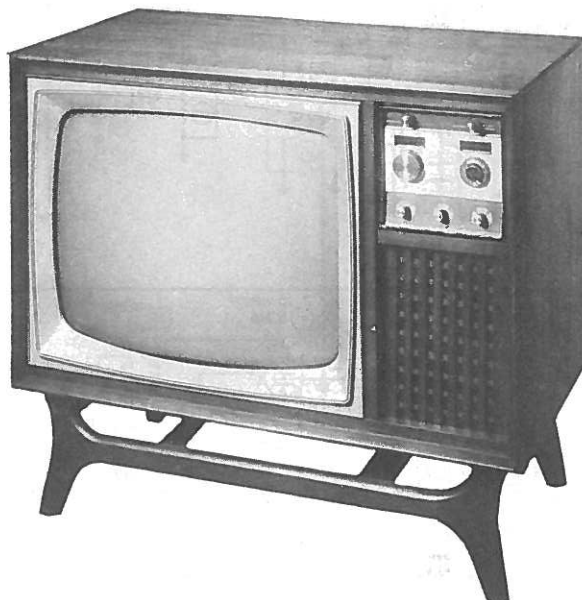


PHOTOFACT® Folder

with CIRCUITRACE™


HOFFMAN CHASSIS
913-000356/366, 913-187486
COLOR TV


MODEL W-7002B

TRADE NAME	Hoffman	Models	Chassis
		CF-7312, MS-7322, SP-7311, W-7310, W-7320	913-000366
		IP-7001, MS-7005, SP-7003, W-7002/B	913-000356
		W-7300/SL, W-7302/SL	913-187486
SUPPLIER	For current address, see Annual Index.		
TYPE SET	Color Television Receiver		
TUBES	Twenty-Six		
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)		
		TRANSISTORS	Three
		RATING	320 Watts, 3.15 Amps. @ 117 Volts AC

HOFFMAN CHASSIS
913-000356/366, 913-187486

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A .4-amp. fuse is used for horizontal sweep circuit protection. (See "Cabinet - Rear View" photo for location.)

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.

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 photo "Cabinet - Rear View" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Waveform 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.)

CENTERING

Horizontal centering is accomplished by a Horizontal Centering control. (See "Cabinet - Rear View" photo for location.)

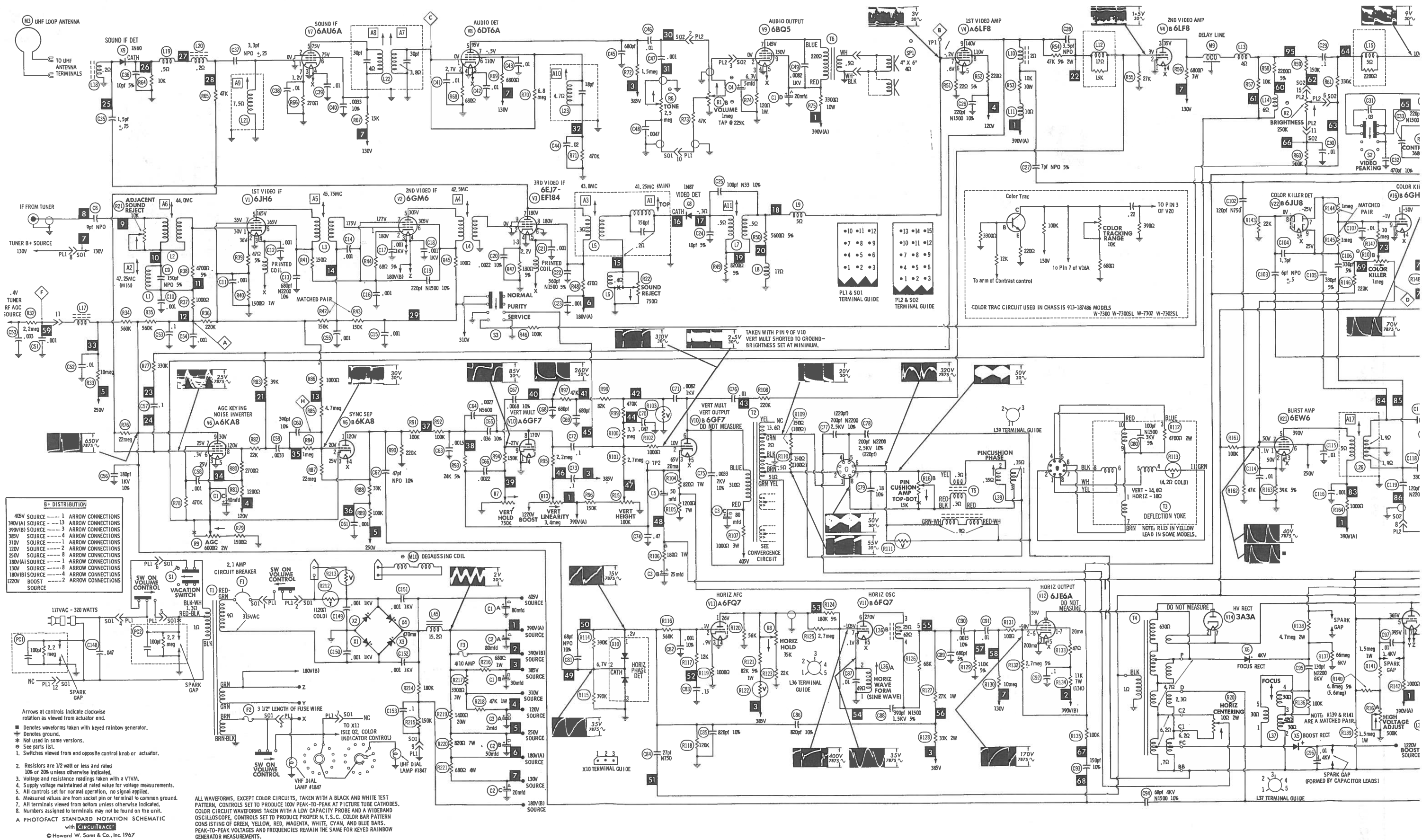
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

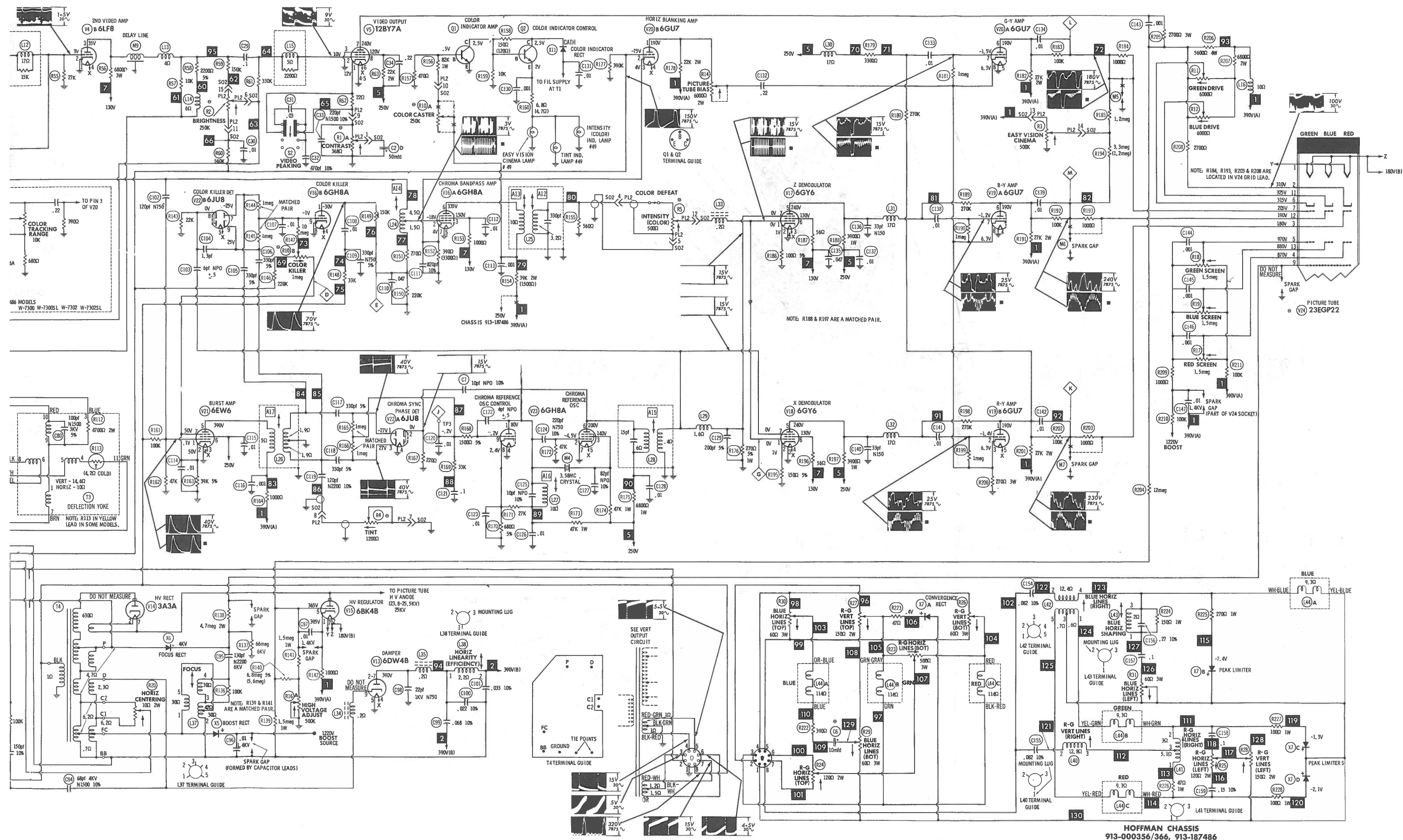
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. SB251



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DATE 8 -67
SET 904 FOLDER 2

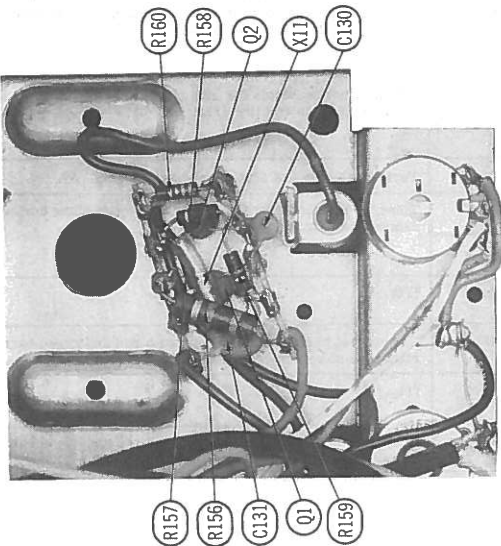




RESISTANCE MEASUREMENTS

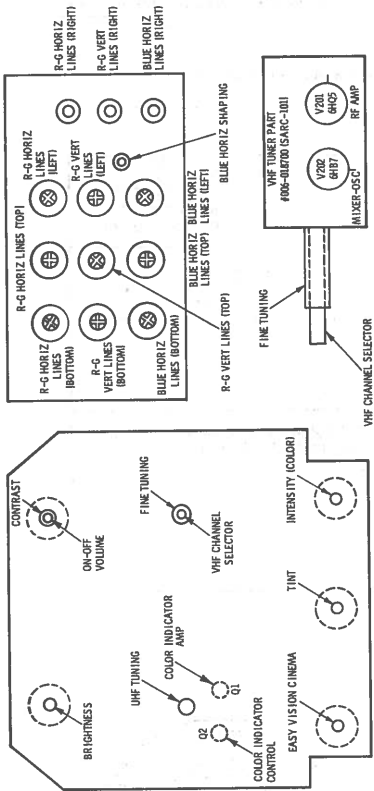
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
V1	6JH6	220K	150Ω	FIL	FIL	220Ω ▲	220Ω ▲	1500Ω					
V2	6GM6	75K	1N	FIL	FIL	3400Ω †	3400Ω †	70Ω ▲					
V3	6EJ7/EF184	180Ω	0Ω	180Ω	FIL	FIL	0Ω	2700Ω †	2700Ω †	0Ω			
V4	6LF8	0Ω	20K	7500Ω †#	FIL	FIL	22Ω	1200Ω ●	33K †	8500Ω †			
V5	12BY7A	450Ω	550K	0Ω	FIL	FIL	FIL	7700Ω †	26K †	0Ω			
V6	6KA8	70K †	43. meg	3000Ω	FIL	FIL	65K	470K	33K †	870K			
V7	6AU6A	7.5Ω	0Ω	FIL	FIL	17.5K †	17.5K †	270Ω					
V8	6DT6A	3.8Ω	680Ω	FIL	FIL	1.5 meg †	10K †	470K					
V9	6BQ5	NC	280K	120Ω	FIL	FIL	NC	3500Ω †	NC	3300Ω			
V10	6GF7	0Ω	2.7 meg	2050Ω	FIL	FIL	1300Ω †	NC	5.5 meg †	430K †			
V11	6FQ7	28K	700K	1000Ω	FIL	FIL	67K †	230K	46Ω	0Ω			
V12	6JE6A	11.5K †	2.4 meg	0Ω	FIL	FIL	2.4 meg	11.5K †	1200Ω	NC			TOP CAP 19.6Ω †
V13	6DW4B	NC	30Ω †	NC	FIL	FIL	NC	30Ω †	NC	2.3 meg			
V14	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE											TOP CAP 649Ω †
V15	6BK4B	1000Ω †	FIL	NC	NC	1 meg	NC	FIL	NC				TOP CAP INF
V16	6GH8A	370K	220K	3900Ω †	FIL	FIL	38K †	390Ω	0Ω	11 meg			
V17	6GY6	80Ω	100Ω	FIL	FIL	5350Ω †	2600Ω †	2Ω					
V18	6GY6	80Ω	150Ω	FIL	FIL	5350Ω †	2600Ω †	.4Ω					
V19	6GU7	25K †	1 meg	270Ω	FIL	FIL	25K †	1 meg	270Ω	0Ω			
V20	6GU7	22K †	240K	390Ω	FIL	FIL	27K †	1 meg	270Ω	0Ω			
V21	6EW6	37K	39K	FIL	FIL	1000Ω †	5300Ω †	39K					
V22	6JU8	1 meg ††	220Ω	1 meg ††	FIL	FIL	0Ω	12 meg	22K	12 meg			
V23	6GH8A	24K †	47K	48K †	FIL	FIL	9000Ω †	0Ω	680Ω	1N			
V24	23EGP22A	FIL	6800Ω †	125K †	680K †	600K †	4300Ω †	115K †	NC	71 meg	NC	4700Ω †	140K †
												Pin 13 740K †	Pin 14 FIL
V201	6HQ5	3.3 meg	0Ω	FIL	FIL	3800Ω †	0Ω	0Ω					
V202	6HB7	0Ω	220K	0Ω	FIL	FIL	3550Ω †	24.5K †	7300Ω †	3300Ω			

