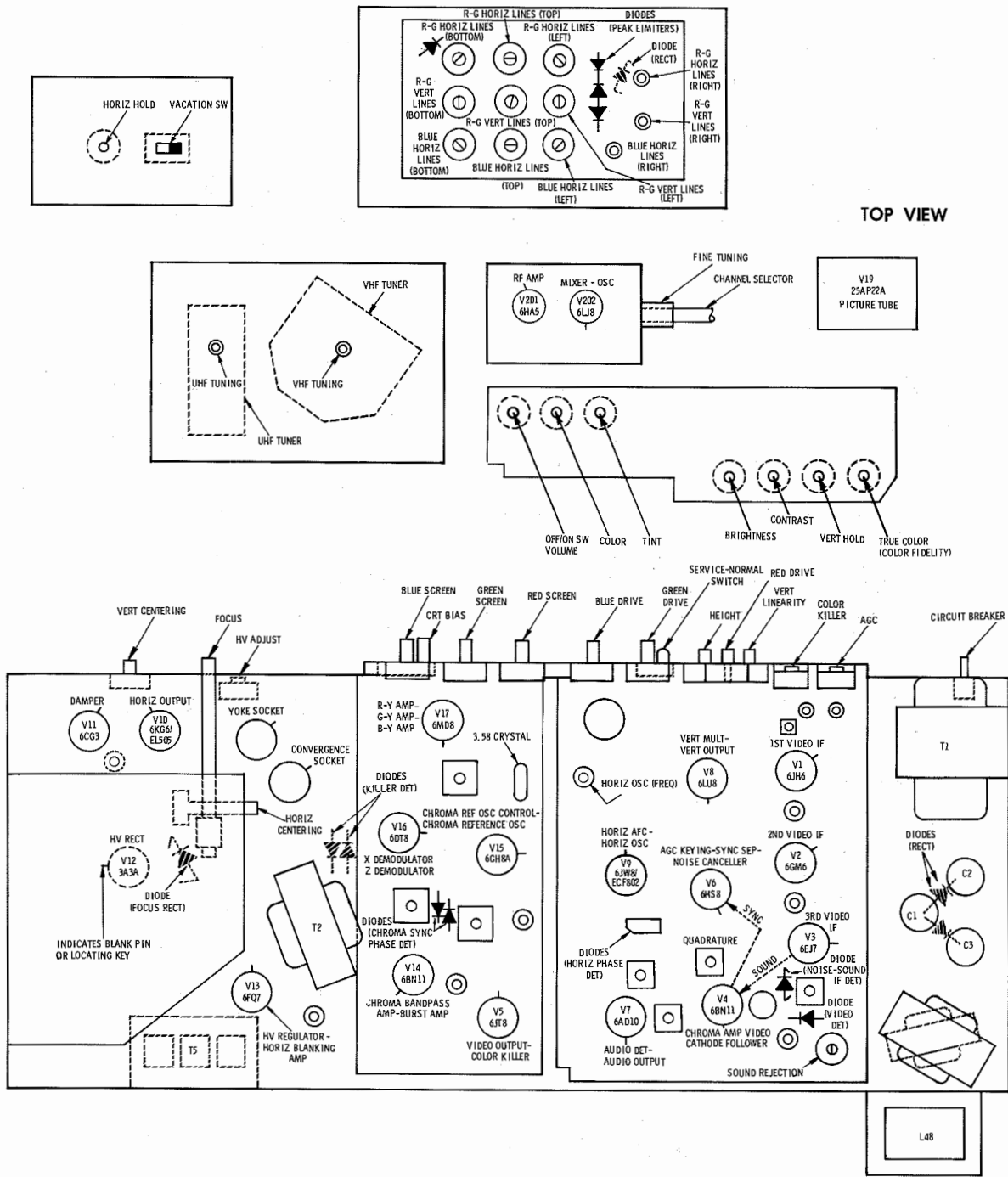


RESISTANCE MEASUREMENTS

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	6JH6	500K	1500Ω	FIL	FIL	200Ω ▲	200Ω ▲	1500Ω					
V2	6GM6	90K	INF	FIL	FIL	120Ω †	120Ω †	INF					
V3	6EJ7	0Ω	180Ω	0Ω	FIL	FIL	0Ω	4000Ω †	4000Ω †	0Ω			
V4	6BN11	FIL	850Ω	1000Ω ●	27K †	10K †	0Ω	5.5Ω	270Ω	16K †	0Ω	16K †	FIL
V5	6JT8	0Ω	1.5meg	400K	FIL	FIL	290Ω	400K	27K †	4300Ω †			
V6	6HS8	7500Ω †	7000Ω †	2meg	FIL	FIL	130K	1meg †	47K †	10meg †			
V7	6AD10	FIL	270Ω	4.5Ω	NC	470K	10K †	820K †	300K	270Ω	15Ω †	650Ω †	FIL
V8	6LU8	FIL	3.7meg †	NC	390Ω †	NC	2.8meg	NC	27K †	700Ω	100K	130K	FIL
V9	6JW8/ ECF802	7000Ω †	150K	8500Ω †	FIL	FIL	50K †	330Ω	330Ω	900K			
V10	6KG6/ EL505	5.6meg	400Ω	5000Ω †	FIL	FIL	5000Ω †	5.6meg	0Ω				TOP CAP 28Ω †
V11	6CG3	FIL	NC	NC	23Ω †	NC	NC	260K	NC	NC	23Ω †	NC	FIL
V12	3A3A		PINS 1 THRU 8 HAVE INFINITE RESISTANCE										TOP CAP 200K †
V13	6FQ7	27K †	150K	180Ω	FIL	FIL	6meg	1.6meg	20K	0Ω			
V14	6BN11	FIL	39K	60K	15Ω †	80Ω † ●	39K	220K	270Ω	220K †	180Ω	1500Ω †	FIL
V15	6GH8	20K †	47K	47K †	FIL	FIL	7000Ω †	0Ω	680Ω	1.6meg			
V16	6DT8	6500Ω †	120Ω	680Ω	FIL	FIL	6500Ω †	120Ω	680Ω	0Ω			
V17	6MD8	27K †	27K †	27K †	FIL	FIL	1meg	390Ω	1meg	1meg			
V18	EM87/ 6HU6	700K ●	NC	0Ω	FIL	FIL	6000Ω †	106K †	NC	106K †			
V19	25AP22A	FIL	8000Ω †	85K †	320K †	300K †	6000Ω †	85K †	NC	66meg	NC	6000Ω †	85K †
V201	6HA5	4meg	0Ω	FIL	FIL	8000Ω †	0Ω	0Ω				Pin 13 460K †	Pin 14 FIL
V202	6LJ8	15K	15K †	0Ω	FIL	FIL	11K †	30K †	0Ω	220K			
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

● READING DEPENDS ON POLARITY OF METER CONNECTIONS.
† MEASURED FROM CATHODE OF X1. NC NO CONNECTION ▲ MEASURED FROM PIN 2 OF V2.
‡ MEASURED FROM PIN 7 OF V11.

TUBE PLACEMENT CHART



OLYMPIC MODELS CC5400/01,
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FOLDER 2

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 #8606, 8889, 9302 ... WALSCO #2511, 2543, 2588
Mixer Plate Coil ... GENERAL CEMENT #9296, 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 \diamond) 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  . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC 47.25MC	A1, R24 A2, R23	Adjust for MINIMUM. Keep cores of L5 (A1) and L1 (A2) at coil end away from printed circuit board.
2.	Connect DC probe of a VTVM thru a 47K resistor to point  . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	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 and A4. Adjust A6 for maximum with core at top end of coil and Mixer Plate Coil with core at bottom of coil.
3.	Connect vertical input of a scope to point  . 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		Check 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 A 3, A 4, A 5, A 6, and Mixer Plate Coil.

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 \diamond . Tune in a TV station and set all controls for normal operation. 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 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.

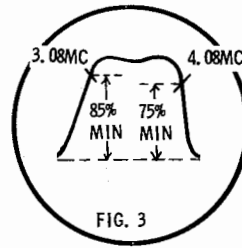
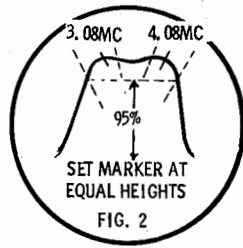
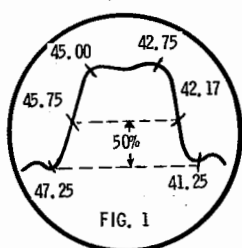
CHROMA BANDPASS ALIGNMENT

The following alignment will require the use of an RF Modulator (RCA WG304B or equivalent). Connect a -15 volt supply to point \diamond . Connect a -2 volt supply to point \diamond . Connect a -15 volt supply to point \diamond . Positive of all supplies to ground. Connect a jumper from point \diamond to ground. Turn Color Intensity to maximum. Remove the Horizontal Output Tube and connect a 2000 Ω , 100-watt resistor from 300-volt source to ground.
Suggested Alignment Tools: A12, A13, A14 ... GENERAL CEMENT #8606, 8806L, 8889 ... WALSCO #2543, 2544, 2588

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	High side thru .1mfd to grid of Bandpass Amp., V14, low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC	Vert. Amp. thru detector probe to point \diamond . Low side to ground.	A12, A13	Adjust for response curve similar to Figure 2.
5.	High side of sweep gen. to Video Sweep Input of RF demodulator. High side of signal gen. (set @ 45.75MC) 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)	"	"	A14	Adjust for response curve similar to Figure 3. If necessary, retouch A12 to flatten top of response curve.

TUNING EYE ADJUSTMENT

Tune in a TV station broadcasting a color program. Adjust all controls for normal operation. Turn Fine Tuning counterclockwise until picture distorts. Back Fine Tuning clockwise for best picture, color and sound. Adjust A19, if necessary, for maximum deflection (closing) of the tuning eye.



TROUBLESHOOTING CHECK CHART

The following chart lists component failures most likely to produce indicated symptoms.

SWEEP

No raster, has sound V9, V10, V12, V13, V19
No vert. deflection V8
Poor vert. lin. or foldover V8
Poor horiz. lin. or foldover V10, V11
Narrow picture X1, X2, V10, V11
Vert. off freq. V8
Horiz. off freq. X6, V9

RASTER

Yellow - No blue V17, V19
Cyan - No red V17, V19
Magenta - No green V17, V19

PICTURE OR SOUND

No pic, no sound, no raster F1, F2, X1, X2, V11
No pic, no sound, has raster V202, V1, V2, V3
No pic, no sound, has snow V201, V202
No pic, has sound, no raster V5, V19
No pic, has sound, has raster X8, V4, V5
Has pic, no sound X9, V4, V7
Overloaded picture V8
Low or excessive brightness V13, V19
Poor focus X3

COLOR (B/W reception operating normally.)

No color X10, X11, X12, X13, X17, V5, V14
Weak color X10, X11, X12, X13, X17, V5, V14
No color sync X12, X13, X17, V14, V15
No blue V17
No red V17
Incorrect hue (tint) X12, X13, X17, V14, V16

SYNC

No vert. sync V8
No horiz. sync X6, V9
No vert. or horiz. sync V6

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect:

A VTVM through a high voltage probe to picture tube anode connector. Point \diamond to ground.

Tune in a TV station and set all controls for normal operation. Adjust the Horizontal Hold control to the center of its range. Adjust B1 until the picture "floats" horizontally. Remove the short from Point \diamond .

Adjust the High Voltage control for 26.5KV on picture tube anode with MINIMUM brightness. Adjust Focus, Height, and Vertical Linearity controls. (For 23" picture tube, adjust for 24KV.)

COLOR AFC ALIGNMENT

Set the Color Killer 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 3 of Burst Amp., V14, to ground.

Connect DC probe of VTVM through 470K to Point \diamond . 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 3 of V14. Adjust A17 for maximum deflection on VTVM. Make sure the oscillator is running and locked in.

Short Point \diamond to ground. Remove VTVM. Adjust A16 until color bars stand still or drift slowly. Remove the short from Point \diamond 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 \diamond . 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 \diamond and \diamond). Tune in a weak signal, or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the Color Killer control to eliminate the color in the snow. Check with a color signal to make sure the killer is not eliminating picture coloring.

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.

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.

If TV is equipped with an automatic degaussing coil, degaussing occurs between the time the receiver is turned on and before the high voltage appears. Shunt Points \diamond and \diamond 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 the entire face of the picture tube. A low power microscope is useful to observe the beam landings.

GREY SCALE ADJUSTMENTS

Tune in a black-and-white picture or a color picture with the Color control set at MINIMUM. Turn the CRT Bias control to MINIMUM (counterclockwise). Turn the Red, Blue and Green Screen controls to MINIMUM. Move the Normal-Service switch to the Service position. Advance the screen controls, one at a time, until each produces a barely visible line. If one or more controls fail to produce a line, leave that screen control at maximum and advance the CRT Bias until a barely visible line appears, then readjust the other two screen controls for a barely visible line. Return the Normal-Service switch to the Normal position. Adjust the Blue, Green, and Red Video controls to eliminate coloring in the light and dark areas of the picture.

DYNAMIC PINCUSHION ADJUSTMENTS

The side pincushion is a fixed correction and no adjustments are provided on this chassis. Top and bottom pincushion is factory adjusted and readjustment is seldom needed. If necessary, top and bottom pincushion may be corrected by adjusting for straight horizontal lines at top and bottom of the screen.

Connect a crosshatch generator to the antenna terminals and adjust the set for a normal crosshatch pattern. Adjust Pincushion Phase coil, L42, to move curvature to the center of the screen. This adjustment should straighten horizontal lines at top and bottom of raster. The Pincushion Phase coil is located on the chassis rear apron below the high-voltage cage.

CONVERGENCE ADJUSTMENTS

Step	Control	Use to Converge (or Straighten)	Remarks
1.			Perform Center Dot Convergence using convergence magnets. See Fig. A.
2.	R-G Vertical Lines, Top	Red and Green Vertical bars at top of screen.	Touch up both controls for best convergence from top to bottom along vertical center line (Fig. B).
3.	R-G Vertical Lines, Bottom	Red and Green Vertical bars at bottom of screen.	
4.	R-G Horizontal Lines, Top	Red and Green Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. B).
5.	R-G Horizontal Lines, Bottom	Red and Green Horizontal bars at bottom of screen.	
6.	Blue Horizontal Lines, Top	Blue Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. C).
7.	Blue Horizontal Lines, Bottom	Blue Horizontal bars at bottom of screen.	
8.			Perform Center Dot Static Convergence (Fig. A).
9.	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).
10.	Blue Horizontal Lines, Left	Blue Horizontal bars at left side of screen.	
11.	R-G Vertical Lines, Right	Red and Green Vertical bars at right side of screen.	(Fig. E)
12.	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).
13.	R-G Vertical Lines, Left	Red and Green Vertical bars at left side of screen.	(Fig. E)
14.	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).

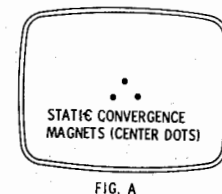


FIG. A

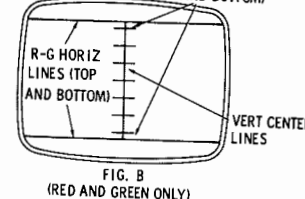


FIG. B
(RED AND GREEN ONLY)

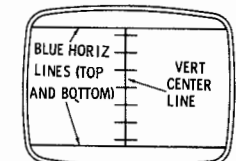


FIG. C
(BLUE BARS)

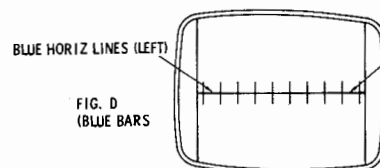


FIG. D
(BLUE BARS)

