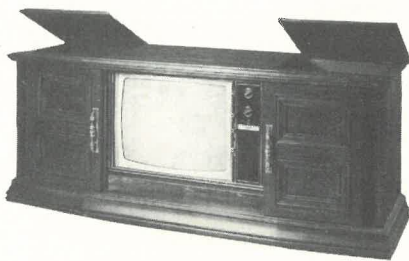


PHOTOFACT® Folder

with CIRCUITRACE®



For Supplier Address See PHOTOFACT Index

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**BRADFORD MODELS WTG-59204A, WTG-59253A,
WTG-59261A, WTG-59279A, WTG-59287A**
COLOR TV

MODEL WTG-59204A

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-Stereo Radio .. SET 1210, FOLDER 1-A

BRADFORD MODELS WTG-59204A, WTG-59253A,
WTG-59261A, WTG-59279A, WTG-59287A**MODELS**

WTG-59204A
1105A32 (WTG-59253A)
1105B32 (WTG-59261A)
1105C32 (WTG-59279A)
1105D42 (WTG-59287A)

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**CRT IMPLOSION PROTECTION AND CLEANING**

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A circuit breaker is used for low-voltage power-supply protection. (See Cabinet-Rear View photo.)

A 1" length of #28 fuse wire is used for CRT filament protection. (See Tube Placement Chart.)

A 1-1/2" length of #24 fuse wire is used for filament protection. (See Tube Placement Chart.)

VHF TUNER

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

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of

the horizontal oscillator coil (hold). (See Cabinet-Rear View photo.)

WIDTH

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

FOCUS

The focus may be varied by means of a focus control. (See Cabinet-Rear View photo.)

AGC

The AGC may be varied by means of an AGC control. (See Tube Placement Chart.)

CENTERING

Horizontal centering is accomplished by proper adjustment of the horizontal centering control. (See Tube Placement Chart.)

Vertical centering is accomplished by proper setting of the vertical centering control. (See Cabinet-Rear View photo.)

BRADFORD MODELS WTG-59204A, WTG-59253A,
WTG-59261A, WTG-59279A, WTG-59287A**REMEMBER TO ASK— "What else needs fixing?"****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.

1PB262 10 9 8 7 6 5 4 3 2 1 0

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Printed in U. S. of America.

DATE 11 -71

SET 1 2 10 FOLDER 1

TROUBLESHOOTING CHECK CHART

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

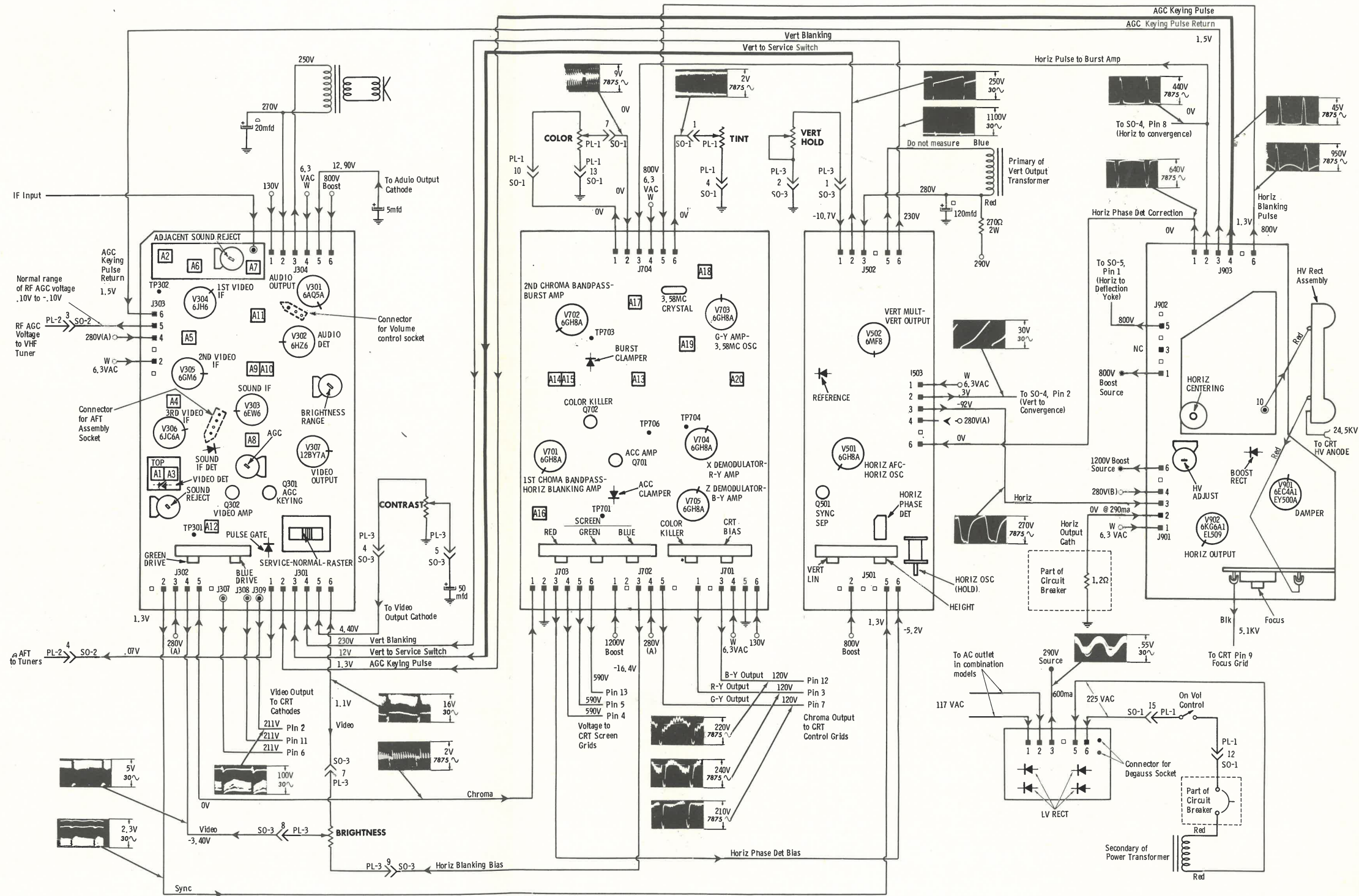
SWEEP
V501, V902, V901
No raster, has sound and VM101, V101.
No vert. deflection V502
Poor vert. lin. or foldover V502.
Poor horiz. lin. or foldover V902, V901.
Narrow picture SD1101 thru SD1104, V501, V902, V901.
Vert. off freq. V502.
Horiz. off freq. V501, CR501.

PICTURE or SOUND
No pic, no sound, no raster CB101, F101, F102
No pic, no sound, has raster V304, V305, V306, V702.
No pic, no sound, has snow V201, V202.
No pic, has sound, no raster V307, V101.
No pic, has sound, has raster V302, V307
Has pic, no sound V303, V302, V301.
Overloaded picture Q301, CR302.
Low or excessive brightness V701.

COLOR (B/W operating normally)
No color Q702, V702, V701.
Weak color V701, V702.
No color sync V702, V703.
No blue V705
No red V704
Incorrect hue (tint) V702, V704, V705.

RASTER
Yellow - no blue V705, V101
Cyan - no red V704, V101
Magenta - no green V703, V101

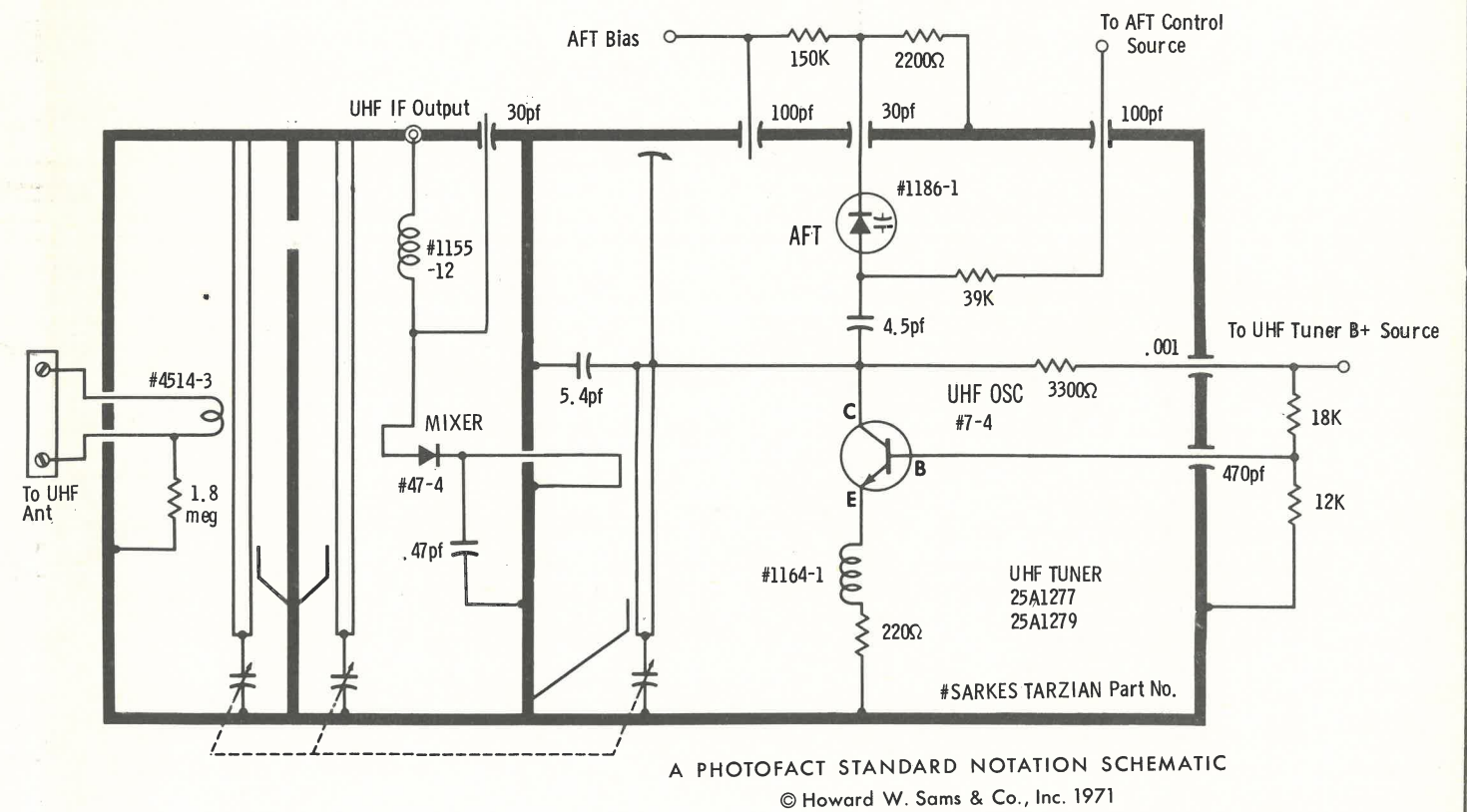
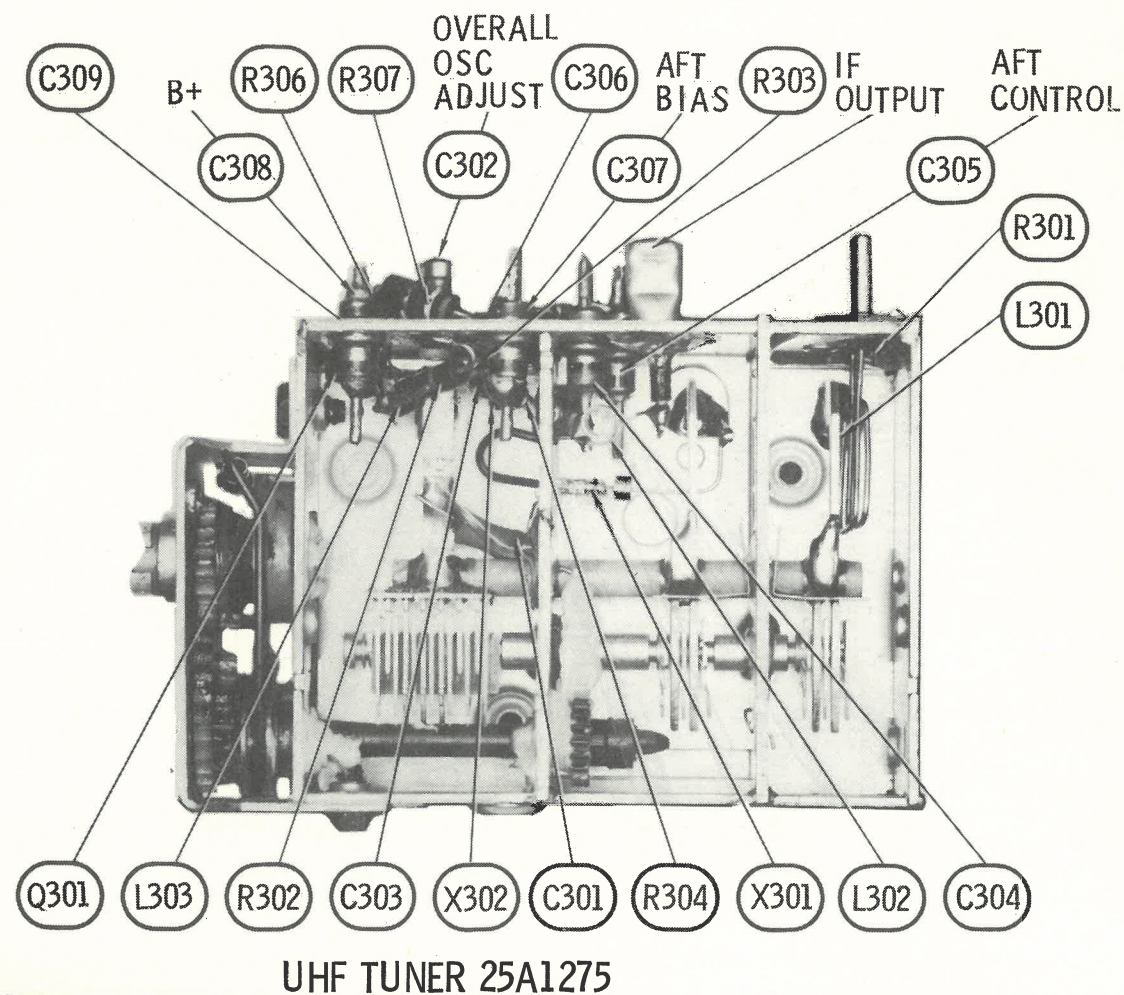
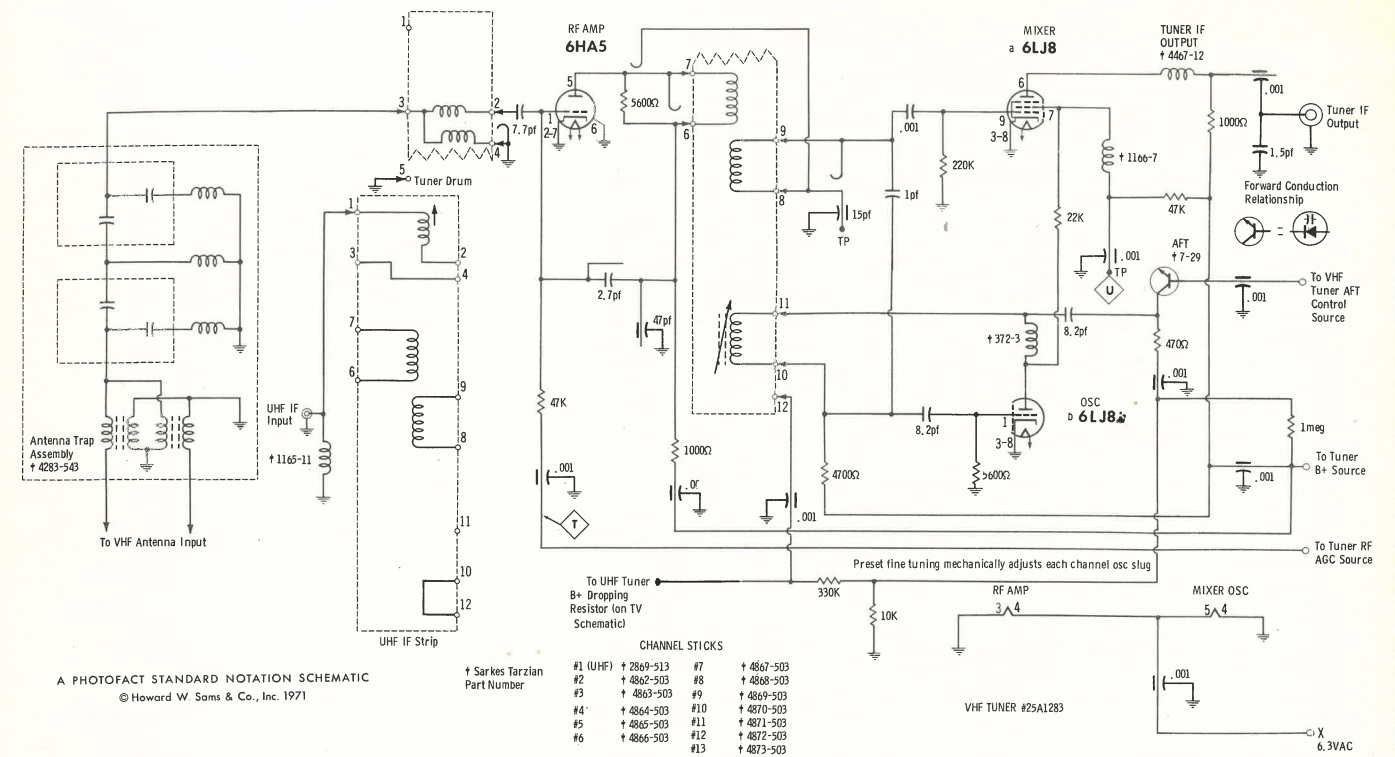
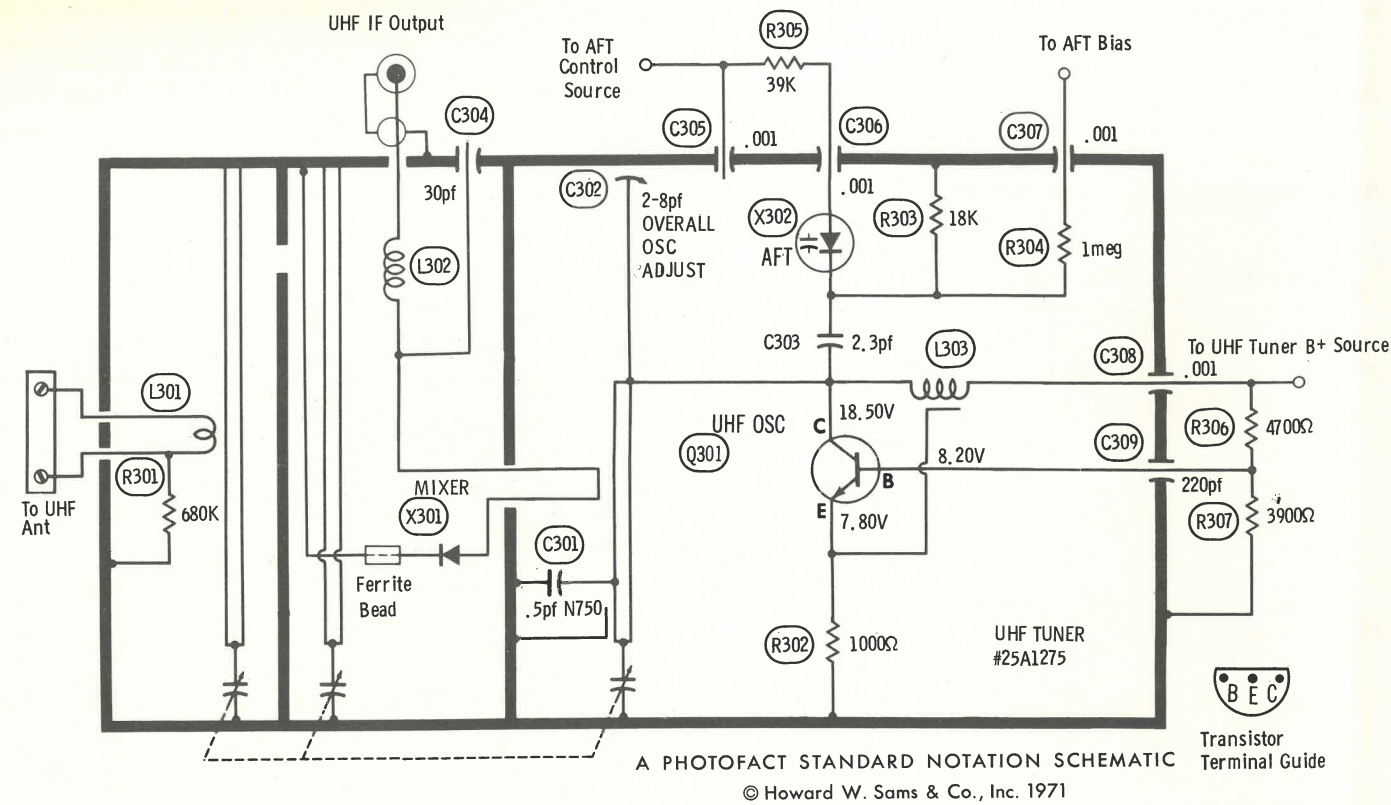
SYNC
No vert. sync V502.
No horiz. sync V501, CR501.
No vert. or horiz. sync Q501