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
● READING DEPENDS ON POLARITY OF METER CONNECTIONS.
† MEASURED FROM PIN 9 OF V13.
†† MEASURED FROM PIN 9 OF V23.
▲ MEASURED FROM PIN 2 OF V2.
† MEASURED FROM OUTPUT OF X3 AND X4.
NC NO CONNECTION

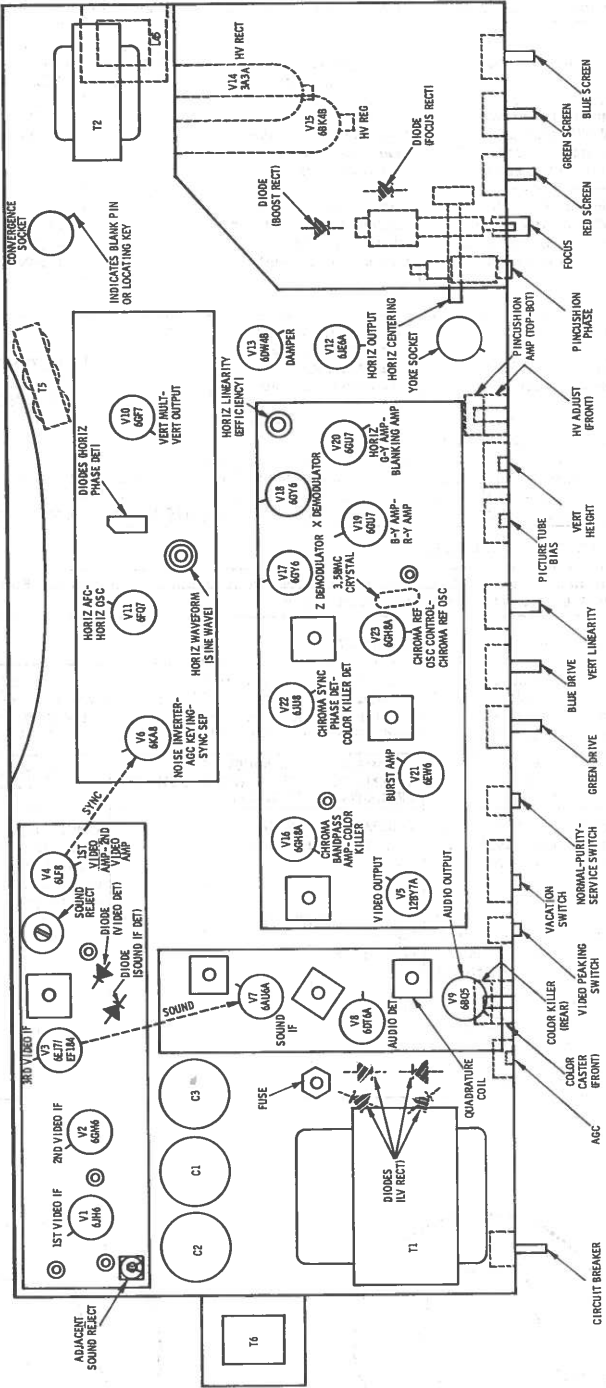


COLOR IND CIRCUIT

TUBE PLACEMENT CHART



TOP VIEW



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, 8869, 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 \diamond . 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.
2.	Connect DC probe of a VTVM thru a 47K resistor to point \diamond . 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. 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 \diamond . 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 2. In order to obtain a proper response, it may be necessary to slightly retouch A3, A4, A5, A6, and Mixer Plate Coil.

SOUND IF ALIGNMENT

Connect a VTVM thru a detector probe to point \diamond . Tune in a TV station and adjust A7, A8, and A9 for maximum deflection. Remove VTVM. Reduce signal at the antenna terminals until distortion occurs in the sound. Adjust A10 clockwise from fully out position to 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.

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.

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 \diamond . Connect a -2 volt supply to point \diamond . Connect a -15 volts supply to point \diamond . Positive of all supplier 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 , 100W resistor from 390V source to ground. Suggested Alignment Tools: A12, A13, A14 .. GENERAL CEMENT #8606, 8606L, 8869 .. 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., V16. Low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 4.08MC		Vert. Amp. thru Detector probe to pin 1 of demodulators, point \diamond . 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 modulator. High side of signal gen. (set at 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 Fig. 3. If necessary, retouch A12 to flatten top of response.

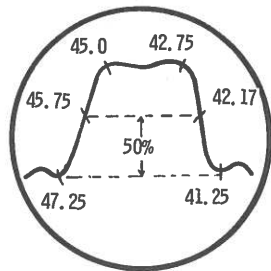


FIG. 1

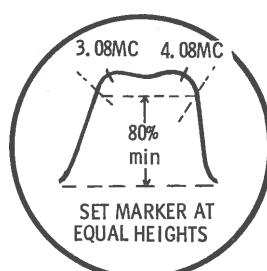


FIG. 2

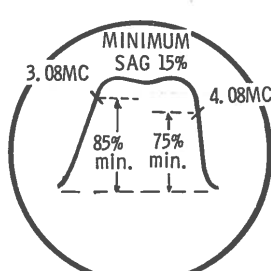


FIG. 3

MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect:
A 0-500 ma meter in series with cathode of Horizontal Output Tube.
A .47 mfd capacitor across meter.
A VTVM through a high voltage probe to picture tube anode connector.
Point \diamond , off pin 2, Sync Separator, V6, to ground.
A short across Horizontal Sine Wave Coil, pin 8 of V11 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 Sine Wave coil and adjust B1 until the picture "floats" horizontally. Remove the short from point \diamond . Adjust the Horizontal Linearity coil for MINIMUM current in the Horizontal Output Tube, then advance core into coil to increase cathode current by 3 or 4 ma. (Do not exceed 230 ma.)

Adjust the High Voltage control for 25KV in Picture Tube Anode with MINIMUM brightness. Check voltage drop across R142 with VOM. Voltage should be a MINIMUM of 0.96 volts. Optimum reading would be 1.35 volts. The horizontal output tube current must not exceed 230 ma.

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

Suggested Alignment Tools:
A15, A16, A17 GENERAL CEMENT #8606, 8606L, 8869
WALSCO #2543, 2544, 2588

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 the receiver for normal color reception. Short pin 1 of Burst Amp., V21, to ground.

Connect DC probe of VTVM through 470K to pin 1 of Phase Detector, V22. 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 \diamond , off pin 9, Chroma Reference Oscillator control, V23, 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 , off pin 1, R-Y Amp., V19. Check for proper waveform with the color bar generator being used. See waveform on schematic for pattern obtained from a standard N.T.S.C. 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 controls.

Check for proper waveform at G-Y and B-Y outputs, point \diamond , off pin 6, G-Y Amp., V20, and point \diamond , off pin 6, B-Y Amp., V19. 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.

CONVERGENCE ADJUSTMENTS

Step	Control	Use to Converge (or Straighten)	Remarks
1.			Perform Center Dot Convergence using convergence magnets. If more range is needed, turn magnet control 180°. 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).

PURITY ADJUSTMENTS

Perform step 1 of "Convergence Adjustments". If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube face and brackets.
If TV is equipped with an automatic degaussing coil, degaussing occurs between the time the receiver is turned on and the high voltage appears. Move Normal-Purity-Service switch to Purity position to obtain noise-free raster. Shunt points \diamond and \diamond to ground. Loosen the deflection yoke and move it rearward until it is against the convergence assembly.

Adjust the tabs on the Purity magnet and rotate the assembly until a red spot appears in 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

Allow the set to run for 45 minutes before proceeding. Tune in a black and white picture or a color picture with the Color control set to MINIMUM. Rotate the Picture Tube Bias control to the maximum counterclockwise position. Turn the Red, Blue, and Green Screen controls fully counterclockwise. Set the Cinema control to its midrange (on some models). Set Brightness control to maximum.

Move the Normal-Purity-Service switch to Service position. 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, advance the Picture Tube Bias control to obtain a line on the screen.

Return the Normal-Purity-Service switch to Normal position. Adjust Brightness control for maximum brightness. Advance the Picture Tube Bias control until picture starts to "bloom". Reduce the control to the point just below the place where the picture "blooms". Adjust the Blue and Green Drive controls to eliminate coloring in the dark and bright areas of the picture.

BLUE HORIZONTAL SHAPING COIL ADJUSTMENT

Connect the high side of a scope to junction of R224, C156, and Circuit-Trace 123, low side to ground. Adjust Blue Horizontal Shaping coil slug until harmonic "bump" is at the 50% point in the sine wave slope. See Fig. 4.

WIDE BLUE FIELD CORRECTION ADJUSTMENT (SOME MODELS)

This adjustment is located on the bottom side of the yoke housing. It affects the movement of the blue vertical lines on the outside edge of the picture tube screen. Loosen the three yoke-positioning wing nuts. Turn wide blue field correction adjustment screw slightly so that the blue vertical lines at the edges of the raster converge with the vertical red and green lines. Tighten wing nuts after adjustment.

DYNAMIC PINCUSHION ADJUSTMENTS

Vertical Correction:
Connect a crosshatch generator to the antenna terminals. Turn the top and bottom Pincushion Adjustment control, R16B, to its maximum clockwise position. Adjust the Pincushion Phase coil, L39, until the top and bottom horizontal lines are bowing outward toward the picture tube mask in a symmetrical pattern. Now, adjust the top and bottom Pincushion control until the top and bottom horizontal bars are straight with the edge of the picture tube screen.

COLOR CASTER SENSITIVITY ADJUSTMENT

After proper adjustment of the Color Killer control, adjust the Color Caster Sensitivity control, R10, to light on a color program and not light on a black and white program.