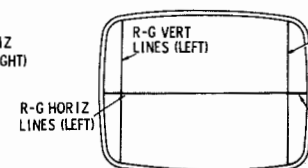
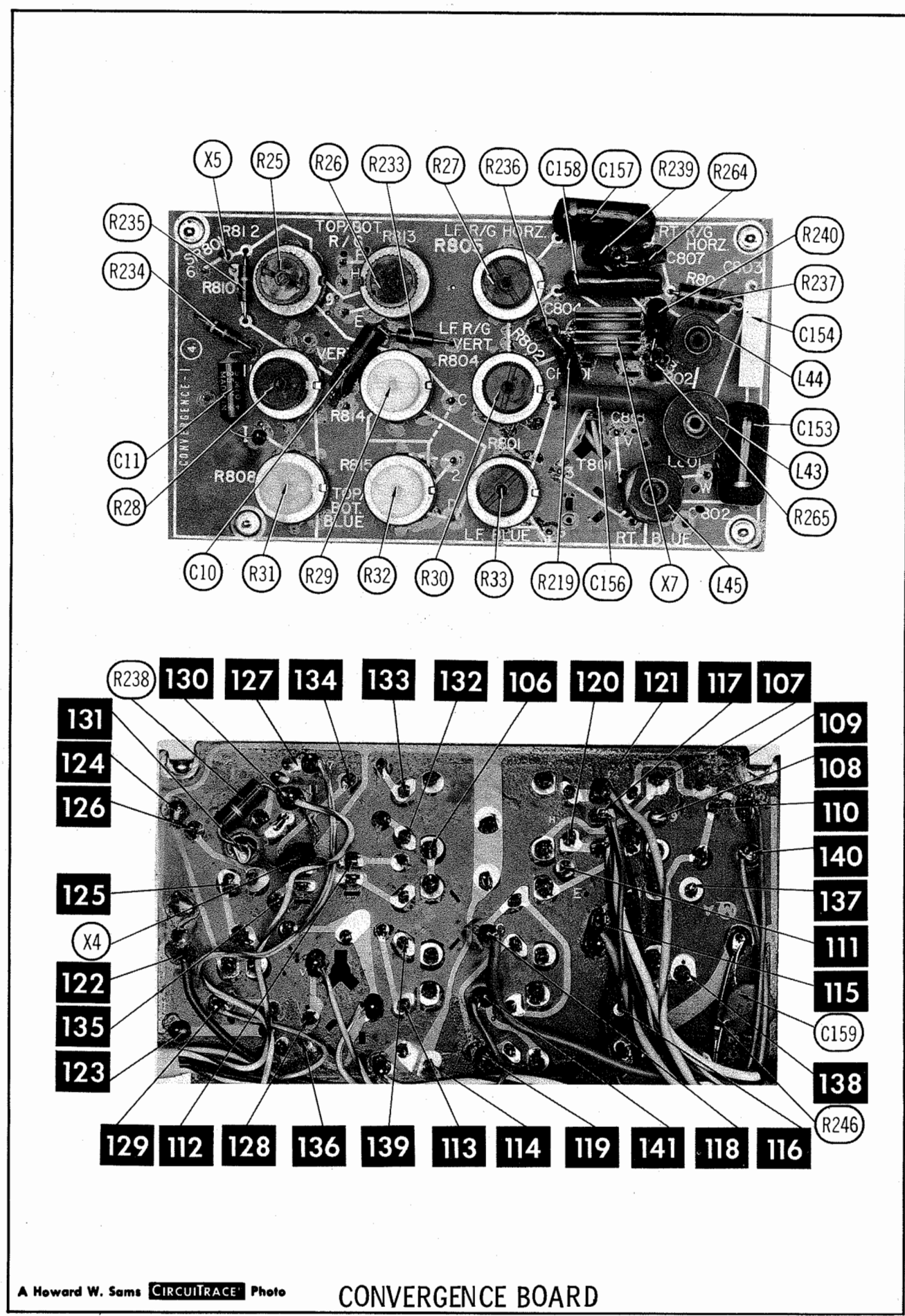
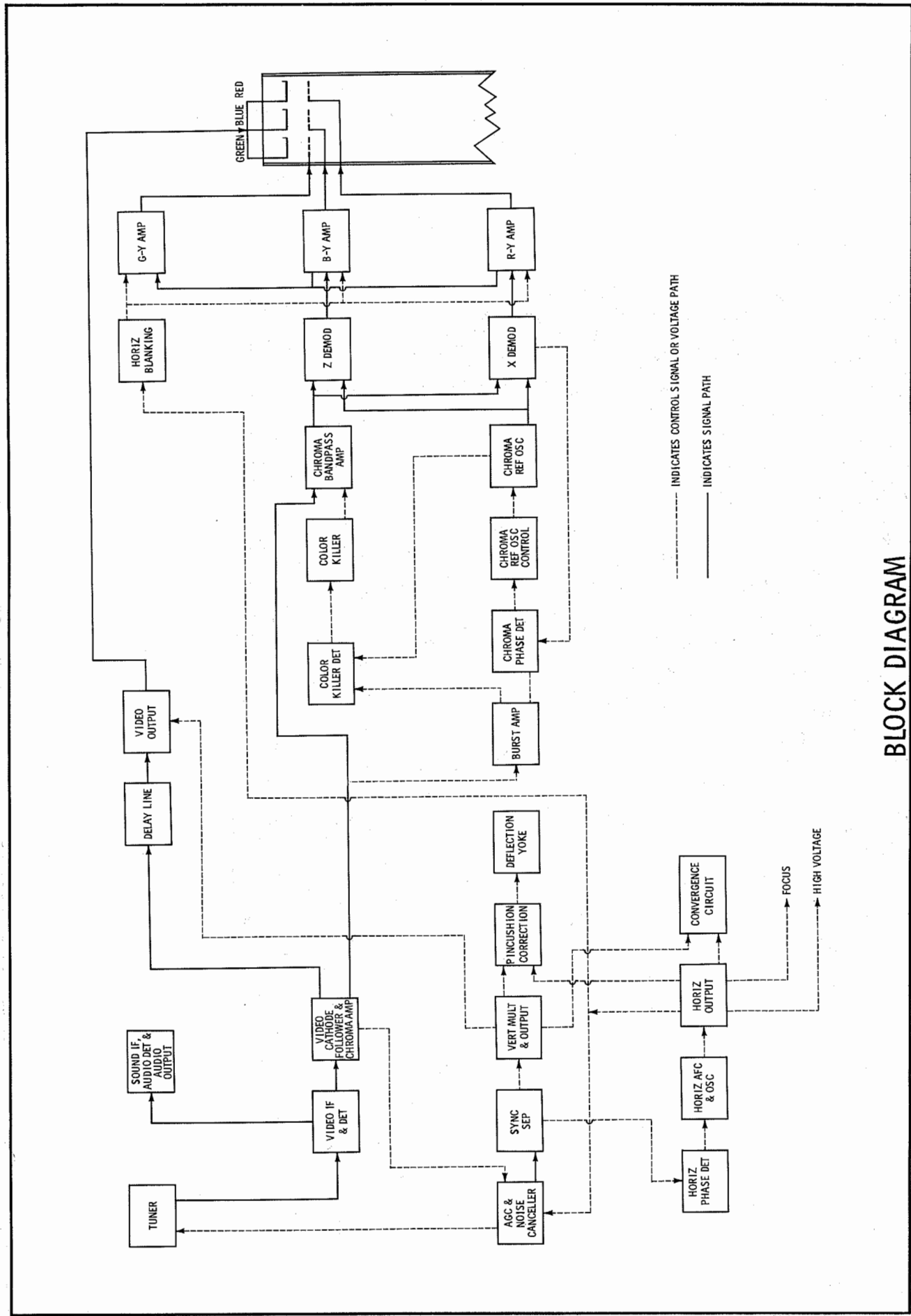
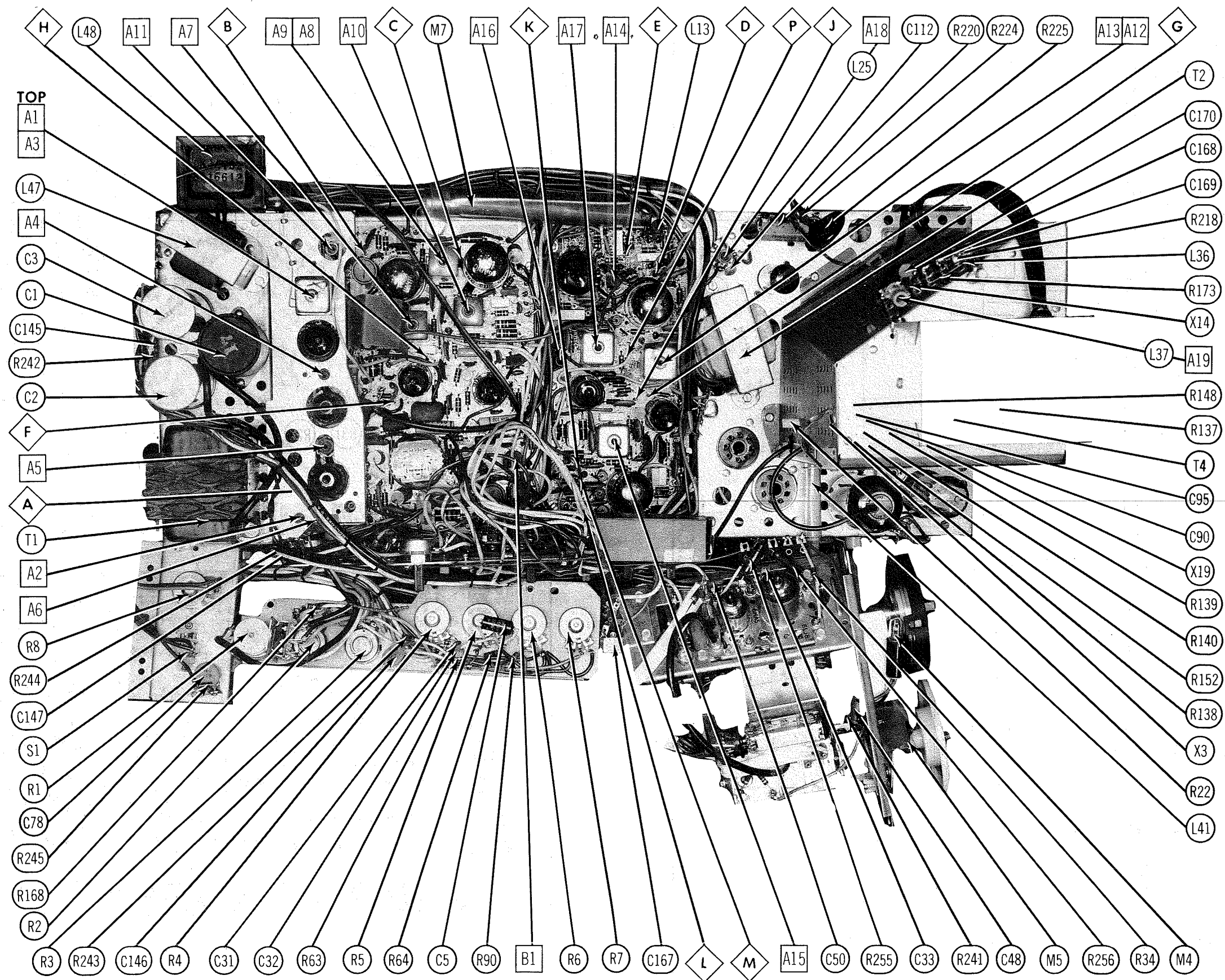


FIG. E

OLYMPIC MODELS CC5400/O1,
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FOLDER 2

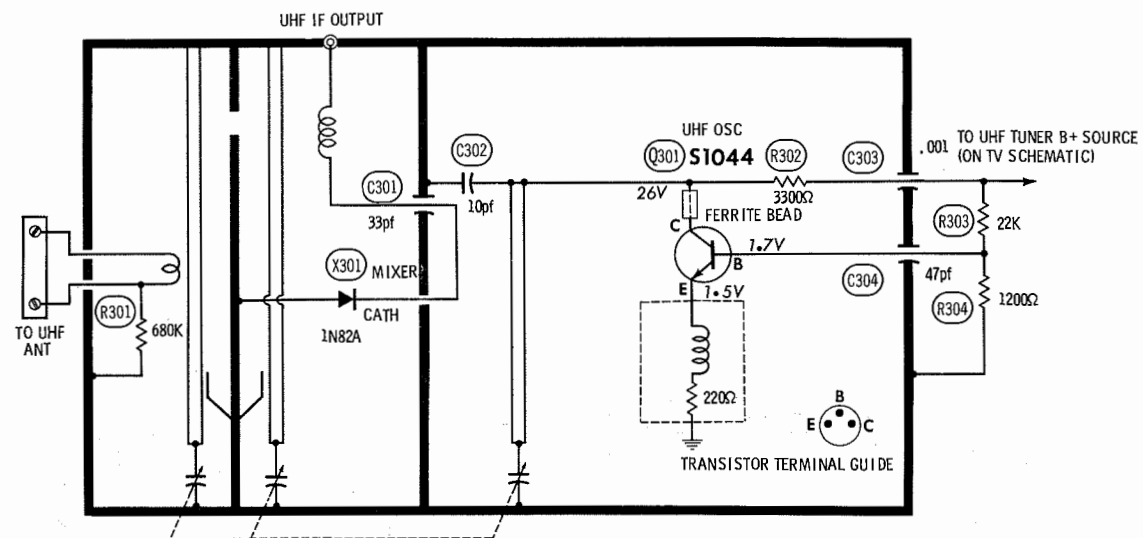




CHASSIS - TOP VIEW

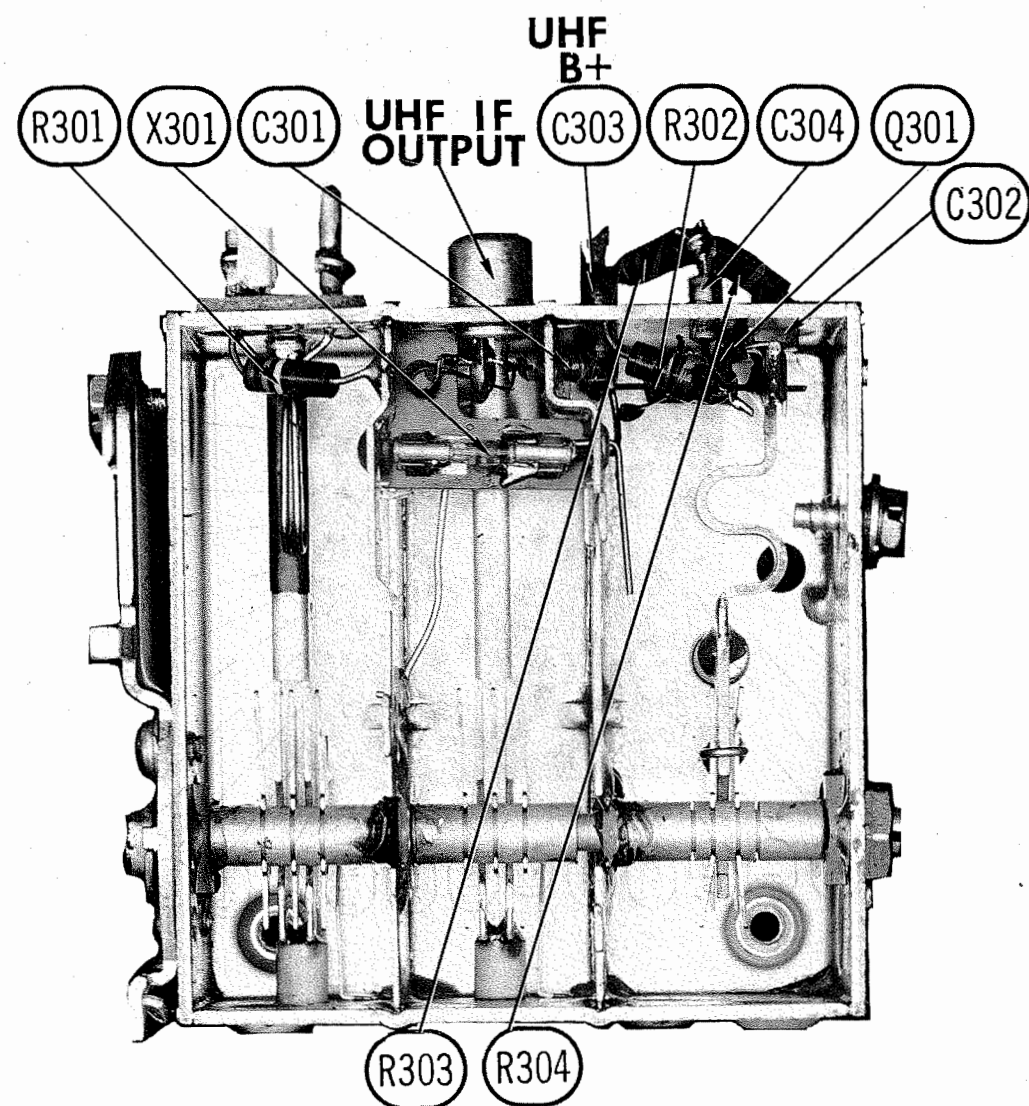
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CD5404, CK3386 (Ch. CTC31)