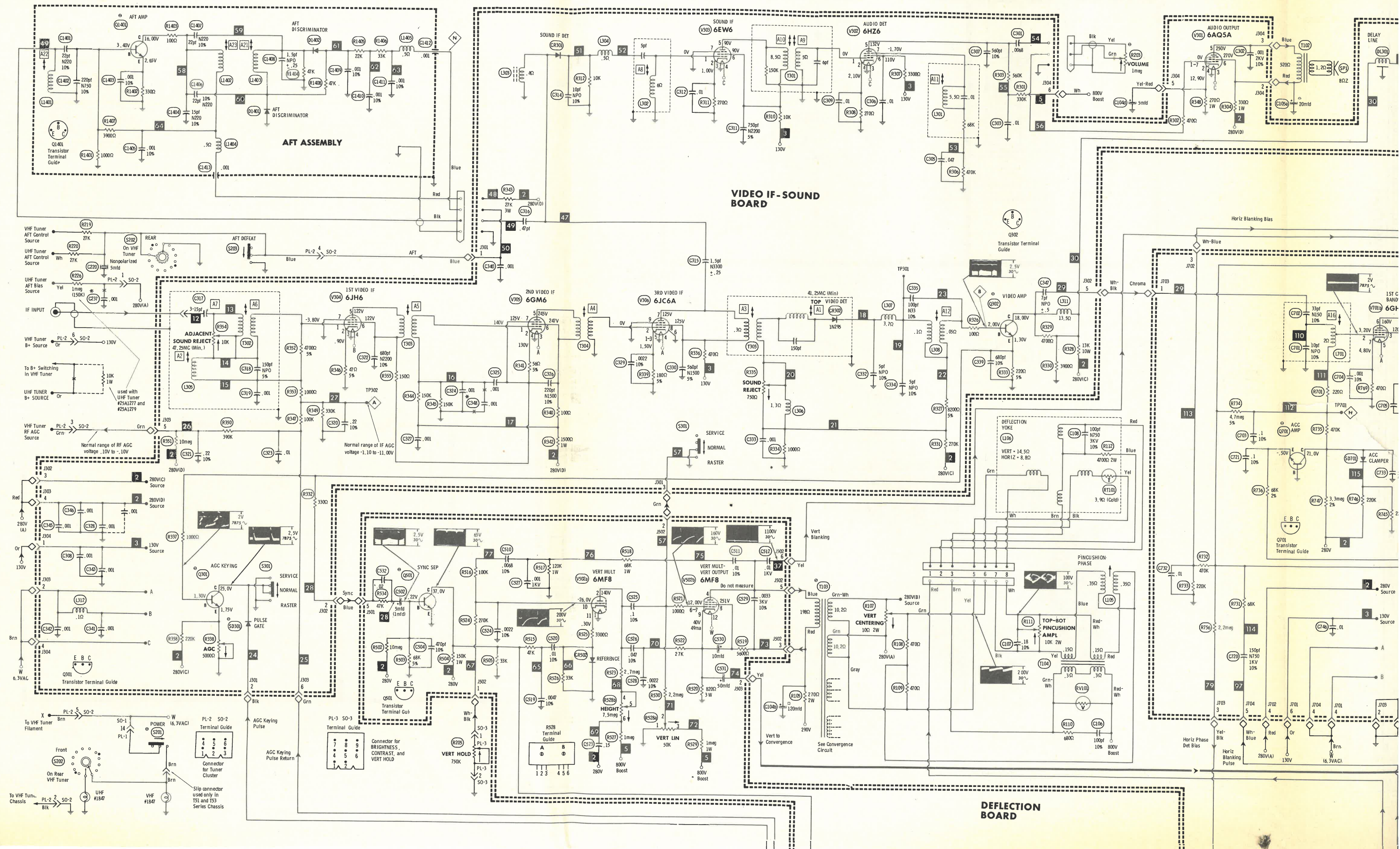
TUBE PLACEMENT CHART

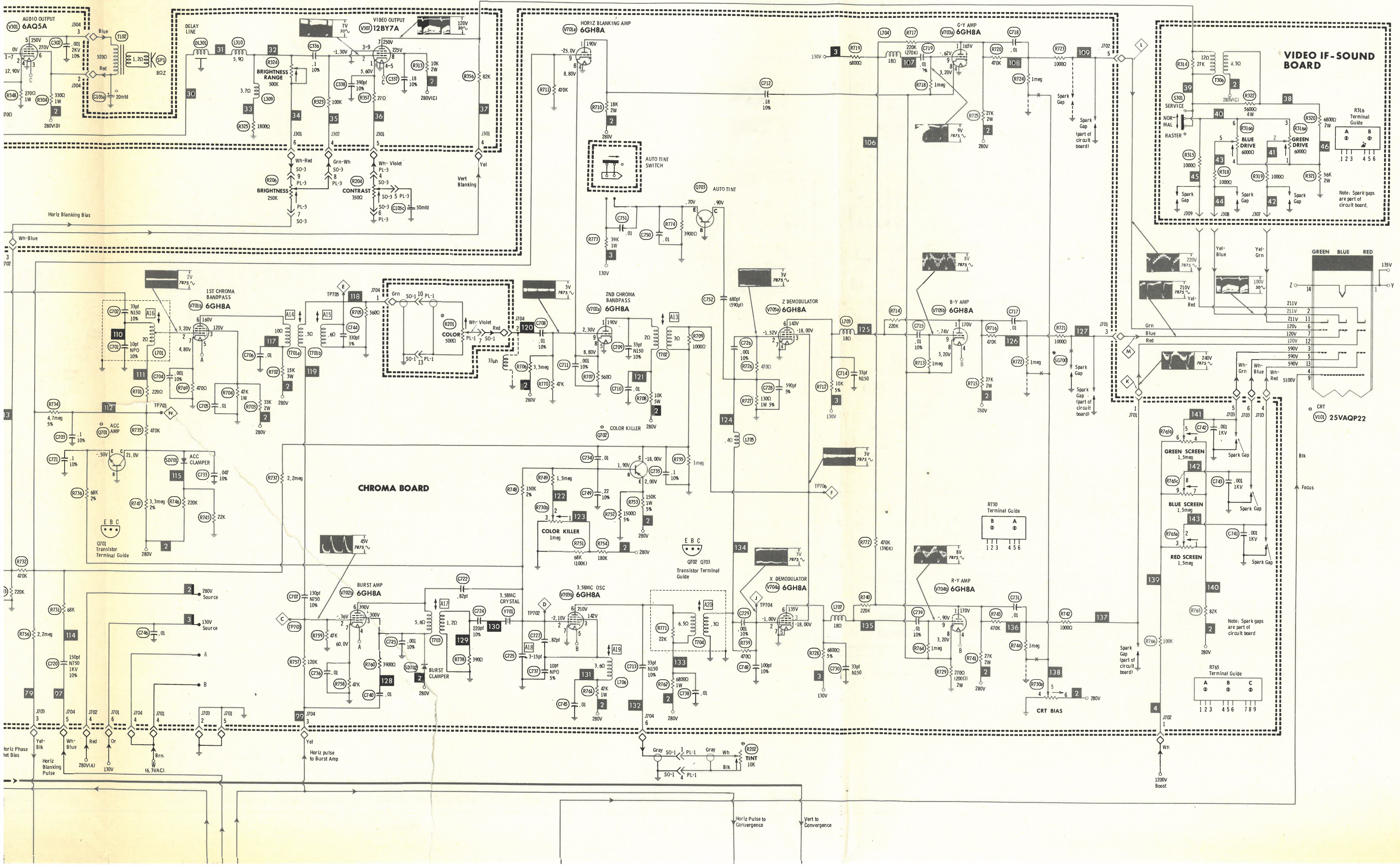
BRADFORD MODELS WTG-59204A, WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

VHF TUNER 25A1283



UHF TUNER 25A1277, 1279





B+ Sources	Connection Reference	Component Location
290V	R105	VOT
280V(A)	J302-2	
280V(A)	J303-4	
280V(A)	Pin 1, SO-2	UHF AFT Bias
280V(A)	J302-4	
280V(B)	J303-1	
130V	J304-1	
130V	Pin 6, SO-2	VHF B+ CRT
135V	Pin 1, V101	Power Trans
800V Boost	J304-6	
800V Boost	T104	
1200V Boost	J501-2	
	J702-1	

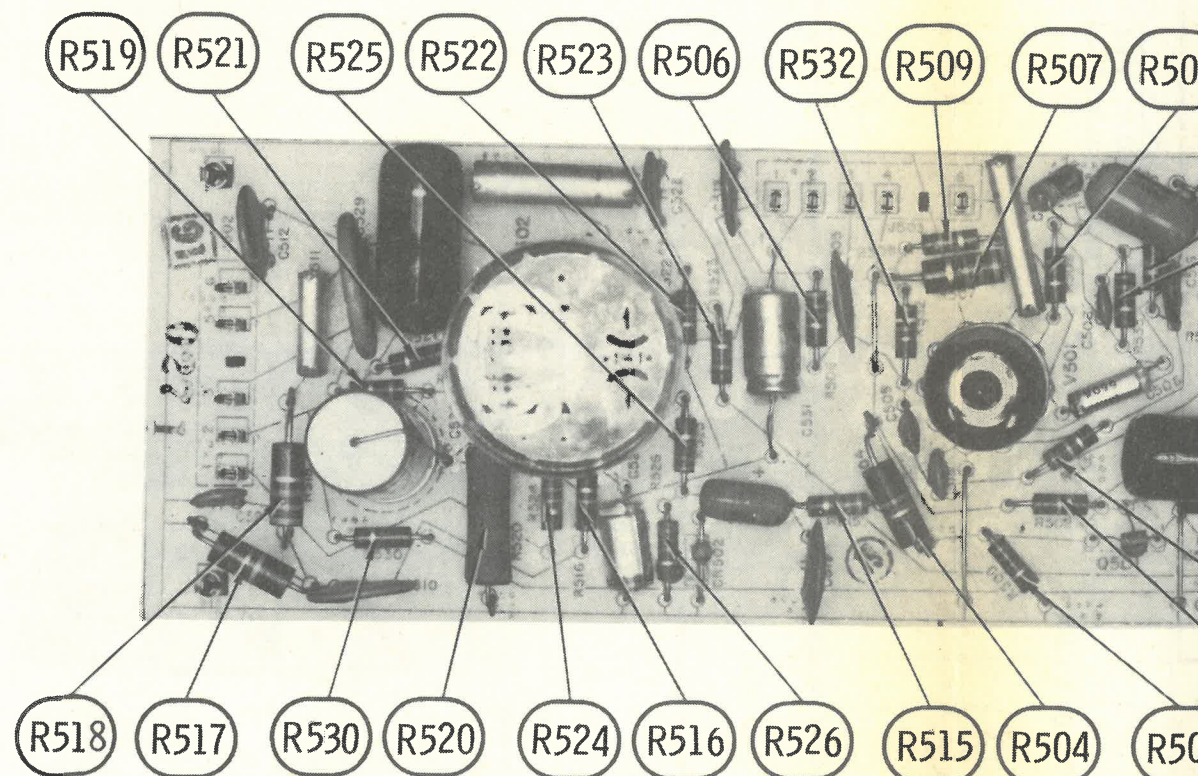
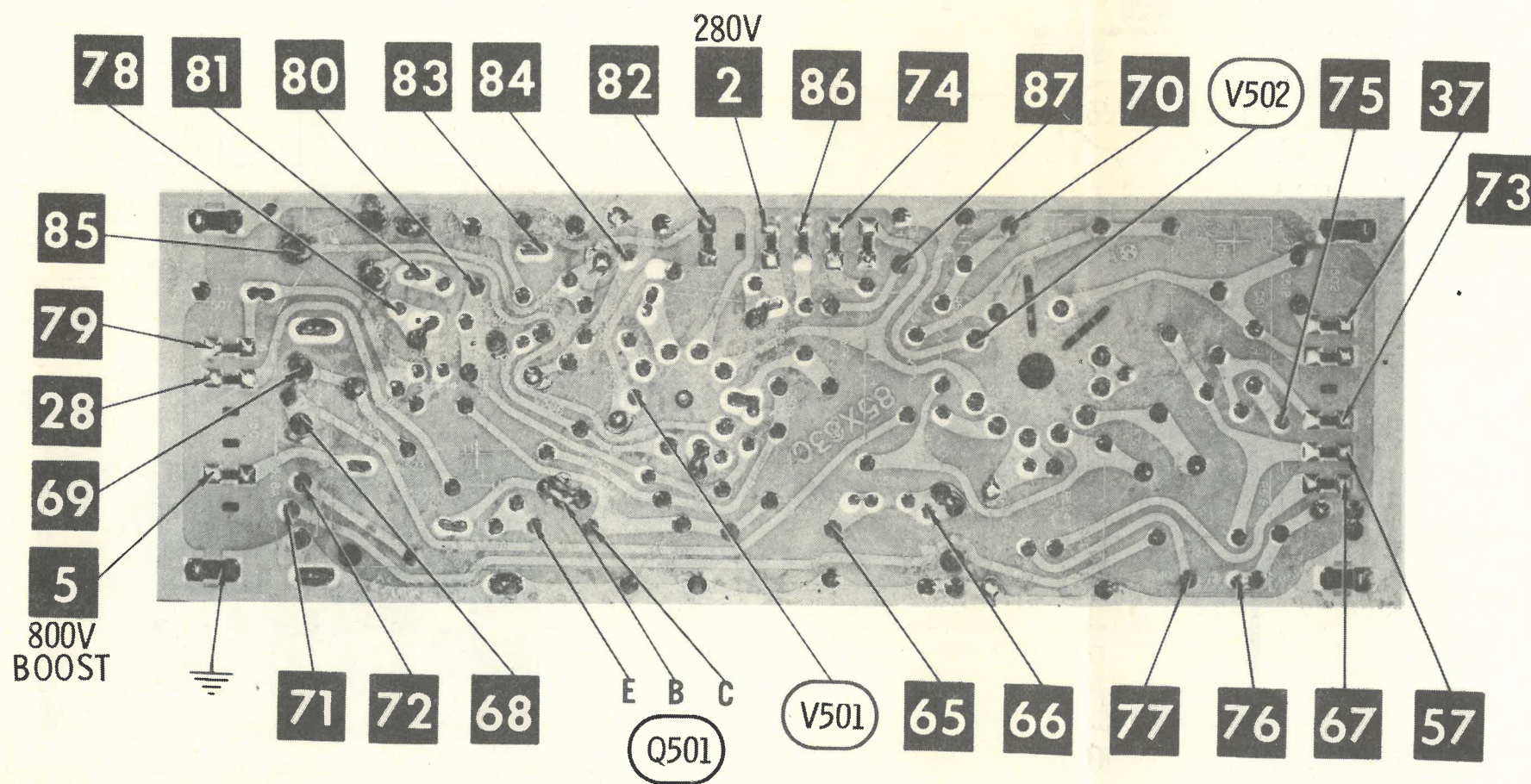
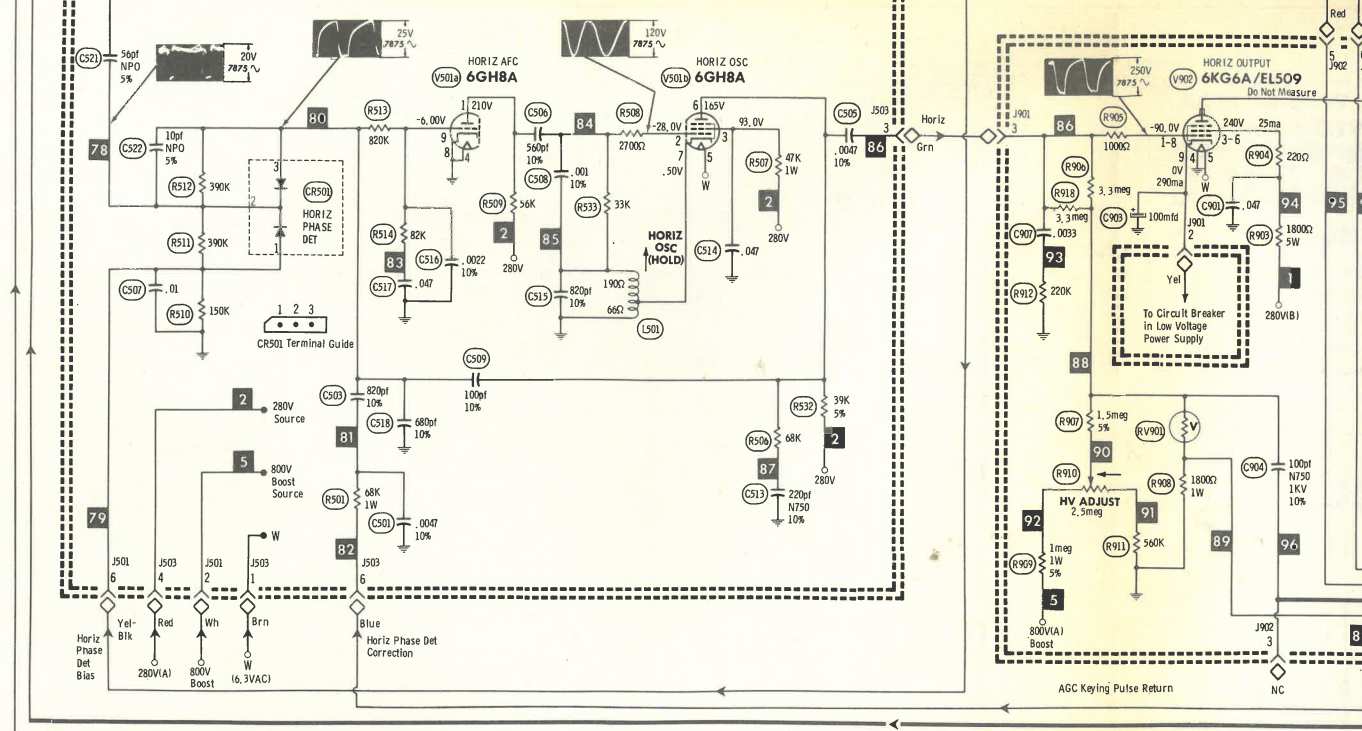
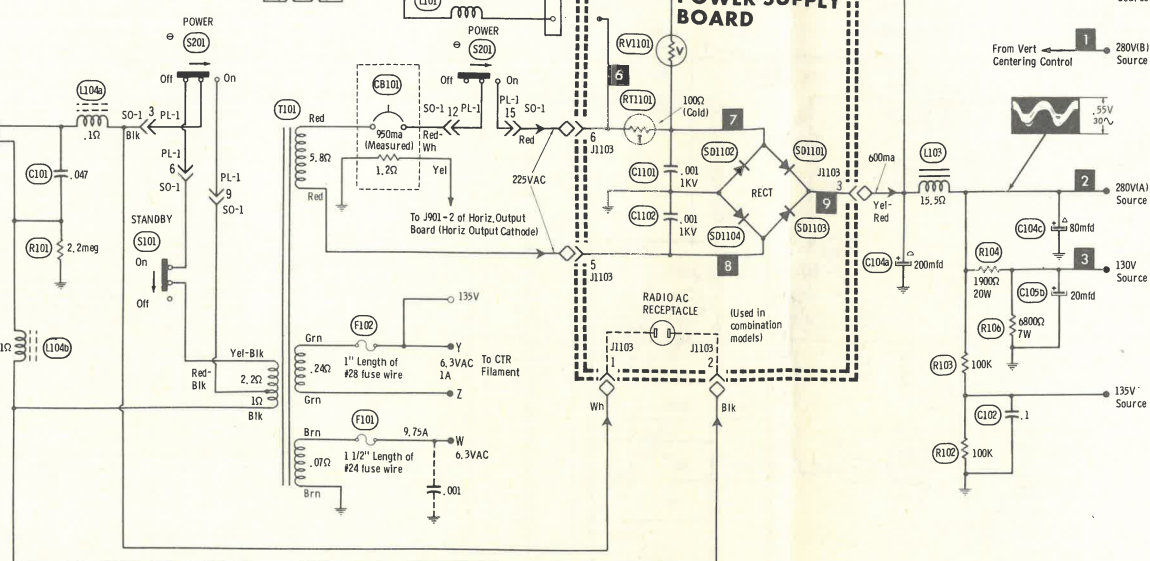
Waveforms other than chroma taken with monochrome test pattern. Controls adjusted for 100V peak-to-peak signal at CRT cathodes. Chroma circuit waveforms taken with WIDE-BAND SCOPE. Controls adjusted for proper KEYED RAINBOW display on CRT.