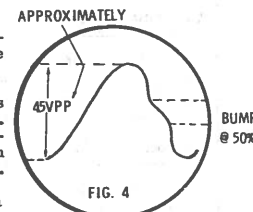


FIG. 4

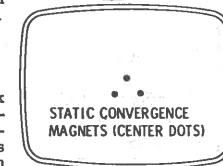


FIG. A

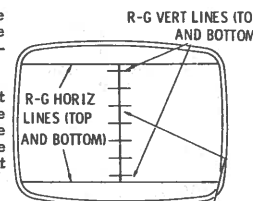


FIG. B
(RED AND GREEN ONLY)

VERT CENTER LINES

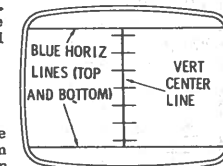


FIG. C
(BLUE BARS)

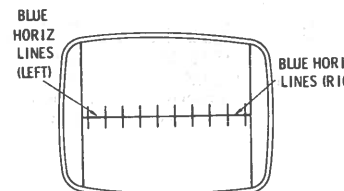


FIG. D
(BLUE BARS)

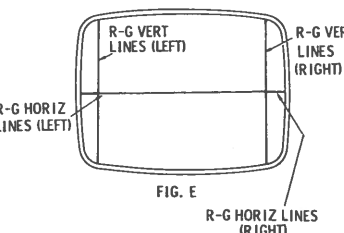
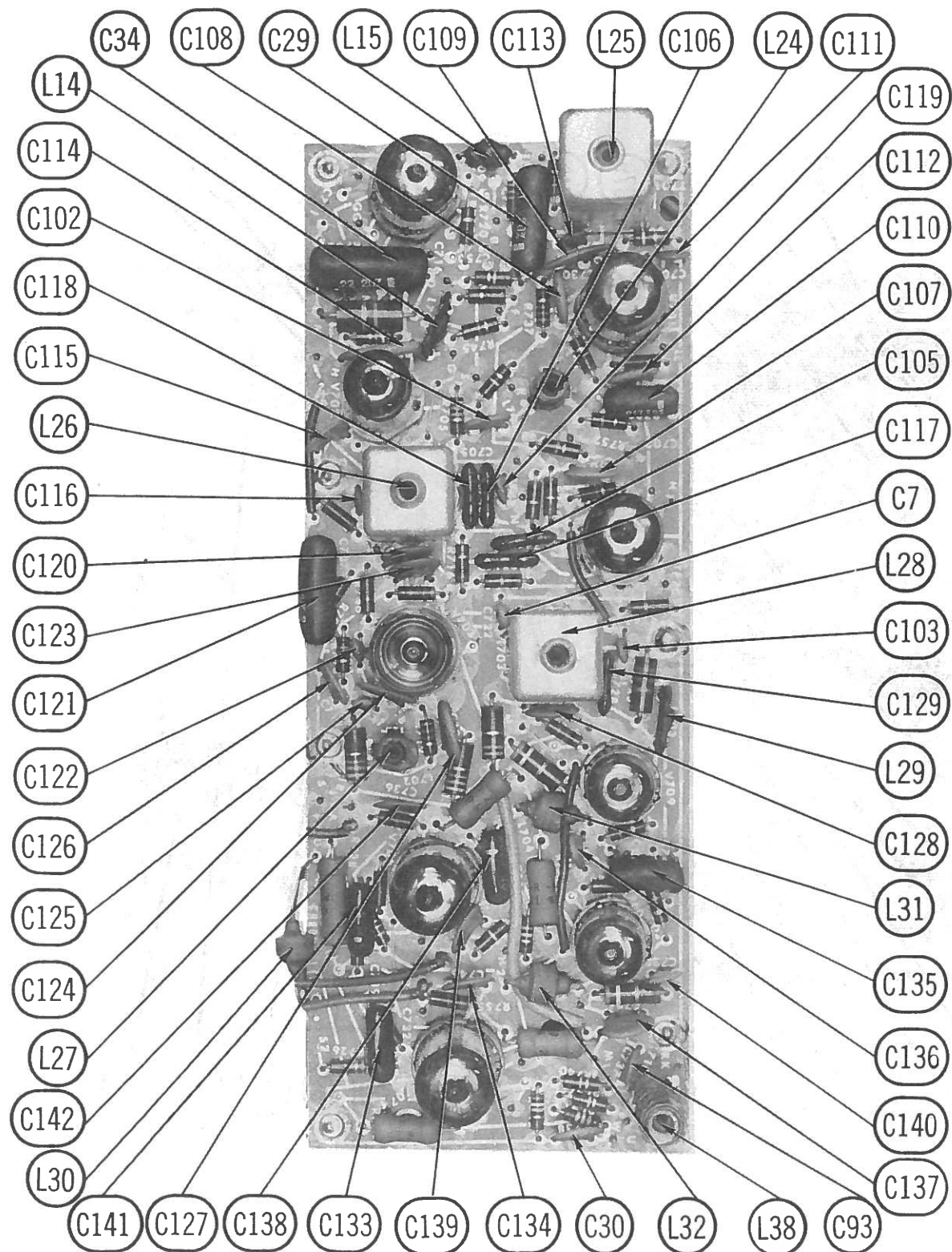
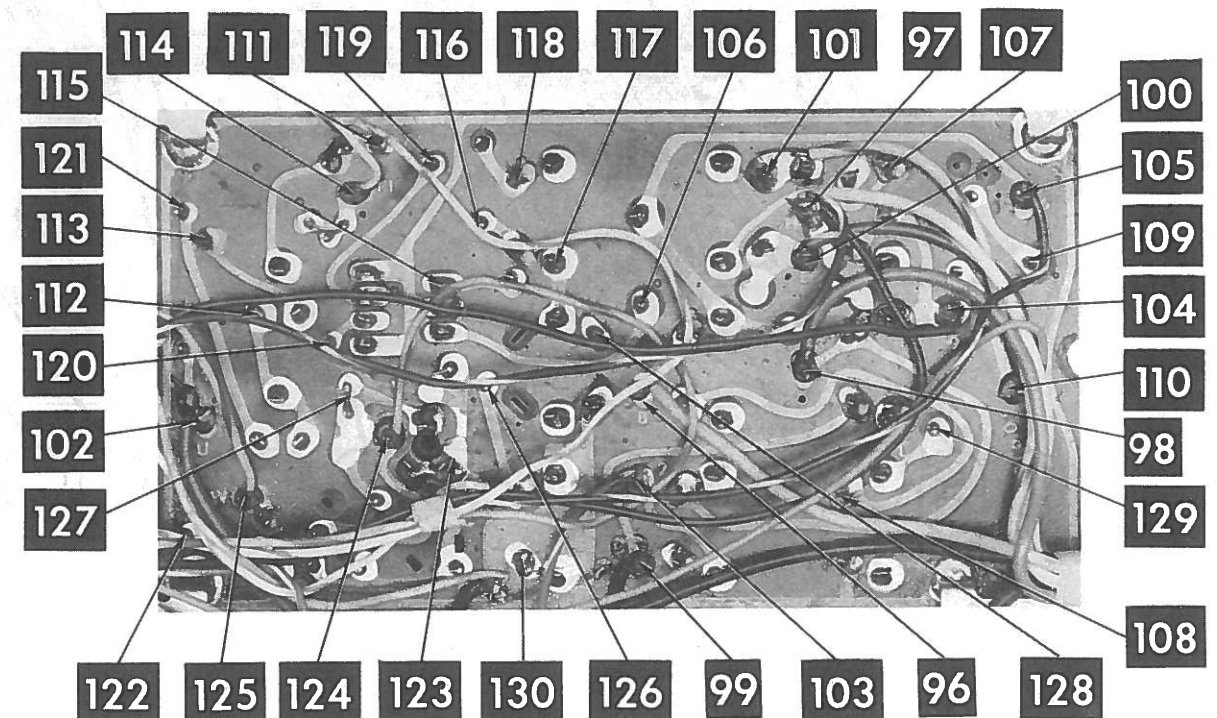
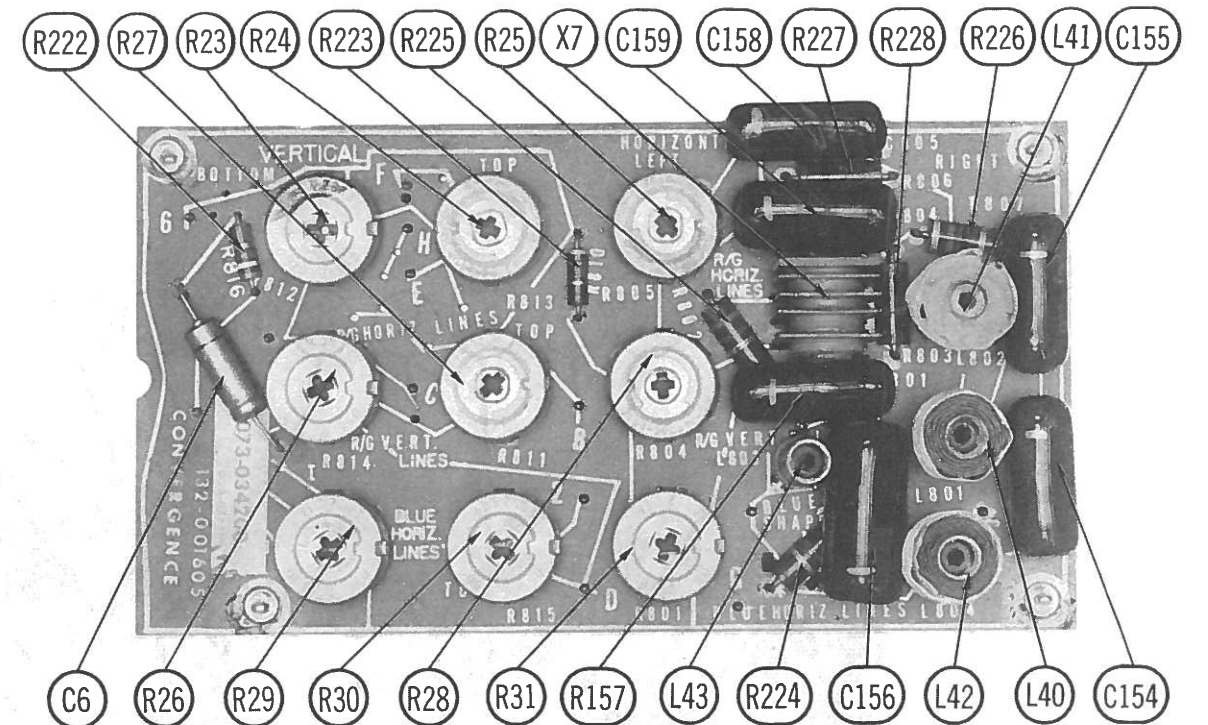


FIG. E

R-G HORIZ LINES (RIGHT)