FOLDER 2

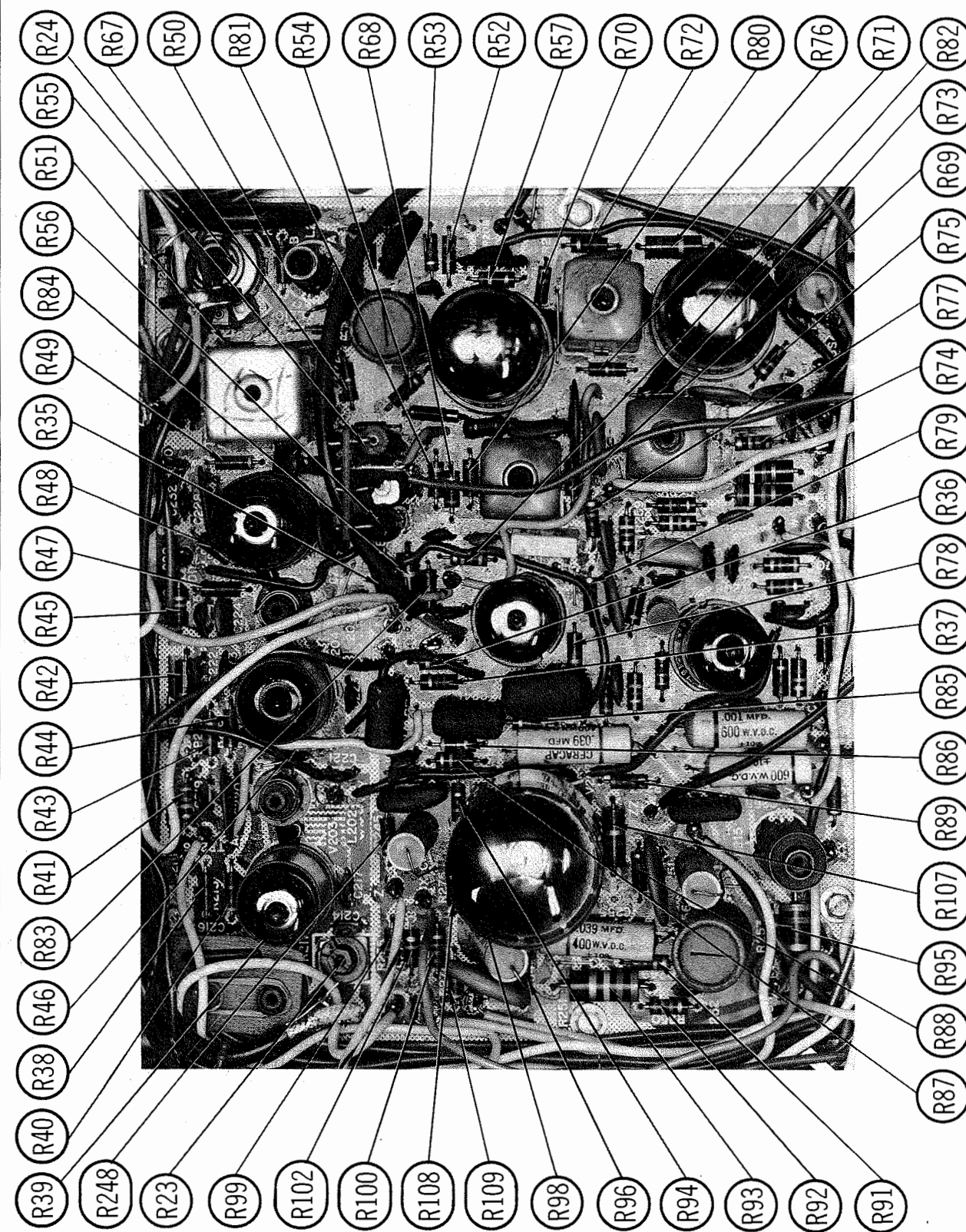


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UHF TUNER PART #CL-34315



UHF TUNER

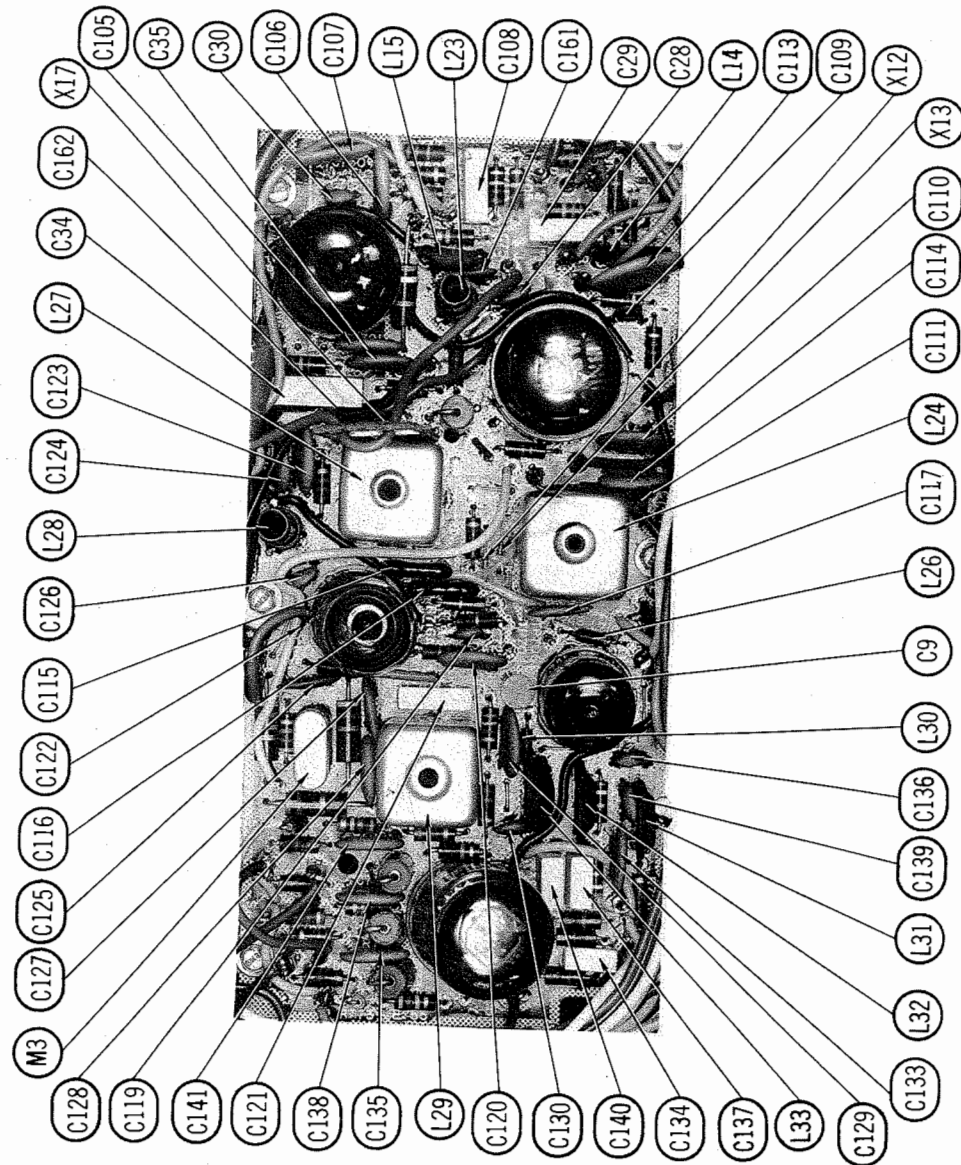
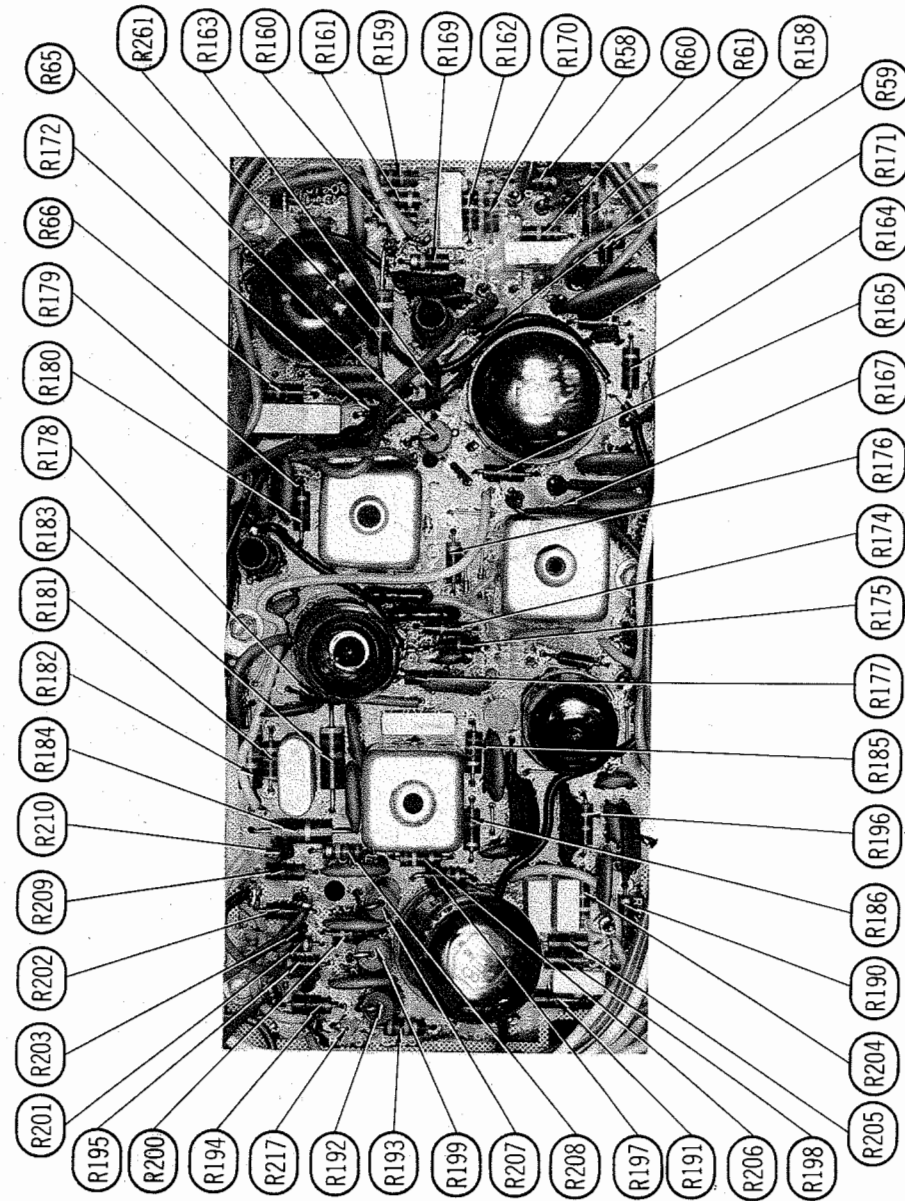
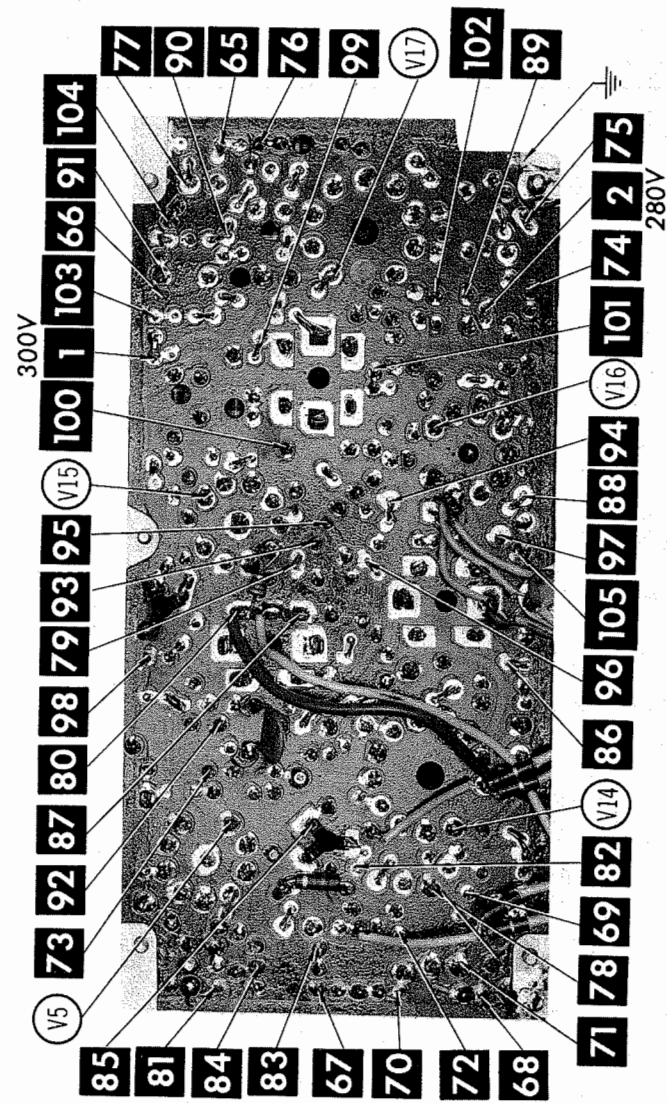


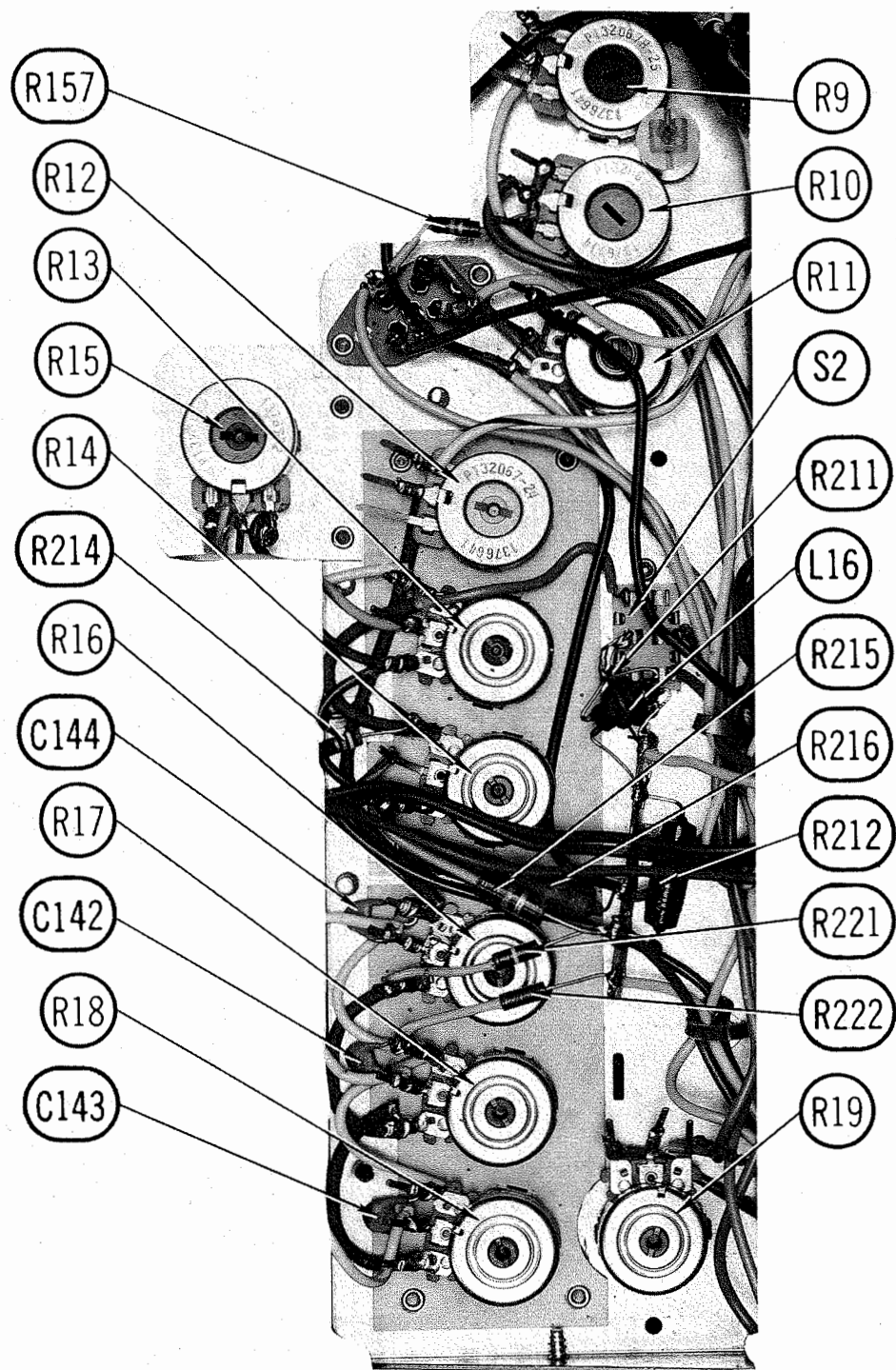
SIGNAL PRINTED BOARD

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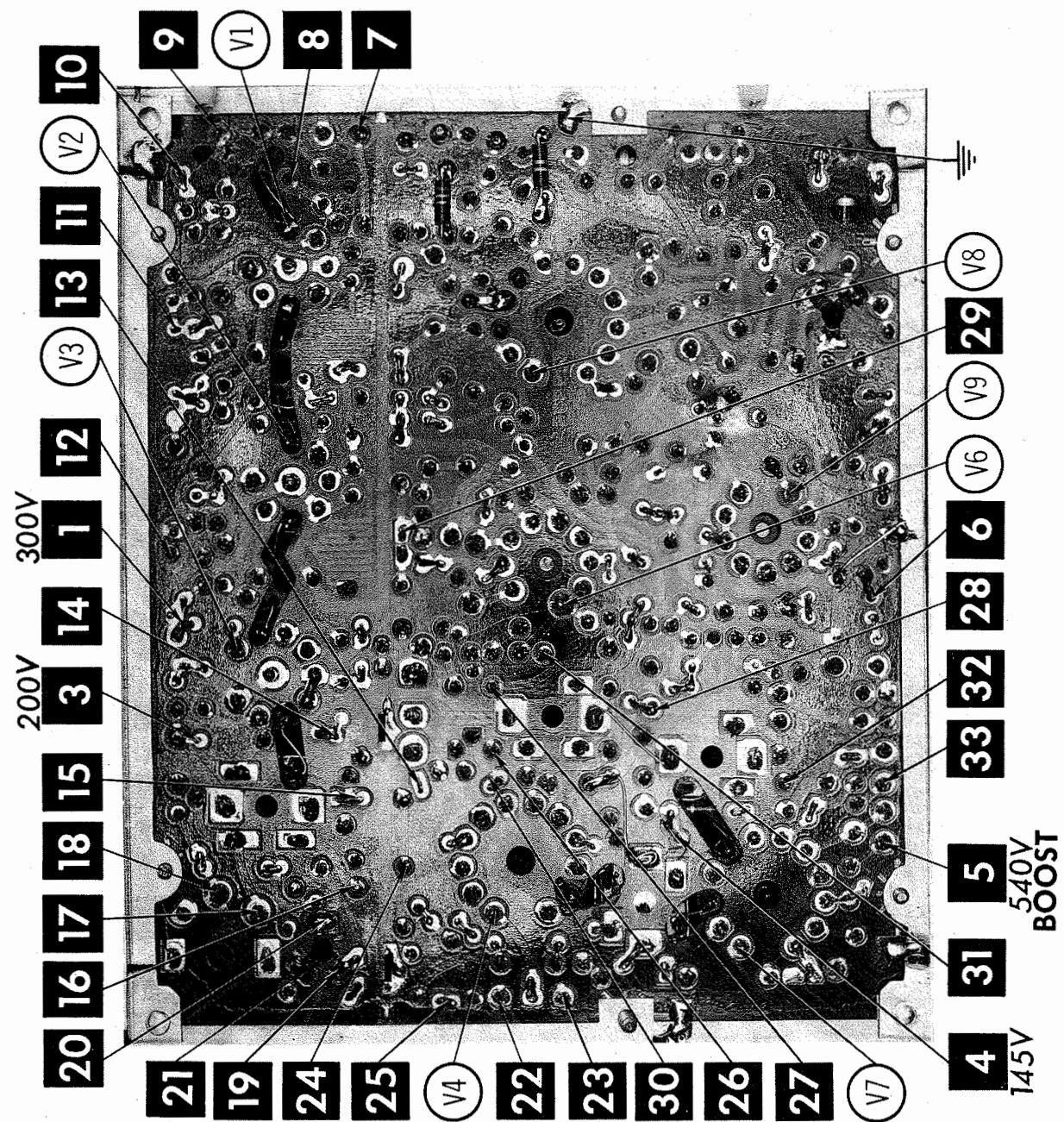
FOLDER 2

CHROMA PRINTED BOARD





CONTROL CHASSIS



A Howard W. Sams **CIRCUITRACE** Photo **SIGNAL PRINTED BOARD** ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

OLYMPIC MODELS CC5400/01,
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FOLDER 2



VHF TUNER PARTS LIST

TUBES

AMPEREX			GENERAL ELECTRIC			RCA			SYLVANIA		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V201	RF Amp.		6HA5			V202	Mixer - Oscillator		6LJ8		

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.
C201A	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
B	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
C	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
D	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
C202	7.7 N470					*	*	
C203	47							
C204	2.2			DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C205	.001							
C206	15							
C207	.001		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C208	.001							
C209	.001							
C210	.001							
C211	22 NPO		NPO-DI 22	DTZ-22	CY601CG220K	CCTO-220	CNO422	10TCC-Q22
C212	8.2		NPO-DI 8.2					10TCC-V82
C213	.001							
C214	.001							
C215	.001							
C216	.001							
C217	.001							

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

UHF TUNER PARTS LIST

TRANSISTORS

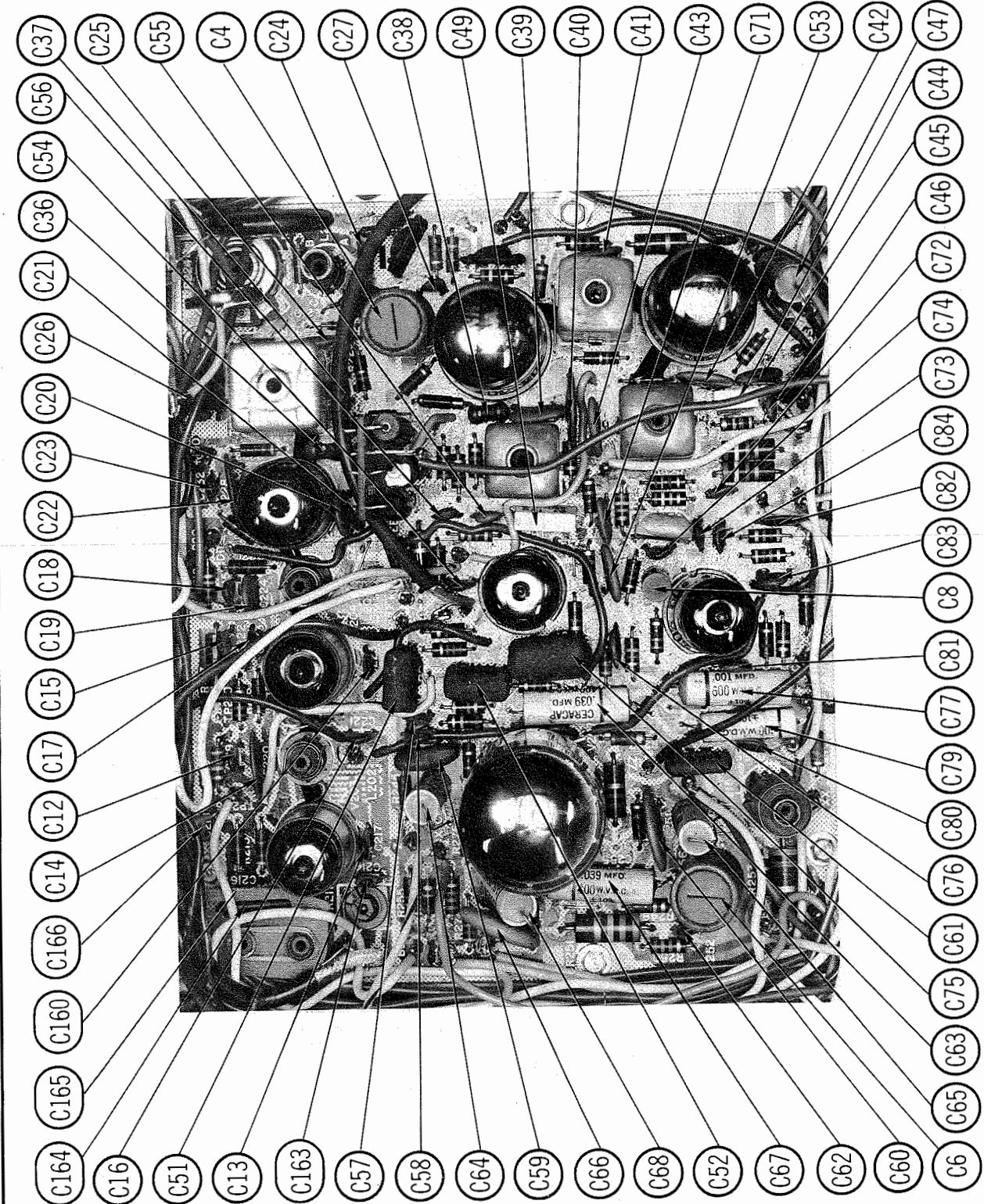
ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.
Q301	SI044	UHF Oscillator			GE-11	TR-24	HEP56	SK3019

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS	NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.		
X301	1N82A	1N82A	1N82A	ECG 112	RCA PART No.	