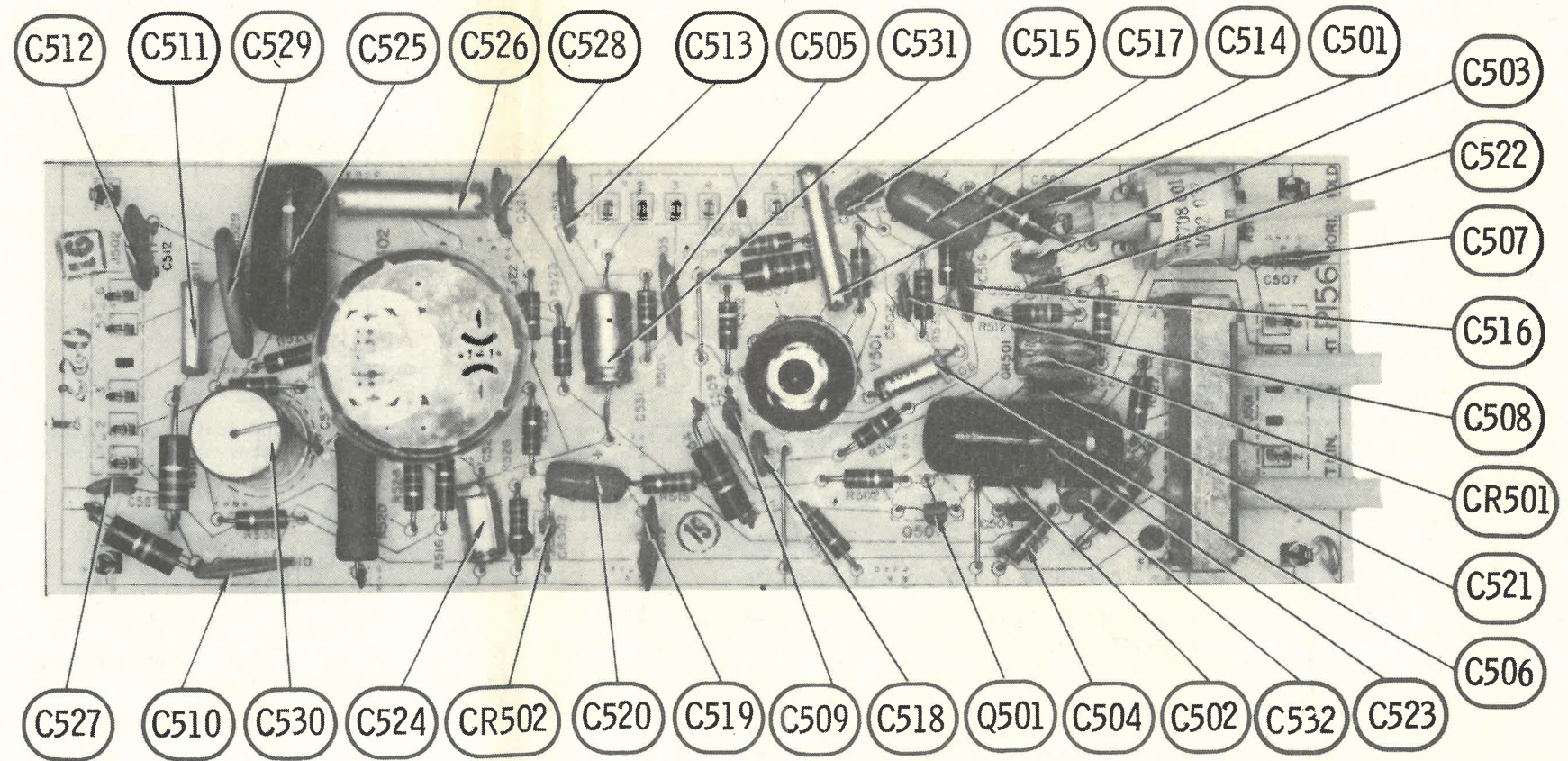
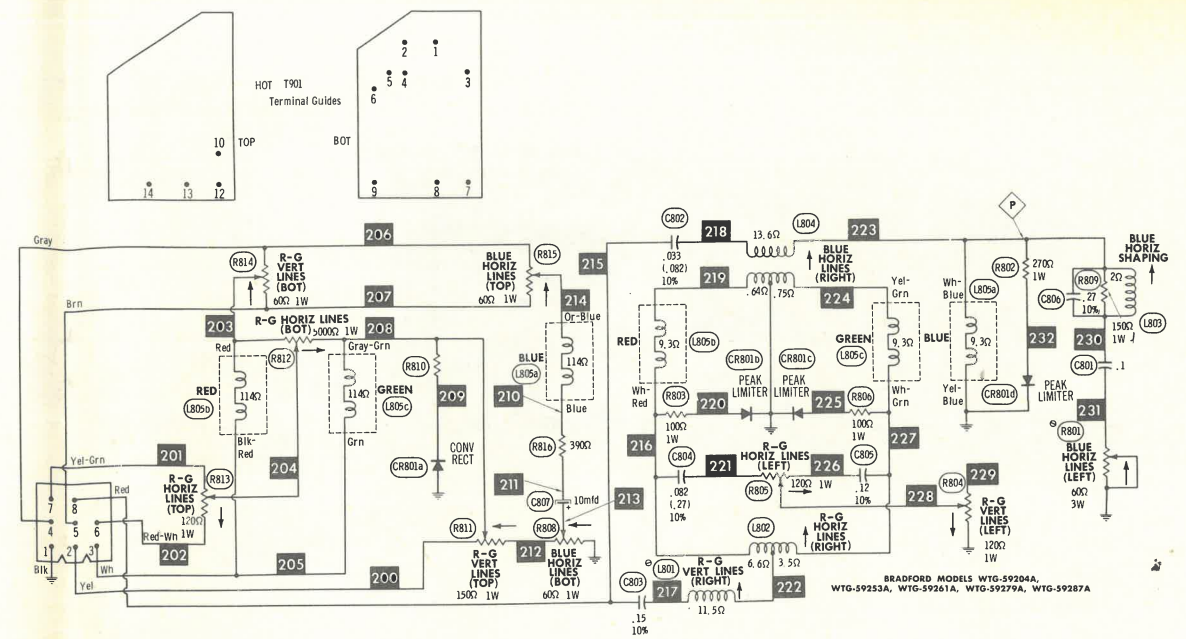
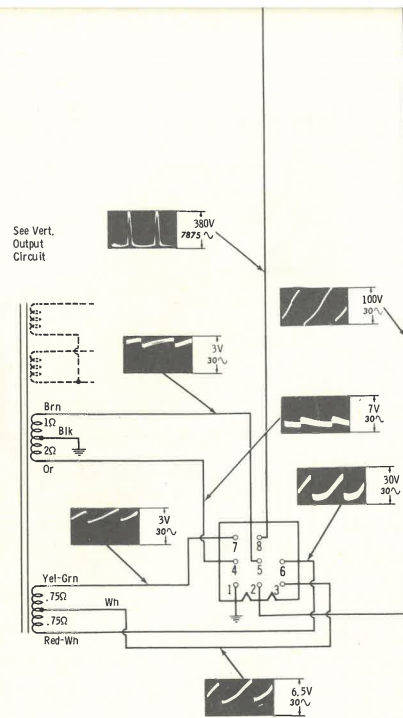
• Denotes ground. (Measurement reference unless otherwise indicated)
 --- Indicates connection used in some versions.
 * Indicates connection not used in some versions.
 • Omitted in some versions.
 • See parts list.
 Values shown in () are used in some applications.
 Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.
 Supply voltage maintained at rated value for measurements.
 Voltage and resistance measured with VTVM or equivalent meter, no signal applied and controls adjusted for normal operation.
 Controls viewed from actuator end. Arrow indicates clockwise rotation.
 Numbers assigned to terminals may not be found on the unit.

A PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITRACE
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PL-1 SO-1 Terminal Guide

Connector for AC Switch, Color and Tint





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RESISTANCE MEASUREMENTS

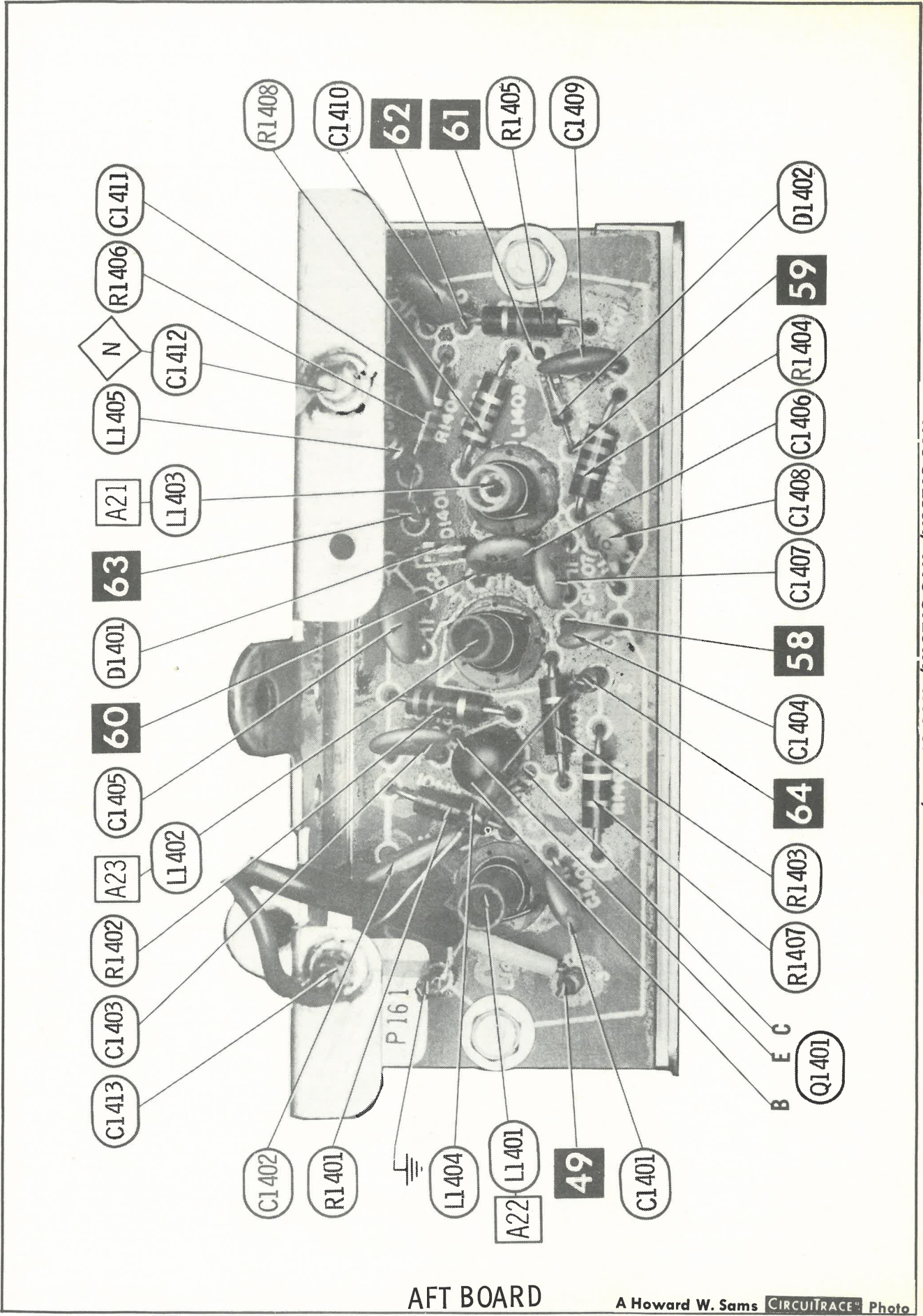
ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	PIN 14
V101	FIL	4500Ω †	33K †	50K †	50K †	5500Ω †	33K †		55meg		5500Ω †	33K †	50K †	FIL
V301	100K	390Ω	FIL	FIL	700Ω †	345Ω †	NC							
V302	.5Ω	270Ω	FIL	FIL	900K ††	5200Ω †	470K							
V303	.5Ω	270Ω	FIL	FIL	10K †	10K †	0Ω							
V304	330K	47Ω	FIL	FIL	200Ω ▲	200Ω ▲	0Ω							
V305	70K	INFINITE	FIL	FIL	1600Ω †	1600Ω †	INFINITE							
V306	180Ω	.1Ω	180Ω	FIL	FIL	0Ω	2300Ω †	2300Ω †	0Ω					
V307	377Ω	250K	0Ω	FIL	FIL	0Ω	3600Ω †	10K †	0Ω					
V501	56K †	36K	47K †	FIL	FIL	39K †	65Ω	0Ω	1.8meg					
V502	FIL	7meg	NC	450Ω †	NC	2.6meg	2.6meg	5900Ω †	820Ω	700K	36K †	FIL		
V701	18K †	2.2meg	20K	FIL	FIL	15K †	470Ω	560Ω	220K					
V702	10K †	47K	*	FIL	FIL	*	47K	560Ω	47K					
V703	27K †	1.9meg	47K †	FIL	FIL	6800Ω †	0Ω	270Ω	1meg					
V704	22K †	470Ω	550K †	FIL	FIL	8200Ω †	0Ω	270Ω	1meg					
V705	22K †	470Ω	550K †	FIL	FIL	10K †	0Ω	270Ω	1meg					
V901	NC	11Ω †	NC	FIL	FIL	NC	NC	NC	NC					TOP CAP 850K
V902	NC	0Ω	1900Ω †	FIL	FIL	NC	NC	4.5meg	2Ω					TOP CAP 17.5Ω ††
TUNER V201	800K	0Ω	FIL	FIL	2000Ω †	0Ω	0Ω							
TUNER V202	0Ω	220K	0Ω	FIL	FIL	2900Ω †	6000Ω †	12K †	47K					

MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS

ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
Q301	1500Ω	1200Ω	*		Q701	2meg	0Ω	2meg		UHF	Tuner			
Q302	220Ω	8500Ω	1200Ω		Q702	1800Ω	1.7meg	500K		Q301	1000Ω	3900Ω	8000Ω	
Q501	0Ω	27K	33K		Q1401	330Ω	1000Ω	4400Ω						

* READING DEPENDS UPON POLARITY OF METER CONNECTIONS.
† MEASURED WITH LOW POWER OHM METER
NC NO CONNECTION TP TIE POINT

† MEASURED FROM CATHODE OF 5D1101 AND 5D1103.
†† MEASURED FROM THE TOP CAP OF V901.
▲ MEASURED FROM PIN 2 OF V305.



AFT BOARD

A Howard W. Sams CIRCUITRACE® Photo

BRADFORD MODELS WTG-59204A,
WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain voltage at 117VAC.
Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: GENERAL CEMENT

A1 thru A12 8606, 8606L, 8869
Tuner IF Output Coil 9296, 9297, 9300
A13 thru A16 8606, 8869, 9302

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 that shown. Connect a -5 volt supply to Point A and a -15 volt supply to Point T, positive of supplies to ground. Disable mixer-oscillator tube, V202, by clipping Pin 9 of the tube. Disable horizontal sweep circuit by removing horizontal output tube, V902. Connect a 1500-ohm, 100-watt resistor from 280V source to ground.

INDICATOR	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
DC probe of VTVM thru 47K to Point B, common to ground.	High side to test point U on VHF tuner, low side to ground.		41.25MC 47.25MC	A1,R335 A2 ,R354	Adjust for MINIMUM.
Vertical input of scope to Point B, low side to ground.	High side to test point U on VHF tuner, low side to ground.	44MC (10MC Sweep)	41.25MC 42.17MC 44.00MC 45.75MC 47.25MC	A3,A4,A5, A6,A7, Tuner IF input coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 1.

SOUND IF ALIGNMENT

Tune in a station and adjust A11 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting A8, A9 and A10.

4.5MC 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 A12 for MINIMUM beat interference.

CHROMA BANDPASS ALIGNMENT

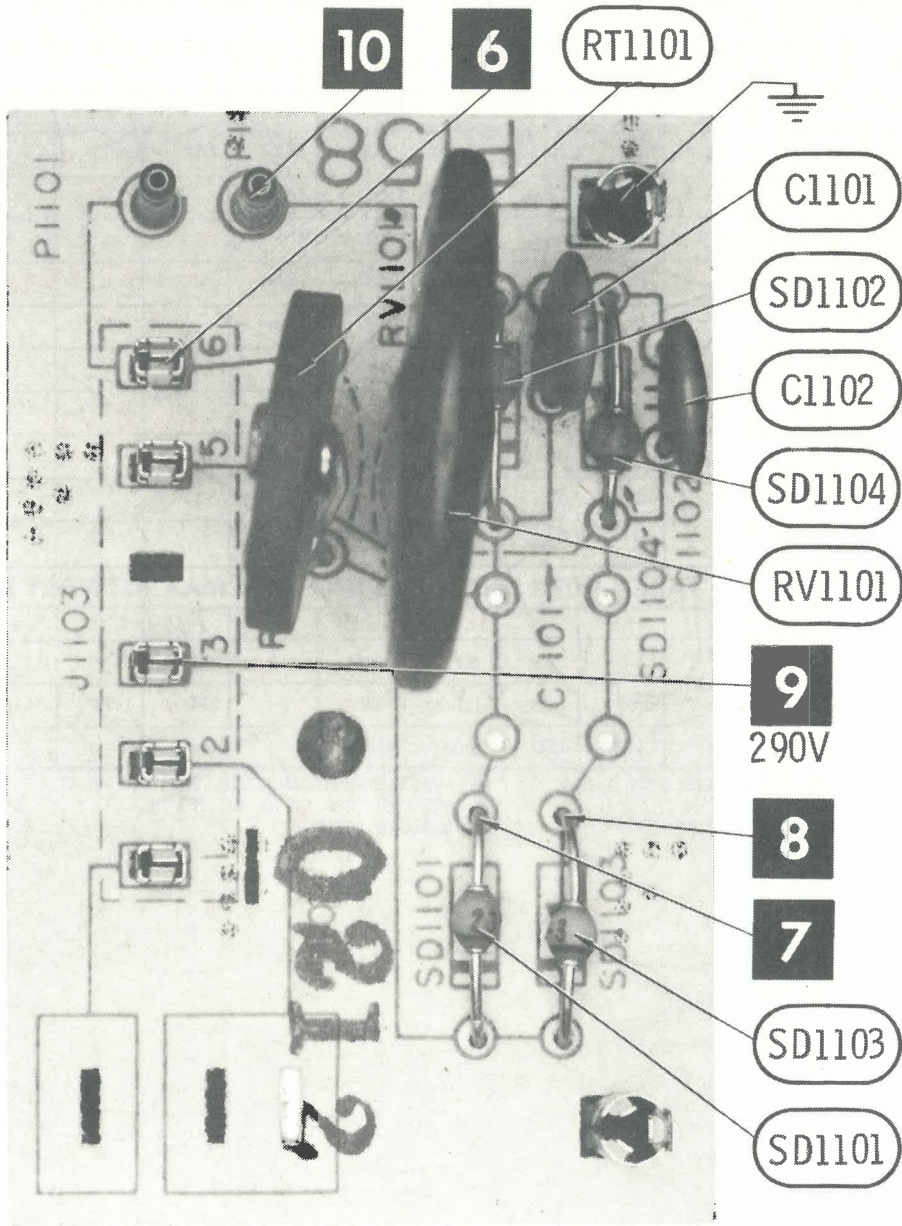
The following alignment will require the use of an RF modulator (RCA WG304B or equivalent). Connect a -5 volt supply to Point A, a -15 volt supply to Point T, and a -4 volt supply to Point H, positive of all supplies to ground. Turn the color intensity to maximum. Remove the horizontal output tube and connect a 1500-ohm, 100-watt resistor from 280-volt source to ground. Remove V703 and set color killer control fully clockwise.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CONNECT SCOPE	REMARKS
High side thru .1mfd to grid / of V701, 1st Chroma Bandpass Amp., low side to ground.	3.58MC (3-5MC Sweep)	3.08MC 3.58MC 4.08MC	Vert. amp thru detector probe to Point E, low side to ground.	Adjust A14 and A15 for response curve similar to Fig. 2.
High side of sweep generator 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 (3MC to 6MC Sweep)	3.08MC 3.58MC 4.08MC	Vert. amp thru detector probe to Point F, low side to ground.	Adjust A16 for response curve similar to Fig.3. If necessary, adjust A13 to flatten top of response.

AFT (TOUCHUP)

AFT ALIGNMENT

Tune in a TV station and set all controls for normal color reception. Pull out fine tuning control and adjust until the picture is herringbone. Carefully adjust the fine tuning control in the opposite direction until the herringbone condition of the picture just disappears. The fine tuning is now properly adjusted. Push the AFT switch to the On position. The quality of the picture or color intensity of the picture should not appreciably change. If a change occurs, slightly adjust A21 until the picture quality and color intensity are the same. While alternately moving the AFT switch On and Off and observing the picture, check all local color stations for proper AFT action.



POWER SUPPLY

A Howard W. Sams CIRCUITRACE Photo

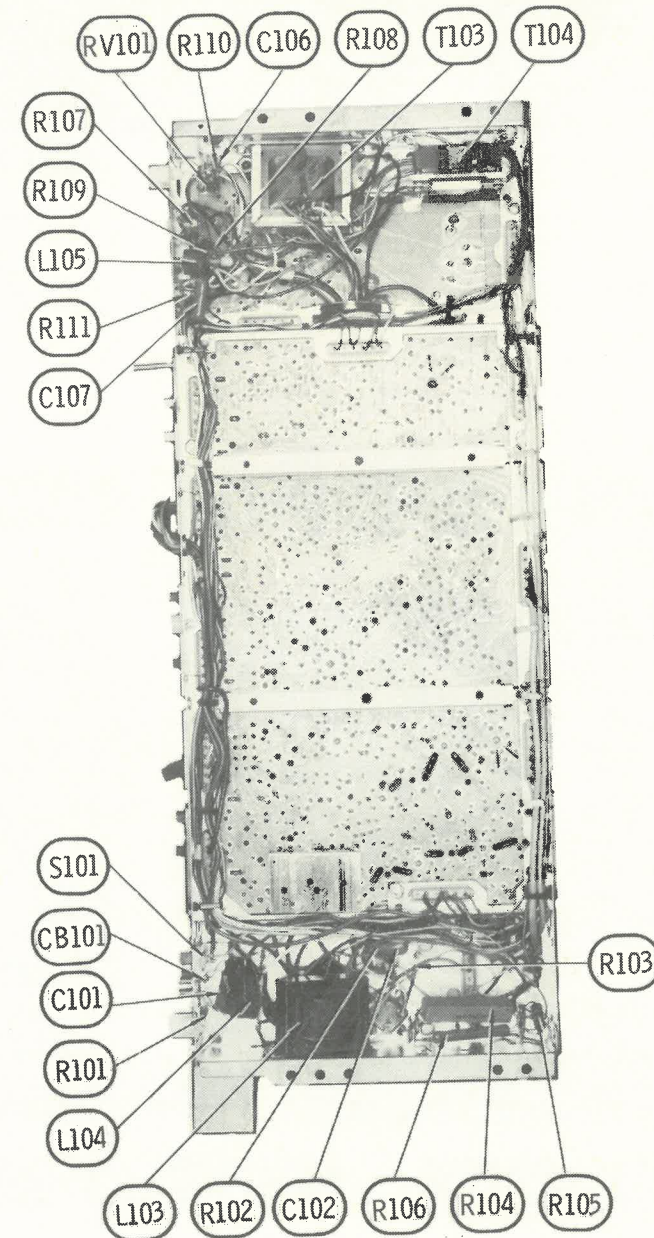
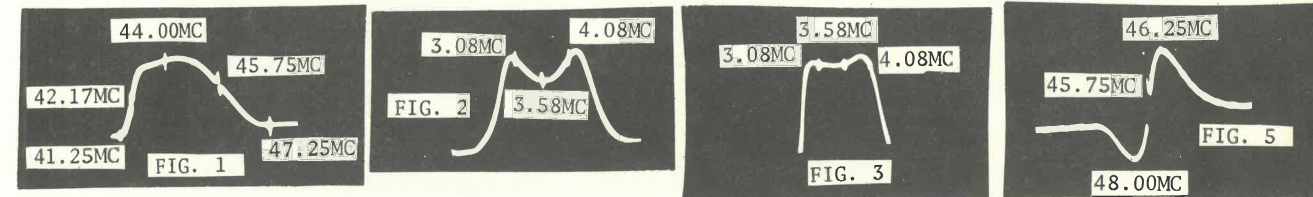
BRADFORD MODELS WTG-59204A,
WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1