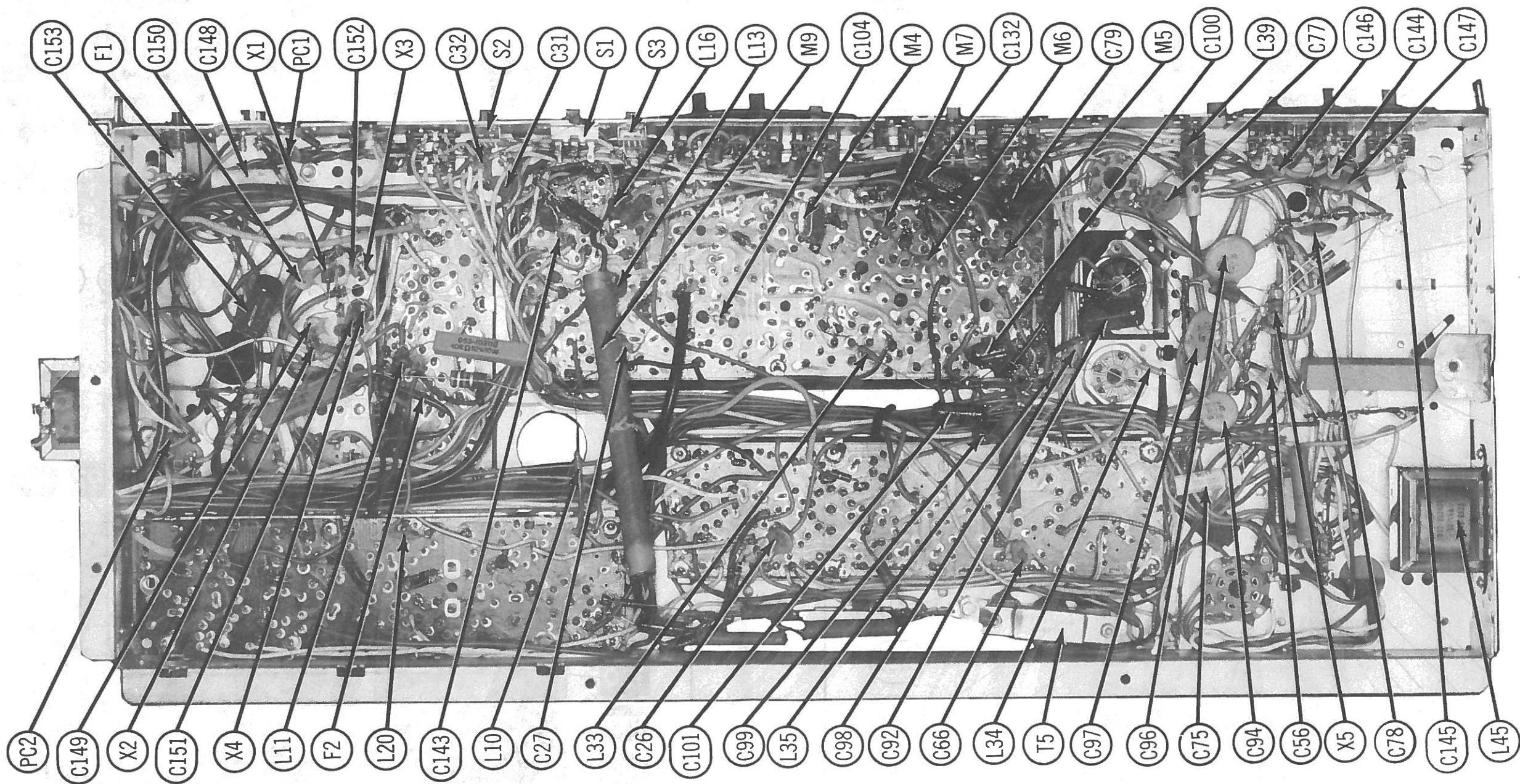


CHROMA PRINTED BOARD



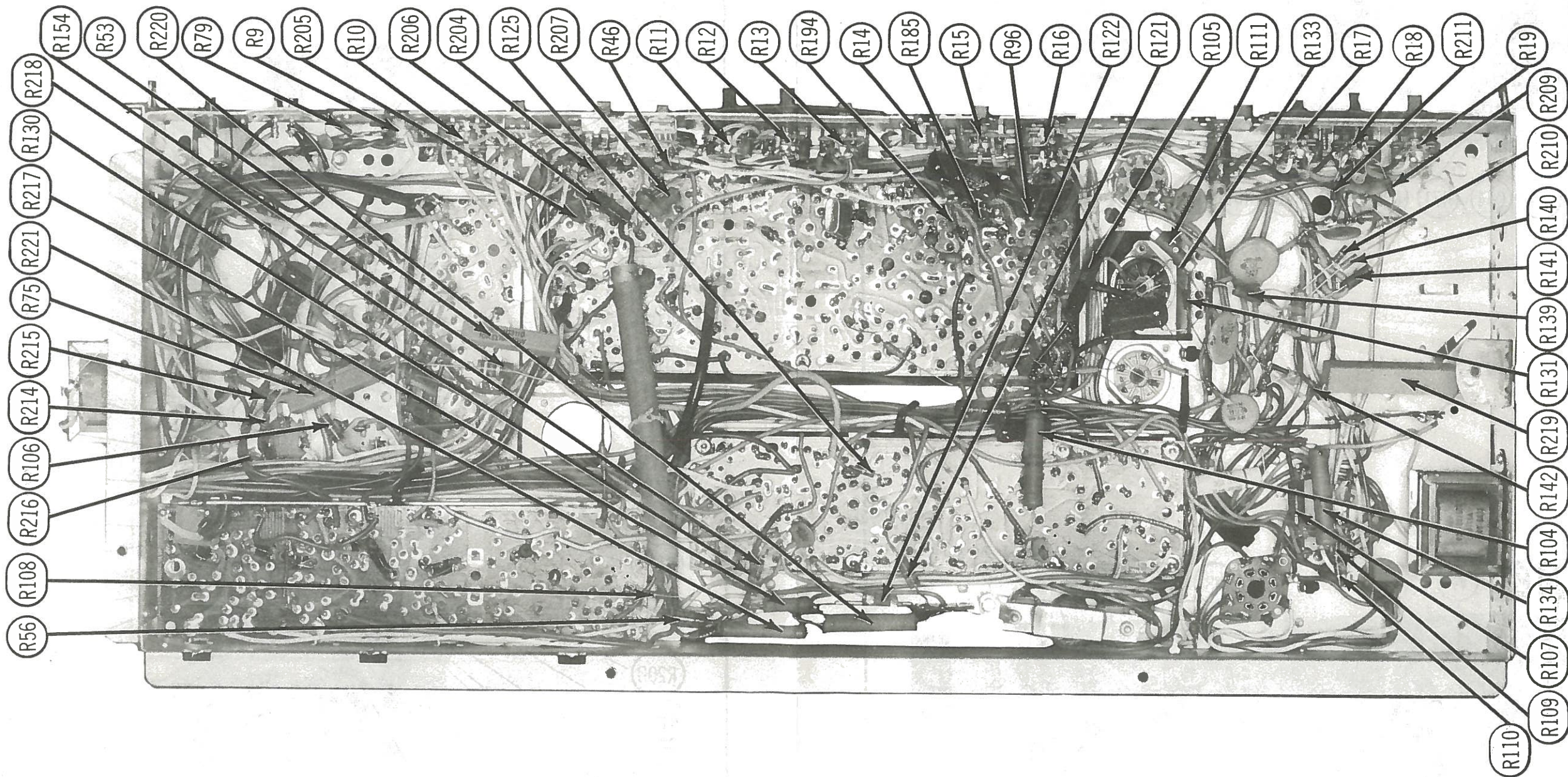
CONVERGENCE BOARD

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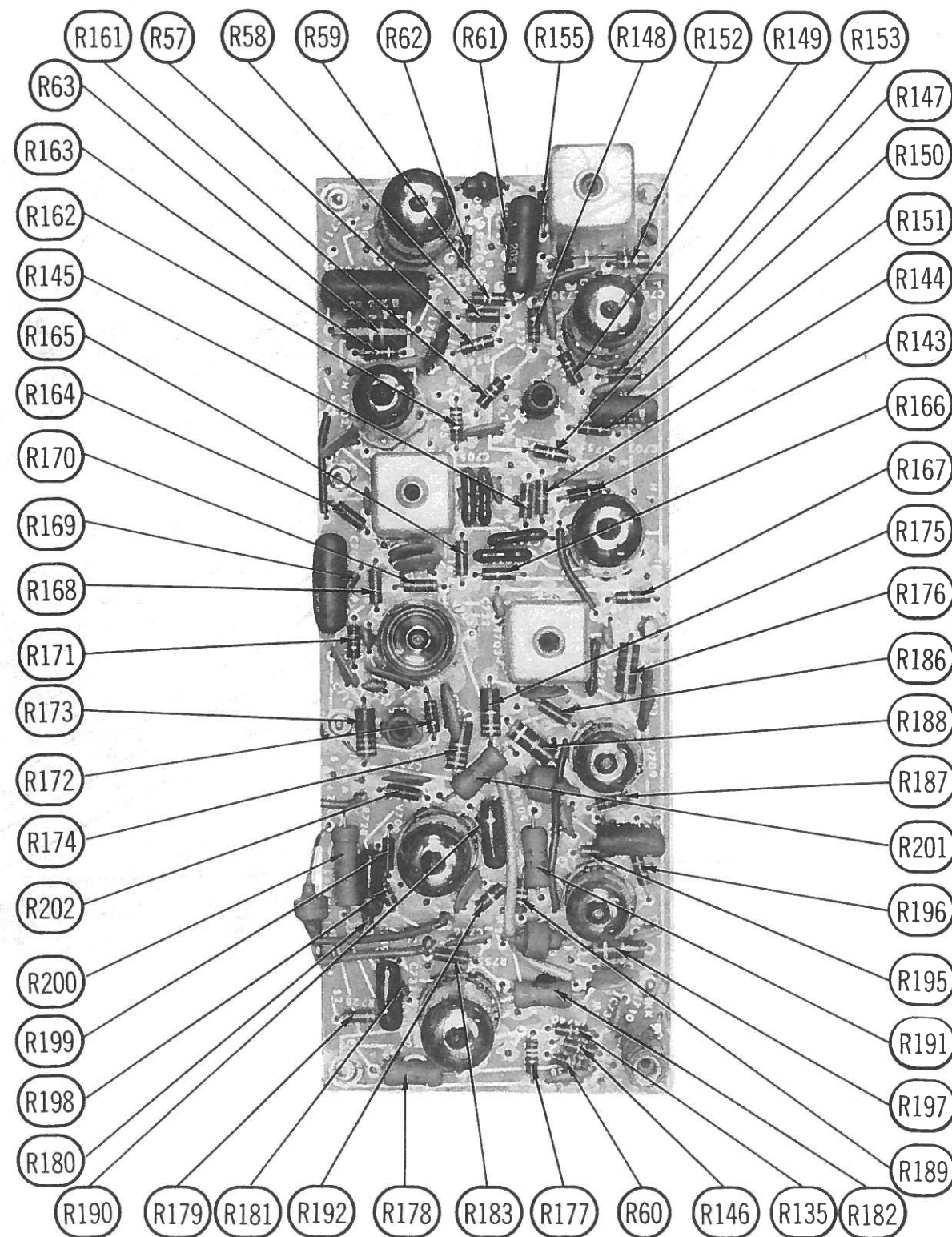
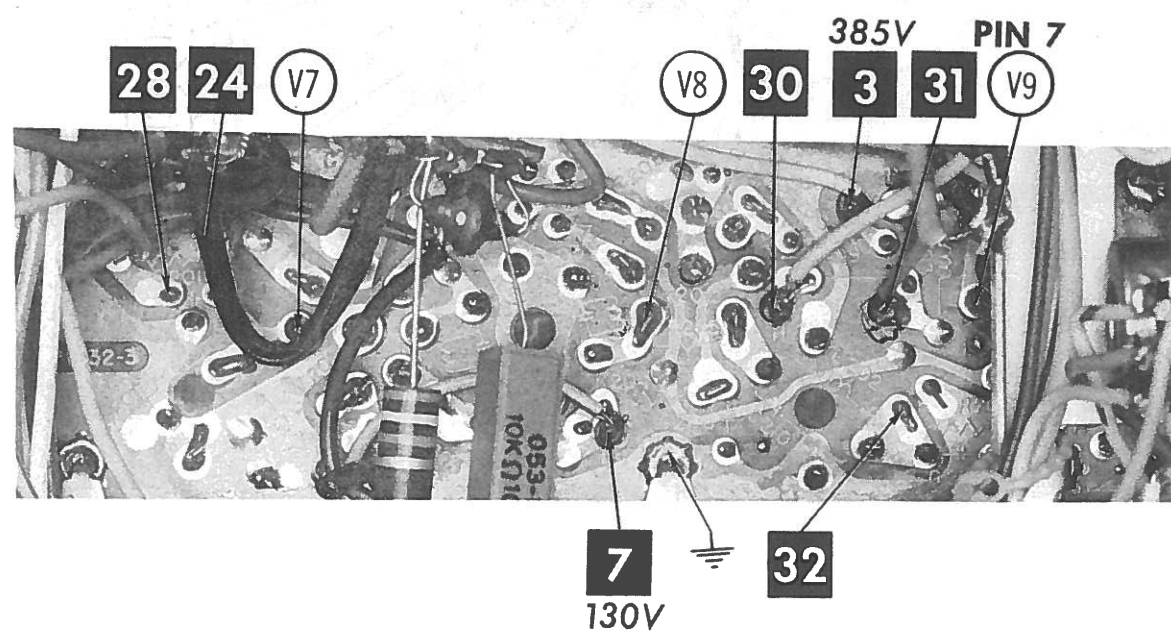
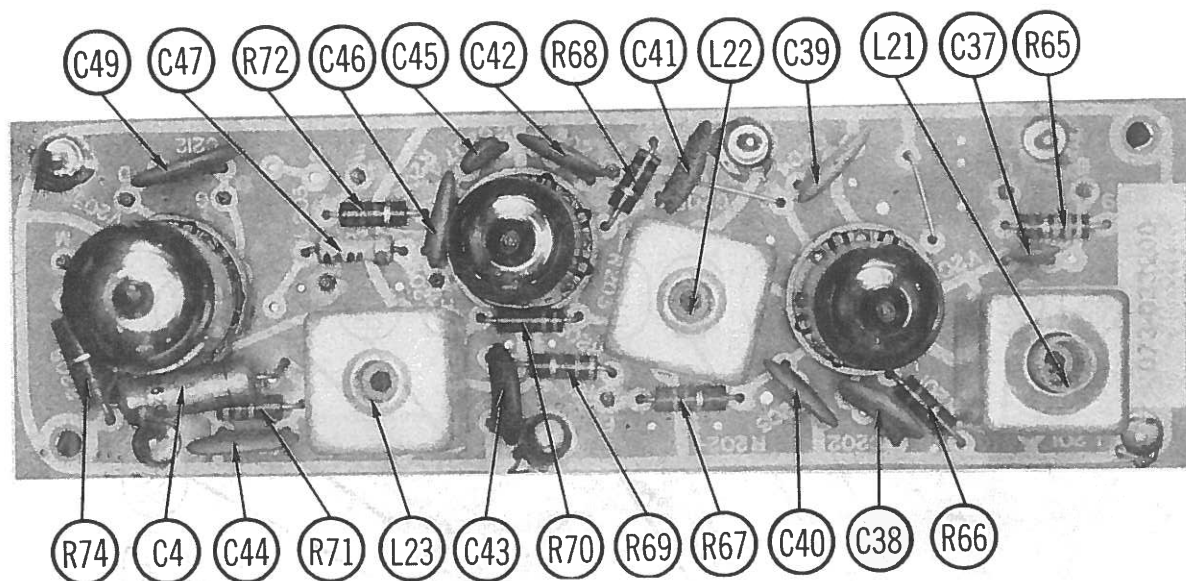
CHASSIS - BOTTOM VIEW

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913-000356/366, 913-187486



CHASSIS - BOTTOM VIEW

HOFFMAN CHASSIS
913-000356/366, 913-187486



TUBE PLACEMENT CHART

BOTTOM VIEW

V24
280P22
PICTURE
TUBE

CONVERGENCE
SOCKET

INDICATES BLANK PIN
OR LOCATING KEY

T2

L6

HV RECT

V14
3A3A

DIODE (BOOST RECT)

V15
6BK4B

HV REG

DIODE (FOCUS RECT)

V13
6DW4B

DAMP

V17
6LE6A

HORIZ OUTPUT
HORIZ CENTERING

YOKE SOCKET

PINCUSSION
AMP (TOP-BOT)

HY ADJUST
(FRONT)

VERT HEIGHT

PICTURE TUBE
BIAS

VERT LINEARITY

BLUE DRIVE

GREEN DRIVE

NORMAL-PURITY-
SERVICE SWITCH

VACATION
SWITCH

COLOR KILLER
(REAR)

VIDEO PEAKING
SWITCH

COLOR
CASTER
(FRONT)

ACC

CIRCUIT BREAKER

DIODES HORIZ
PHASE DET

V10
6G7

VERT MULTI-
VERT OUTPUT

HORIZ AFC-
HORIZ OSC

V11
6F07

HORIZ WAVEFORM
(5 INE WAVE)