CAPACITORS

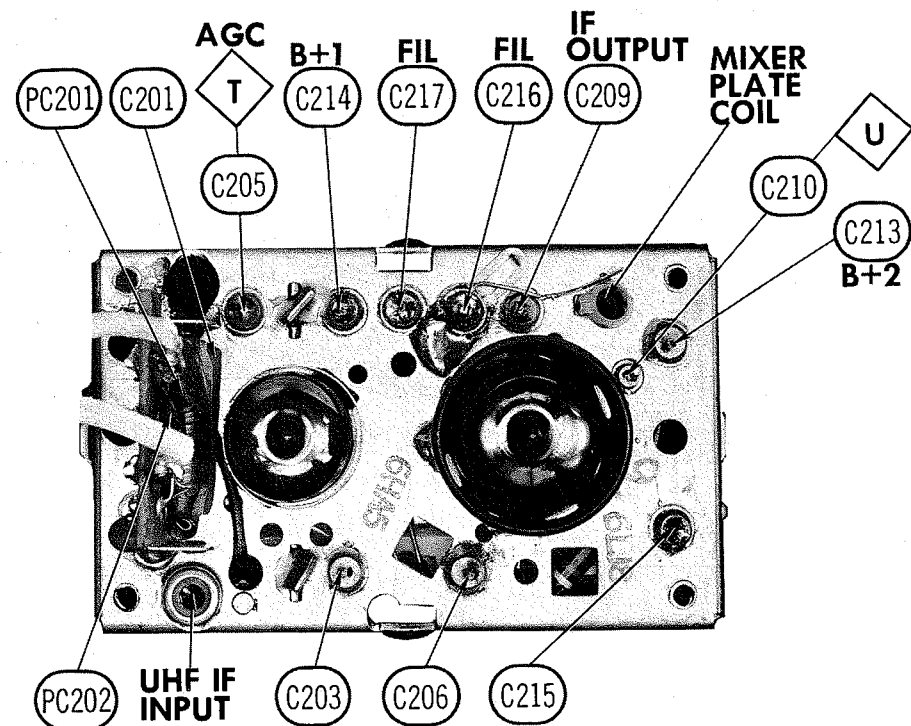
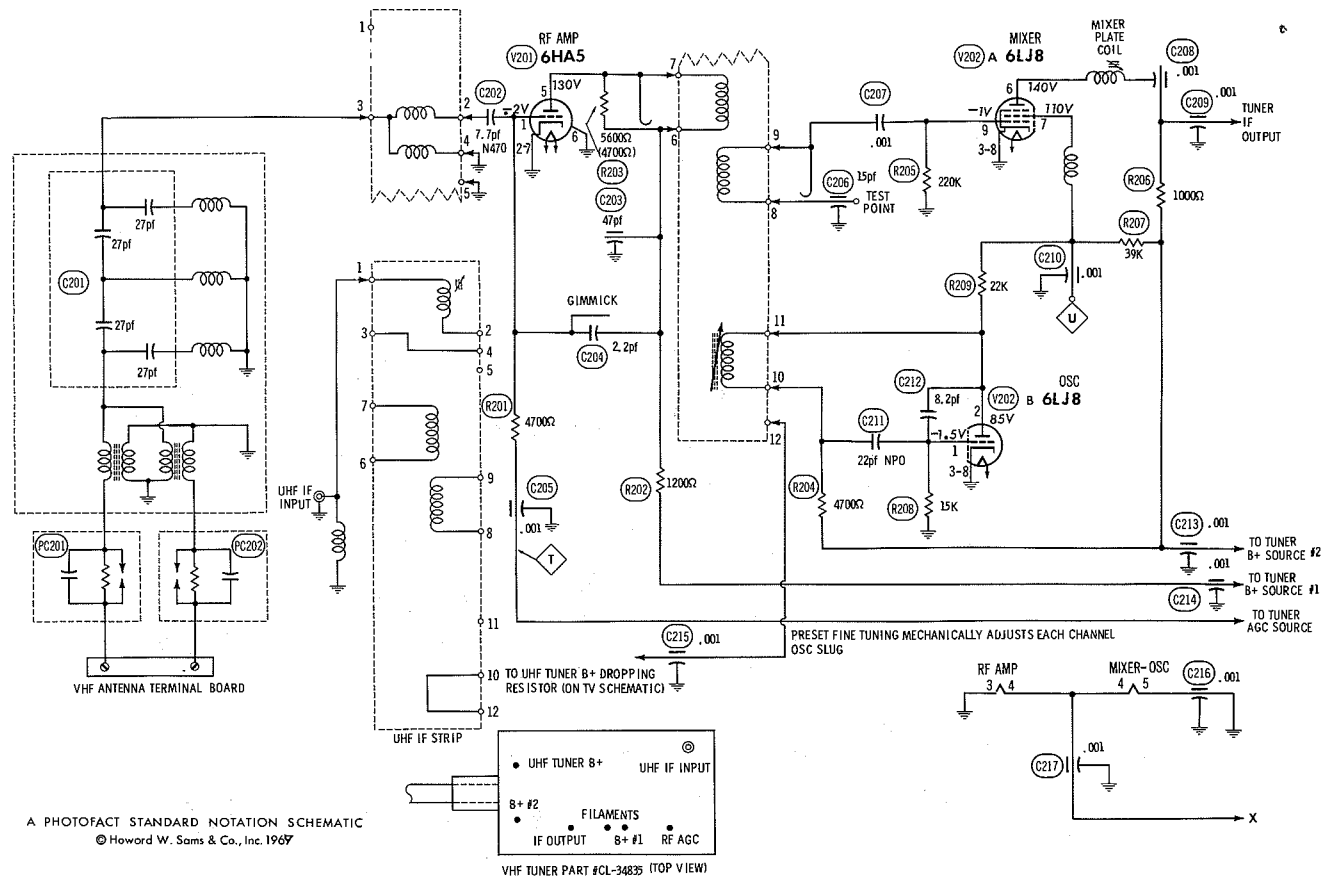
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C301	33		DI-10	DD-100		CCD-100	GP410	10TS-Q10
C302	10							
C303								
C304	47							



SIGNAL PRINTED BOARD

OLYMPIC MODELS CC5400/01,
CD5404, CK3386 (Ch. CTC31)

FOLDER 2



VHF TUNER

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: UHF Input Coil ... GENERAL CEMENT #9440 ... WALSCO #2501

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.

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 a variable bias to the RF AGC line at point T. Adjust bias to obtain response curve which shows no indication of overloading.

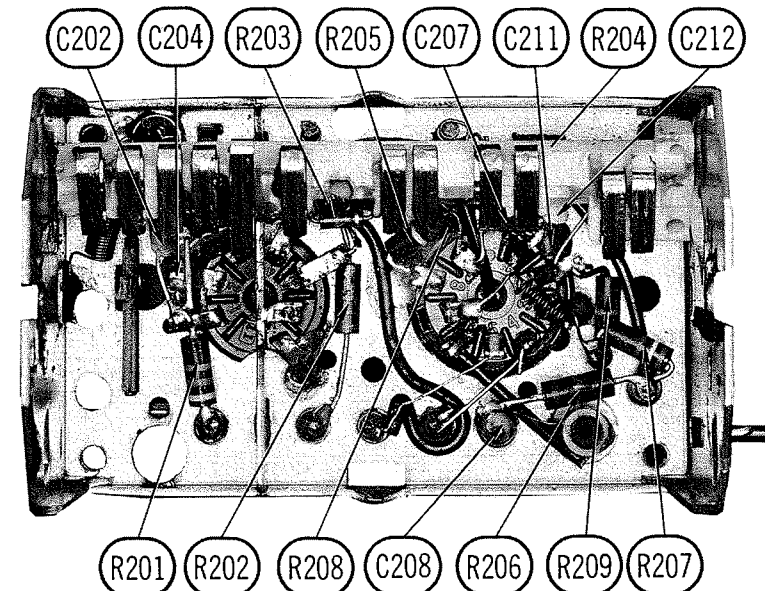
SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 1200Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point U, low side to ground.		Expand or compress appropriate coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	See Chart	See Chart	12 thru 2	Vert. Input to Point U, low side to ground.		Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.

CHANNEL & FREQUENCY CHART

SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SOUND VIDEO
57MC	55.25MC 59.75MC	2	85MC	83.25MC 87.75MC	6	195MC	193.25MC 197.75MC	10	<p>FIG. 201</p>
63MC	61.25MC 65.75MC	3	177MC	175.25MC 179.75MC	7	201MC	199.25MC 203.75MC	11	
69MC	67.25MC 71.75MC	4	183MC	181.25MC 185.75MC	8	207MC	205.25MC 209.75MC	12	
79MC	77.25MC 81.75MC	5	189MC	187.25MC 191.75MC	9	213MC	211.25MC 215.75MC	13	

UHF TUNER ALIGNMENT INSTRUCTIONS

Tune to a UHF station and adjust UHF IF Input Coil for best picture and sound.



OLYMPIC MODELS CC5400/01,
CD5404, CK3386 (Ch. CTC31)

FOLDER 2

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.	
L1	47.25MC Trap	TR32444-6		7553	TA260	
L2	1st Video IF	TR32444-3	17-3418	7549	T272	
L3	2nd Video IF	TR32444-8	17-3419	7552	TB644	
L4	3rd Video IF	TR32444-7	17-3414 †	7526	TA258 †	
L5	4th Video IF	TR32421-2	17-3420	6037	TF278	
L6	RF Choke (12uh)	CL32446-8	19-2016	72F125AP	TA343	
L7	4.5MC Trap	CL32422-4	20-1057	7142	TA264	
L8	Peaking (36uh)	CL32100-13	19-3036	6176	T301	
L9	RF Choke (1.8uh)	CK32391-231	19-1001	74F186AP	T990	
L10	Peaking (12uh)	CL32442-15	19-3125	72F124AP	T395	
L11	Peaking (30uh)	CL32100-27	19-2028	72F394AP	TA338	
L12	Peaking (20uh)	CL32442-9	19-2027	72F224AP	T312	
L13	Peaking (72uh)	CL32099-6	19-7068	6172	T303	
L14	Peaking (62uh)	CL32442-2	19-3060	6110	T338	
L15	Peaking (12uh)	CL32442-13 ①	19-3125 ▲	6153 ▲	TA344 ▲	
L16	Service	CL32106-1		7600		
L17	RF Choke (12uh)	CK32098-251	19-2017	72F125AP	TA820	
L18	RF Choke (1.8uh)	CK32391-231	19-1001	74F186AP	T990	
L19	RF Choke (5.6uh)	CK32098-243	19-1008	74F566AP	T820	
L20	1st Sound IF	TR32413-3	20-1052	7143	TF299	
L21	2nd Sound IF	TR32423-4	17-1083	7141	T270	
L22	Quadrature	TR32413-2	20-1050	7110-R	TA265	
L23	Chroma Takeoff	CL32420-3	17-6028	6039		
L24	Chroma Bandpass	TR32424-2	17-6031	6044		
L25	4.5MC Trap	CL35311				
L26	RF Choke (5.6uh)	CK32391-243	19-1008	74F566AP	T820	
L27	Burst Phase Detector	TR32419-2	17-6032	6046	T319	
L28	Chroma Ref. Control	CL32418-2	17-6022	6040		
L29	3.58MC Oscillator	TR32411-3	17-6033	6045		
L30	RF Choke (1.8uh)	CK32391-231	19-1001	74F186AP	T990	
L31	Peaking (62uh)	CL32442-14	19-2030	6146	T871	
L32	Peaking (62uh)	CL32442-14	19-2030	6146	T871	
L33	Peaking (62uh)	CL32442-14	19-2030	6146	T871	
L34	RF Choke (5.6uh)	CK32098-243	19-1008	74F566AP	T820	
L35	RF Choke (5.6uh)	CK32098-243	19-1008	74F566AP	T820	
L36	RF Choke (5.6uh)	CK32098-243	19-1008	74F566AP	T820	
L37	Tuning Eye Takeoff	CL35751				
L38	Peaking (3uh)	CL32442-25	19-6033	72F335AP	T972	

① Wound on 2200Ω Resistor.

▲ Shunt with 2200Ω Resistor.

† Clip unused Terminal.

COILS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA						WORKMAN PART No.
		MFGR. PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	
L40	Horiz. Osc. (Freq.)	CL34719		H-104				TC289
L41	Focus	CL32071-5		6350				
L42	Pincushion Phase (Top & Bottom)	CL34090-2		H-178				
L43	Dynamic Convergence Right R/G Vert. lines (2.8mh-6.8mh)	CL32417-1		6347				T149
L44	Dynamic Convergence Right R/G Horiz. lines (1.2mh-4.6mh)	CL32417-4		6348				
L45	Dynamic Convergence Right Blue Horiz. lines (Pri. 2.1mh-8.5mh) (Sec. .09mh-.07mh)	CL34517		H-140				
L46	Convergence Yoke Assembly	SA34504						
A	Blue Section							
B	Green Section							
C	Red Section							

FILTER CHOKE

ITEM No.	RATINGS		REPLACEMENT DATA						NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L47	.530A	15Ω	.5 H	CK34653 (62C15)	C-4133	C-2708	26C81	C-40X	
L48	.75A	6Ω	.22 H	CK34732 ▲					▲ Rapid-On Choke

TRANSFORMER (FILAMENT)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ 2.65A AC	6.3VAC @ 1.3A AC	6.3VAC @ 10.5A AC	TR34648					

TRANSFORMERS (Sweep Circuits) *

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output Yoke (Horiz. 14mh)	TR34652	A-4140C	VO-700C	26S86	A-305X	YC-312-2
T3	90° (Vert. 26mh)	SA-34503	MDF-145C	DY-95AC	Y-109		
T4	Horiz. Output	TR34650-1					
T5	Pincushion Correction Top and Bottom	TR34093-1					

* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER				VERTICAL OUTPUT				YOKE											YOKE PLUG								
REPLACEMENT ↓	Original Connections				Original Connections				Original Connections											1	2	3	4	5	6	7	8	
MERIT					NO WIRING CHANGE NECESSARY					1	2	3	4	5	6	7	8	10	11	TO YOKE TERMINAL								
STANCOR											7	3	10	4	5	8	1	11	9	6	NO WIRING CHANGE NECESSARY							
THORDARSON											Brn	Red	Whi	Yel		Blk	Blue	Grn										
TRIAD											1	2	3	4	5	6	7	8	19	13								
										1	2	3	4	5	6	7	8	10	11									

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.		
T6	12600Ω	3.2Ω	TR33549-1	A-2900		22S86	S-17X		

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" x 5" PM 3.2Ω	SK-34635	35A2C	Used in Models CC5400/01, CD5404.
	2 1/2" PM 16Ω	SK-29797	25A07Z16	One used in Model CD5404;
				Four used in Model CK3386.
	6" x 9" PM 8Ω	SK-33896	69A2Z10	Two used in Model CK3386.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	Circuit Breaker, 4 Amp.	RL34856-1				815004		FA4
F2	3 1/2" length of fuse wire							

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	VHF Tuner	CL34835	STANDARD KOLLSMAN Replacement SRB-250
M2	VHF Tuner	CL34654	
M3	UHF Tuner	CL34315	
M4	Crystal	CR32077-1	3.58MC VHF Pilot #1847
M5	Lamp		
M6	Lamp	BU-36029	
M7	Delay Line	DE32105-3	UHF Pilot #1847 Neon Color Indicator (Includes Clip)
M8	Degaussing Coil	CL-34127	
S1	Switch		
S2	Switch		Rapid-On Service-Normal Purity and Blue Lateral Assembly Signal Chroma Convergence
	Magnet	SA-34125	
	Printed Circuit Board	PC34722	
	Printed Circuit Board	PC34724	
	Printed Circuit Board	PC35072	

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Knob - On/Off/Volume, Color, Tint (3 used)	KN34923	Knob - VHF Dial Assembly	KN35090
Knob - True Color, Vertical, Contrast, Brightness (4 used)	KN34742-1	Knob - UHF Dial	KN34922
Knob - VHF Channel Selector	KN34919	Mask	MP34904
Models CC5400, CC5401	KN34919-1	Models CC5400, CC5401	MP34904-1
Models CD5404, CK3386		Models CD5404, CK3386	
Knob - VHF Fine Tuning	KN34920	RADIO Used with Model CK3386	
Models CC5400, CC5401	KN34920-1	Knob - Bandswitch	KN34930
Models CD5404, CK3386		Knob - Tuning	KN34929
Knob - UHF Tuning	KN34921	Knob - Loudness, Balance, Bass, Treble (4 used)	KN34931
Models CC5400, CC5401	KN34921-1	Knob - Push Button (6 used)	KN35168
Models CD5404, CK3386		Knob - Speed Selector, Reject (2 used)	KNV-60703

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, 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.

WIRING DATA

High Voltage Lead	Use BELDEN No. 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
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. 8454 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

TUBES

AMPEREX		GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
Q301	UHF Oscillator (Transistor)	SI044		V10	Horiz. Output	6KG6/EL505	
V202	RF Amp.	6HA5		V11	Damper	(6KD6 or 6KN6) *	
V202	Mixer-Oscillator	6LJ8		V12	HV Rectifier	6CG3	
V1	1st Video IF	6JH6		V13	HV Regulator - Horiz. Blanking	3A3A	
V2	2nd Video IF	6CM6		V14	Bandpass Amp. - Burst Amp.	6FQ7	
V3	3rd Video IF	6EJ7		V15	Chroma Ref. Osc. Control - Chroma Reference Osc.	6BN11	
V4	Video Cathode Follower - Chroma Amp. - Sound IF	6BN11		V16	X Demodulator - Z Demodulator	6GH8A	
V5	Video Output - Color Killer	6JT8		V17	R-Y Amp. - G-Y Amp. - B-Y Amp.	6DT8	
V6	AGC Keying - Noise Canceller - Sync Separator	6HS8		V18	Tuning Indicator	6MD8	
V7	Audio Detector - Audio Output	6AD10				EM87/6HU6	
V8	Vert. Mult. - Vert. Output	6LU8					
V9	Horiz. AFC - Horiz. Osc.	6JW8/ECF802					

* Alternates

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V19	25AP22A	25A P22A ①	H25XP22 ②	RE25AP22A ③	① Aluminized ② Hi-Lite ③ Color Bright "85" ④ Colorama
	25BP22A	25B P22A ①	H25YP22 ②	RE25BP22A ③	
	25CP22A	25A P22A ①	H25XP22 ②	RE25AP22A ③	
	25AF P22				
	25Y P22				
	25EGFP22A †		C23EGFP22A ④		
	25GP22A		H25XP22A ②	RE25AP22A ③	
		25A P22A ①			
				† Used in Model CK3386.	

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.