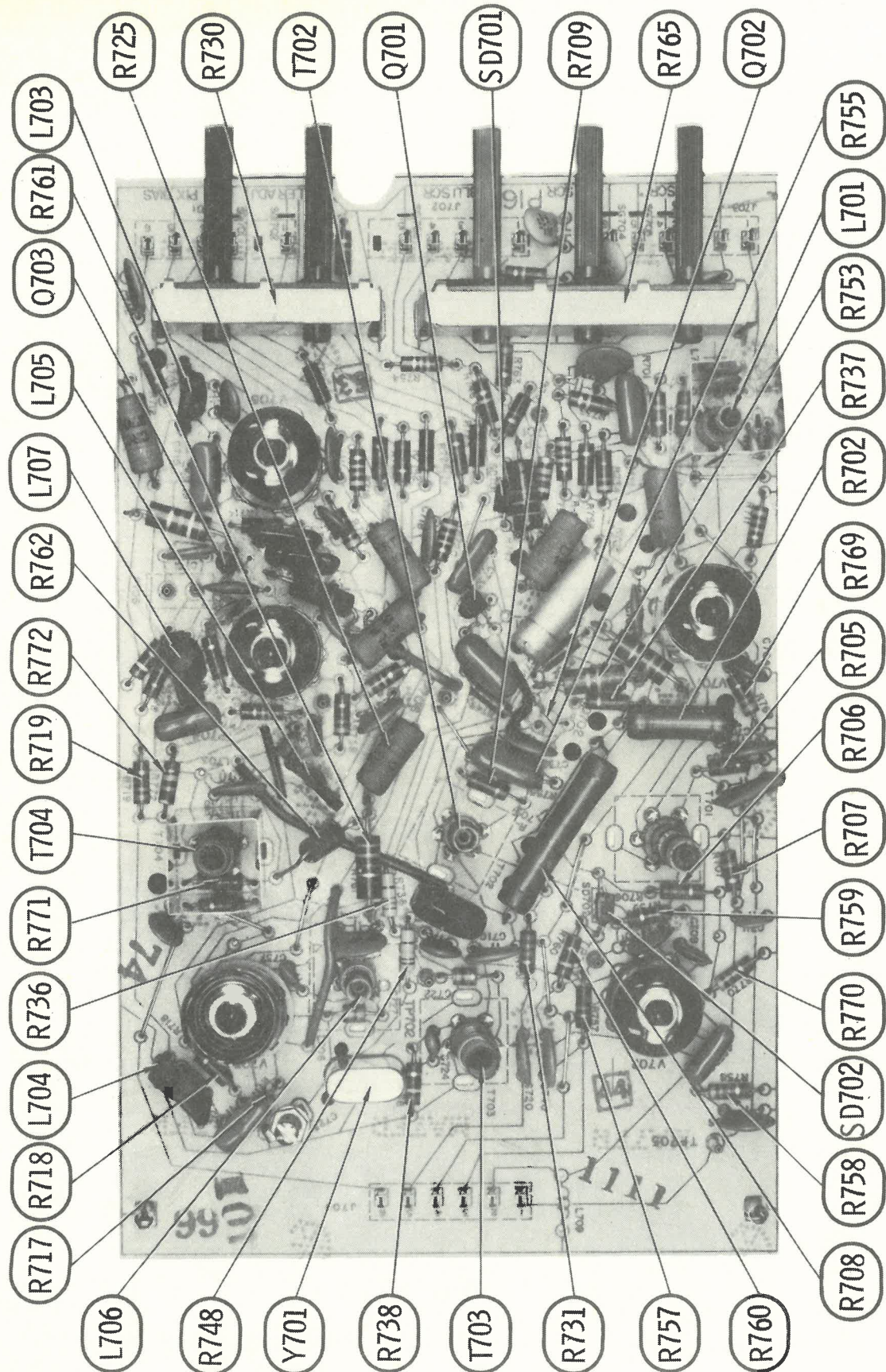
TV ALIGNMENT INSTRUCTIONS (Continued)

AFT ALIGNMENT

Suggested Alignment Tools: A21 thru A23 .. GENERAL CEMENT 9296, 9297, 9300
 Disable the horizontal sweep section of the set by removing horizontal output and connecting a 1500-ohm, 100-watt resistor from 280-volt source to chassis ground. Connect sweep generator high side to Point \diamond , low side to ground, on VHF tuner. Loosely couple marker generator cable to provide markers. Connect a -5 volts bias supply to Point \diamond and a -15 volts bias supply to \diamond . Disconnect lead at Point \diamond and connect oscilloscope high side to Point \diamond , low side to ground. Adjust A22 for maximum positive amplitude at 46.25MC. Adjust A23 for maximum negative amplitude of 45.00MC. Adjust A21 for proper crossover at 45.75MC marker as shown in Fig. 5. Repeat alignment if necessary. Reconnect lead at Point \diamond .



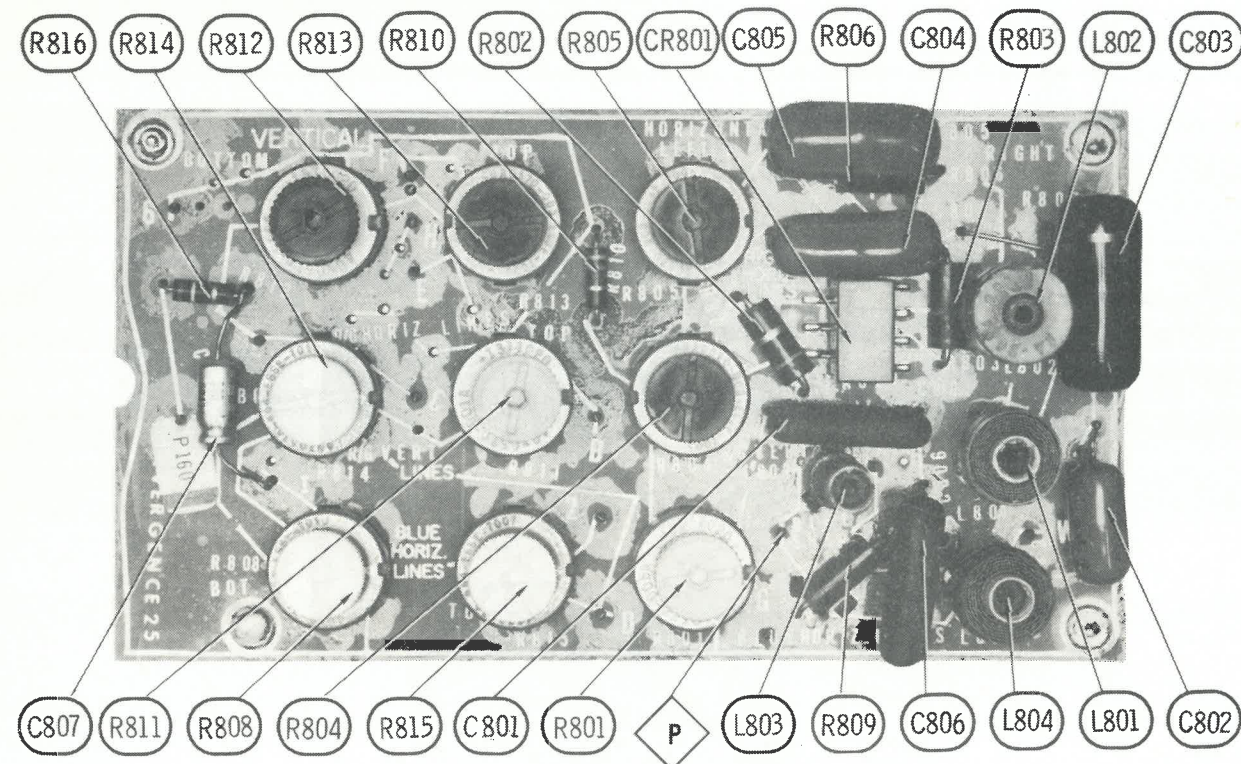
CHASSIS-BOTTOM VIEW



CHROMA BOARD

BRADFORD MODELS WTG-59204A,
 WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1



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 R811	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 R814	Red and Green Vertical bars at bottom of screen.	
4.	R-G Horizontal Lines, Top R813	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 R812	Red and Green Horizontal bars at bottom of screen.	
6.	Blue Horizontal Lines, Top R815	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 R808	Blue Horizontal bars at bottom of screen.	
8.			Perform Center Dot Static Convergence (Fig. A).
9.	Blue Horizontal Lines, Right L804	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 R801	Blue Horizontal bars at left side of screen.	
11.	R-G Vertical Lines, Right L801	Red and Green Vertical bars at right side of screen.	(Fig. E)
12.	R-G Horizontal Lines, Right L802	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 R804	Red and Green Vertical bars at left side of screen.	(Fig. E)
14.	R-G Horizontal Lines, Left R805	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).

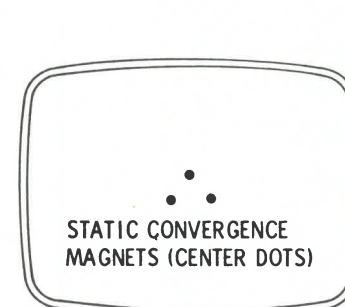


FIG. A

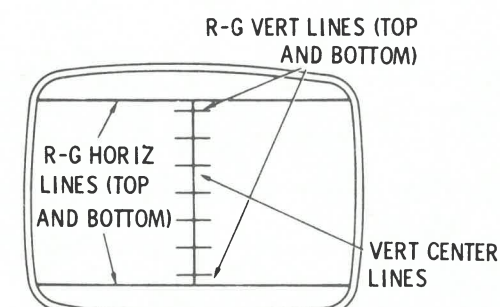


FIG. B
(RED AND GREEN ONLY)

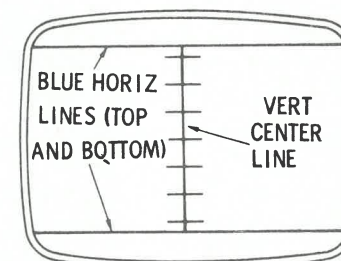


FIG. C
(BLUE BARS)

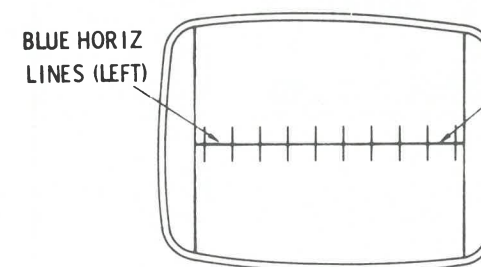


FIG. D
(BLUE BARS)

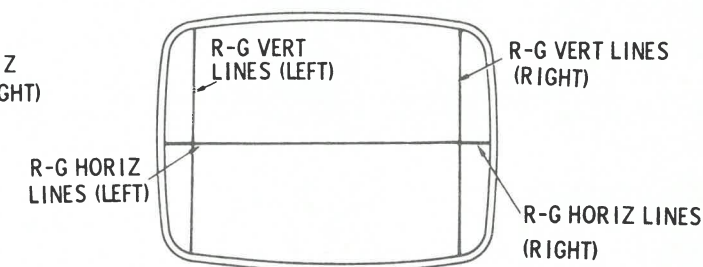
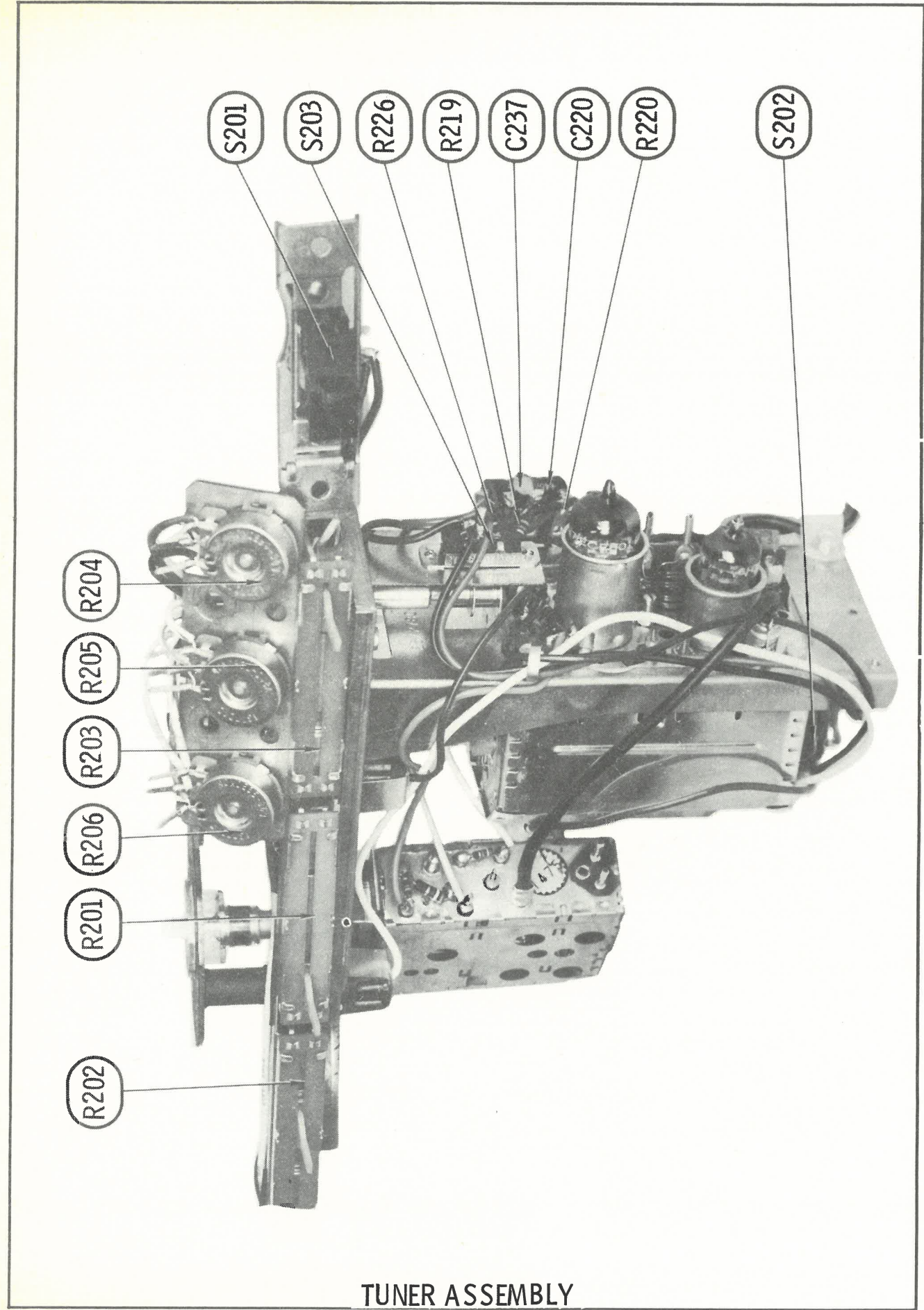
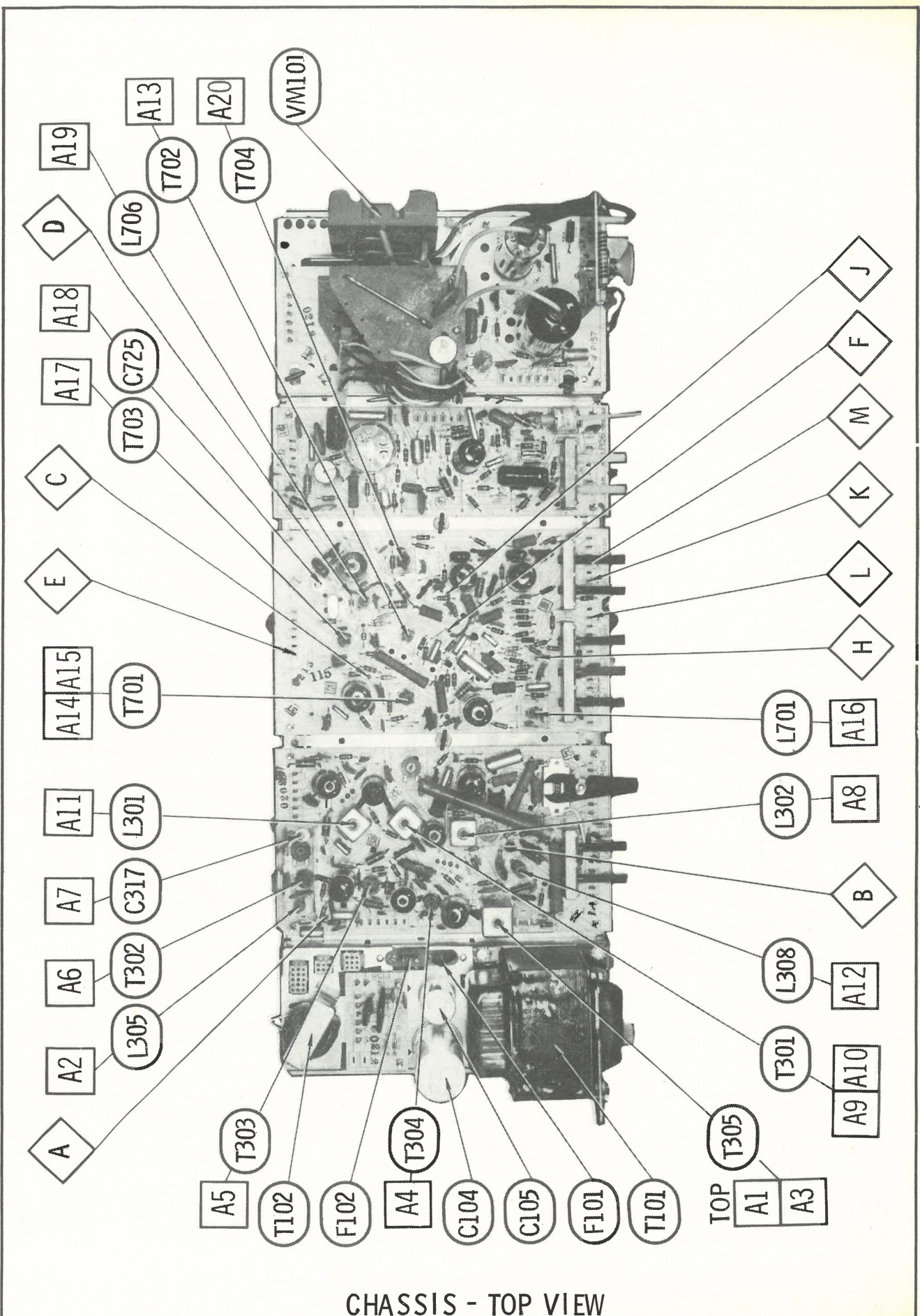


FIG. E



TUNER ASSEMBLY



CHASSIS - TOP VIEW

MISCELLANEOUS ADJUSTMENTS

HIGH VOLTAGE ADJUSTMENT

Place Service-Normal-Raster switch in Raster position. Turn Brightness control to MINIMUM. Adjust high voltage control for 25KV. Turn Brightness control to maximum and adjust the Brightness Range control for 23KV.

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: GENERAL CEMENT
A17, A19 and A20 8606, 8869, 9302
A18 8728A

Connect a color bar generator to the antenna terminals. Adjust receiver for normal color reception. Set the Killer control to fully clockwise. Set the Tint control to MINIMUM, Color control to maximum.

Short Point $\diamond H$ to ground. Ground Point $\diamond C$ through silicon diode (cathode to chassis). Connect VTVM to Point $\diamond D$ and adjust A17 for MINIMUM indication on meter. Keep core at bottom.

Adjust A18 until color bars stand still or drift slowly across screen. Remove shorts from Points $\diamond H$ and $\diamond C$. Connect DC VTVM to Point $\diamond J$. Adjust A19 for approximately -3 volts DC on VTVM, core at bottom. Adjust A20 for equal indication on VTVM at both extremes of Tint control (Tint control to mid-position).

Connect the vertical input of a scope to Point $\diamond K$. Check for proper waveform with the color bar generator being used. See waveform on schematic for pattern obtained from a standard keyed rainbow generator. Check the range of the Tint control. The bars should move 30° either side of proper signal. If necessary, retouch A20 for proper range of control.

Check for proper waveform at G-Y and B-Y outputs: Points $\diamond L$ and $\diamond M$. Tune in a weak signal or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust Killer control to eliminate the color in the snow. Check with a color signal to make sure the killer is not eliminating picture coloring.

PURITY ADJUSTMENTS

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

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

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

GRAY SCALE ADJUSTMENTS

Tune in a black and white picture or a color picture with the Color control set at MINIMUM. Turn the CRT Bias control to MINIMUM (counterclockwise). Turn the red, blue and green screen controls to MINIMUM. Move the Normal-Service-Raster switch to 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-Raster switch to the Normal position. Adjust the blue and green drive controls to eliminate coloring in the light and dark areas of the picture.

Turn Brightness and Contrast controls to maximum fully clockwise. Adjust the Brightness Range control until the picture blooms (distorts), then reduce the control to the point just below where the picture returns to normal.

BLUE HORIZONTAL SHAPING COIL ADJUSTMENT

Connect high side of a scope to Point $\diamond P$ (located on convergence panel), low side to ground. Adjust Blue Horizontal Shaping coil, L803, slug until the harmonic "bump" is at the 50% point on the wave slope. See Fig. 4.