NOISE INVERTER-
ACC KEYING-
SYNC SEP

V6
6KA8

1ST VIDEO AMP-
2ND VIDEO DET

V4
6E8

2ND VIDEO IF

V2
6CM6

1ST VIDEO IF

V1
6JH6

ADJACENT
SOUND REJECT

3RD VIDEO IF

V3
6EJ1
EF184

1ST VIDEO DET

V7
6AU6A

SOUND IF

V8
6DT6A

AUDIO DET

V9
6X5

AUDIO OUTPUT

V5
12BY7A

VIDEO OUTPUT

V16
6CH8A

CHROMA SYNC
PHASE DET-
COLOR KILLER DET

V22
6JH8

CHROMA REF
OSC CONTROL-
CHROMA REF OSC

V21
6EW6

BURST AMP

V18
6CY6

X DEMODULATOR

V19
6G7

8-Y AMP-
R-Y AMP

V20
6G7

HORIZ
G-Y AMP-
BLANKING AMP

V17
6CY6

Z DEMODULATOR

3.58MC
CRYSTAL

V16
6CH8A

CHROMA BANDPASS
AMP-COLOR
KILLER

V5
12BY7A

VIDEO OUTPUT

V21
6EW6

BURST AMP

V22
6JH8

CHROMA SYNC
PHASE DET-
COLOR KILLER DET

V18
6CY6

X DEMODULATOR

V19
6G7

8-Y AMP-
R-Y AMP

V20
6G7

HORIZ
G-Y AMP-
BLANKING AMP

V17
6CY6

Z DEMODULATOR

3.58MC
CRYSTAL

V16
6CH8A

CHROMA BANDPASS
AMP-COLOR
KILLER

V5
12BY7A

VIDEO OUTPUT

V21
6EW6

BURST AMP

V22
6JH8

CHROMA SYNC
PHASE DET-
COLOR KILLER DET

V18
6CY6

X DEMODULATOR

V19
6G7

8-Y AMP-
R-Y AMP

V20
6G7

HORIZ
G-Y AMP-
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BURST AMP

V22
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CHROMA SYNC
PHASE DET-
COLOR KILLER DET

V18
6CY6

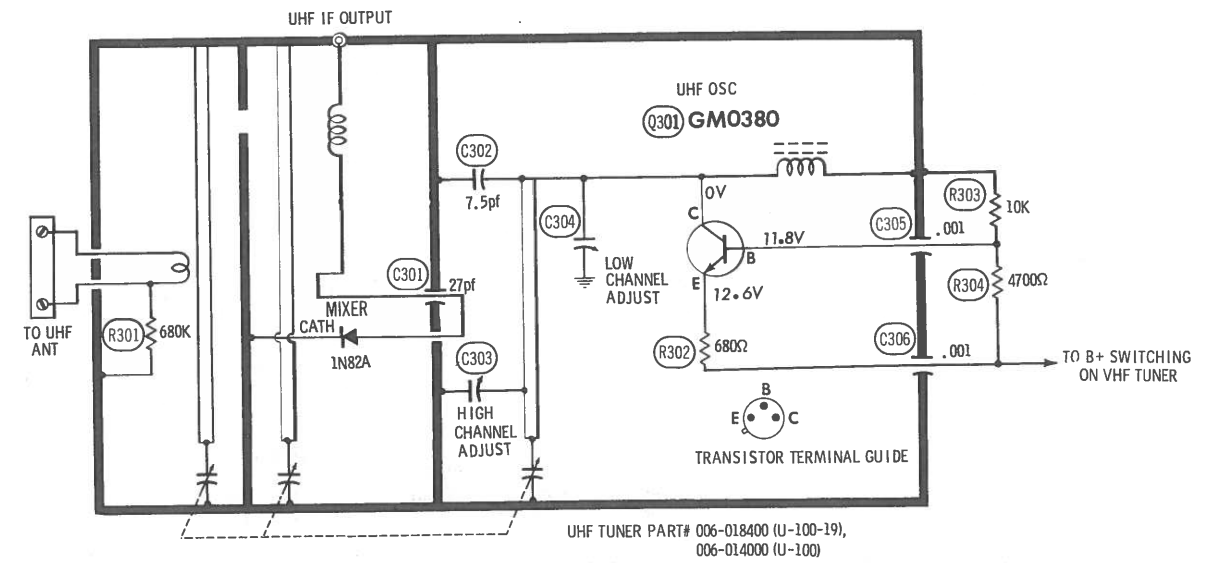
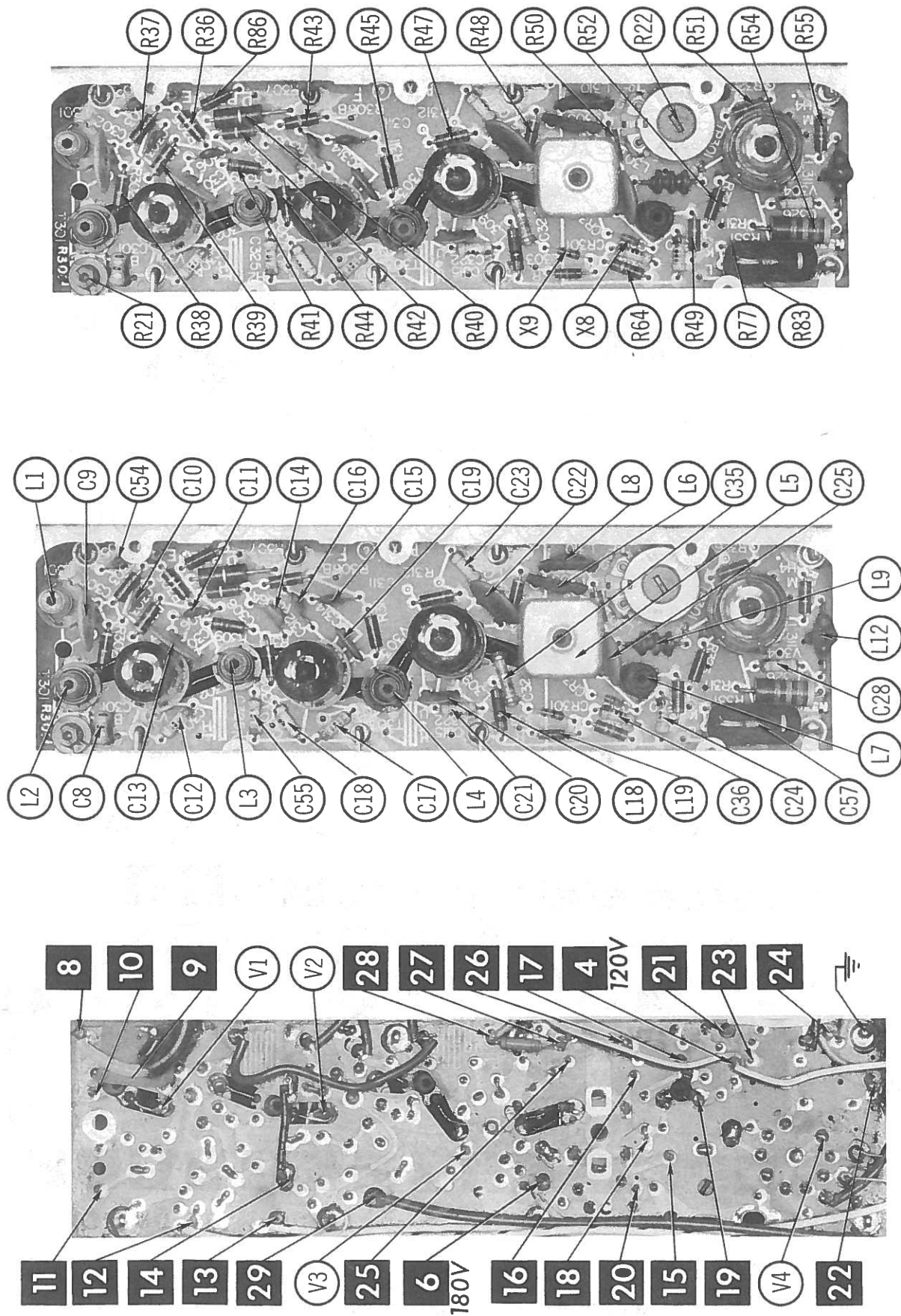
X DEMODULATOR

V19
6G7

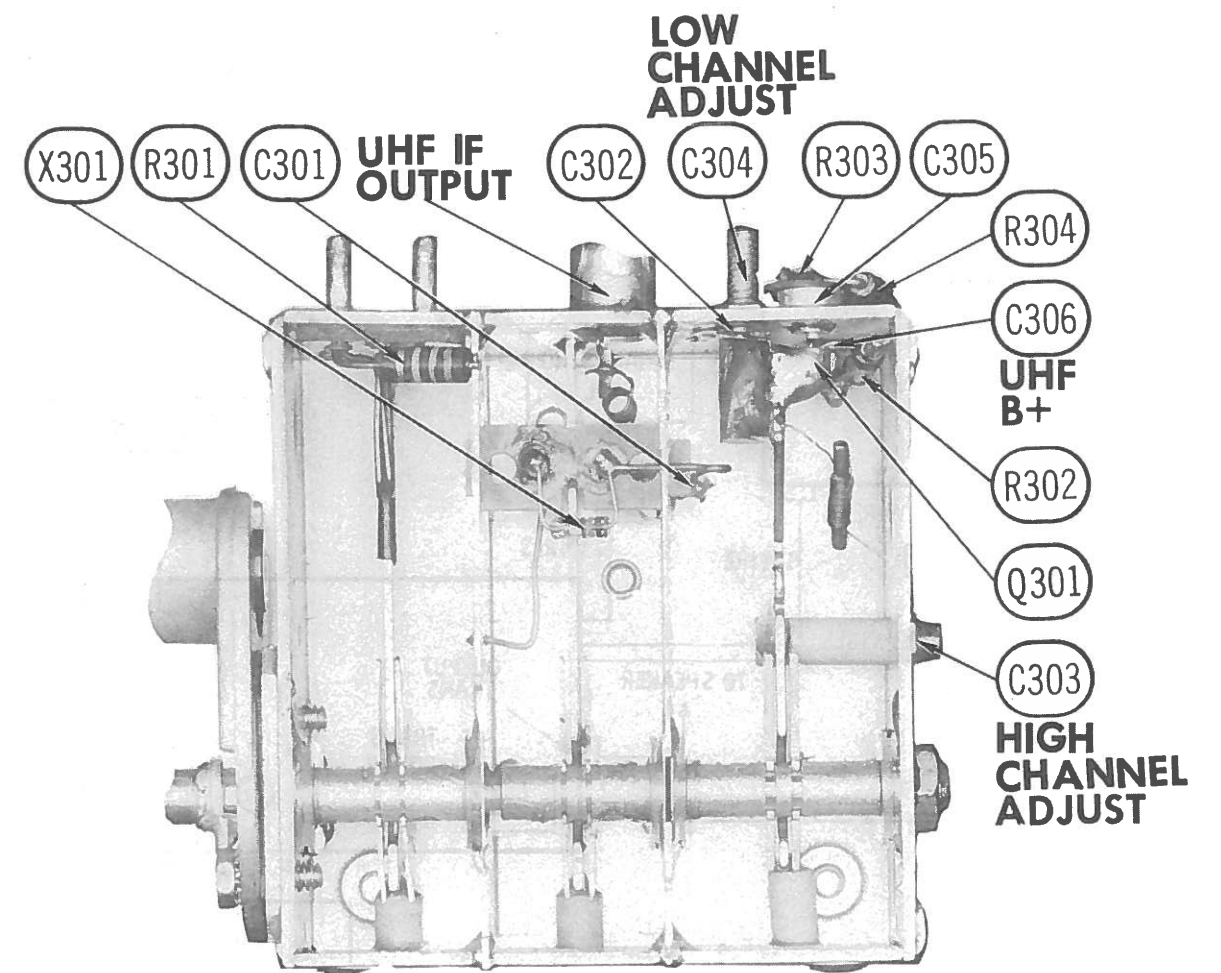
8-Y AMP-



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



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UHF TUNER 006-014000, 006-018400

VHF TUNER PARTS LIST

VHF TUNER 006-018300, 006-018700

TUBES

AMPEREX			GENERAL ELECTRIC			RCA			SYLVANIA		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V201	RF Amp.		6HQ5			V202	Mixer - Osc.		6HB7		

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	7.5%	DI-15	TCZ-27	CZ601CG120J	CCTO-270	CNO427	10TCC-Q27
B	27	7.5%		TCZ-27		CCTO-270	CNO427	10TCC-Q27
C	27	7.5%		TCZ-27		CCTO-270	CNO427	10TCC-Q27
D	27	7.5%		TCZ-27		CCTO-270	CNO427	10TCC-Q27
C202	15			DD-150		CCD-150	GP415	10TS-Q15
C203	12	5%	EF-001	TCZ-12	JBS601YP102K	CCTO-120	CNO412	10TCC-Q12
C204	.5-4.5							
C205	.5-4.5							
C206	30	10%						
C207	.5-4.5							
C208	.001		MFT-1000			CCF-102	CT280A	10TCC-V12
C209	1.2	10%						
C210	18							
C211	.75 pf	10%						
C212	.5-4.5							
C213	.001		DI-1000	DD-102		CCD-102	GP210	10TS-D10
C214	27 N750	5%		TCN-27		CCTN-270	CN7427	10TCU-Q27
C215	.001			MFT-1000		CCF-102	CT280A	
C216	.001			MFT-1000		CCF-102	CT280A	
C217	1.8 N150	±.25				*	*	
C218	.5-3.7		#31B-902-030					10TCR-V82
C219	8.2 N220	±.25						
C220	.001							
C221	.001							
C222	3	10%						10TCC-V30