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.
C12	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C13	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C14	580 N2200 10%							10TCY-T68
C15	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C16	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C17	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C18	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C19	560 N1500 10%							10TCW-T56
C20	.0022		GPD X5F222K	DD-222	JBS601YP222K	CCD-222	GP222	10TS-D22
C21	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C22	560 N1500 5%							10TS-D10
C23	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C24	10 NPO 5%							10TCC-Q10
C25	100 N33 10%							
C26	33							
C27	.0022		GPD X5F222K	DD-222	JBS601YP222K	CCD-222	GP222	10TS-D22
C28	22 NPO 10%		NPO-DI 22	DTZ-22	CY601CG220K	CCTO-220	CNO422	10TCC-Q22
C29	.1 250V		DBE4P1			4DP-3-104	PVC401	4PS-P10
C30	390		GPD X5F391K	DD-391	JBS601YP102K	CCD-391	GP339	10TS-T39
C31	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C32	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	1-TS-S10
C33	27 N750			TCN-27		CN7427	10TCU-Q27	
C34	.22 400V		DBE6P22		DMF4P22	4DP-5-224	PVC4022	4PS-P22
C35	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-D10
C36	1.5 NPO		NPO-DI 1.5	DTZ-1R5		CNO515	10TCC-V15	
C37	10 NPO 5%							10TCC-Q10
C38	5 N1500 5%	#C029448-3						
C39	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C40	750	#C032377-2						
C41	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C42	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C43	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C44	.047 250V		DBE6S47		DMF4S47	4DP-3-473	PVC4147	4PS-S47
C45	.0068		GPD X5R682K	DD-682	BYX601ZU682P	CCD-682	JF268	10TS-D68
C46	560		GPD X5F561K	DD-561	JBY601YP561K	CCD-561	GP356	10TS-T56
C47	.001 2KV 10%							
C48	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C49	.1 250V		DBE4P1			4DP-3-104	PVC401	4PS-P10
C50	.033 200V		V1612S33		DMF2S33	4DP-2-333	PVC2133	4PS-S33
C51	.22 200V		V1612P22		DMF2P22	2DP-4-224	PVC2022	2PS-P22
C52	.22 200V		V1612P22		DMF2P22	2DP-4-224	PVC2022	2PS-P22
C53	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C54	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C55	.470		GPD X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C56	.0022		GPD X5F222K	DD-222	JBS601YP222K	CCD-222	GP222	10TS-D22
C57	.0022		GPD X5F222K	DD-222	JBS601YP222K	CCD-222	GP222	10TS-D22
C58	.0015		GPD X5F152K	DD-152		CCD-152	GP215	10TS-D15
C59	.02 200V		V1614S2		DPMS2S2	4DP-2-203	PVC212	2PS-S20
C60	.0068		GPD X5R682K	DD-682	BYX601ZU682P	CCD-682	JF268	10TS-D68
C61	.05 50V		V1612S5		WMF1S5	1DP-2-503	PVC215	2PS-S50
C62	.0015		GPD X5F152K	DD-152		CCD-152	GP215	10TS-D15
C63	.039 400V 10%		DBE6S39		PKM4S39	6DP-3-393	PVC6139	6PS-S39
C64	.039 400V 10%		DBE6S39		PKM4S39	6DP-3-393	PVC6139	6PS-S39
C65	.039 400V 10%		DBE6S39		PKM4S39	6DP-3-393	PVC6139	6PS-S39
C66	.0068 2KV						2HV268	30GA-D68
C67	.039 400V 10%		DBE6S39		PKM4S39	6DP-3-393	PVC6139	6PS-S39
C68	.001 2KV							
C69	.18 250V 10%				PKM4P18			
C70	100 N1500 3KV 5%							
C71	.47 NPO 10%		NPO-DI 47	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C72	.120 N1500 10%							10TCY-T12
C73	.002		GPD X5F202K	DD-202	JBS601YP202K	CCD-202	GP220	10TS-D20
C74	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C75	.5 50V 10%		V1616P5		WMF1P5	1DP-4-504	PVC105	2PS-P50
C76	.0033 1KV		GPD X5R332K	DD-332	JBY601YP332K	CCD-332	JF233	10TS-D33
C77	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C78	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C79	.0039		CPR-3900J		CD19F392J500	DM-19-392J	SX239	MS-239
C80	.001 1KV 10%		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C81	.820		GPD X5F821K	DD-821	JBY601YP821K	CCD-821	GP382	10TS-T82
C82	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C83	.820		GPD X5F821K	DD-821	JBY601YP821K	CCD-821	GP382	10TS-T82
C84	.005		GPD X5R502K	DD-502	JBT601YP502K	CCD-502	JF250	10TS-D50
C85	120 N750 10%			TCN-120		CCD-103	CN7812	10TCU-T12
C86	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C87	.1 600V		DBE6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C88	.470		GPD X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C89	180 1KV 10%		GPD X5F181K	DD-181	JBZ601YP181K	CCD-181	GP318	10TS-T18
C90	470 N1500 2.5KV 10%							
C91	470 N1500 2.5KV 10%							
C92	470 N1500 2.5KV 10%							
C93	.47 N1500 4KV 10%							
C94	.1 1KV		BE10P1					10TM-P10
C95	130 6KV		HVD-30120	DD30-121		3CCD-121	6HV312	30GA-T12
C96	.1 1KV		BE10P1					10TM-P10
C97	58 N1500 4KV 10%							
C98	22 N750 1KV							
C99	.047 400V		DBE6S47		CZ601UJ220K	CCTN-220	CN7422	10TCU-Q22
C100	150		GPD X5F151K	DD-151	DMF4S47	4DP-3-473	PVC4147	4PS-S47
C101	6					CCD-151	Q315	10TS-T15
C102	1.3							10TCC-V12
C103	330							MS-333
C104	330							MS-333
C105	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C106	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C107	330 N750 5%							10TCC-T33
C108	.047 400V		DBE6S47		DMF4S47	4DP-3-473	PVC4147	4PS-S47
C109	820		GPD X5F821K	DD-821	JBY601YP821K	CCD-821	GP382	10TS-T82
C110	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C111	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C112	18 NPO 5%							10TCC-Q18
C113	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C114	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C115	330							MS-333
C116	330							MS-333
C117	180 N750 10%							10TCU-T18

CAPACITORS (cont)

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.
C118	.47							
C119	10 NPO 1KV 10%							
C120	.01		GPD X5S103K	DD-103	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10
C121	.1 250V		DBE4P1		BYX601ZU103P	CCD-103	JF110	10TS-S10
C122	.4 NPO ±.25				DMF4P1	4DP-3-104	PVC401	4PS-P10
C123	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TCC-V39
C124	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C125	220 N750 10%			DTN-220				10TCU-T22
C126	10 NPO 1KV							10TCC-Q10
C127	82 NPO 10%							10TCC-Q82
C128	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C129	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C130	.0015		GPD X5F152K	DD-152		CCD-152	GP215	10TS-D15
C131	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C132	.22 400V		DBE6P22		DMF4P22	4DP-5-224	PVC4022	4PS-P22
C133	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C134	.01 600V		DBE6S1		DMF6S1	6DP-2-103	PVC611	6PS-S10
C135	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C136	.33 N150							10TCC-Q33
C137	.01 600V		DBE6S1		DMF6S1	6DP-2-103	PVC611	6PS-S10
C138	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C139	.33 N150							10TCC-Q33
C140	.01 600V		DBE6S1		DMF6S1	6DP-2-103	PVC611	6PS-S10
C141	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C142	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C143	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C144	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C145	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C146	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C147	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C148	.047 600V		DBE6S47		DMF6S47	6DP-3-473	PVC6147	6PS-S47
C149	.47 N1500 10%			TC1-47				10TCW-Q47
C150	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C151	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C152	.1 600V		DBE6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C153	.1 600V		DBE6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C154	.22 400V 10%		DBE6P22		DMF4P22	4DP-5-224	PVC4022	4PS-P22
C155	.056 400V 10%		DBE6S56		PKM4S56	4DP-3-563	PVC6156	4PS-S56
C156	.12 200V 10%				PKM4P12			
C157	.082 200V 10%		DBE6S82		PKM4S82	4DP-4-823		6FS-882
C158	.001 1.4KV		HVD-151000	DD30-102	HVX162XP102M	3CCD-102	2HV210	30GA-D10
C159	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C160	.001							10TCW-Q82
C161	.82 N1500 5%							10TS-D10
C162	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C163	.9 NPO							
C164	150 NPO 5%			DTZ-150				CNO315
C165	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TCC-T15
C166	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C167	.047 250V		DBE6S47		DMF4S47	4DP-3-473	PVC4147	4PS-S47
C168	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C169	.001		GPD X5F102K	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C170	.33 NPO 10%		NPO-DI 33	DTZ-33	CS601CG330K	CCTO-330	CNO433	10TCC-Q33
C171	.82							
C172	.9 5%							
C173	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C174	330 5%		ADM-15-331	CPR-330J	CD15F331J500	DM-15-331J	8X333	MS-333
C175	330 5%		ADM-15-331	CPR-330J	CD15F331J500	DM-15-331J	8X333	MS-333
C176	18 NPO 5%			TCZ-18	CY601CG180J		CNO418	10TCC-Q18
C177	560 10%		GPD X5F561K	DD-561	JBY601YP561K	CCD-561	GP356	Q756
C178	56 NPO 10%			TCZ-56		CCTO-560	CNO456	10TCC-Q56
C179	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C180	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10
C181	.01		GPD X5S103K	DD-103	BYX601ZU103P	CCD-103	JF110	10TS-S10

s (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	OLYMPIC PART No.
R136	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102
R137	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102
R138	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102
R139	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102
R140	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102
R141	8Ω 10W	PW10-7.5	10W-SQ-7.5	RE35102

S (RF-IF)

REPLACEMENT DATA			
MEISSNER Part No.	MERIT Part No.	MILLER Part No.	WORKMAN Part No.
		2008	

REPLACEMENT DATA		NOTES
QUAM PART No.		
69A2Z10 25A07Z16 25A07Z16 69A2Z10 25A07Z16 25A07Z16		Used in Model CK3386

BRIDGE & NEEDLES

RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

ATA O-VOICE T No.	SONOTONE PART No.		NOTES
	NEEDLE*	CARTRIDGE NEEDLE*	
3309DS*			
3309DS			Needle Replacement for Original Cartridge.

LLANEOUS

NOTES	
FM Tuner Tuning Phono Function, FM Phono, AM Phono, Phono, Phono Stereo, FM Stereo, FM, AM 3-Section Push Button Speaker AFC On-Off Audio Preamp Audio Power Output Speaker Switching Multiplex F	

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

WIRING DATA

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 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)

POWER SUPPLY PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

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.
C102	.01 600V 10%		DBE6S1	CPR-100003	DMF6S1	6DP-1-103	PVC611	6PS-S10

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	OLYMPIC PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @.13A AC	30VAC CT @.4 A DC	14.2VAC @.112A DC Tapped @6.3VAC @.3A AC	TR35084					

SET 1039 FOLDER 2-A

OLYMPIC AM-FM-FM
STEREO CHASSIS 323/MX12

PHOTOFACT® Folder

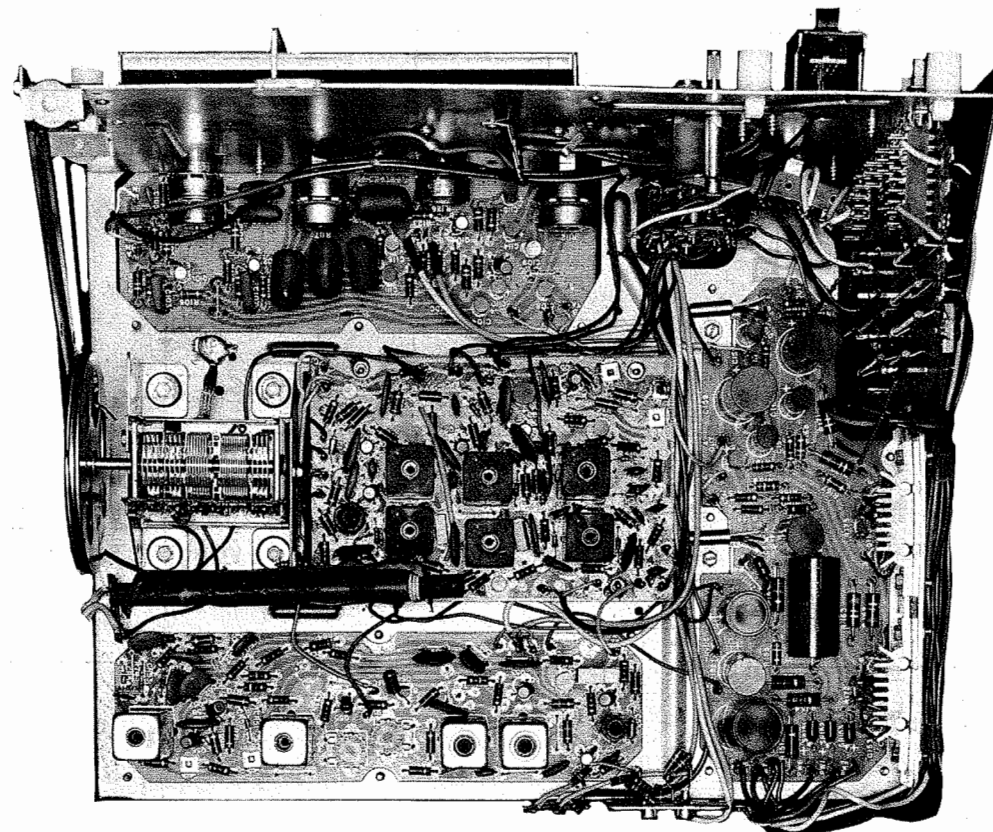
with CIRCUITRACE®

OLYMPIC AM-FM-FM
STEREO CHASSIS 323/MX12

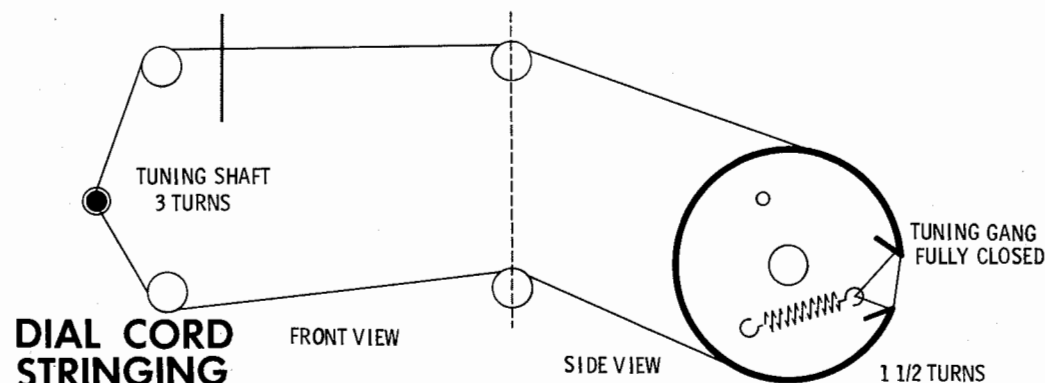
For Supplier Address See PHOTOFACT Index
FOR SERVICE INFORMATION ON RECORD CHANGER—SEE SIMILAR CHANGER—PHOTOFACT SET 716, FOLDER 5.

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 1039 FOLDER 2 . File this Folder with the TV Folder in the yellow filing jacket provided.



OLYMPIC AM-FM-FM
STEREO CHASSIS 323/MX12



REMEMBER TO ASK—“What else needs fixing?”

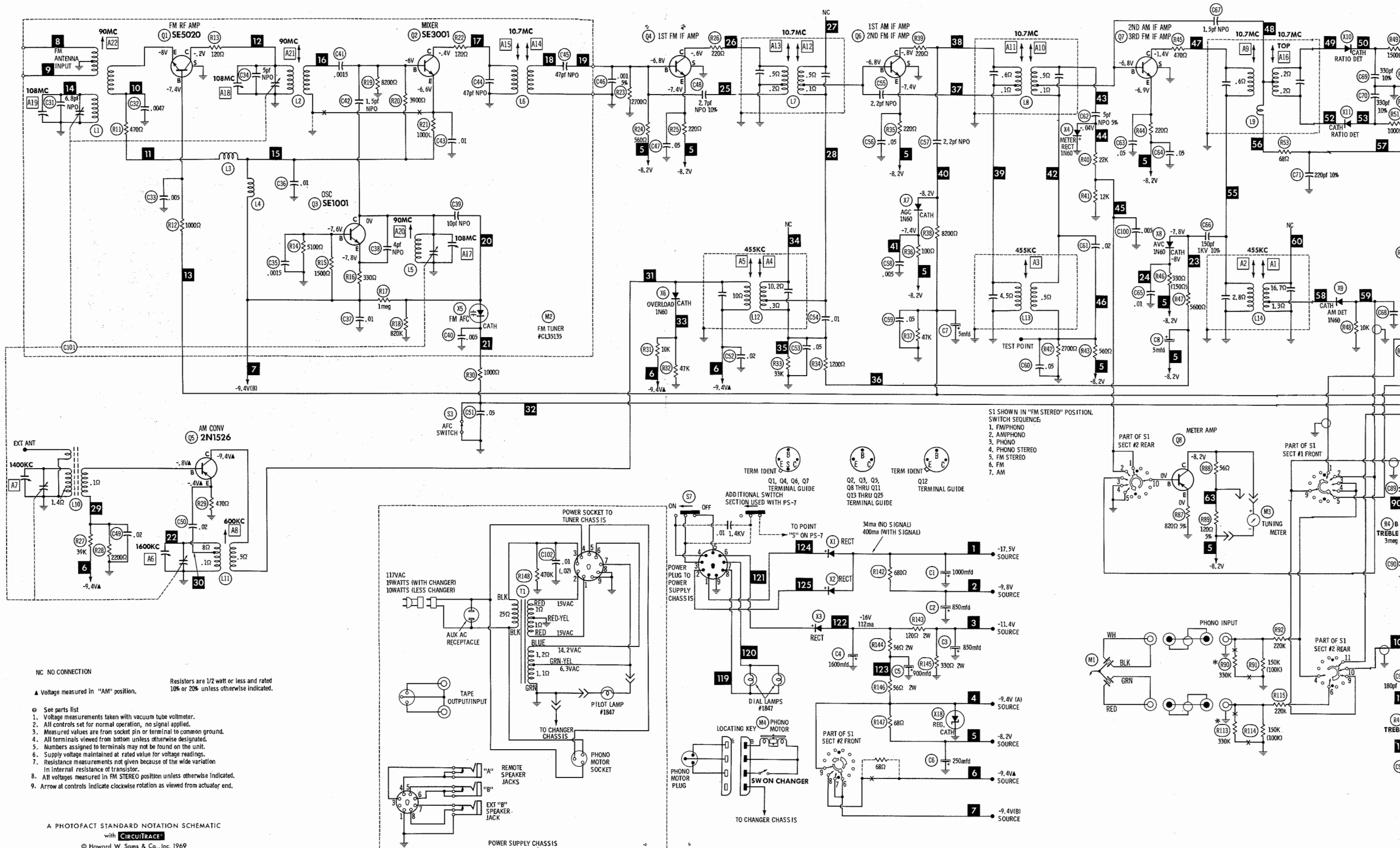
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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DATE 7-69 SET 1039 FOLDER 2-A

SET 1039 FOLDER 2-A



TUNER PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA						
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q1	SE5020	FM RF Amp	QSE5020	DS-81	GE-17	TR-22	HEP56	SK3018	ECG 108
Q2	SE3001	FM Mixer	QSE3001	DS-81	GE-17	TR-22	HEP720	SK3018	ECG 108
Q3	SE1001	FM Oscillator	QSE1001	DS-81	GE-17	TR-22	HEP738	SK3018	ECG 108
Q4	2N1526	1st FM IF Amp	Q35259	DS-74	GE-20	TR-22	HEP50	SK3018	ECG 108
Q5	2N1526	AM Converter	Q2N1526	DS-25	GE-1	TR-06	HEP3	SK3008	ECG 100
Q6	2N1526	1st AM - 2nd FM IF	Q35259	DS-74	GE-20	TR-22	HEP50	SK3018	ECG 108
Q7	2N1526	2nd AM - 3rd FM IF	Q35259	DS-74	GE-20	TR-22	HEP50	SK3018	ECG 108
Q8	2N1524	Meter Amp	Q35218	DS-26	GE-2	TR-05	HEP2	SK3004	ECG 102
Q9	2N1637	MPX Input Amp	Q40359	DS-26	GE-2	TR-05	HEP2	SK3004	ECG 102
Q10	2N1637	MPX Amp	Q40359	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q11	2N1637	Stereo Switch	Q40359	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q12	2N1637	DC Amp	Q35242	DS-66	GE-10	TR-21	HEP4	SK3020	ECG 123
Q13	2N406	19KC Amp	Q40359	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q14	2N406	Indicator Amp	Q2N406	DS-26	GE-2	TR-05	HEP636	SK3004	ECG 102
Q15	2N406	38KC Amp	Q40359	DS-26	GE-2	TR-05	HEP636	SK3004	ECG 102
Q16	2N2613	AF Amp	Q2N2613	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q17	2N2613	AF Amp	Q40263	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q18	2N2428	AF Amp	Q2N2428	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q19	2N4105	Output	Q2N4105 ①②	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 103
Q20	2N4105	Output	Q2N4105 ①②	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q21	2N2613	AF Amp	Q2N2613	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q22	2N2613	AF Amp	Q40263	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q23	2N2428	AF Amp	Q2N2428	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102
Q24	2N4105	Output	Q2N4105 ①②	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 103
Q25	2N4106	Output	Q2N4106 ①②	DS-26	GE-2	TR-05	HEP254	SK3004	ECG 102

① When ordering, specify matched pair, Part Number 2N4107.