DYNAMIC PINCUSHION ADJUSTMENTS

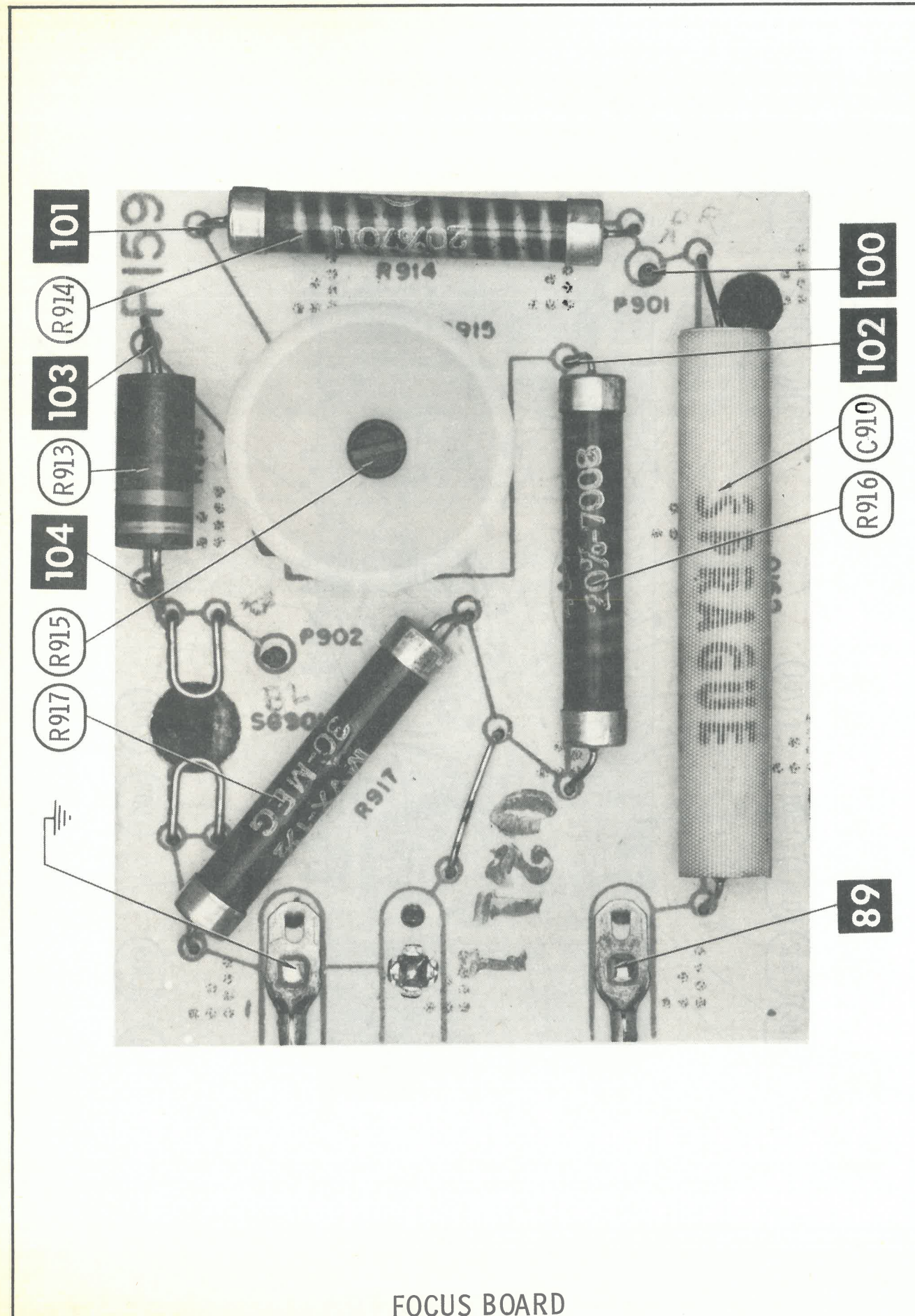
The side pincushion is a fixed correction and no adjustments are provided on this chassis. Top and bottom pincushion is factory adjusted and readjustment is seldom needed. If necessary, top and bottom pincushion may be corrected by adjusting for straight horizontal lines at the top and bottom of the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

Connect a crosshatch generator to the antenna terminals and adjust the set for a normal crosshatch pattern. Turn the Pincushion Amp control, R111, fully clockwise.

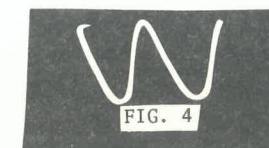
Adjust L105, Phase Amp coil to move top upward and curvature to the top center of the screen. Readjust Pincushion Amp, R111, for straight horizontal lines at top and bottom of the screen. Repeat above steps if necessary.

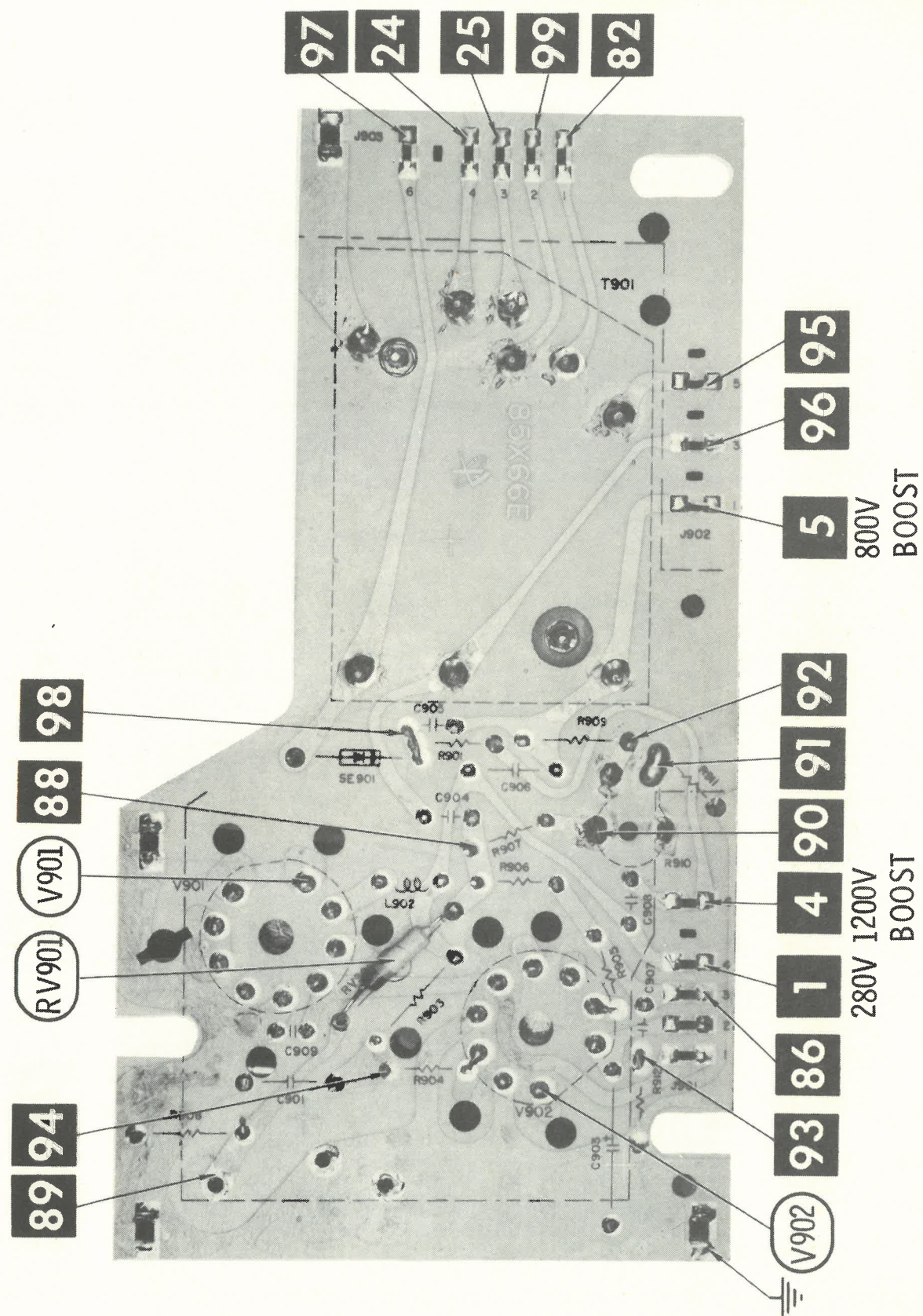
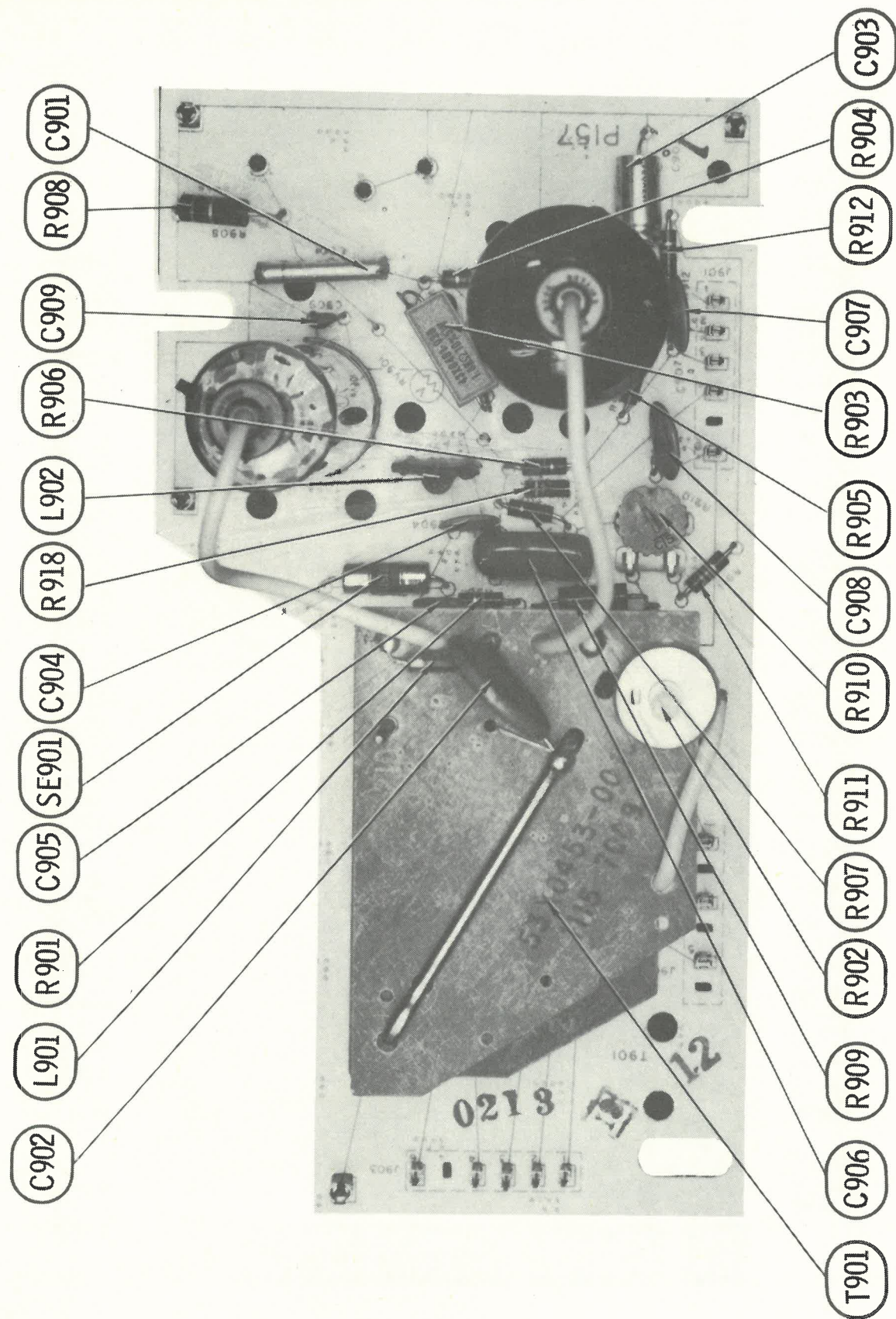
BRADFORD MODELS WTG-59204A, WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1



FOCUS BOARD





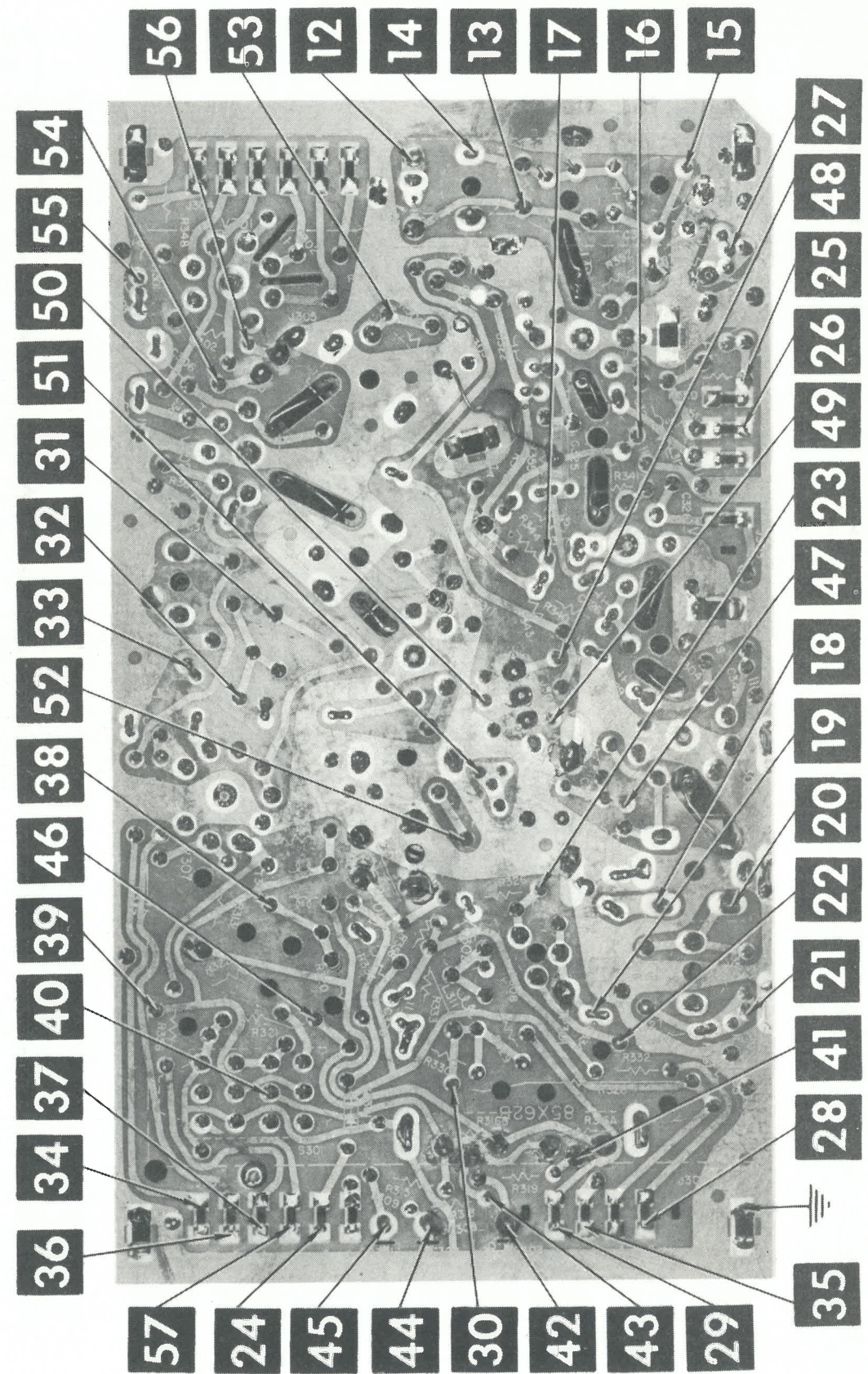
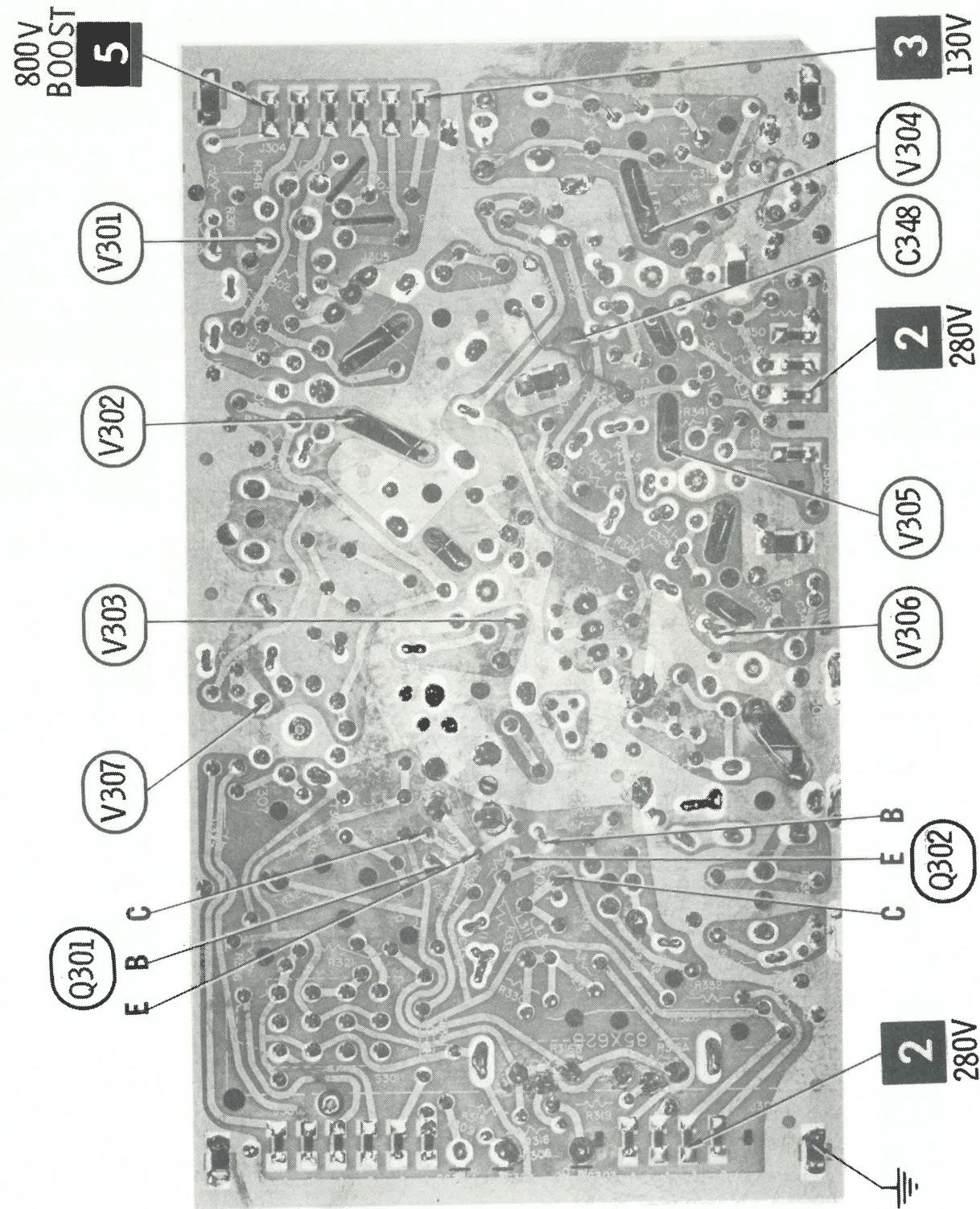
ARROWS INDICATING TUBE LOCATIONS ARE
POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