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

COILS (RF-IF)

ITEM No.	USE	HOFFMAN PART No.	NOTES	ITEM No.	USE	HOFFMAN PART No.	NOTES
L201	Ant., RF, Osc., Mixer	31M-2PE	Channel 2 Strip	L209	Ant., RF, Osc., Mixer	31M-10PE	Channel 10 Strip
L202	"	31M-3PE	" 3 "	L210	"	31M-11PE	" 11 "
L203	"	31M-4PE	" 4 "	L211	"	31M-12PE	" 12 "
L204	"	31M-5PE	" 5 "	L212	"	31M-13PE	" 13 "
L205	"	31M-6PE	" 6 "	L213	Mixer Plate Coil	31U-630-002	
L206	"	31M-7PE	" 7 "	L214	Screen Choke	25A-249-007	
L207	"	31M-8PE	" 8 "	L215	RF, Osc., Mixer	31T-4608-005	Channel 1 Strip
L208	"	31M-9PE	" 9 "	L216	UHF IF Input	34A-1028-018	

MISCELLANEOUS

ITEM No.	PART NAME	HOFFMAN PART No.	NOTES
M201	Antenna Input Assembly	31T-4460-010	

UHF TUNER PARTS LIST

UHF TUNER 006-014000, 006-018400

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				HOFFMAN PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q301	GM0380	UHF Oscillator					025-100009	PNP

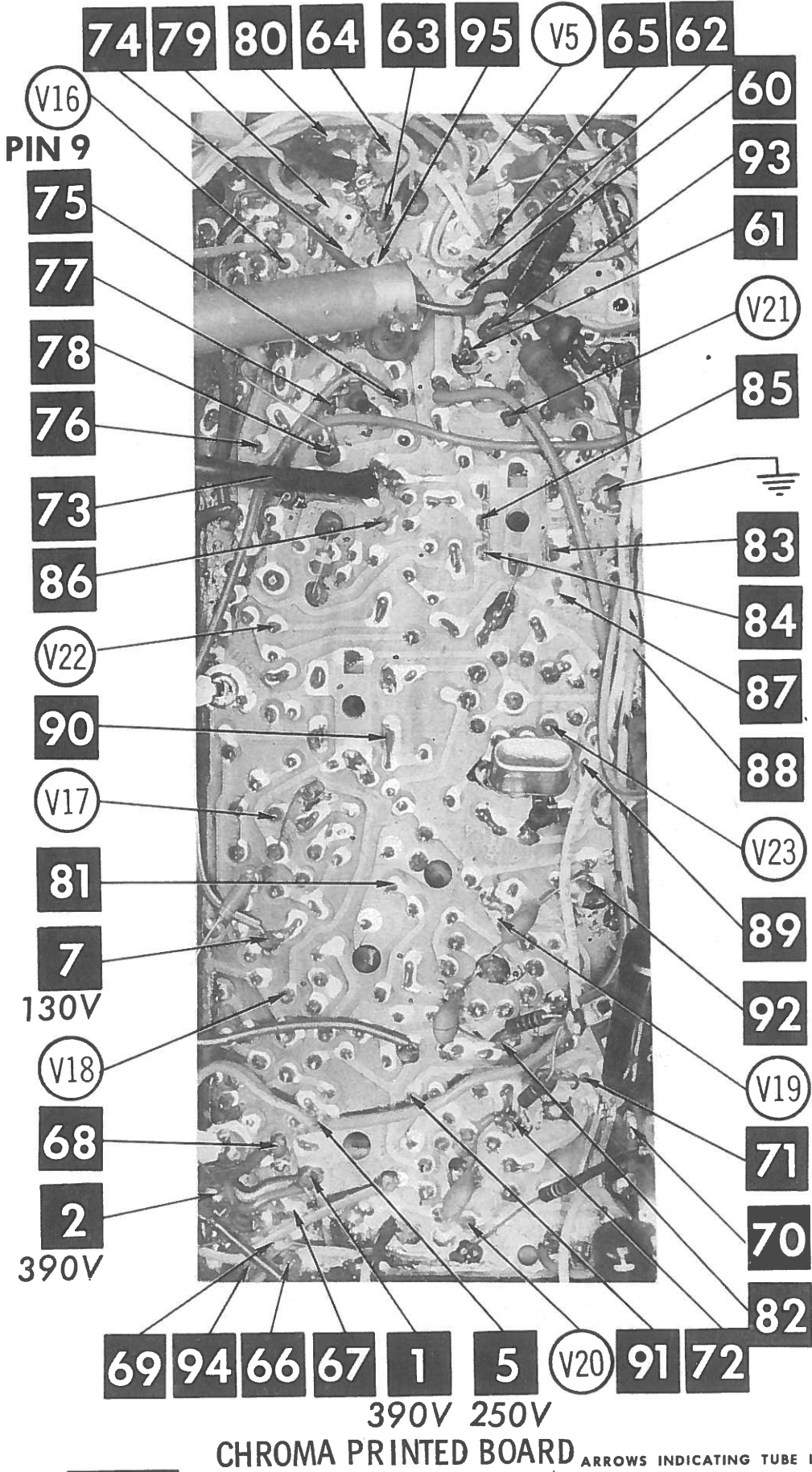
POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X301		1N82A	1N82A	1N82AG			

CAPACITORS

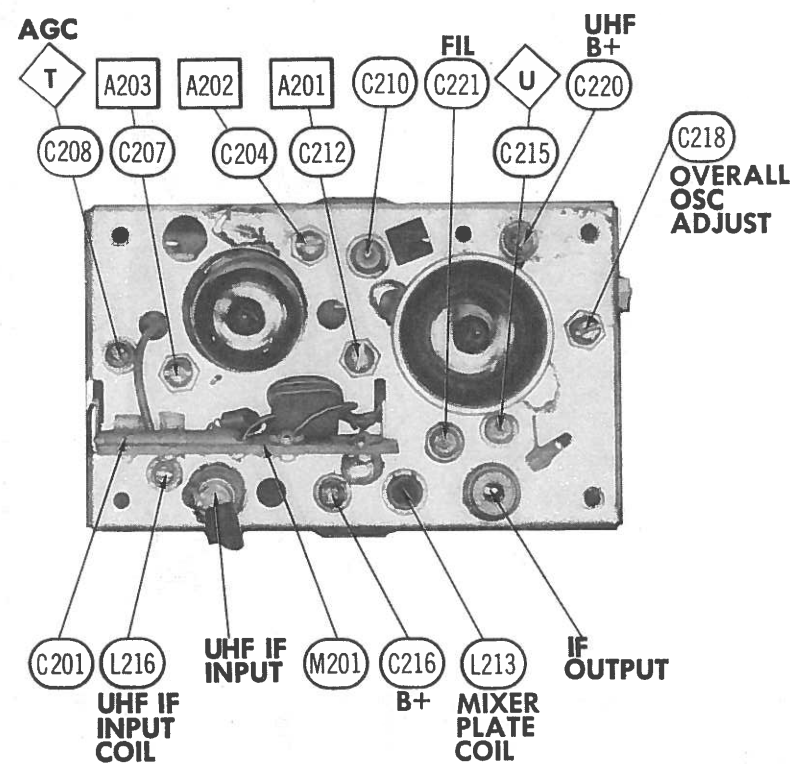
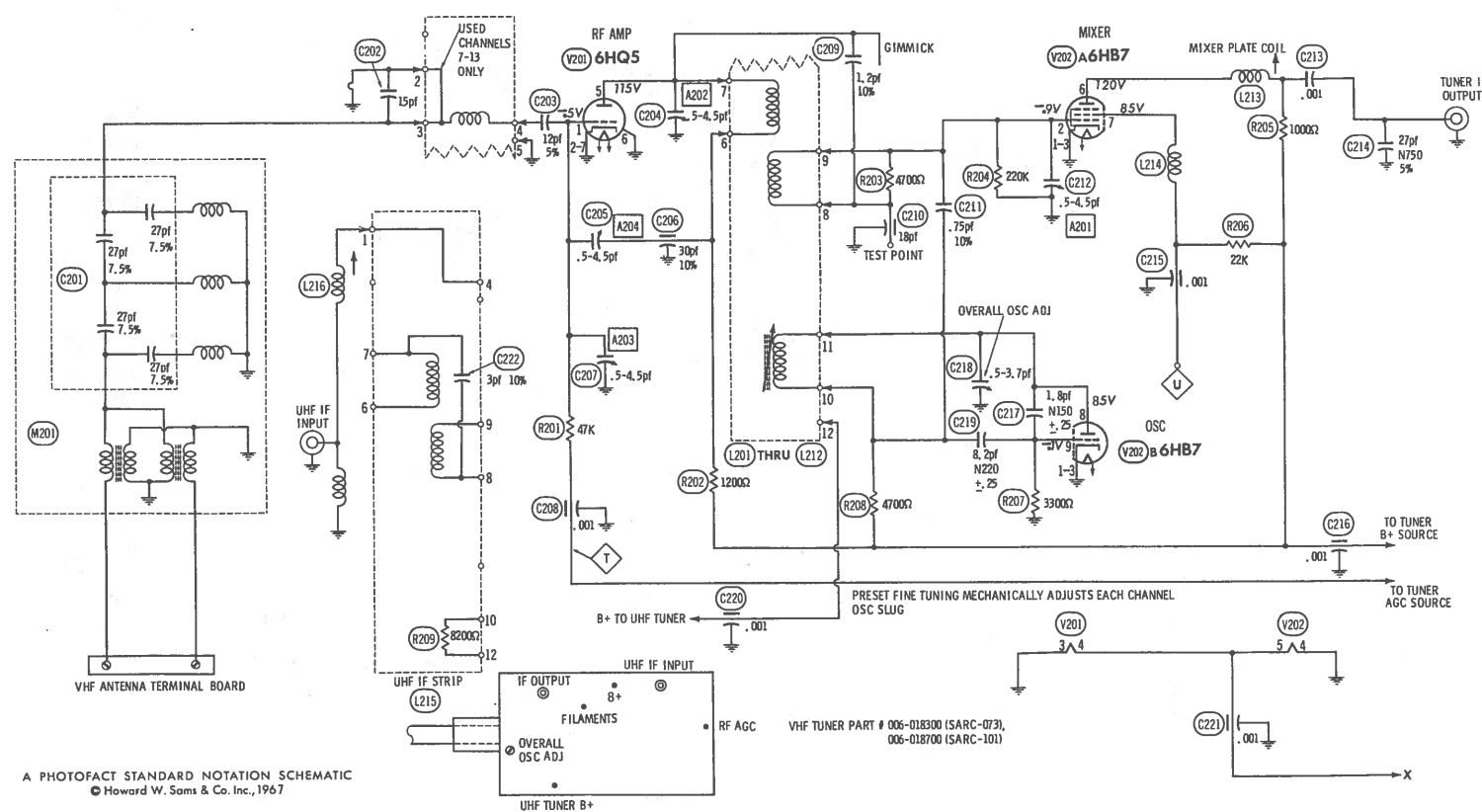
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C301	27	#025-110001	EF-001	DD-7R5				10TS-V75
C302	7.5	#025-110006						
C303		#025-110004						
C304	.001							
C305	.001					CCF-102	CT280A	
C306	.001		EF-001	MFT-1000		CCF-102	CT280A	

Hoffman Part Number



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



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.

(cont) COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					
		PART No.	MEISSNER Part No.	MERIT PART No.	MILLER PART No.	WORKMAN PART No.	
L14	Peaking (62uh)	111-022600	19-3060	BC-666	6110	T938	
L15	Peaking (120uh)	111-021400 ②	19-3125 †	TV-195 †	72F124AP †	TA344 †	
L16	Peaking (39uh)	111-021800	19-2028	TV-201	72F394AP	TA338	
L17	RF Choke (5.6uh)	111-021100	19-2008	BC-565	74F566AP	T820	
L18	RF Choke (12uh)	111-022000	19-2016	BC-566	72F125AP	TA823	
L19	RF Choke (1.8uh)	111-021000	19-1001	BC-562	74F186AP	TA819	
L20	RF Choke (5.6uh)	111-021200	19-1008	BC-565	74F566AP	T820	
L21	1st Sound IF	109-029700			SI-187 *		
L22	2nd Sound IF	109-029800			7138	T270	
L23	Quadrature	109-029900			7107-R	TF299	
L24	Chroma Takeoff	111-023500					
L25	Chroma Bandpass	109-023100					
L26	Burst Phase	109-023600					
L27	Chroma Osc. Control	111-023700			6040		
L28	3.58MC Oscillator	109-024500					
L29	RF Choke (10uh)	111-022700	19-1005	BC-566	72F105AP	T860	
L30	Peaking (62uh)	111-023000	19-2030	TV-205	6146	T326	
L31	Peaking (62uh)	111-023000	19-2030	TV-205	6146	T326	
L32	Peaking (62uh)	111-023000	19-2030	TV-205	6146	T326	
L33	RF Choke (5.6uh)	111-021200	19-1008	BC-565	74F566AP	T820	
L34	RF Choke (5.6uh)	111-021200	19-1008	BC-565	74F566AP	T820	
L35	RF Choke (5.6uh)	111-021200	19-1008	BC-565	74F566AP	T820	

① Wound on 15K Resistor.
② Wound on 2200Ω Resistor.▲ Shunt with 15K Resistor.
† Shunt with 2200Ω Resistor.