② When replacing, apply silicone grease to both sides of insulator. Tighten mounting screws securely.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS	NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.		
X1	RF33976	GE-504A	8D4 or 18DJ2A ①	ECG 116 or ECG 117	SK3080 or SK3031	① A single unit replacement for X1 and X2.
X2	RF33976	GE-504A	8D4 or 18DJ2A ①	ECG 116 or ECG 117	SK3080 or SK3031	
X3	RF33976	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117	SK3031 or SK3017A	
X4	1N60-1	1N60	1N60	ECG 109		② Variable Capacitor Diode.
X5	1N60-1	1N60	1N60	ECG 109		
X6	1N60-1	1N60	1N60	ECG 109		
X7	1N60-1	1N60	1N60	ECG 109		③ Matched Pairs.
X8	1N60-1	1N60	1N60	ECG 109		
X9	1N60-1	1N60	1N60	ECG 109		
X10	RF35123		1N542	ECG 110 ③		
X11	RF35123		1N542	ECG 110 ③		
X12	RF33550-1	1N60	1N60	ECG 110 ③		
X13	RF33550-1	1N60	1N60	ECG 110 ③		
X14	RF33550-1	1N60	1N60	ECG 110 ③		
X15	RF33550-1	1N60	1N60	ECG 110 ③		
X16	RF33550-1	1N60	1N60	ECG 110 ③		
X17	RF33550-1	1N60	1N60	ECG 110 ③		
X18	1N33974, Zener (9.1V, 10%, 1W)		1ZM9.1T10			

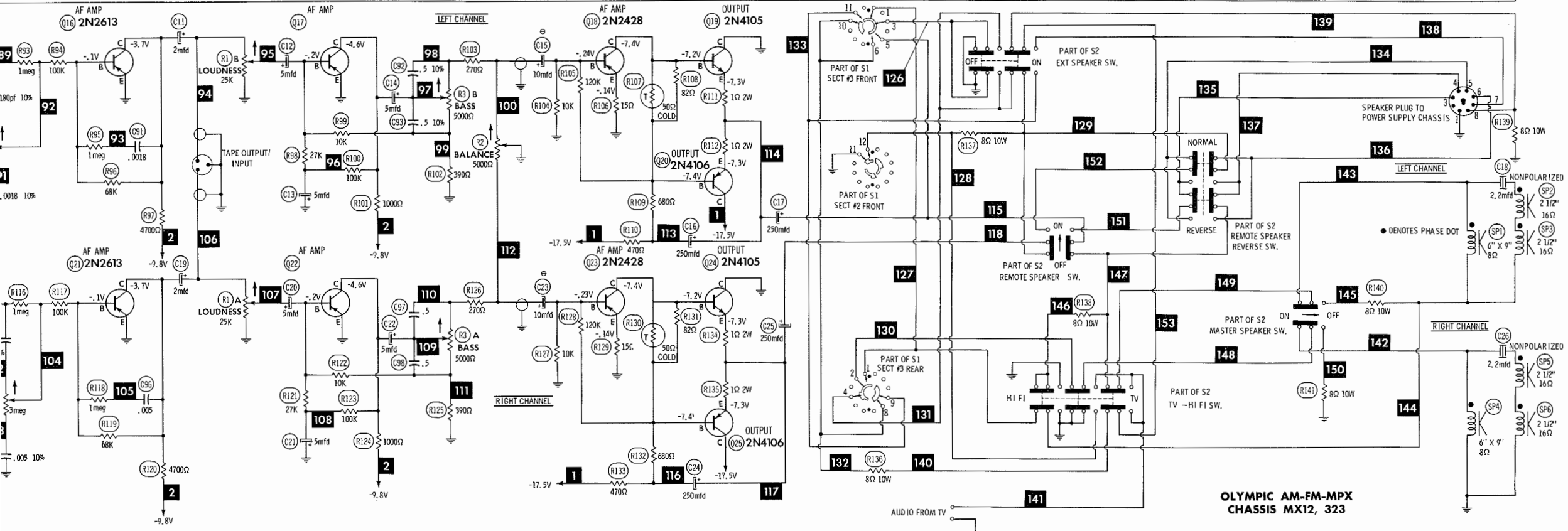
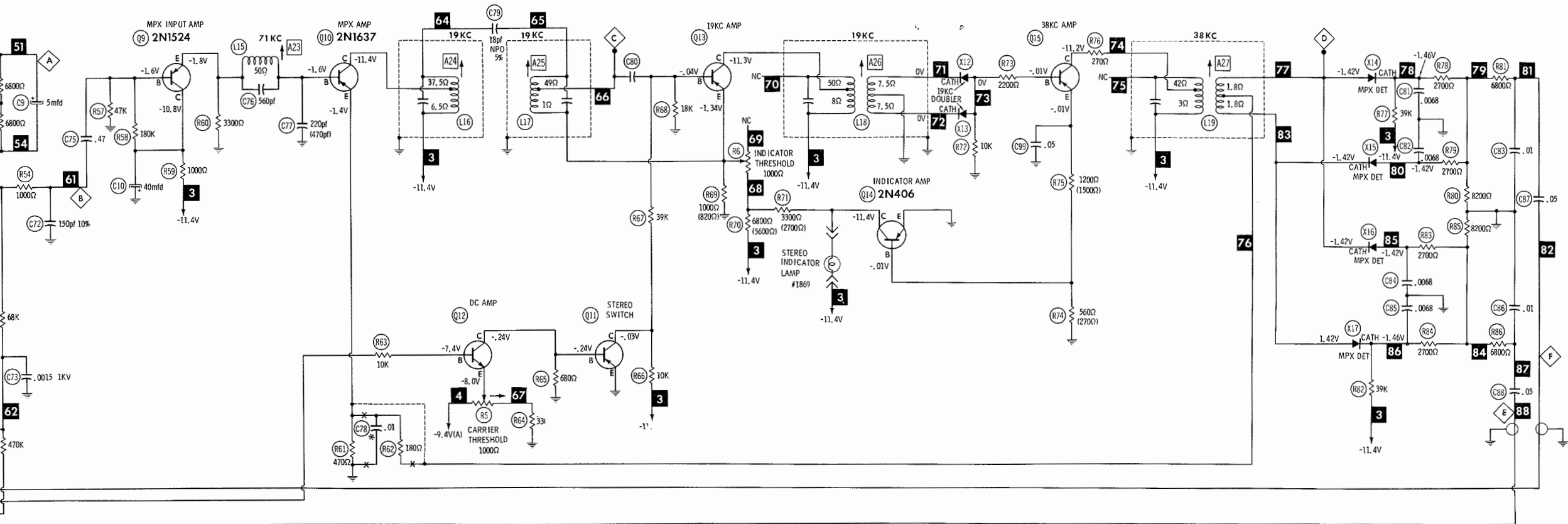
ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		OLYMPIC PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	1000 25V	CO33931	PRS1295	EA30-1000	BR1000-25	TC2510	TL-1191	
C2	850 15V	CO35110	PRS1230	EA30-1000	BR1000-15	TC2510	TL-1166, 5	
C3	850 15V	CO35110	PRS1230	EA30-1000	BR1000-15	TC2510	TL-1166, 5	
C4	1600 25V	CO35109	PRS1290 & PRS1295	EA30-1000 & EA30-500	BR1000-25 & BR500-25	TC2515	TL-1219	
C5	900 20V	CO35114	PRS1295	EA30-1000	BR1000-25	TC2510	TL-1191	
C6	250 12V	CO35106	PRS1160	EA15-250	NLW250-12	MTV250DE15	TE-1138	
C7	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C8	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C9	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C10	40 15V	CO32873	BCD15035	EA15-50	NLW40-15	MTV35CB25	TE-1159	
C11	2 50V	CO35085	BCD50002	EA50-2	NLW2-50	MTV2CB50	TE-1301	
C12	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C13	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C14	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C15	10 25V	①	BCD25010	EA30-10	NLW10-25	MTV10CB50	TE-1204	
C16	250 12V	CO35106	BCD12250	EA15-250	NLW250-12	MTV250DE15	TE-1138	
C17	250 25V	CO35108P	PRS1280	EA30-250	BR250-25	MTV250DN25	TL-1214	
C18	2.2 25NPF		NP-PRS7300		BRNP2-50	TCN502		
C19	2 50V	CO35085	BCD50002	EA50-2	NLW2-50	MTV2CB50	TE-1301	
C20	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C21	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C22	5 25V	CO35086	BCD25005	EA30-5	NLW6-25	MTV5CB50	TE-1202	
C23	10 25V	①	BCD25010	EA30-10	NLW10-25	MTV10CB50	TE-1204	
C24	250 12V	CO35106	BCD12250	EA15-250	NLW250-12	MTV250DE15	TE-1138	
C25	250 25V	CO35108P	PRS1280	EA30-250	BR250-25	MTV250DN25	TL-1214	
C26	2.2 25NPF		NP-PRS7300		BRNP2-50	TCN502		

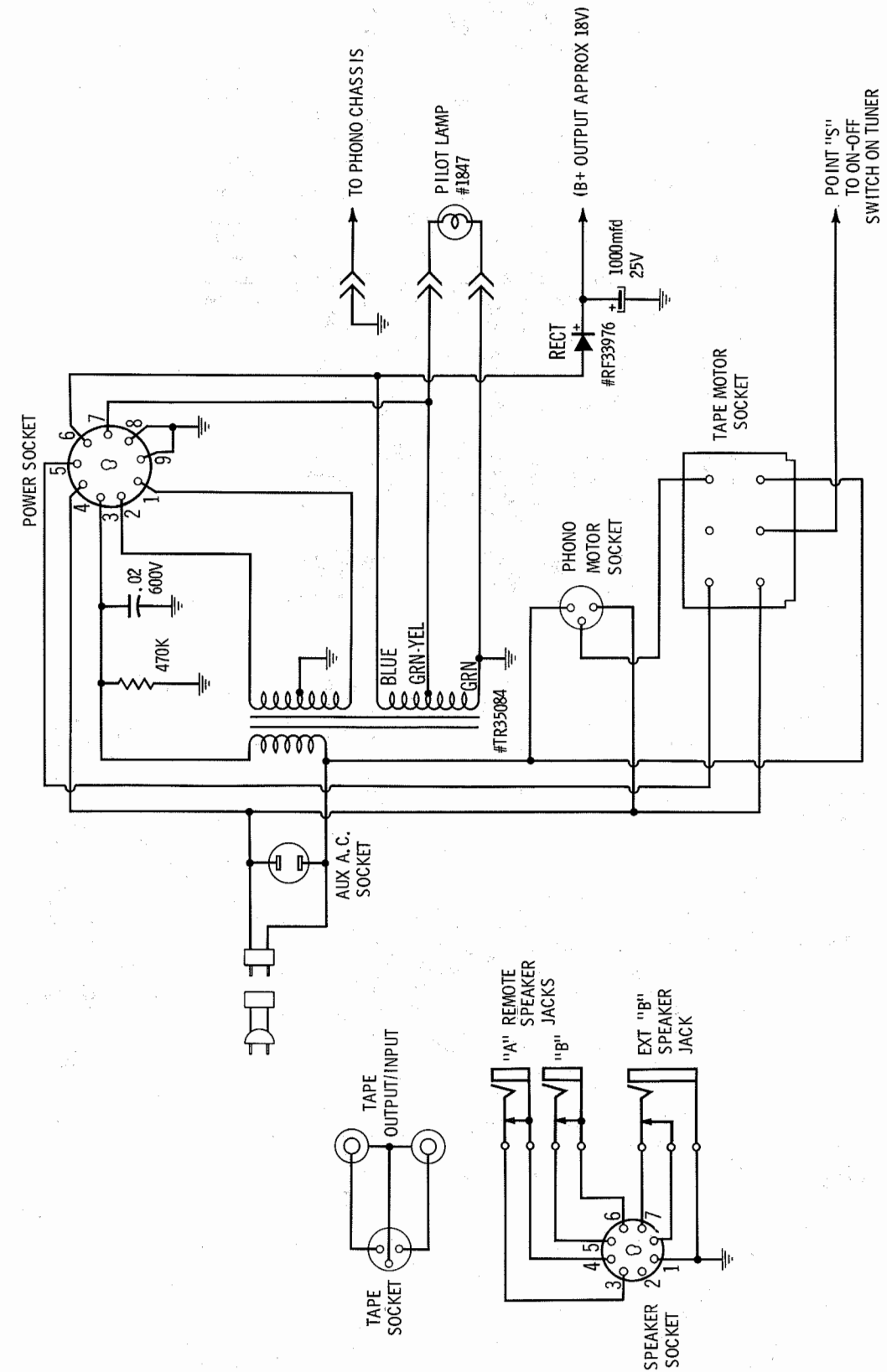
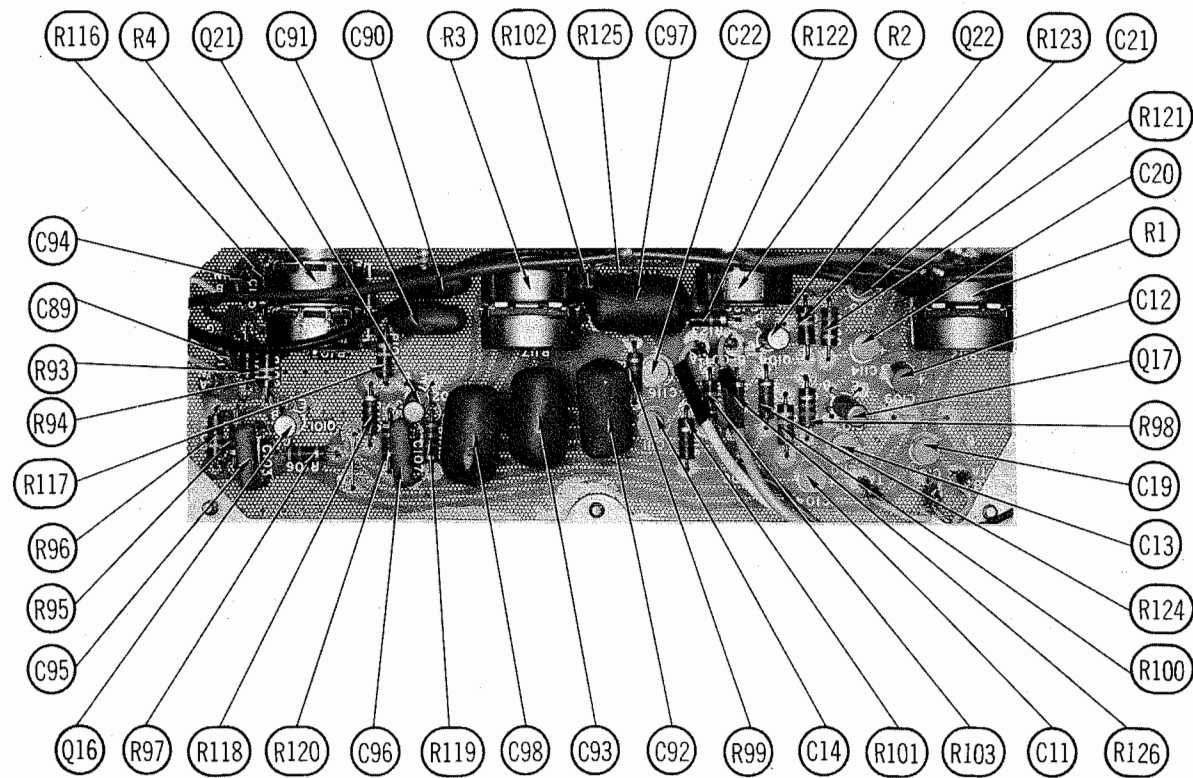
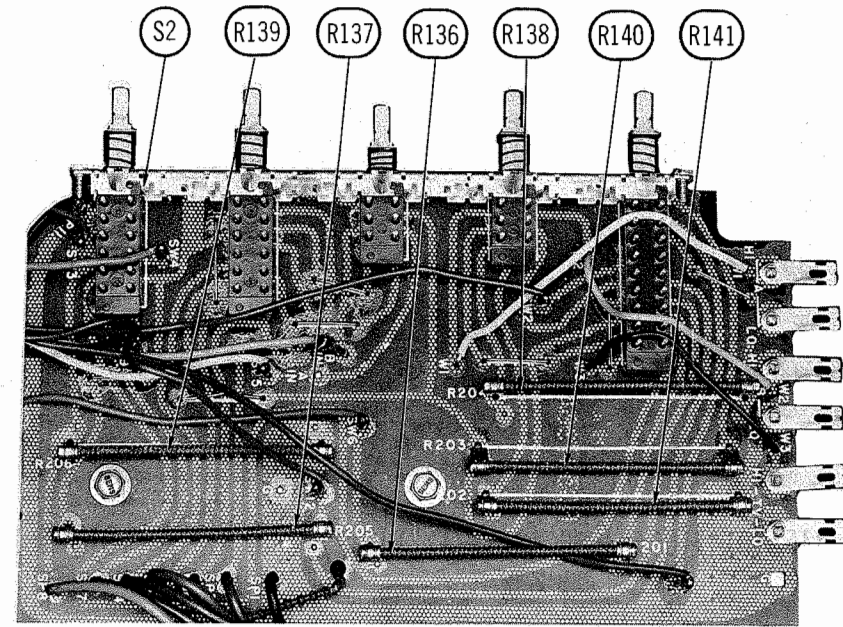
① Some versions may use 10mfd @ 50V Part Number CO33915.