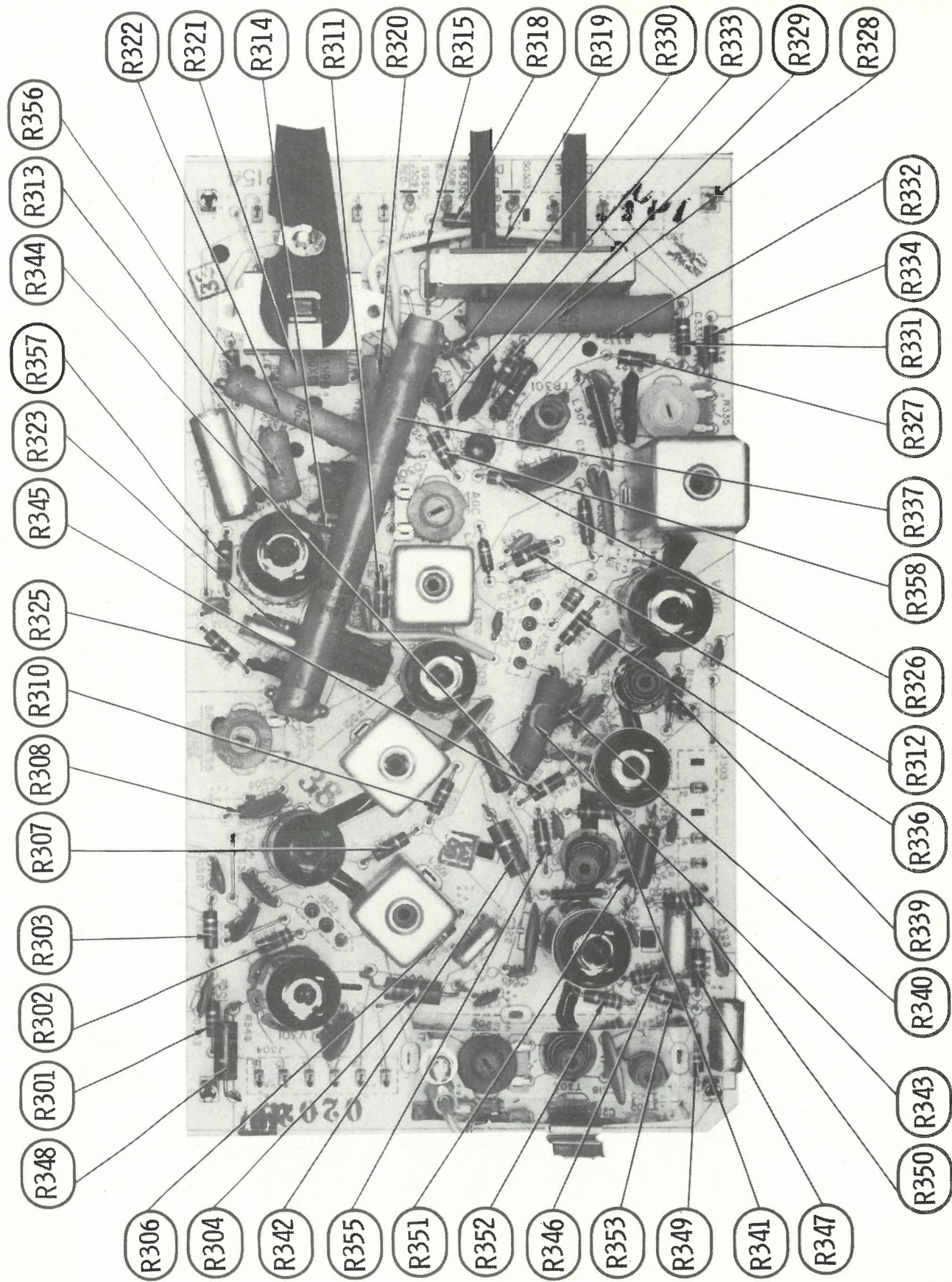
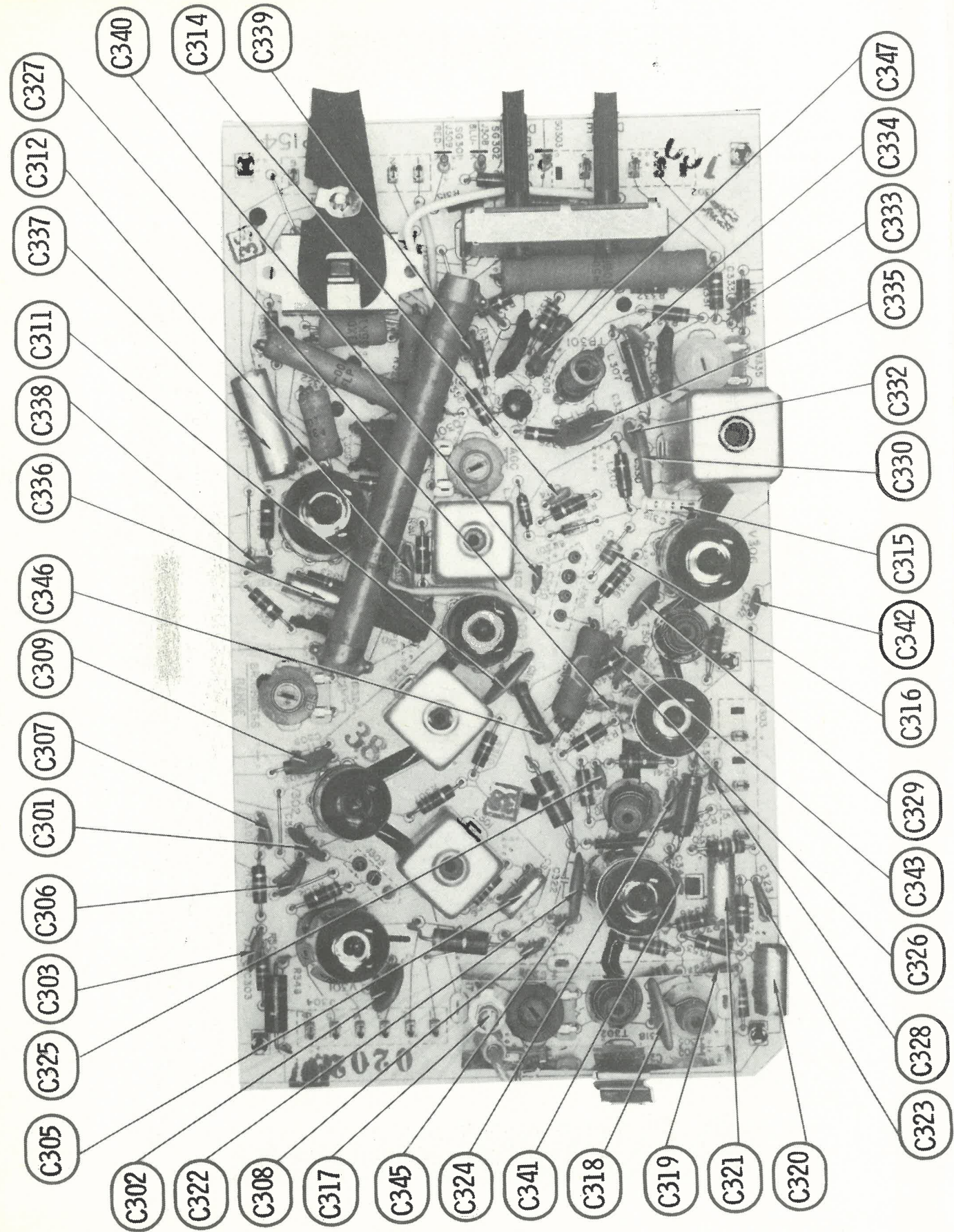
HV BOARD

A Howard W. Sams CIRCUITRACE® Photo

BRADFORD MODELS WTG-59204A,
WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1

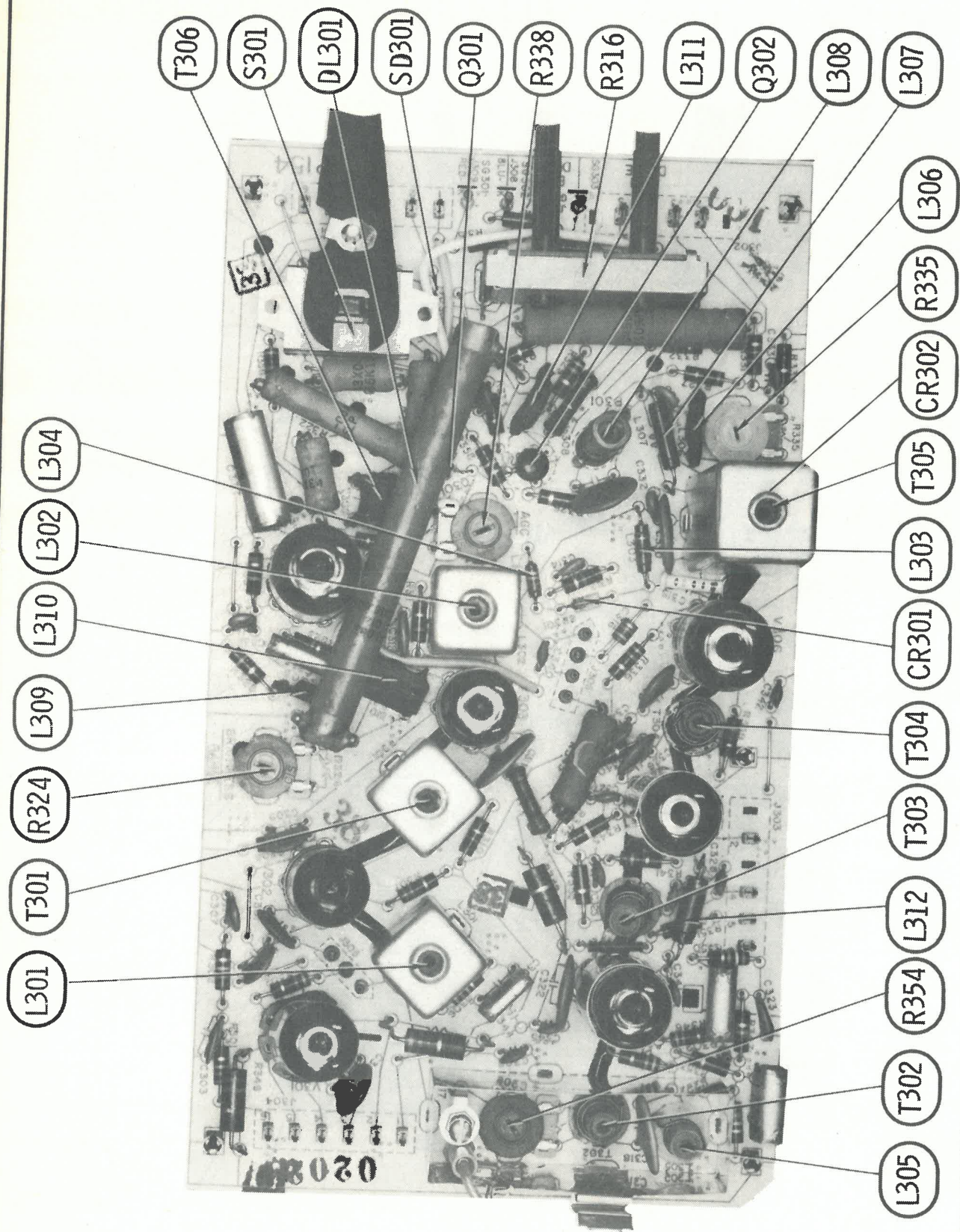




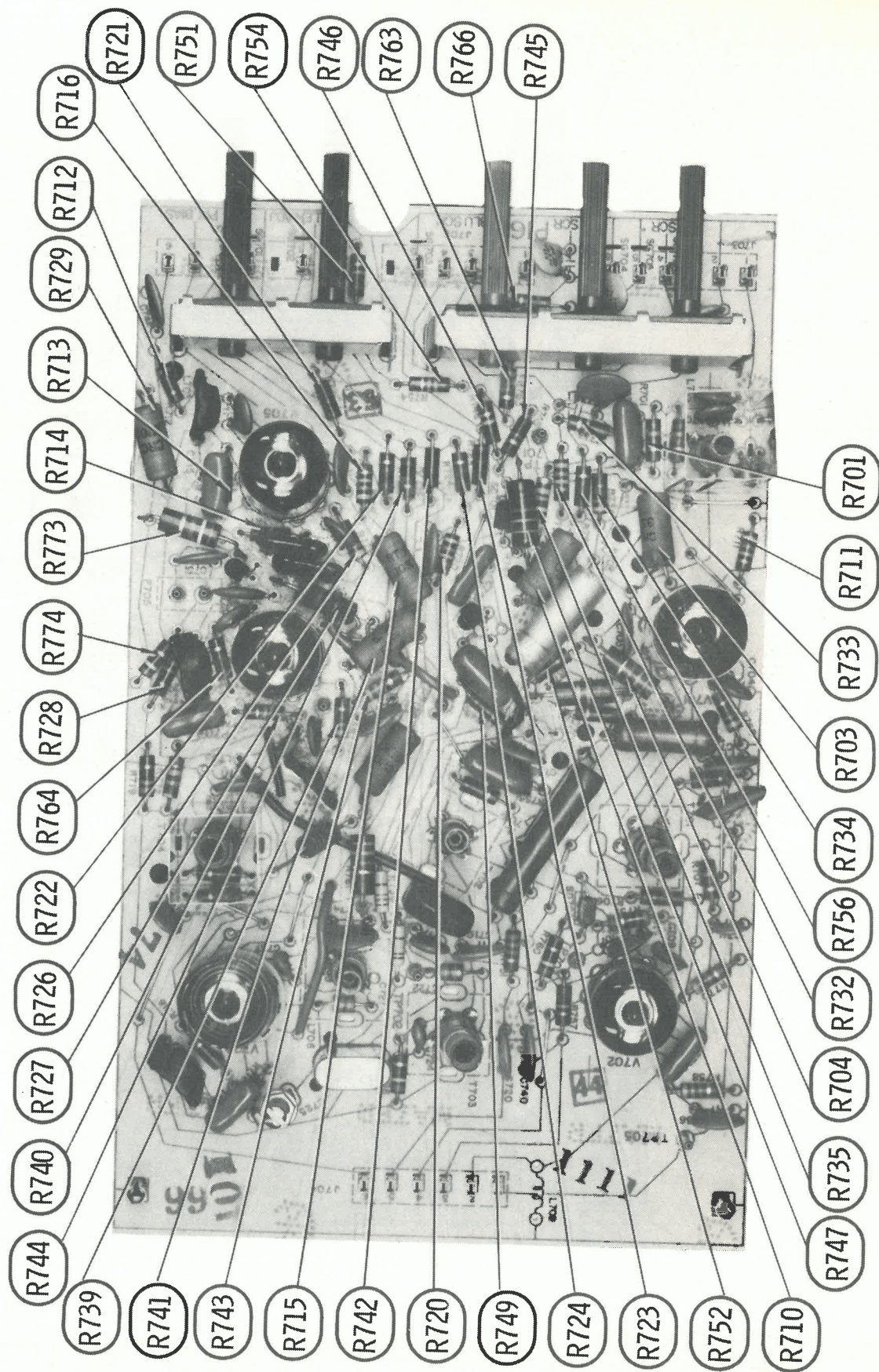
VIDEO IF - SOUND BOARD

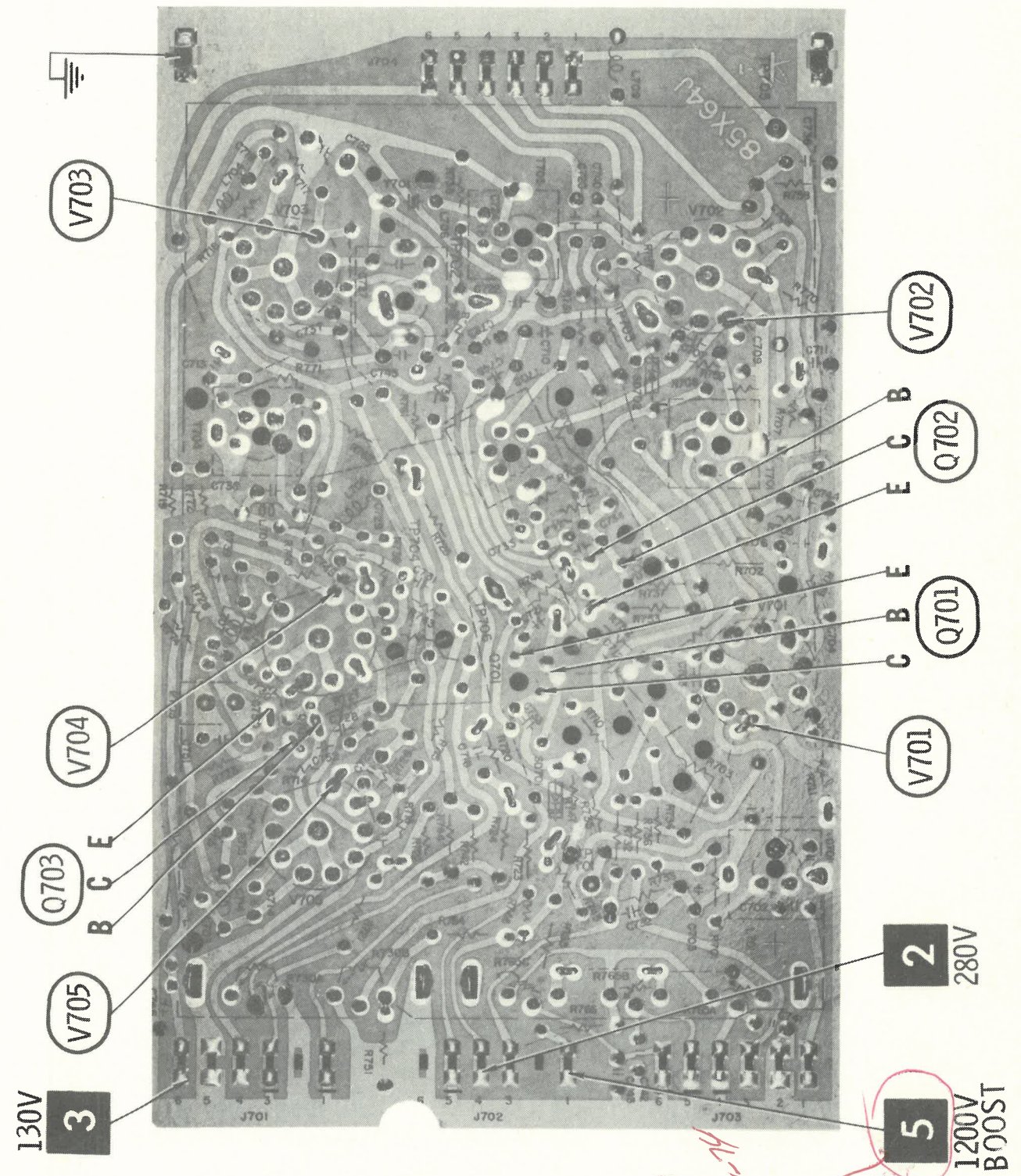
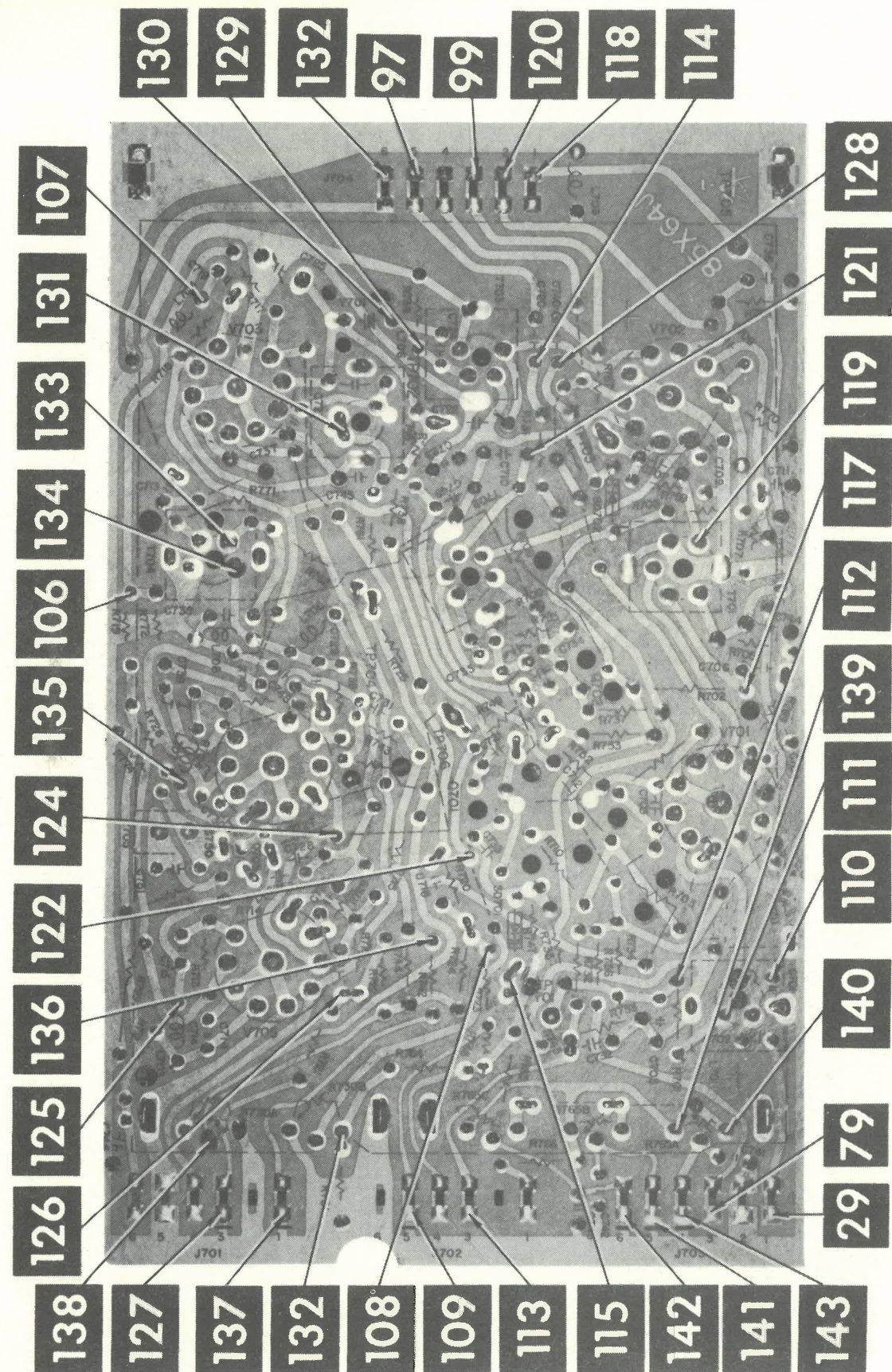
BRADFORD MODELS WTG-59204A,
WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

VIDEO IF - SOUND



CHROMA BOARD



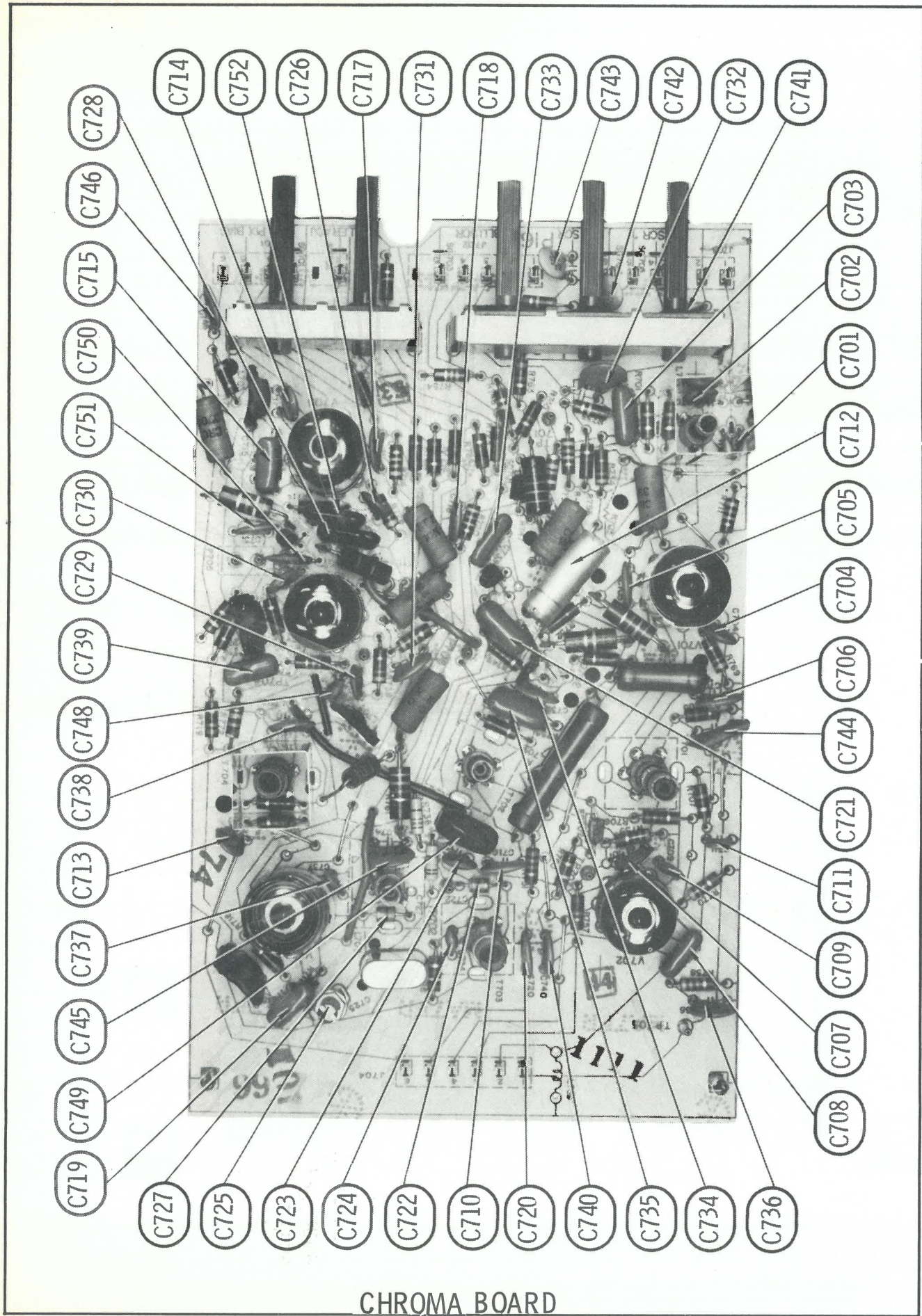


**BRADFORD MODELS WTG-59204A,
WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A**

FOLDER 1

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

CHROMA BOARD A Howard W. Sams "CIRCUITRACE" Photo



TUBES
VHF TUNER PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)