* Clip unused pin.

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						
		HOFFMAN PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	WORKMAN PART No.
L36A	Horiz. Osc. Freq.	109-021600		6349				TV-177
L37	Waveform (Sine Wave)	111-032200		6350		FC-5		TC-177
L38	Focus	111-032300		H-137				TB-178
L39	Horiz. Linearity (Effic.)	111-032400		H-178				
L40	Pincushion Phase	111-031800		H-138				
L41	Dynamic Convergence	111-031700		H-139				
L42	Right R/G Vert. Lines (2mh-6mh)							
L43	Dynamic Convergence	111-031600		H-140				
L44	Right R/G Horiz. Lines (1.7mh-6mh)							
L45	Dynamic Convergence	111-031900		H-136				
L46	Right Blue Horiz. Lines (Prl. 1.9mh-8.4mh)							
L47	(Sec. 28uh-54uh)							
L48	Blue Horiz. Shape	111-031900						
L49	Convergence Yoke	027-032700						
L50	Assembly							
L51	A Blue Section							
L52	B Green Section							
L53	C Red Section							

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	HOFFMAN PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L45	.47A DC	15.2Ω	.4 H	032-002800	C-4133	C-2708	28C81	C-40X	

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	HOFFMAN PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	T1	117VAC @ 3.15A AC	315VAC @ .47A DC	6.3VAC @ 1.85A AC	033-011900				
SEC. 3									
6.3VAC @ 11.4A AC									

* TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		HOFFMAN PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output	033-010300					① Use original core clamp. † Used in Models: W-7002/B, IS-7001, SP-7003 & MS-7005. ‡ Used in Models: W-7300/SL, W-7302/SL, W-7310, W-7320, CF-7312, SP-7311 and MS-7322.
T3	Yoke (Horiz. 13mh) 90° (Vert. 25mh)	027-032800(H)				YC-312-2 ①	
T4	Horiz. Output	033-012700 †	HVO-234C	HO-601C		D-304	
T5	Pinchion Phase (Top and Bottom)	033-013000 †	HVO-234C	HO-601C		D-304	
		033-010400					

* COMPONENT CONNECTION DATA

ORIGINAL →	HV TRANSFORMER		VERTICAL OUTPUT		YOKE		YOKE PLUG	
	Original Connections	Original Connections	Original Connections	Original Connections	Original Connections	Original Connections	Original Connections	Original Connections
REPLACEMENT ↓	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB
MERIT	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB
STANCOR	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB
THORDARSON	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB
TRIAD	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB	P D C1C2FCB

NO WIRING CHANGE NECESSARY

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	HOFFMAN PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T6	220Ω	.5Ω	031-009400	A-3018	A-3849	26S50	S-67X	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		HOFFMAN PART No.	JENSEN PART No.	QUAM PART No.	
SP1	4" x 6" PM 3-4Ω	007-015100	P4X6W3	46A2C	Used in Models IP-7001, SP-7003, W-7002, MS-7005, W-7300/SL and W-7302/SL.
	6" PM 6-8Ω	007-018700			Used in Models W-7310, SP-7311 and CF-7312.
	6" PM 3-4Ω	007-020400			Used in Models W-7320 and MS-7322.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
F1	Circuit Breaker 2.1A (Operating)	099-002500				8153, 25		FA3,5
F2	3 1/2" length of fuse wire							
F3	"N" Slow Blow, .4 Amp.	099-002800		N4/10	HN 3/10 to 1/2	333400	346009	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	HOFFMAN PART No.	REPLACEMENT DATA
PC1	AC Line Isolation	2.2meg, 100pf (includes Spark Gap)	134-039400	
PC2	AC Line Isolation	2.2meg, 100pf (includes Spark Gap)	134-039400	

MISCELLANEOUS

ITEM No.	PART NAME	HOFFMAN PART No.	NOTES
M1	VHF Tuner	006-018300	
V2	VHF Tuner	006-018700	
M3	UHF Tuner	006-018400	
M4	UHF Antenna	006-014000	
M5	Crystal	087-031300	JFD Replacement TA544
M6	Spark Gap	136-000100	3.58MC
M7	Spark Gap	140-000300	Part of Picture Tube Socket in Models: W-7310, W-7320 and CF-7312, SP-7331.
M8	Magnet	140-000300	" " " " " " " "
M9	Delay Line	112-001700	" " " " " " " "
M10	Degaussing Coils	111-032600	Purity and Blue Lateral
			Used in Models W-7300/SL, W-7302/SL, W-7310, W-7320, CF-7312, MS-7322, and SP-7311.
S1	Automatic Degaussing and Purity Shield	072-0094001	Used in Models IP-7001, SP-7003, W-7002, MS-7005.
S2	Switch	146-007700	Vacation (Instant On)
S3	Switch	146-007800	Video Peaking
	Printed Circuit Board	073-033200	Normal/Purity
	Printed Circuit Board	073-031000	Sound
	Printed Circuit Board	073-032300	Picture
	Printed Circuit Board	073-030500	Deflection
	Printed Circuit Board	073-030600	Chroma, used in Models IP-7001, SP-7003, W-7002, MS-7005, W-7310, SP-7311, CF-7312, W-7320 and MS-7322.
	Printed Circuit Board	073-034200	Chroma, used in Models W-7300/SL, W-7302/SL
	Printed Circuit Board		Convergence

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
MODELS: IP-7001, SP-7003, W-7002, MS-7005, W-7310, SP-7311, CF-7312, W-7320, MS-7322		MODELS: W-7300, W-7300SL, W-7302, W-7302SL	
Escutcheon	118-007300	Escutcheon	118-006900
Knob - Brightness, Tint	083-117500	Knob - Brightness, Tint	083-114800
Knob - Brightness (Dummy)	083-117600	Knob - Color, Volume	083-114500
Knob - Contrast	083-117400	Knob - Contrast, Horiz., Vert., Tone	083-090300
Knob - Intensity, Tint, Cinema	083-117700	Knob - UHF Calibration	083-121300
Knob - On/Off/Volume	083-117300	Knob - UHF Tuning Selector	083-113500
Knob - Tone, Vert., Horiz.	083-090300	Knob - VHF Channel Selector	083-111900
Knob - UHF Fine Tuning, Selector	083-117200	Knob - VHF Fine Tuning	083-114700
Knob - VHF Channel Selector	083-117100		
Knob - VHF Fine Tuning	083-090200		
VHF Channel Indicator	026-330001	Mask - Models W-7310, SP-7311, CF-7312, W-7320, MS-7322	028-003200
Models W-7300/SL, W-7302/SL	028-003400	Mask - Models IP-7001, SP-7003, W-7002, MS-7005	028-042800

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 8874 (Rubber) or 8895 (Plastic)
Power Cord (Interlock Type)	Use BELDEN No. 8245
300Ω Tuner Input Lead	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
300Ω Antenna Lead-in	Use BELDEN No. 8484 (Flat) or 8484 (Round) - 4 Conductor
Antenna Rotor Cable	Use BELDEN No. 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

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.

TUBES

ITEM No.	USE	TYPE	REPLACEMENT DATA			
			AMPEREX	GENERAL ELECTRIC	RCA	SYLVANIA
V201	RF Amp.	6HQ5				
V202	Mixer-Osc.	6HB7				
V1	1st Video IF	6JH6				
V2	2nd Video IF	6GM6				
V3	3rd Video IF	6EJ7/EF184				
V4	1st Video Amp. - 2nd Video Amp.	6LF8				
V5	Video Output	12BY7A				
V6	Noise Inverter - AGC Keying - Sync Sep.	6KA8				
V7	Sound IF	6AU6A				
V8	Audio Detector	6DT8A				
V9	Audio Output	6BQ5				
V10	Vert. Mult. - Vert. Output	6CF7				
V11	Horiz. AFC - Horiz. Osc.	6FQ7				
V12	Horiz. Output	6JE8A				
V13	Damper	6DW4B				
V14	HV Rectifier	3A3				
V15	HV Regulator	6BK4B				
V16	Chroma Bandpass Amp. - Color Killer	6GH8A				
V17	Z Demodulator	6GY6				
V18	X Demodulator	6GY6				
V19	B-Y Amp. - R-Y Amp.	6GU7				
V20	G-Y Amp. - Horiz. Blanking Amp.	6GU7				
V21	Burst Amp.	6EW6				
V22	Chroma Sync Phase Det. - Color Killer Detector	6JU8				
V23	Chroma Ref. Osc. Control - Chroma Reference Osc.	6GH8A				

PICTURE TUBE

ITEM No.	USE	REPLACEMENT DATA				NOTES
		HOFFMAN PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V24	23EGP22 ①	23EGP22A ②	23EGP22A ③	HR/25AP22 ④	RE25AP22 ⑤	① Aluminized ② Hi-Lite ③ Color Bright
	25AP22A ②	25AP22 ③	25AP22 ④	HR/25BP22A ⑤	RE25BP22A ⑥	
	25BP22A ③	25BP22 ④	25BP22 ⑤	HR/25BP22A ⑥	RE25BP22A ⑦	

① Used in Models IP-7001, MS-7005, SP-7003, W-7002/B.
② Used in Models CF-7312, SP-7311, MS-7322, W-7300, W-7302, W-7310, W-7320.③ Used in Models W-7300, W-7310.
④ Used in Models W-7300SL, W-7302SL.

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				
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CONTROLS (cont)
All wattages 1/2 watt, or less, unless otherwise listed.

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

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			HOFFMAN PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R11	Green Drive	6000Ω	055-036700	F1-7500, SNK104, AK-38	A47-7500-S, RN-3, TT-2 or (NP-7000-S, NML-A-300, TT-2)	B11-115, TM4 or (BU11, CF8, SS8) *	HVC63L
R12	Blue Drive	6000Ω	055-036800	F1-7500, SNK104, AK-38	A47-7500-S, RN-3, TT-2 or (NP-7000-S, NML-A-300, TT-2)	B11-115, TM4 or (BU11, CF8, SS8) *	HVC63L
R13	Vert. Linearity	3.4meg	055-037200	F1-4meg, SNK014, AK-38		HLC3	HVC355L
R14	Picture Tube Bias	6000Ω, 2W	056-037800	V-5000 ① or (WN752)	U39-5000 ① or (NPW-5000, NML-A-300, TT-2)	P115R502A or (W11-214, SK5) or (BU1, WF8, SS8) *	MR5000T or (VW5K) or (C6MP)
R15	Vert. Height	100K	055-036600	TT-40 or (F1-100K, SNK010)	B47-100K-S or (NP-100K-S, NML-A-300, TT-2)	B11-128, TM4 or (BU11, CF13, SS8) *	PTA15L or (RU15L, SL37, SN750) or (UA15L, SN750)
R16A B	High Voltage Adjust Top/Bottom Pin- cushion Amp.	500K 15K	055-049500	F1-600K, R1-25K, FFS008	NP-500K-S, NR-25K-S, UPC-B-013, UR-D-008	# QJ-2256	UE4690
R17	Red Screen	1.5meg	055-036900	F1-1.5meg, SNK104, AK-38		B11-138, TM4 or (BU11, CF18, SS8)	HVC155L
R18	Green Screen	1.5meg	055-037000	F1-1.5meg, SNK104, AK-38		B11-138, TM4 or (BU11, CF18, SS8) *	HVC155L
R19	Blue Screen	1.5meg	055-037100	F1-1.5meg, SNK104, AK-38		B11-138, TM4 or (BU11, CF18, SS8) *	HVC155L
R20	Horiz. Centering	10Ω, 2W	055-039100 (1470827-1)			BU11, WF16, SS6 *	MR10T, MR51563
R21	Adjacent Sound Reject	10K	055-037900	TR69-1			
R22	Sound Reject	750Ω	055-038000	F1-750, SNK010, AK-40	NP-750-S, UP-N-007, TT-3	B11-105, TM9 or (BU11, CF5, SS8, DC2) *	TR5751L
R23	R/G Horiz. Lines (Bottom)	500Ω, 3W	056-046700				MR800P
R24	R/G Horiz. Lines (Top)	120Ω, 2W	056-047200	V-120	U39-125	110C120	MRC120P
R25	R/G Horiz. Lines (Left)	120Ω, 2W	056-047200	V-120	U39-125	110C120	MRC120P
R26	R/G Vert. Lines (Bottom)	60Ω, 3W	056-046800				MR100P
R27	R/G Vert. Lines (Top)	150Ω, 2W	056-047300	V-150	U39-150	110C150	MRC150P
R28	R/G Vert. Lines (Left)	150Ω, 2W	056-047300	V-150	U39-150	110C150	MRC150P
R29	Blue Horiz. Lines (Bottom)	60Ω, 3W	056-046800				MR100P
R30	Blue Horiz. Lines (Top)	60Ω, 3W	056-046800				MR100P
R31	Blue Horiz. Lines (Left)	60Ω, 3W	056-046800				MR100P