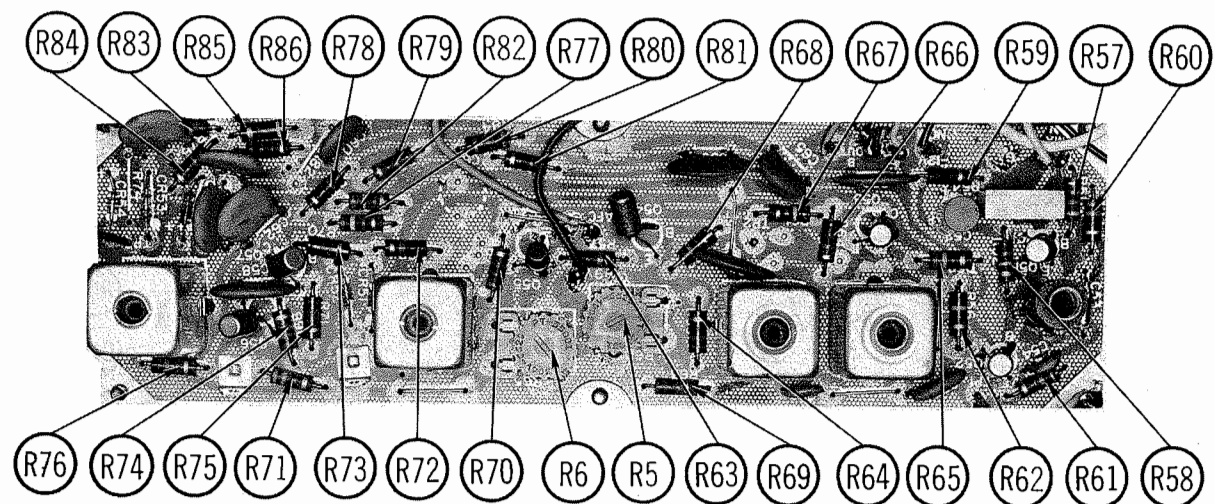
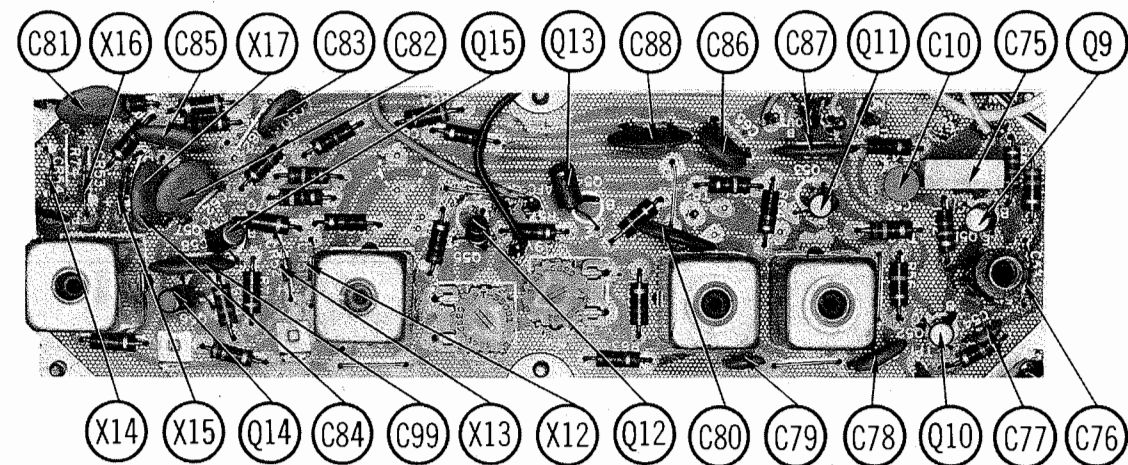
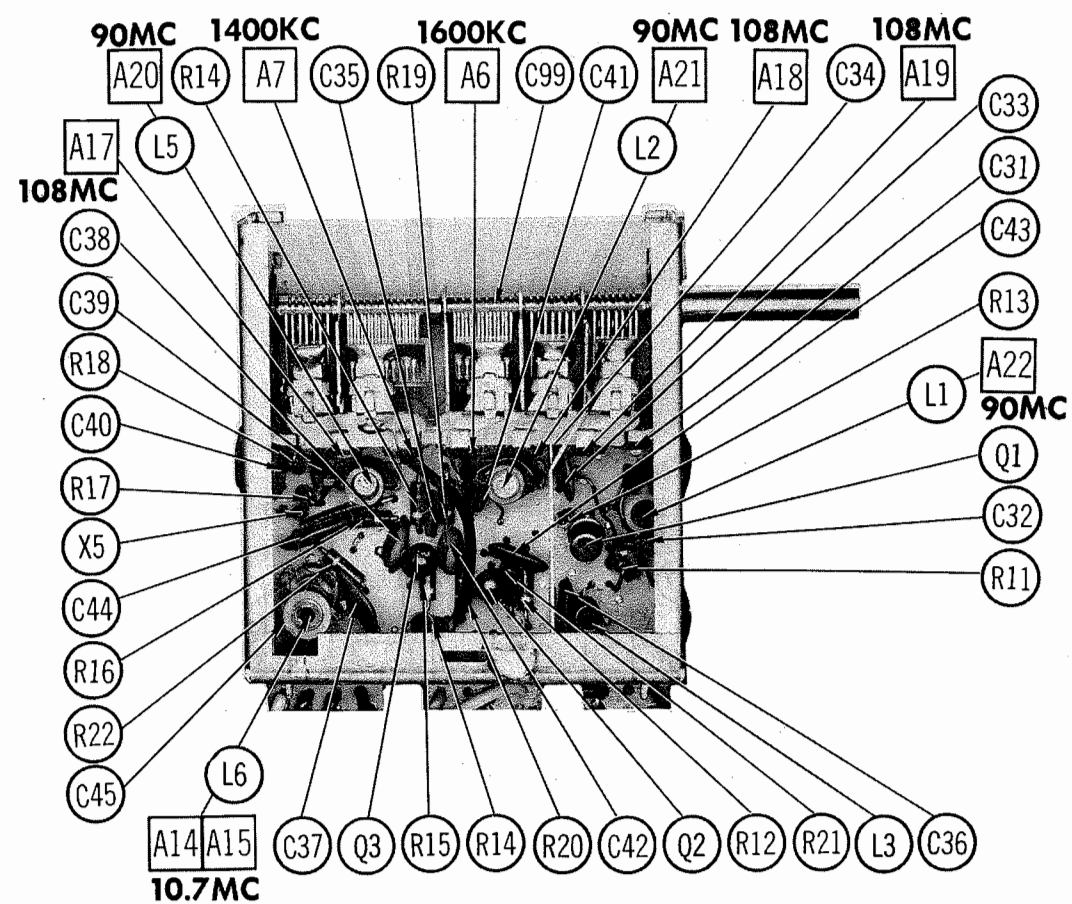
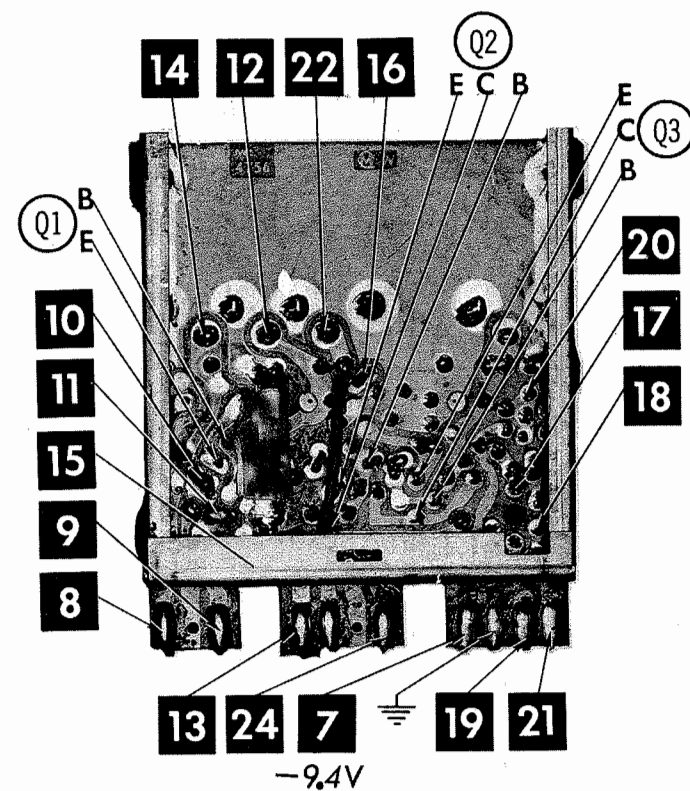
CAPACITORS

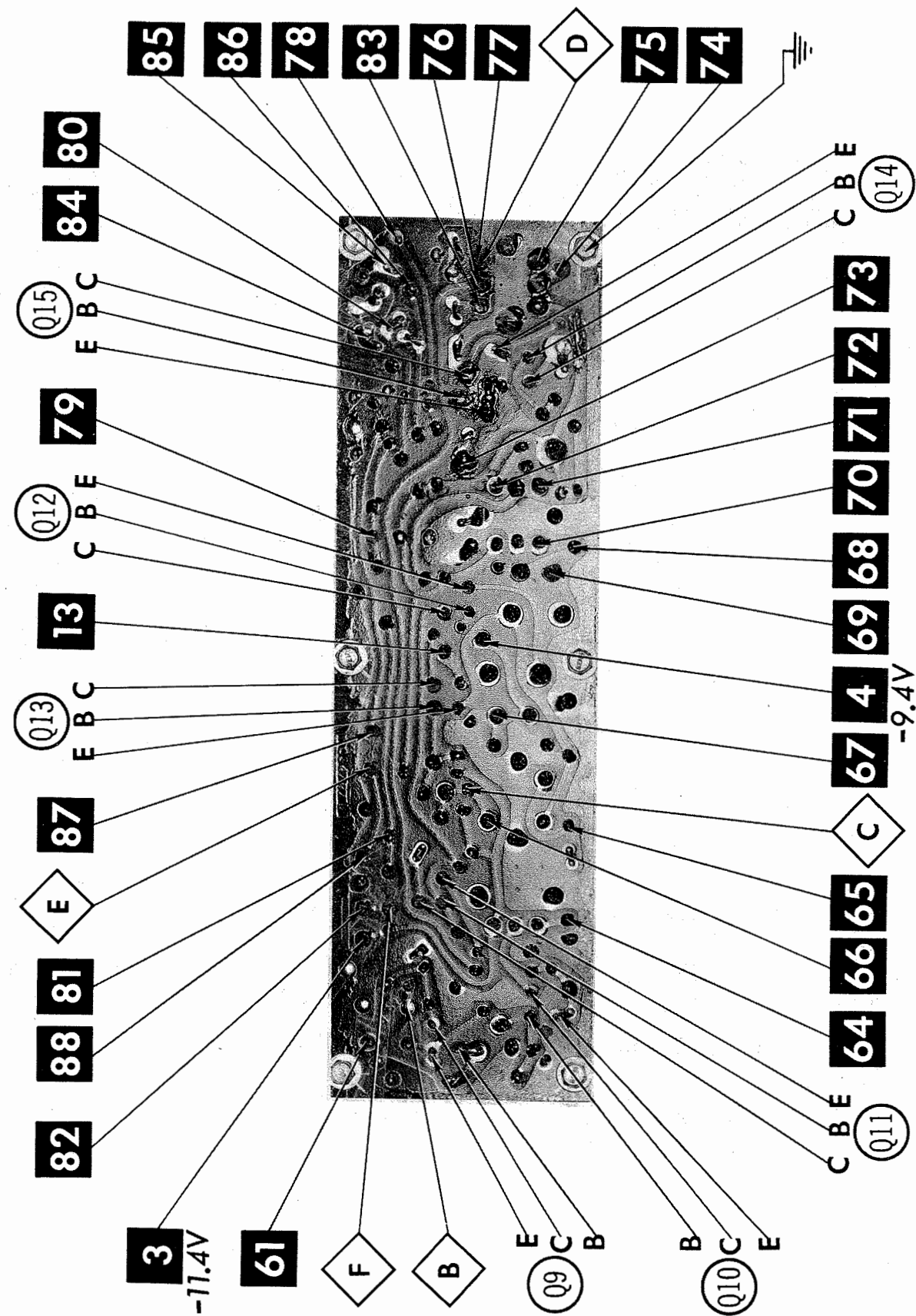
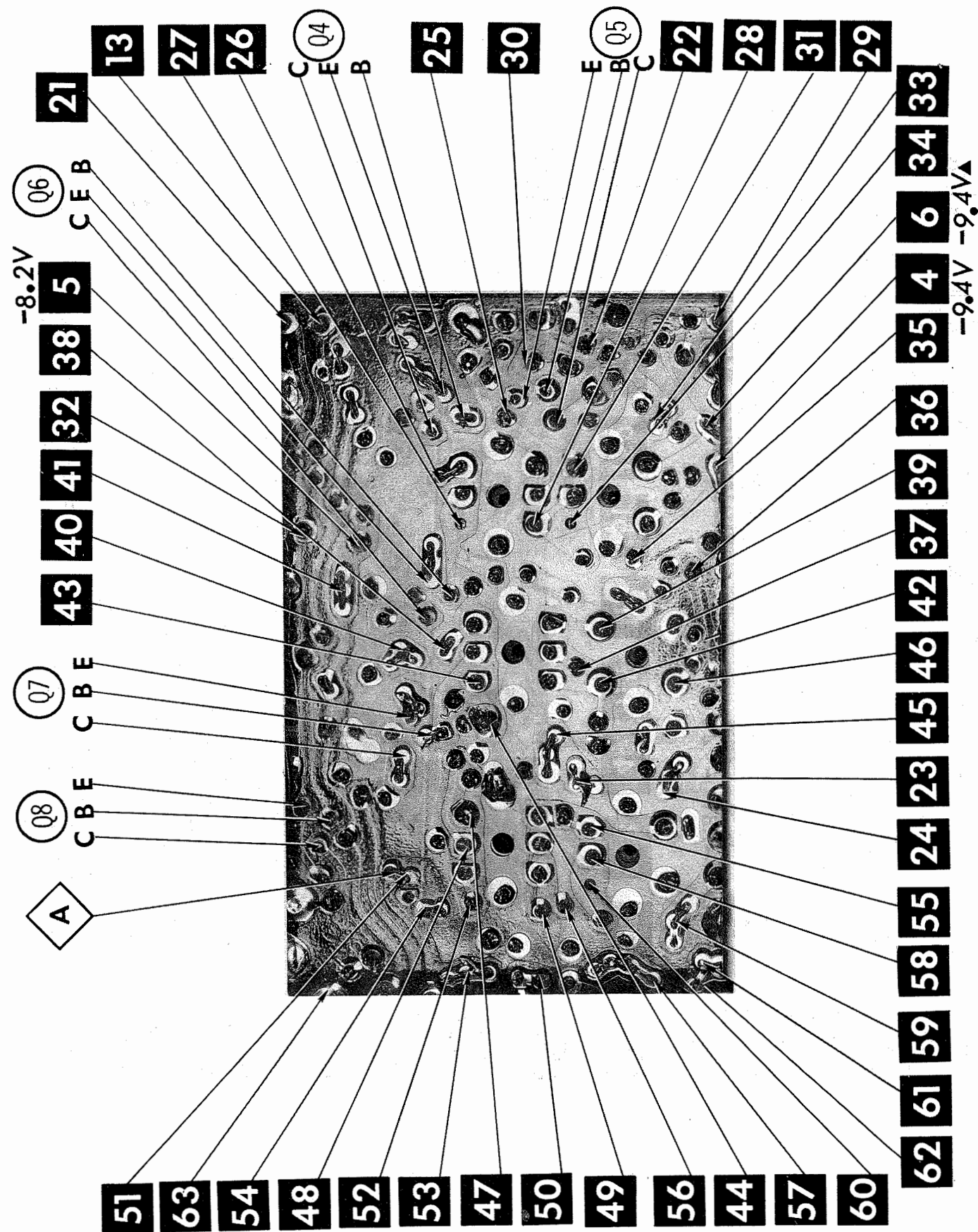
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C31	6.8 NPO		NPO-DI 6.8	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CNO568	10TCC-V68
C32	.0047 NPO		DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C33	.005 NPO		DI-5000	DD-502	JBT601YP502K	CCD-502	GP250	10TS-D50
C34	.01 NPO		NPO-DI 5.0	DTZ-4R7	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C35	.0015 NPO		DI-1500	DD-152		CCD-152	GP215	10TS-D15
C36	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C37	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C38	.01 NPO							10TCC-V3
C39	.10 NPO		NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10
C40	.005 NPO		DI-5000	DD-502	JBT601YP502K	CCD-502	GP250	10TS-D50
C41	.0015 NPO		DI-1500	DD-152		CCD-152	GP215	10TS-D15
C42	1.5 NPO		NPO-DI 1.5	DTZ-1R5		CCD-103	CNO515	10TCC-V15
C43	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C44	.47 NPO		NPO-DI 47	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C45	.47 NPO		NPO-DI 47	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C46	.001 5%			CPR-1000J	CD19F102J500	DM-19-102J	SK210	MS-210
C47	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C48	2.7 NPO	10%						10TCC-V2
C49	.02 NPO		BPD-02	DD-203	BYT601ZU203Z	CCD-203	GP120	10TS-S20
C50	.02 NPO		BPD-02	DD-203	BYT601ZU203Z	CCD-203	GP120	10TS-S20
C51	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C52	.02 NPO		BPD-02	DD-203	BYT601ZU203Z	CCD-203	GP120	10TS-S20
C53	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C54	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C55	2.2 NPO		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C56	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C57	2.2 NPO		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C58	.005 NPO		DI-5000	DD-502	JBT601YP502K	CCD-502	GP250	10TS-D50
C59	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C60	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C61	.02 NPO		DBE6820	DD-203	DPMS682	6DP-2-203	PVC612	6PS-S20
C62	.5 NPO	5%	NPO-DI 5.0	DTZ-4R7	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C63	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C64	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C65	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C66	150 1KV	10%	DI-150	DD-151		CCD-151	GP315	10TS-T15
C67	1.5 NPO ±.25		NPO-DI 1.5	DTZ-1R5		CCD-151	GP315	10TS-T15
C68	.02 NPO		BPD-02	DD-203	BYT601ZU203Z	CCD-203	GP120	10TS-S20
C69	.330 10%		DI-330	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C70	.330 10%		DI-330	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C71	.220 10%		DI-220	DD-221	JBZ601YP221K	CCD-221	GP332	10TS-T22
C72	.150 10%		DI-150	DD-151		CCD-151	GP315	10TS-T15
C73	.0015 1KV		DI-1500	DD-152		CCD-152	GP215	10TS-D15
C75	.47 100V		DBE2P47		DMF2P47	2DP-5-47J	PVC2047	2PS-P47
C76	.560		CD19F561J500		DM-16-561J	SK356	MS-356	
C77	.220	(470)†	DI-220	DD-221	JBZ601YP221K	CCD-221	GP332	10TS-T22
C78	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C79	.18 NPO	5%	TCZ-18		CY601CG180J	CCTO-180	CNO418	10TCC-Q18
C80	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C81	.0068 NPO		DI-6800	DD-682	BYX601ZU682P	CCD-682	GP268	10TS-D68
C82	.0068 NPO		DI-6800	DD-682	BYX601ZU682P	CCD-682	GP268	10TS-D68
C83	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C84	.0068 NPO		DI-6800	DD-682	BYX601ZU682P	CCD-682	GP268	10TS-D68
C85	.0068 NPO		DI-6800	DD-682	BYX601ZU682P	CCD-682	GP268	10TS-D68
C86	.01 NPO		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C87	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C88	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C89	.180 10%		DI-180	DD-181	JBZ601YP181K	CCD-181	GP318	10TS-T18
C90	.0018 10%		DBE6D18	D6-182	PKM6D18			6PS-D18
C91	.0018 10%		DBE6D18	D6-182	PKM6D18			6PS-D18
C92	.5 10%				DPMS205	2DP-5-504	PVC205	2PS-P50
C93	.5 10%				DPMS205	2DP-5-504	PVC205	2PS-P50
C94	.180 10%		DI-180	DD-181	JBZ601YP181K	CCD-181	GP318	10TS-T18
C95	.005 10%		DBE6D5	D6-502	DPMS6D5	2DP-1-502	PVC6D5	6PS-D50
C96	.005 10%		DBE6D5	D6-502	DPMS6D5	2DP-1-502	PVC6D5	6PS-D50
C97	.5				DPMS205	2DP-5-504	PVC205	2PS-P50
C98	.5				DPMS205	2DP-5-504	PVC205	2PS-P50
C99	.05 NPO		BPD-05	DD-503		CCD-503	GP150	5HK-S50
C100	.005 NPO		DI-5000	DD-502	JBT601YP502K	CCD-502	GP250	10TS-D50
C101								