AMPEREX			GENERAL ELECTRIC			RCA			SYLVANIA		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V201	RF Amp		6HA5			V202	Mixer - Oscillator		6GJ7 (6LJ8) *		

* Alternate
POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFR. PART OR TYPE No.	REPLACEMENT DATA				NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.	
X201	24E-001-()	GE-90				Varactor

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.
C201	15pf	5%	NP0-DI 15	DTZ-15	NP015	CCT0-150	CN0415	10TCC-Q15
C202	.001							
C203	.5-4.5pf	#31B-902-023						
C204	47pf	#13M-063						
C205	.5-4.5pf	#31B-902-023						
C206	33pf	#13D-111-041	NP0-DI 33	DTZ-33	NP033	CCT0-330	CN0433	10TCC-Q33
C207	15pf	#13M-105-()						
C208	1.2pf	#13L-211-007	NP0-DI 1.5	DTZ-1R5	NP01P5		CN0515	10TCC-V15
C209	.5-4.5pf	#31B-902-023						
C210	.001	#13M-035-()						
C211	.001	#13M-035-()	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C212	.001	#13M-035-()						
C213	.001	#13M-035-()						
C214	8.2pf N470	#13L6TH8R2C						
C215	6.8pf N750	#13L6UJ6R8C	NP0-DI 6.8	DTZ-6R8	NP06P8	*	* CN0568	10TCT-V82 10TCC-V68
C216	.001	#13M-035-()						
C217	.001	#13M-035-()						
C218	.001	#13M-035-()						
C219	.001	#13M-035-()						

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

COILS (RF-IF)

ITEM No.	USE	MFR. PART No.	NOTES	ITEM No.	USE	MFR. PART No.	NOTES
L201	UHF Input	34A-1150-022		L203	Mixer Plate	31U-648-001	
L202	Mixer Screen	25A-249-018		L204	Oscillator Choke	25A-255-007	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
PC201	Antenna Input	13P-012()	27pf, 27pf, 27pf, 27pf

UHF TUNER PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFR. PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q301	SPS428	UHF Oscillator	24T-016-(016)	GE-11	TR-22	HEP56	SK3019	ECG 108

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFR. PART OR TYPE No.	REPLACEMENT DATA				NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.	
X301	24E-002-()	1N82A	1N82AG	1N82A	ECG 112	Varactor
X302	24E-005-()					

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	.5pf N750	#13X0009	NP0-DI 1.0	TCZ-1			CN0510	10TCC-V10
C302	2-8pf	#31B-902-017						
C303	2.3pf	#13R-065	NP0-DI 2.2	DTZ-2R2	NP02P2		CN0522	10TCC-V22
C304	30pf	#13M-058-()						
C305	.001	#13M-035-()						
C306	.001	#13M-102-()						
C307	.001	#13M-035						
C308	.001	#13M-035						
C309	220pf	#13M-106-()						

COILS (RF-IF)

ITEM No.	USE	MFR. PART No.	NOTES	ITEM No.	USE	MFR. PART No.	NOTES
L301	UHF Antenna	25A269		L303	Oscillator RF Choke	31K-137-051	
L302	Mixer Choke	34A-1150-023					

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.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
L101 S101 S201 S202 S203 S204 S301 SG700 Y701	VHF Tuner	25A1282-001(G)	Used in Tuner Clusters T511, T513 and T561.
	UHF Tuner	25A1275-002(E)	" " " " " "
	VHF Tuner	25A1282-002	Used in Tuner Clusters T521, T523, T571 and T581.
	UHF Tuner	25A1275-001	" " " " " "
	VHF Tuner	25A1282-004	Used in Tuner Cluster T541.
	UHF Tuner	25A1279-001	" " " " " "
	VHF Tuner	25A1283-002	Used in Tuner Clusters T522, T524, T572 and T582.
	UHF Tuner	25A1277-001	" " " " " "
	VHF Tuner	25A1283-003	Used in Tuner Clusters T532 and T534.
	UHF Tuner	25A1277-003	" " " " " "
	VHF Tuner	25A1282-003	Used in Tuner Clusters T531 and T533.
	UHF Tuner	25A1275-003	" " " " " "
	VHF Tuner	25A1283-001	Used in Tuner Clusters T512, T514 and T562.
	UHF Tuner	25A1277-002	" " " " " "
	VHF Tuner	25A1283-004	Used in Tuner Cluster T542.
	UHF Tuner	25A1279-001	" " " " " "
	Delay Line	95A2573-003	
	Degaussing Coil	9A2711-001	
	Switch	2A0595-001	Standby On-Off (Vacation)
	Switch	2A0628-001	Power (On-Off), Used in Tuner Clusters T511,T512,T513,T514,T531,T532.
	Switch	38A4386-000	Power (On-Off), Used in Tuner Clusters T561,T562. T533,T534.
S204 S301 SG700 Y701	Switch	2A0624-000	Dial Lamp (Wafer on back of VHF Tuner)
	Switch	34A4159-000	AFT Defeat, Used in Tuner Clusters T511,T512,T513,T514,T561,T562.
	Switch	34A3995-000	AFT Defeat, Used in Tuner Clusters T541,T542.
	Switch	2A0611-001	AFT Defeat, Used in Tuner Clusters T521,T522,T523,T524,T571,T572.
	Switch	2A0629-001	AFT Defeat, Used in Tuner Clusters T531,T532,T533,T534.
S204 S301 SG700 Y701	Switch	2A0634-001	Tint Mod., Used in some models.
	Switch	2A0630-001	Normal-Service-Raster
	Spark Gap	68X0004-002	Used in some models.
S204 S301 SG700 Y701	Crystal	WTG59253A	3.58MC
	Magnet	2A0590-003	Blue Lateral and Purity Assembly.

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

ITEM	PART No.	ITEM	PART No.
MODELS: WTG59253A, WTG59261A, WTG-59279A, and WTG-59287A		Picture Tube Mask Models: WTG59253A, WTG59261A, WTG59287A	4X2220-010
Dial - VHF Assembly	38A4200-000	Picture Tube Mask Model WTG59279A	4X2220-011
Dial - UHF Assembly (T511, T513)	38A4201-000	Knob - Brightness, Vertical Hold, Contrast	10A1183-901
Dial - UHF Assembly (T512, T514)	38A4202-000	Knob - VHF/UHF Tuning	10A1185-003
Control Panel Escutcheon	38A4332-001	Knob - Slide Volume	10A1187-006
Cabinet Back - Tube Cover	57X0275-001	Knob - Slide Color	10A1187-007
Cabinet Back - Less Tube Cover Models: WTG59253A, WTG59261A, WTG59279A	14X0948-001	Knob - Slide Tint	10A1187-008
Cabinet Back - Less Tube Cover WTG59287A	14X0948-002	Knob - AFT Fine Tuning	10A1169-009

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
300-Ohm Tuner Input Lead	Use BELDEN No. 8225
300-Ohm Antenna Lead-in	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor
	8485 (Round) - 5 Conductor
	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

AMPEREX			GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE			
V301	Audio Output	6AQ5A	V701	Horiz. Blanking Amp.-		6GH8A		
V302	Audio Detector	6HZ6		1st Chroma Bandpass				
V303	Sound IF	6EW6	V702	2nd Chroma Bandpass -		6GH8A		
V304	1st Video IF	6JH6		Burst Amp.		6GH8A		
V305	2nd Video IF	6GM6	V703	G-Y Amp.- 3.58MC Oscillator		6GH8A		
V306	3rd Video IF	6JC6A	V704	X Demodulator - R-Y Amp.		6GH8A		
V307	Video Output	12BY7A	V705	Z Demodulator - B-Y Amp.		6GH8A		
V501	Horiz. AFC - Horiz. Osc.	6GH8A	V901	Damper		6EC4A/EY500A		
V502	Vert. Mult.- Vert. Output	6MF8	V902	Horiz. Output		6K66A/EL509		

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFG. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V101	25VAQP22		H-25VABP22 (1)	XR25VACP22 (2)	(1) Hi-Lite (2) Color Bright "85"

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFG. PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q301	SE1002	AGC Keying	86X0006-001	GE-17	TR-21	HEP729	SK3018	ECG 123A
Q302		Video Amp	86X0034-001	GE-17	TR-21	HEP720	SK3040	ECG 123A
Q501		Sync Separator	86X0035-001	GE-17	TR-21	HEP736	SK3024	ECG 123A
Q701		ACC	86X0045-001	GE-17	TR-21	HEP723	SK3024	ECG 123A
Q702	2N5087	Color Killer	86X0044-001	GE-22	TR-19	HEP57	SK3025	ECG 106
Q703		Auto Tint	86X0047-001	GE-21	TR-19	HEP17	SK3025	ECG 159
Q1401	SE5025	AFT Amp	86X0038-001	GE-20	TR-21	HEP720	SK3018	ECG 108

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFG. PART OR TYPE No.	REPLACEMENT DATA				NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.	
CR301	66X0020-000 (1N295)	1N34AS	1N34A	1N34A	ECG 109	(4) Four required. (6) Matched pair.
CR302	66X0020-000 (1N295)	1N34AS	1N34A	1N34A	ECG 109	
CR501	66X0025-000 (9LR2-24)	68C1	DD04		ECG 113	
CR502	66X0023-003 (1N5061)	GE-504A	8D6 or 5A6D	SK3017A or SK3032	ECG 116 or	
	or (1N4385)				ECG 117	
CR801	66X0041-001 (RCC-7022)	GECR-3 or	CD07 or		ECG 120 or	
	or (TVC3)	GE-504A (4)	8D4 (4)		ECG 116 (4)	
D1401	66X0020-000 (1N295)	1N34AS	1N34A	1N34A	ECG 110 (6)	
D1402	66X0020-000 (1N295)	1N34AS	1N34A	1N34A	ECG 110 (6)	
SD301	66X0043-001 (FD222)	1N34AS	1N34A	1N34A	ECG 109	
SD701	66X0038-001 (SD701-02)	GE-504A	8D4 or 5A4D	SK3030 or SK3031	ECG 116 or	
				SK3032	ECG 117	
SD702	66X0038-001 (SD701-02)	GE-504A	8D4 or 5A4D	SK3030 or SK3031	ECG 116 or	
				SK3032	ECG 117	
SD1101	66X0023-003 (1N5061)	GE-504A	8D6 or 5A6D	SK3017A or SK3032	ECG 116 or	
	or (1N4385)				ECG 117	
SD1102	66X0023-003 (1N5061)	GE-504A	8D6 or 5A6D	SK3017A or SK3032	ECG 116 or	
	or (1N4385)				ECG 117	
SD1103	66X0023-003 (1N5061)	GE-504A	8D6 or 5A6D	SK3017A or SK3032	ECG 116 or	
	or (1N4385)				ECG 117	
SD1104	66X0023-003 (1N5061)	GE-504A	8D6 or 5A6D	SK3017A or SK3032	ECG 116 or	
	or (1N4385)				ECG 117	
SE901	66X0036-001	GECR-2	61-8968		ECG 119	
VM101	66X0045-001				ECG 501	

BRADFORD MODELS WTG-59204A, WTG-59253A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1

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.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C104a	200 350V	45X0536-001(A)	AFH4-56-88.5		CC0238.7A & WBR5-150	XC3-48.05 & MT1-4	FP331.9 & TC30A	TVL-4624.13
b	120 350V							
c	80 350V							
d	5 50V							
C105a	20 350V	45X0539-001	AFH2-37 & PRS1350		CC0990A	XC2-14A & MT1-20.5	FP333.7	TVL-2626 & TE-1307
b	20 350V							
c	50 50V							
C220	5 NP 10V	45X0534-002	PRS7550		BRNP5-15	NPQT-1	TCN105	TVAN-1203.1
C502	5 35V		CRE754A	EA50-5	AL5-150	MT1-3	MTA5D50	TE-1303
	1 15V	45X0515-022	CRE750A	EA15-2	WBR1-50	MT1-1	MTA1D50	TE-1148
C530	10 350V	45X0540-001	PRS1620		WBR10-500	QT1-6	TC62A	TVA-1604
C531	50 50V	45X0515-019	CRE767A	EA50-50	WBR60-50	MT1-17	MTA50F50	TE-1307
C807	10 10V	45X0515-008	PTT39	EA15-10	AL10-25	MT1-5	MTA10D35	TE-1128
C903	100 10V	45X0515-002	PTT46	EP15-100	AL100-16	MT1-19	MTA100E10	TE-1135

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.
C101	.047		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C102	.1	600V	DBE6P15		DPMS6P15	6DP-5-154	PVC6015	6PS-P15
C106	100	10%	GPD X5F101K	DD-101	GP100	CCD-101	GP310	10TS-T10
C107	.18	200V 10%	DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C108	100 N750	3KV 10%	N750-DI 100	DTN-100	N100	CCTN-101	CN7310	10TCU-T10
C237	.001		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C301	.0068 N330	500V				*	*	
C302	.001	2KV 10%	HVD-301000	DD30-102	HV3-1000	3CCD-102	3HV210	30GA-D10
C303	.01	500V	GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C305	.047	200V	DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C306	.01	500V	GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C307	560	500V 10%	GPD X5F561K	DD-561	GP560	CCD-561	GP356	10TS-T56
C308	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C309	.01	500V	GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C311	750 N2200	500V 5%				*	*	10TCY-Q75
C312	.01	500V	GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C314	10 NPO	500V 10%	NPO-DI 10	DTZ-10	NP010	CCT0-100	CN0410	10TCC-Q10
C315	1.5 N3300	±.25						
C316	.47pf	500V						
C317	3-15pf							
C318	150 NPO	500V 5%	GPD X5F151K	DD-151	GP150	CCD-151	GP315	10TS-T15
C319	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C320	.22	100V 10%	DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C321	.22	100V 10%	DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C322	680 N2200	500V 10%				*	*	10TCY-T68
C323	.01	500V	GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C324	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C325	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C326	220 N1500	500V 10%				*	*	10TCW-T22
C327	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C328	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C329	.0022	500V 10%	GPD X5F222K	DD-222	GP2200	CCD-222	GP222	10TS-D22
C330	560 N1500	500V 5%				*	*	10TCW-T56
C332	5 NPO	500V 10%	NPO-DI 5.0		NP05	CCD-102	GP210	10TCC-V50
C333	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C334	5 NPO	500V 10%	NPO-DI 5.0		NP05	CCD-102	GP210	10TCC-V50
C335	100 N33	500V 10%	GPD X5F101K	DD-101	GP100	CCD-101	GP310	10TS-T10
C336	.1	100V 10%	DBE4P1		DPMS4P1	4DP-3-104	PVC401	4PS-P10
C337	.18	400V 10%	DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C338	390	500V 10%	GPD X5F391K	DD-391	GP390	CCD-391	GP339	10TS-T39
C339	680	500V 10%	GPD X5F681K	DD-681	GP680	CCD-681	GP368	10TS-T68
C340	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C341	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C342	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C343	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C345	.001	500V	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C346	.001	500V	DBE6D1	DD-102	DPMS6D1	6DP-1-102	PVC621	6PS-D10
C347	7pf NPO	±.5	NPO-DI 6.8	DTZ-6R8	NP06P8		CN0568	10TCC-V68
C501	.0047	500V 10%	GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C503	820	500V 10%	GPD X5F821K	DD-821	GP820	CCD-821	GP382	10TS-T82
C504	470 N330	500V 10%				*	*	10TCS-T47
C505	.0047	500V 10%	GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C506	560	500V 10%		CPR-560J	CD19F561J500	DM-16-561	SK356	MS-356
C507	.01	500V				CCD-103	JF110	10TS-S10
C508	.001	500V 10%	GPD X5S103K	DD-103	GP10000	CCD-103	GP210	10TS-D10
C509	100	500V 10%	GPD X5F102K	DD-102	GP1000	CCD-102	GP310	10TS-T10
C510	.0068	500V 10%	GPD X5F101K	DD-101	GP100	CCD-101	SK268	MS-268
C511	.01	600V 10%		CPR-6800J		DM-30-682	PVC411	4PS-S10
C512	.01	1KV	V1614S1	CPR-10000J	DPMS6S1	4DP-1-103	JF110	10TS-S10
C513	220 N750	500V 10%	GPD X5S103K	DD-103	GP10000	CCD-103		
			N750-DI 220		N220	CCTN-221		

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.

TRANSFORMERS (Sweep Circuits)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L106	Yoke (Horiz. 13.2mh) 90° (Vert. 24mh)	9A2707-001 (-G)	DY98AC (2)	Y109 (2)	YC-312-2 (2)	(1) Includes convergence plug pins and vertical output transformer.
T103	Vert. Output	51X0248-001 (-C)				(2) See component connection data.
T104	Vert. Output Assembly	38A4145-000 (1)				
T901	Pincushion Correction Horiz. Output	52X0116-003 (-C)	HO-646CF		D-324	
		53X0453-001 (-N)				

SWEEP COMPONENT CONNECTION DATA

ORIGINAL →	HORIZONTAL OUTPUT						YOKE						YOKE PLUG					
REPLACEMENT ↓	Original Connections						Original Connections						TO YOKE TERMINAL					
STANCOR																		
THORDARSON																		
TRIAD																		

(1) Remove vertical damping resistor and install original thermistor. (2) Rotate 180°. (3) Use original yoke plug and clamp.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T102	5K	8	51X0249-001	A-3850	24S05	S-51X	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" x 6" PM 8 ohms	12A0654-001	46A1Z10	Used in Models WTG-59204A, and WTG-59261A.

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
CB101	Circuit Breaker	2A0610-001 (1)						
F101	1 1/2" length #24 wire	320X2400-000						
F102	1" length #28 fuse wire	320X2800-000						F 28

(1) Double circuit breaker.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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COILS (RF-IF) (cont)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L705	RF Choke (3.3uh)	9A2680-003		74F336AP	T970
L706	3.58MC Oscillator Adjust	9A2710-001			
L707	Peaking (620uh)	36A0095-008	19-2030	6146	T326
L901	RF Choke (5.6uh)	9A2553-004	19-1008	74F566AP	T820
L902	RF Choke (5.6uh)	9A2553-004	19-1008	74F566AP	T820
L1401	AFT Input	9A2681-001		7515-E	TA227
L1402	Discriminator, Primary	9A2681-002		7515-E	TA227
L1403	Discriminator, Secondary	9A2681-003			
L1404	RF Choke (1.8uh)	9A2553-001	19-2010	74F186AP	T990
L1405	RF Choke (1.8uh)	9A2553-001	19-2010	74F186AP	T990
T301	Sound Interstage	9A2698-001			
T302	1st Video IF	9A2562-001	17-3418	7549	T272
T303	2nd Video IF	9A2562-003	17-3419	7552	TB644
T304	3rd Video IF	9A2562-002	17-3414	7526	TA258
T305	4th Video IF/41.25MC Trap	9A2667-003		6037	
T306	Service Transformer	9A2655-001		7600	
T701a/b	1st Chroma Bandpass	9A2661-003			
T702	2nd Chroma Bandpass	9A2709-001			
T703	Burst	9A2685-002			
T704	3.58MC Oscillator	9A2660-002			

(1) Two required.

COILS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA					
		MFGR. PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	WORKMAN PART No.
L105	Pincushion Phase	9A2629-002(B)	H-178				
L501	Horiz. Oscillator	9A2708-001(C)					
L801	Right R-G Vert. Lines	9A2555-003 (9A2555-3)	6347		WC-41		T149
L802	Right R-G Horiz. Lines	9A2634-002	H-139				
L803	Blue Horiz. Shape	9A2630-001	H-136				
L804	Right Blue Horiz. Lines	9A2556-003	H-140				
L805	Convergence Yoke Assembly	9A2649-002(C)			Y-113		
A	Blue Section						
B	Red Section						
C	Green Section						

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L103	.550A DC	15.5	.36 H	52X0114-002(C)	C-2708 (1)	26C81 (1)	C-40X (1)	(1) Drill new mounting hole(s) if necessary.