† "CONCENTRIKIT" Equivalent: K-15 Kit with Base Elements and Shafts: B17-208, P22-109 (Panel), B17-103, P26-121 (Rear). * "SNAPTROL" Equivalent: BU4, CF53, CR41, SF9, SR9, DC1.
†† "CONCENTRIKIT" Equivalent: K-8 Kit with Base Elements and Shafts: B11-130, P22-015 (Panel), B11-137, R15-005 (Rear), R5.
‡ "SNAPTROL" Equivalent: BU7, CF15, CR12, SF87, SR100.
‡‡ "CONCENTRIKIT" Equivalent: K-8 Kit with Base Elements and Shafts: B11-116, P22-021 (Panel), B11-137, R15-005 (Rear), R5.
§ "SNAPTROL" Equivalent: BU7, CF9, CR12, SF2, SR100.
§§ "CONCENTRIKIT" Equivalent: K-8 Kit with Base Elements and Shafts: B11-133, P22-021 (Panel), B11-116, R15-005 (Rear), R5.
¶ "SNAPTROL" Equivalent: BU7, CF16, CR8, SF2, SR100. ■ "STA-LOC" Equivalent: FA45L, RUI6L, OS437, IS437.
▲ "STA-LOC" Equivalent: FA512R, RU52L, OS312, IS1750. ■ "STA-LOC" Equivalent: FA55L, RUI53L, OS437, IS437.
▲ "STA-LOC" Equivalent: FA264L, RUI6L, OS300, IS437.
▲ Insulate control chassis and insulate original control terminal lead to metal case of control.
▲ Alternate Part used in Models W-7300/SL and W-7302/SL using Chassis 913-18740.
Part #055-047100 used in Models CF-7312, MS-7322, SP-7311, W-7310 and W-7320 using Chassis 913-000366.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA									
		IRC Part No.	WORKMAN Part No.	HOFFMAN Part No.			IRC Part No.	WORKMAN Part No.	HOFFMAN Part No.							
R53	10K 10W	PW10-10K	10W-SQ-10K	053-103110	R134	11K * 7W	PW10-10K	7G-10K	054-133710							
R56	6800Ω 3W	PW10-3300	3G-6, 8K	054-682310	R137	67msec, 6KV	MV-66M	66M	057-000400							
R75	3300Ω 10W		10W-SQ-3300	054-332110	R200	270Ω 3W	PW5-250	3G-270	054-271310							
R103	V.D.R. †		PW10-820	10G-800	054-821710	R205	2700Ω 3W	PW5-2500	3G-2, 7K	054-272310						
	1480V, 10ma			7G-1, 2K	054-122710	R206	5600Ω 4W	PW5-6000	4G-5, 6K	054-562410						
R104	820Ω 7W	PW10-1200		3G-1K	054-102310	R212	Thermistor (120Ω Cold)	FR922	057-001200							
R105	1200Ω 7W	PW5-1000		FS103	057-001501	R213	V.D.R. †	FR066	057-001300							
R107	1000Ω 3W	FR4.5	Part of Yoke	057-001600	R217	20V @ 67ma	2C-1500	2W-SQ-1.5K	057-142310							
R111	V.D.R. †				PFS308	057-001600				R219	3300Ω 3W	PW5-3300	3G-3, 3K	054-332310		
R113	175V @ 1ma									PFS308	057-001600	R220	1400Ω 20W	PW10-820	10G-800	054-821710
	Thermistor (4, 2Ω Cold)											PFS308	057-001600	R221	820Ω 7W	PW5-700
R122	V.D.R. †															
	110V															

† Voltage Dependent Resistor

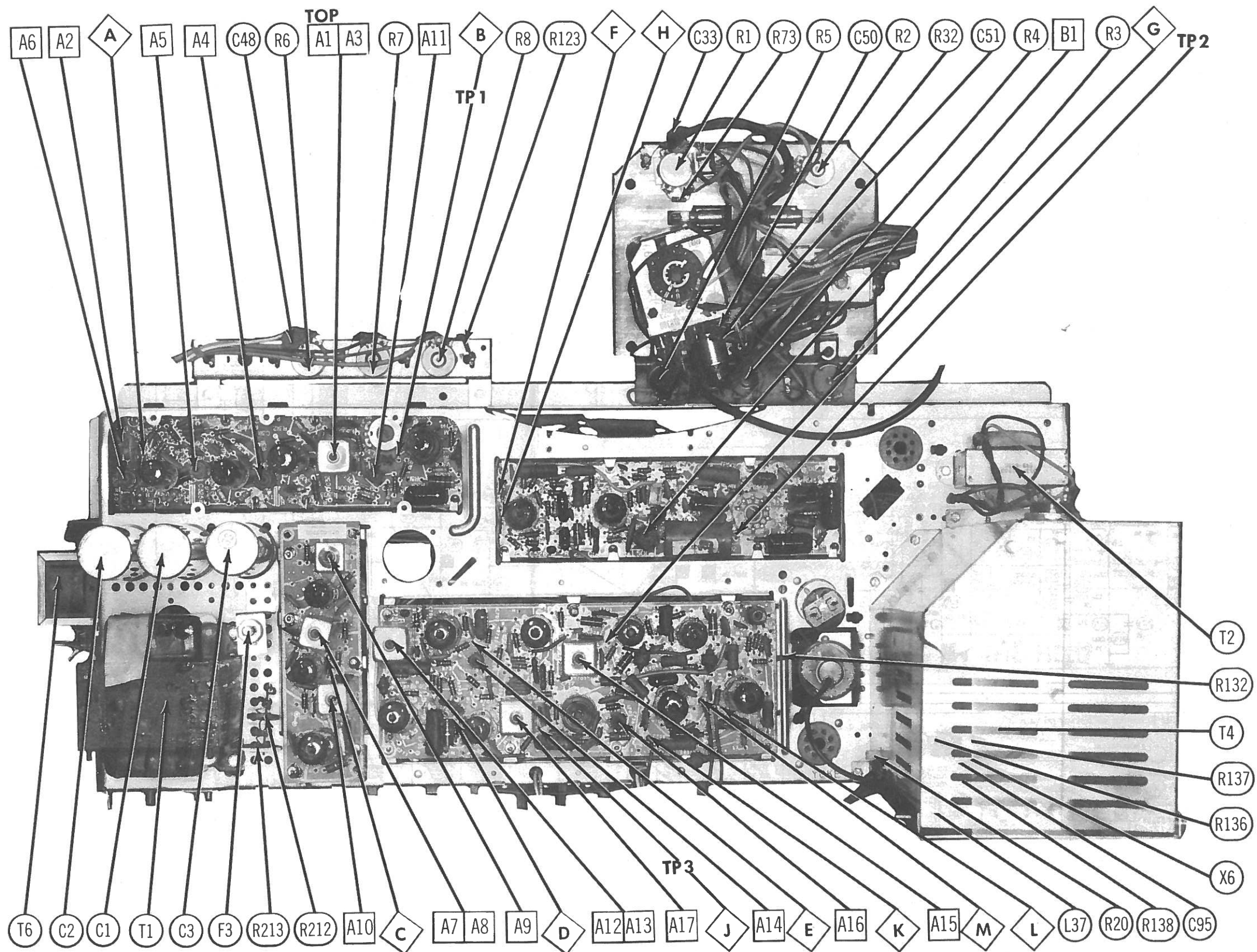
* Alternate 13K, PW10-12.5K, 7G-13K
IBC Workman

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				
		HOFFMAN PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	WORKMAN PART No.
L1	47.25MC Trap	109-022200			7553	TA260
L2	1st Video IF	109-022100	17-3418		7549	T272
L3	2nd Video IF	109-022400	17-3419		7552	TB644
L4	3rd Video IF	109-022300	17-3414		7526	TA258
L5	4th Video IF	109-023300			6037	
L6	RF Choke (12uh)	111-021300	19-2016	BC-566	72F125AP	TA823
L7	4.5MC Trap	109-023400			7142	TA264
L8	Peaking (62uh)	111-022800	19-2030	TV-205	6178	T323
L9	Peaking (86uh)	111-021700	19-3036	TV-180	6178	T301
L10	RF Choke (5,6uh)	111-021200	19-1008	BC-565	74F566AP	TA820
L11	Peaking (39uh)	111-021800	19-2028	TV-201	72F394AP	TA338
L12	Peaking (68uh)	111-021900 ①	19-3660 ▲	TV-206 ▲	72F684AP ▲	T327 ▲
L13	Peaking (72uh)	111-021500	19-3075	TV-186	6172	T303

HOFFMAN CHASSIS
913-000356/366, 913-187486

FOLDER 2

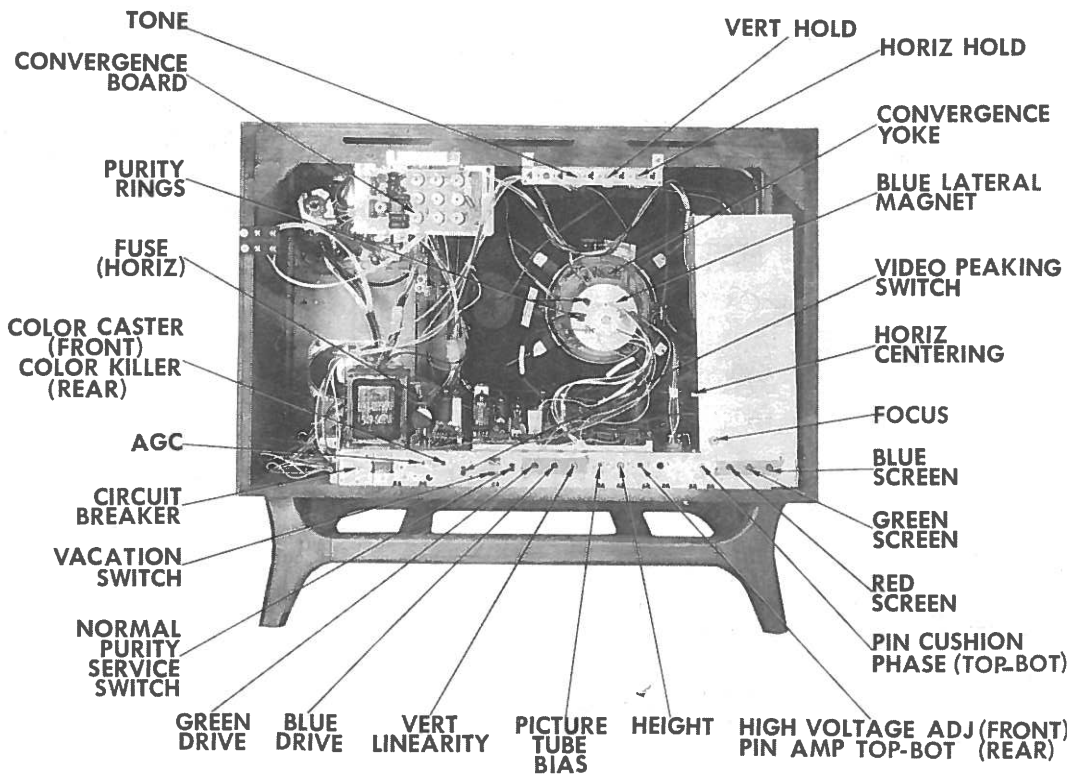


TP1 -.2V 1ST VIDEO AMP

TP2 65V CATHODE VERT OUTPUT

TP3 -.2V PHASE DETECTOR OUTPUT

CHASSIS - TOP VIEW



CABINET-REAR VIEW DISASSEMBLY INSTRUCTIONS

TV CHASSIS REMOVAL

1. Remove 9 screws and 2 spring clips holding back cover and remove back cover. Remove all knobs.
2. Disconnect yoke plug, loosen hex screws holding the convergence board to the cabinet and remove from cabinet. Remove picture tube socket and loosen the hex head screw at the purity ring and blue lateral assembly and slide the assembly from the picture tube. Then slide the convergence yoke assembly from the picture tube.
3. Remove 2 screws holding control mounting bracket to the cabinet. Disconnect automatic degaussing assembly, speaker leads, antenna leads from tuners, high voltage lead, and 2 spanner nuts from the control panel. Remove the nut from tuner bracket at the back of the set.

4. Remove 4 screws holding chassis to the cabinet and slide the tuner, controls and chassis from the cabinet.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" procedure. Lay set face down on a soft protective surface.
2. Remove 2 screws holding purity shield and degaussing assembly. Slide assembly from tube and remove dag ground spring.
3. Loosen screw and nut holding tube mounting strap. Then remove strap from corner brackets.
4. Remove 8 screws holding corner brackets to picture tube mask and lift out picture tube. Do not lift out by the neck of the tube.

NOTE: Some models use bonded picture tube and have no safety glass.