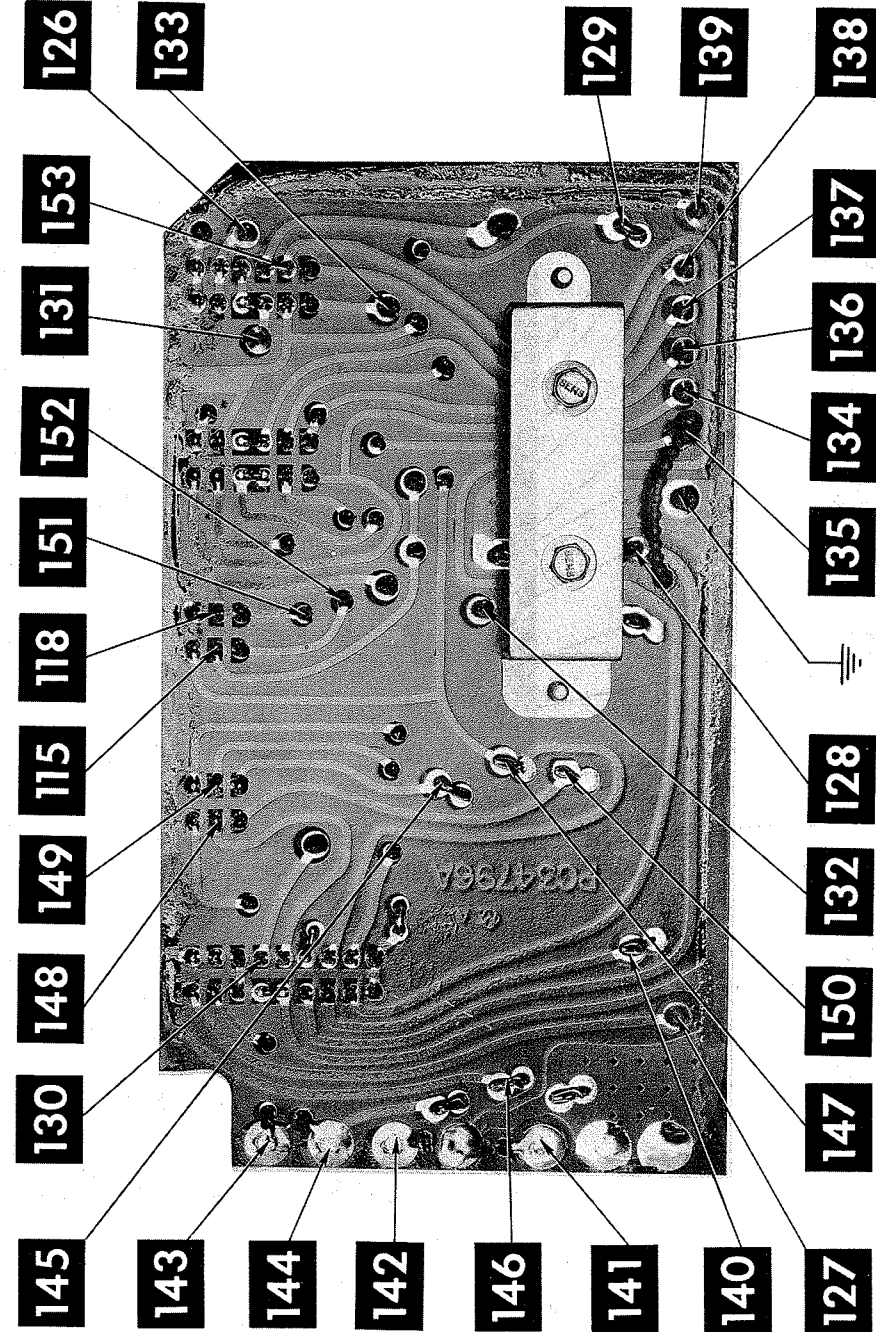
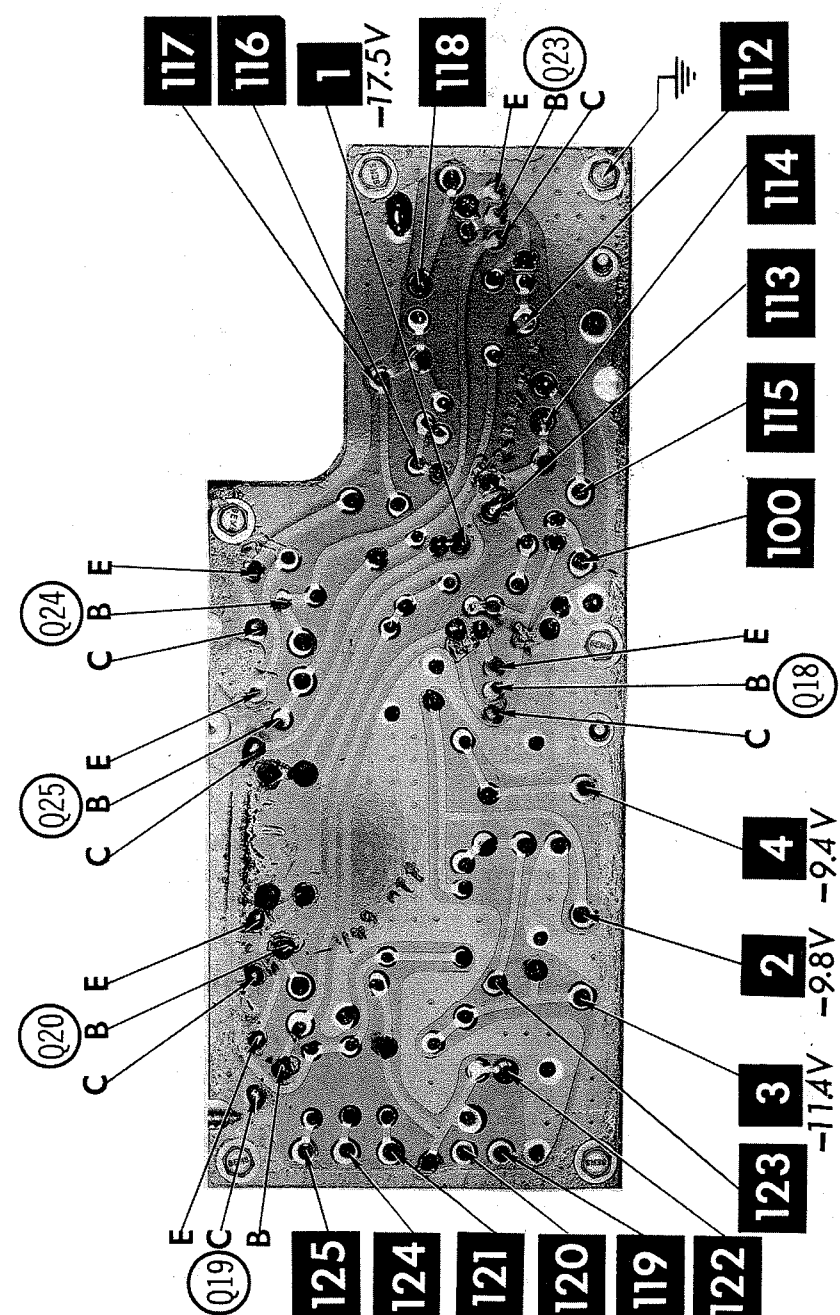
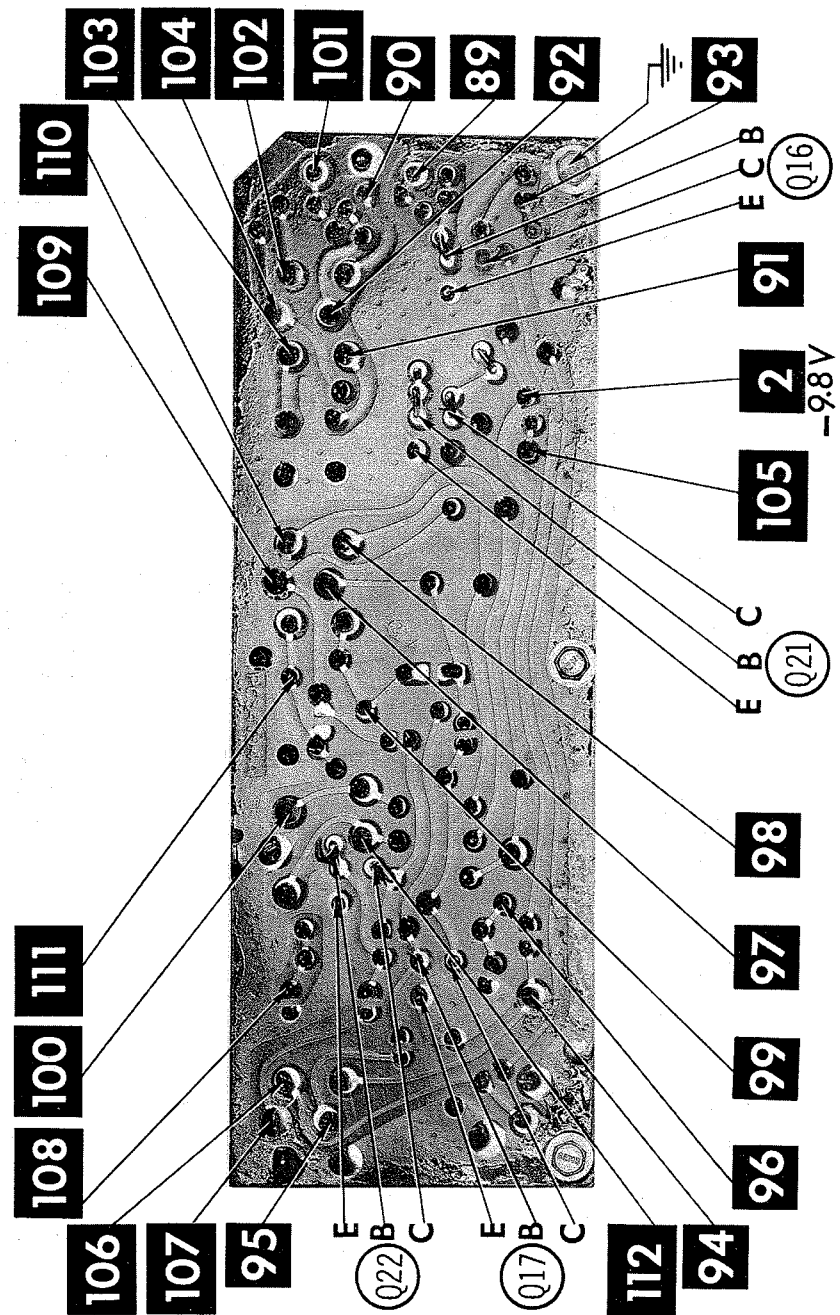


OLYMPIC AM-FM-MPX
CHASSIS MX12, 323









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 A5, A8 thru A13, A16, A22 thru A27. GENERAL CEMENT: 8606, 8606L, 8869 WALSCO: 2543, 2544, 2588
A6 thru A7, A17 thru A19. GENERAL CEMENT: 8868, 8987, 9089 WALSCO: 2531-X, 2541, 2587
A14, A15, A20 thru A21. GENERAL CEMENT: 9286, 9297, 9300 WALSCO: 2510, 2546, 2547

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, A5	Adjust for maximum. Repeat until no further improvement can be made.
2. 1600KC	"	"	A6	Adjust for maximum.
3. 1400KC	Tune to signal.	"	A7	"
4. 600KC	"	"	A8	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

Connect generator across antenna terminals with 120 Ω carbon resistors in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point \diamond ; common to ground.	A9, A10, A11, A12, A13, A14, A15	Adjust for maximum.
6. "	"	DC probe to point \diamond ; common to ground.	A16	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

Connect generator across antenna terminals with 120 Ω carbon resistors in series with each lead. 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 \diamond ; low side to ground.	A9, A10, A11, A12, A13, A14, A15	Disconnect stabilizing capacitor C9. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C9.
6. "	"	Vert. amp. to point \diamond ; low side to ground.	A16	Adjust A16 (Secondary) to place marker at center of crossover lines similar to Fig. 2. Adjust A9 (Primary) for maximum amplitude and straightness of crossover lines.

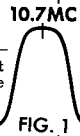


FIG. 1

FM RF ALIGNMENT

Connect generator across antenna terminals with 120 Ω carbon resistors in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 108MC	Set at high end.	DC probe of VTVM to point \diamond ; common to ground.	A17, A18, A19	Adjust for maximum.
8. 90MC	Tune to signal.	"	A20, A21, A22	Rock tuning and adjust for maximum. Repeat steps 7 and 8 until no further improvement can be made.

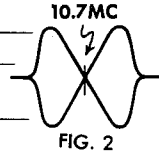


FIG. 2

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

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

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
9. 71 KC	Vert. amp. of Scope thru a 1 meg to point \diamond ; low side to ground.	A23	Adjust for MINIMUM.
10. 19KC	Vert. amp. thru 47K to point \diamond ; low side to ground.	A24, A25, R5	Adjust R5 to maximum counterclockwise position. Adjust A24 and A25 for maximum 19KC response.
11. "	Vert. amp. thru 47K to point \diamond ; low side to ground.	A26, A27, R5	Adjust R5 to a maximum clockwise position. Adjust A26 and A27 for maximum 38KC response. Return R5 to original factory setting [color dots].
12. Modulated Left Channel	Vert. amp. to point \diamond ; low side to ground.	A24, A25, A26, A27	Adjust for MINIMUM. This step should require only slight adjustment.
13. Modulated Right Channel	Vert. amp. to point \diamond ; low side to ground.		Check for MINIMUM. Make compromise adjustments of A24, A25, A26 and A27 if necessary.

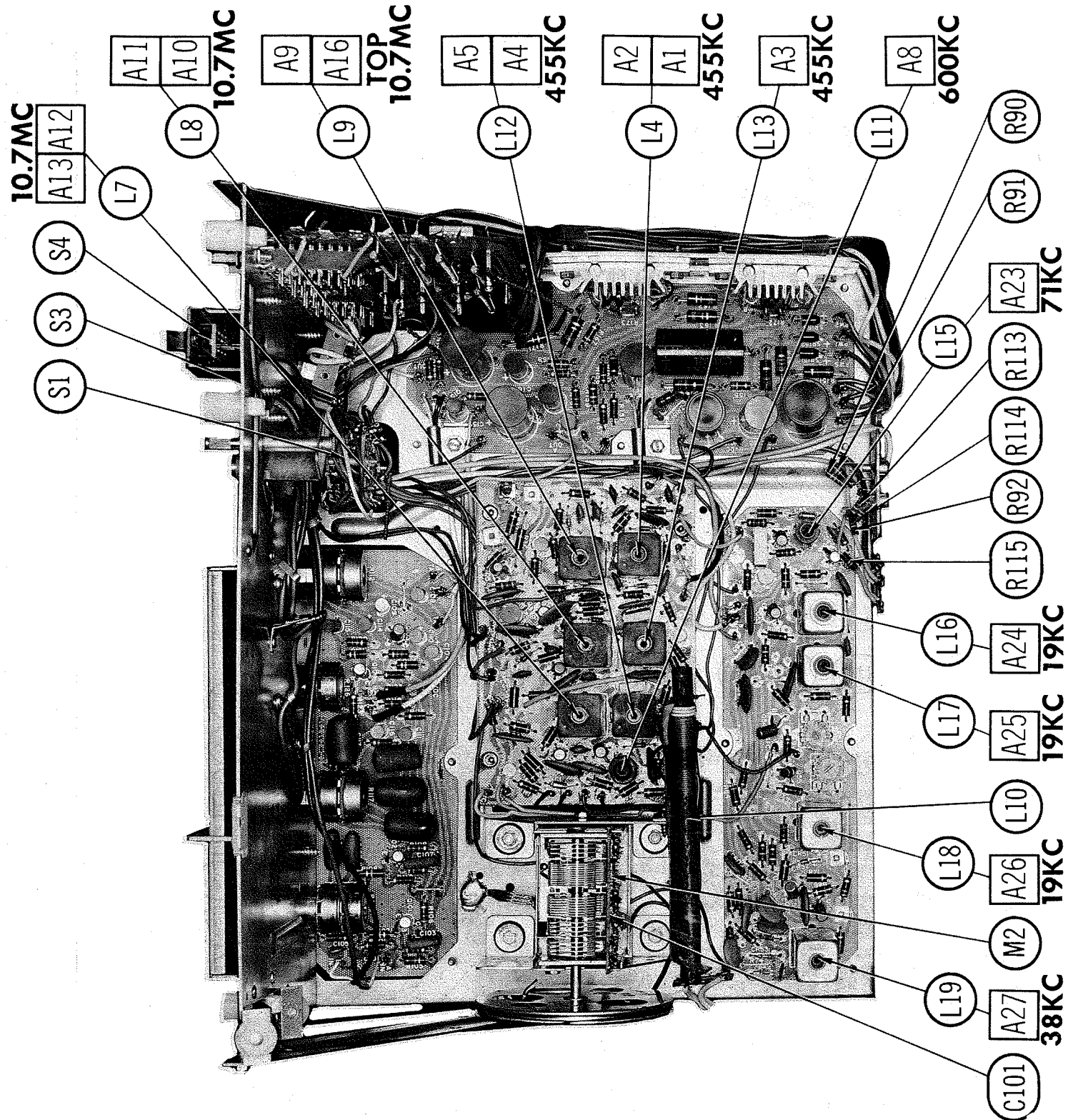
To align multiplex section using an air signal, first make sure FM section is properly aligned. Tune in a strong FM stereo signal. Follow steps 9 thru 11 above except in step 9 adjust to eliminate whistle or interference.

FM STEREO PILOT THRESHOLD ADJUSTMENT (R6).

Tune across dial (with AFC off) noting operation of the stereo indicator lamp. Adjust R6 until lamp glows on weak stereo stations but not on noise pulses.

FM STEREO CARRIER THRESHOLD ADJUSTMENT (R5).

This control sets the stereo gate trigger level and should be adjusted to demodulate the multiplex signal of the weakest desired stereo station.



OLYMPIC AM-FM-FM
STEREO CHASSIS 323/MX12

FOLDER 2-A