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T101	117VAC @ 2.9A AC (1)	225VAC @ .6A DC	53X0445-002 (C)				(1) Primary has stand-by tap.
	SEC. 2	SEC. 3					
	6.3VAC @ 1A AC	6.3VAC @ 9.75A AC					

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 (cont)

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.
C514	.047	400V		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C515	820	500V 10%				CD19F821J500	DM-19-821	SX382	MS-382
C516	.0022	500V 10%		GPD X5F222K	DD-222	GP2200	CCD-222	GP222	10TS-D22
C517	.047	200V		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C518	680	500V 10%		GPD X5F681K	DD-681	GP680	CCD-681	GP368	10TS-T68
C519	.0047	500V 10%		GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C520	.01	400V 10%		V1614S1	CPR-10000J	DPMS6S1	4DP-1-103	PVC411	4PS-S10
C521	560 NPO	500V 5%		GPD X5F561K	DD-561	GP560	CCD-561	GP356	10TS-T56
C522	10 NPO	500V 5%		NPO-DI 10	DTZ-10	NP010	CCTO-100	CN0410	10TCC-Q10
C523	.15	600V		DBE6P15		DPMS6P15	6DP-5-154	PVC6015	6PS-P15
C524	.0022	630V 10%			CPR-2200J	CD19F222J500	DM-19-222J	SX222	424ME2201J500
C525	.1	600V 10%		DBE6P15		DPMS6P15	6DP-5-154	PVC6015	6PS-P15
C526	.047	600V		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C527	.001	1KV		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C528	.0022	500V 10%	N330				*	*	*
C529	.0033	3KV 10%		HVD-303300	DD30-332			3HV233	30GA-D33
C532	.02			GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C701	10 NPO	500V 10%	#80X0099-058	NPO-DI 10	DTZ-10	NP010	CCTO-100	CN0410	10TCC-Q10
C702	33 N150	500V 10%					*	*	10TCP-Q33
C703	.1	100V 10%		DBE4P1		DPMS4P1	4DP-3-104	PVC401	4PS-P10
C704	.001	500V 10%		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C705	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C706	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C707	130 N750	500V 10%		GPD X5F151K	DD-151	GP150	CCD-151	GP315	10TS-T15
C708	.01	100V 10%	#80X0099-058	V1614S1	CPR-10000J	DPMS6S1	4DP-1-103	PVC411	4PS-S10
C709	33 N150	500V 10%					*	*	10TCP-Q33
C710	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C711	.001	500V 10%		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C712	.18	400V 10%	#80X0099-058	DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C713	33 N150	500V 10%	#80X0099-041				*	*	10CP-Q33
C714	33 N150	500V					*	*	10CP-Q33
C715	.01	400V 10%		V1614S1	CPR-10000J	DPMS6S1	4DP-1-103	PVC411	4PS-S10
C717	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C718	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C719	.01	400V 10%		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C720	150 N750	1KV 10%		N750-DI 150		N150	CCTN-151		
C721	.1	100V 10%		DBE4P1		DPMS4P1	4DP-3-104	PVC401	4PS-P10
C722	.82 500	500V		NPO-DI 1.0	TCZ-1			CN0510	10TCC-V10
C723	.001	500V 10%		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C724	220	500V 10%		GPD X5F221K	DD-221	GP220	CCD-221	GP322	10TS-T22
C725	3-15								
C726	.001	500V 10%		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C727	.82	500V		NPO-DI 1.0	TCZ-1			CN0510	10TCC-V10
C728	680	500V 5%		ADM-20-681	CPR-680J	CD19F681J500	DM-16-681	SX368	MS-368
C729	.001	500V 10%	#80X0099-041	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C730	33 N150	500V					*	*	10CP-Q33
C731	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C732	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C733	.047	100V 10%		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C734	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C735	.1	100V 10%		DBE4P1		DPMS4P1	4DP-3-104	PVC401	4PS-P10
C736	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C737	10 NPO	500V 5%		NPO-DI 10	DTZ-10	NP010	CCTO-100	CN0410	10TCC-Q10
C738	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C739	.01	400V 10%		V1614S1	CPR-10000J	DPMS6S1	4DP-1-103	PVC411	4PS-S10
C740	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C741	.001	1KV		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C742	.001	1KV		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C743	.001	1KV		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C744	330	500V 5%		GPD X5F331K	DD-331	GP330	CCD-331	GP333	10TS-T33
C745	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C746	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C748	100	500V 10%		GPD X5F101K	DD-101	GP100	CCD-101	GP310	10TS-T10
C749	.22	100V 10%		DBE6P22		DPMS4P22	4DP-5-224	PVC4022	4PS-P22
C750	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C751	.01	500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C752	680	500V 5%		ADM-20-681	CPR-680J	CD19F681J500	DM-16-681	SX368	MS-368
C801	.1	200V	#80X0098-038	DBE2P1		DPMS2P1	2DP-3-104	PVC201	2PS-P10
C802	.033	400V 10%		DBE6S33		DPMS6S33	4DP-2-333	PVC6133	4PS-S33
C803	.15	400V 10%		DBE6P15		DPMS4P15	4DP-4-154	PVC6015	4PS-P15
C804	.082	200V 10%		DBE6S82		DPMS6S82	6DP-4-823		6PS-S82
C805	.12	200V 10%		DBE6P15		DPMS4P15	4DP-4-154	PVC6015	4PS-P15
C806	.27	200V 10%		V1616P33		DPMS6P33	6DP-6-334	PVC6033	
C901	.047	400V		DBE6S47		DPMS6S47	4DP-3-473	PVC4147	4PS-S47
C902	230 N1500	5KV 10%					*	*	10TCW-T22
C904	100 N750	1KV 10%		N750-DI 100		N100	CCTN-101		
C905	.01	1KV		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C906	.033	600V 10%		DBE6S33		DPMS6S33	4DP-2-333	PVC6133	4PS-S33
C907	.0033	500V		GPD X5R332K	DD-332	GP3300	CCD-332	JF233	10TS-D33
C908	.01	1KV		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C909	.001	500V		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C910	.0025	10KV		DBE6D25		DPMS6D25	6DP-1-252	PVC6225	6PS-D25
C1101	.001	1KV	#80X0099-100	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C1102	.001	1KV		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C1401	22 N220	500V 10%	#80X0099-015				*	*	10TCR-Q22
C1402	220 N750	500V 10%		N750-DI 220		N220	CCTN-221		
C1403	.001	500V 10%		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C1404	15 N220	500V 10%					*	*	10TCR-Q15
C1405	.001	500V 10%	#80X0099-100	GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C1406	22 N220	500V 10%					*	*	10TCR-Q22

BRADFORD MODELS WTG-5920A, WTG-5923A, WTG-59261A, WTG-59279A, WTG-59287A

FOLDER 1

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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CAPACITORS (cont)

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.
C1407	22 N220 500V 10%	#80X0099-100	NP0-DI 1.5 GPD X5F102K	DTZ-1R5 DD-102 DD-102	NP01P5 GP1000 GP1000 GP1000	* CCD-102 CCD-102 CCD-102	* CN0515 GP210 GP210 GP210	10TCR-Q22 10TCC-V15 10TS-D10 10TS-D10 10TS-D10
C1408	1.5 NPO 500V							
C1409	.001 500V 10%							
C1410	.001 500V 10%							
C1411	.001 500V 10%							
C1412	.001 500V	#47X0784-001 #47X0784-001	6PD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C1413	.001 500V							

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

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS—IRC PART No.	MALLORY PART No.
R107	Vert. Centering	10 2W	40X0608-001, B	WP-15,WSK104 or [WT-10 (2), WSK104] or V-10 (1)	U39-15 (1) or [NPW-10 (2), NML-A 300]	P115R100A (2), P115-117-1 or 110-15 (1)	MR15P,MRS1250 or [MR10T (2), MRS1250]
R111	Top & Bottom Pincushion Amp	10K 2W	40X0577-004	WT-10K or WN-103 or WW-103	A43-10K,FKS-1/2 or [NPW-10K, NML-A-300,TT-2]	P115R103A or WPS1000 or [BU1,WF9,SS6A]*	MR10T or VW10K or C10MP
R201	Color (Slider Type)	500	40X0620-002, B (7)	F1-500,SN200	A47-500-S, RN-3,TT-2 or [NP-350-S, NML-A-300,TT-2]	B11-103,TM4 or [BU1,CF4,SS6A]*	RU52L,SL37, SN1500 or [UA52L,SN1500] or PTA52L (3)
	Color (Slider Type)	500	40X0616-002 (6)				
R202	Tint (Slider Type)	10K	40X0620-001 (7)				
	Tint (Slider Type)	10K	40X0616-001 (6)				
R203	Volume (Slider Type)	1meg	40X0620-003, B (8)				
	Volume (Slider Type)	1meg	40X0616-003 (6)				
R204	Contrast	350	40X0594-003	F1-500,SN200	A47-500-S, RN-3,TT-2 or [NP-350-S, NML-A-300,TT-2]	B11-103,TM4 or [BU1,CF4,SS6A]*	RU52L,SL37, SN1500 or [UA52L,SN1500] or PTA52L (3)
R205	Vertical Hold	750K	40X0585-048, A	F1-750K,SN200	A47-750K-S, RN-3,TT-2 or [NP-750K-S, NML-A-300,TT-2]	B11-136,TM4 or [BU1,CF64,SS6A]*	RU754L,SL37, SN1500 or [UA16L,SN1500] or PTA754L (3)
R206	Brightness	250K	40X0585-063	F1-250K,SN200	A47-250K-S, RN-3,TT-2 or [NP-250K-S, NML-A-300,TT-2]	B11-130,TM4 or [BU1,CF15,SS6A]*	RU254L,SL37, SN1500 or TA254L
R316A	Green Drive	6000 "A"	40X0614-001	TSV-500K (5) or T-500K (5) T-750 (5) or TSV-1K (5) TSV-5K (5) or T-5000 TSV-10K (5) or T-10K (5)	H3 (4) [A-E6,A1] (B-E6,A1] U201R504B	MTC55L4	
B	Blue Drive	6000 "B"	40X0590-009				
R324	Brightness Range	500K	40X0590-007				
R335	Sound Reject (41.25MC Trap Adjust)	750	40X0590-008, B				
R338	AGC	5000	40X0590-006, A				
R354	Adjacent Sound Reject (47.25MC Trap Adjust)	10K	40X0590-006, A				
R528A	Vert. Linearity	50K "A"	40X0614-003				
B	Height	7.5meg "B"	40X0614-002				
R730A	CRT Bias	1meg "B"	40X0614-002				
B	Color Killer	1meg "A"	40X0615-001				
R765A	Red Screen	1.5meg "A"	40X0615-001				
B	Green Screen	1.5meg "B"					
C	Blue Screen	1.5meg "C"					
R801	Blue Horiz. Lines (Left)	90 3W	40X0570-007	WP-100,WSK104			MR100P,MRS1250
R804	R/G Vert. Lines (Left)	120 1W	40X0570-003	WCP-120 or V-120	U39-125	110C120	MRC120P
R805	R/G Horiz. Lines (Left)	120 1W	40X0570-003	WCP-120 or V-120	U39-125	110C120	MRC120P

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.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS—IRC PART No.	MALLORY PART No.
R808	Blue Horiz. Lines (Bottom)	60 1W	40X0570-004, A	WCP-60 or V-60	U39-75	110C60	MRC60P
R811	R/G Vert. Lines (Top)	150 1W	40X0570-001, A	WCP-150 or V-150	U39-150	110C150	MRC150P
R812	R/G Horiz. Lines (Bottom)	500 1W	40X0570-006, A	V-500 or [WP-600,WSK104]	U39-500	110-600	MR600P,MRS1250
R813	R/G Horiz. Lines (Top)	120 1W	40X0570-003	WCP-120 or V-120	U39-125	110C120	MRC120P
R814	R/G Vert. Lines (Bottom)	60 1W	40X0570-004, A	WCP-60 or V-60	U39-75	110C60	MRC60P
R815	Blue Horiz. Lines (Top)	60 1W	40X0570-004, A	WCP-60 or V-60	U39-75	110C60	MRC60P
R902	Horiz. Centering	10 2W	40X0619-001 (25-116)	WT-10,WSK104		P115R100A, P115-117-1	MR10T,MRS1250
R910	High Voltage Adjust	2.5meg	40X0590-011				
R915	Focus	15meg	40X0618-001	RTT-15meg			FCR156L

- (1) Use original nylon tab mount and solder original center lead to metal case of control. (2) Use original nylon tab mount. (3) Use portion of original shaft to obtain desired length. (4) To establish section identification of side-by-side controls (controls viewed from shaft ends, terminals down): For 3-section controls, left-hand section is "A", middle section is "B", right-hand section is "C". For 2-section controls, left-hand section is "A", right-hand section is "B". (5) For horizontal mount, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC board. (6) Alternate Part, used in Models using Tuner Mounting Assembly, stamped T511 and T512. (7) Part #78X0057-007, Tint/Color used in Models using Tuner Mounting Assembly, stamped T521, T522, T523 and T524. Part #78X0057-009, Tint/Color used in Models using Tuner Mounting Assembly, stamped T541 and T542. Part #78X0057-010, Tint/Tint/Color used in Models using Tuner Mounting Assembly, stamped T571 and T572. (8) Part #78X0064-001, Volume/Switch used in Models using Tuner Mounting Assembly, stamped T521, T522, T523, T524, T571, T572, T581 and T582. Part #78X0064-002, Volume/Switch used in Models using Tuner Mounting Assembly, stamped T541 and T542.

* "SNAPTROL"

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
R104	1900 20W	20W-SQ-2K	43X0401-030
R106	6800 7W	7G-6.8K	42X0450-015
R112	4700 2W	3G-4.7K	43X0450-043
R313	10K 2W	3G-10K	43X0346-000
R320	6800 2W	3G-6.8K	43X0450-005
R321	56K 2W	3G-56K	43X0450-032
R322	5600 4W	4G-5.6K	43X0371-000
R328	13K 10W	10G-13K	43X0450-031
R343	27K 3W	3G-27K	43X0450-006
R344	150K,1/2W, 4%		43X0449-000 (1)
R345	150K,1/2W, 4%		43X0449-000 (1)
R520	820 3W	3G-820	43X0450-018
R702	15K 3W	3G-15K	43X0450-030
R703	33K 2W	3G-33K	43X0439-000
R708	10K 5W	5G-10K	43X0450-041
R710	18K 2W	3G-18K	43X0450-029
R715	27K 2W	3G-27K	43X0441-000

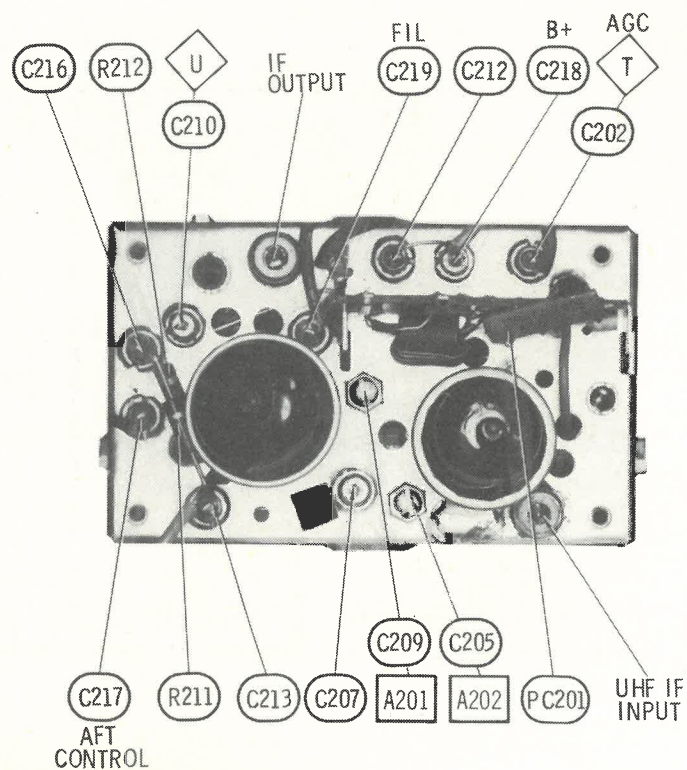
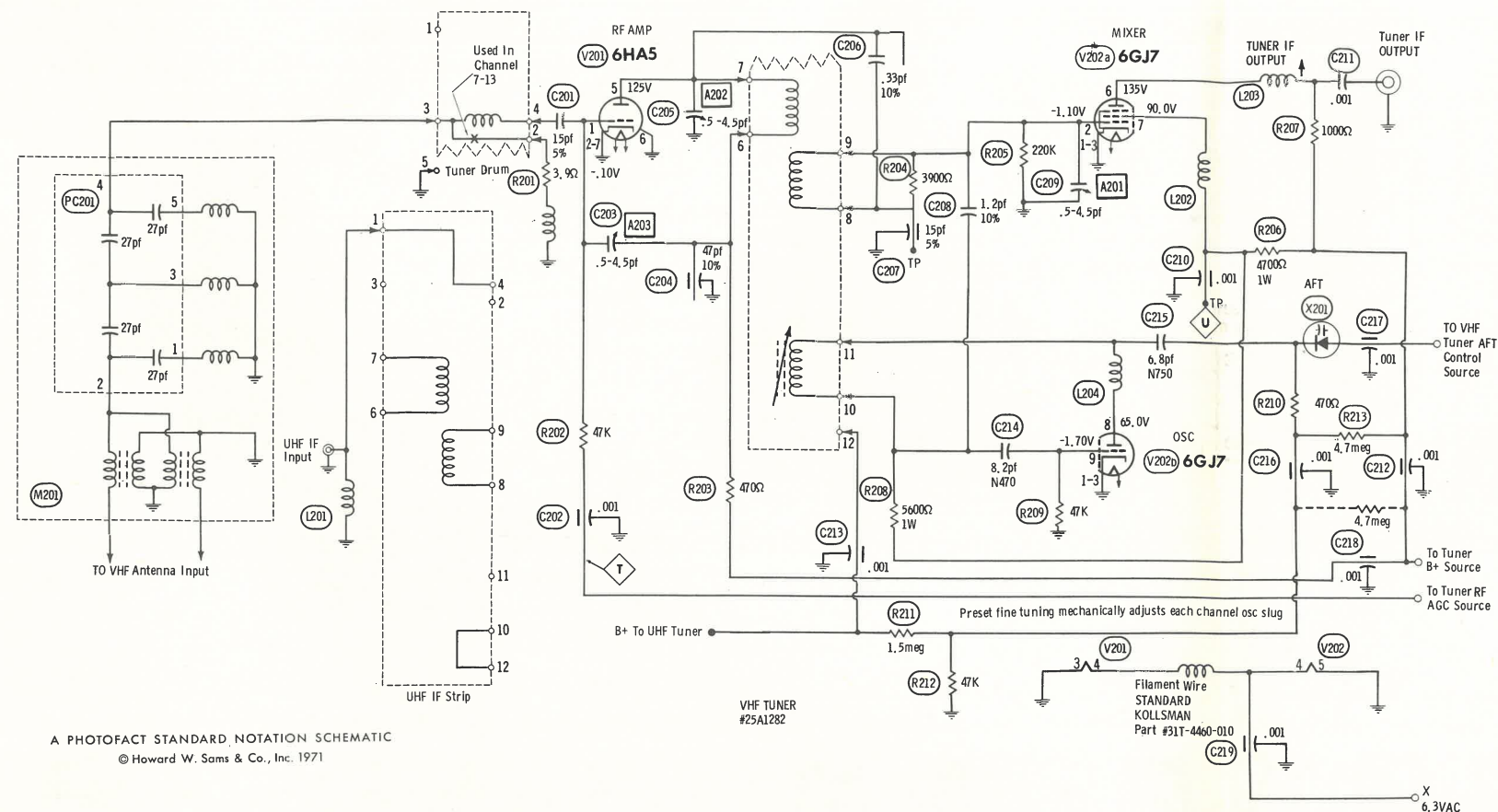
(1) Matched Pair

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
R725	27K 2W	3G-27K	43X0441-000
R729	270 2W	3G-270	43X0450-037
R736	68K 1/2W		43X0450-040
R741	27K 2W	3G-27K	43X0441-000
R747	3.3meg,1/2W,2%		43X0450-038
R748	150K 1/2W,2%		43X0450-039
R903	1800 5W	7W-1800	43X0401-035
R914	30meg		43X0451-003
R916	40meg		43X0451-004
R917	30meg		43X0451-003
RT101	Thermistor (3.9 Cold)	FR-3.8	43X0453-001
RT1101	Thermistor (100 Cold)		43X0455-001
RV101	VDR *		43X0456-001
RV901	VDR *		43X0457-004
RV1101	VDR *		43X0454-001

* Voltage Dependent Resistor

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L104a	Line Choke (70uh)	9A2695-001		5248 (1)	
b	Line Choke (70uh)				
L301	Sound Detector	9A2699-001			
L302	Sound Take-off	9A2697-001			
L303	RF Choke (12uh)	9A2553-003	19-2016	72F125AP	TA820
L304	RF Choke (1.8uh)	9A2553-001	19-2010	74F186AP	T990
L305	47.25MC Trap	9A2563-000		7553	TA260
L306	RF Choke (12uh)	36A0095-004	19-2016	72F125AP	TA343
L307	RF Choke (16uh)	9A2432-000		74F155AP	T989
L308	4.5MC Trap	9A2565-000		7142	TA264
L309	Peaking (39uh)	36A0095-011		72F395AP	
L310	Peaking (68uh)	36A0095-010		72F685AP	
L311	Peaking (330uh)	36A0095-009		72F334AP	
L312	RF Choke (1.5uh)	9A2380-000	19-1001	4604	
L701	Chroma Take-off	9A2658-003		6039	
L703	Peaking (620uh)	36A0095-008	19-2030	6146	T326
L704	Peaking (620uh)	36A0095-008	19-2030	6146	T326



VHF TUNER 25A1282

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT
5004, 9293 .. A201, A202, A203

OSCILLATOR ADJUSTMENTS

The oscillator slug for each channel is preset with the fine tuning control. Pull out on fine tuning shaft and adjust the fine tuning for best picture and sound. Push in on fine tuning shaft.

RF AND MIXER ADJUSTMENTS

Connect the sweep generator across antenna terminals with 120-ohm carbon resistor in each lead. Refer to chart below for generator frequencies. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the scope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at Point U. Adjust bias to obtain response curve showing no overload. Defeat AFT. Have fine tuning shaft in Out position.

CHANNEL	CONNECT SCOPE	REMARKS
13	Vertical input to Point U, low side to ground.	Adjust A201 and A202 for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
10	Across video detector load resistor.	Increase bias to -15 volts and adjust A203 for MINIMUM amplitude.
12 thru 2	Vertical input to Point U, low side to ground.	Decrease bias. Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.
13	Vertical 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.
12 thru 2	Vertical input to Point U, low side to ground.	Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.

GENERATOR FREQUENCY

Numbers in () indicate channel number

SWEEP	MARKER	SWEEP	MARKER	SWEEP	MARKER
(2) 57MC	55.25MC	(6) 85MC	83.25MC	(10) 195MC	193.25MC
(3) 63MC	59.75MC	(7) 177MC	87.75MC	(11) 201MC	197.75MC
(4) 69MC	61.25MC	(8) 183MC	175.25MC	(12) 207MC	199.25MC
(5) 79MC	65.75MC	(9) 189MC	179.75MC	(13) 213MC	203.75MC
	67.25MC		181.25MC		205.25MC
	71.75MC		185.75MC		209.75MC
	77.25MC		187.25MC		211.25MC
	81.75MC		191.75MC		215.75MC

FIG. 201

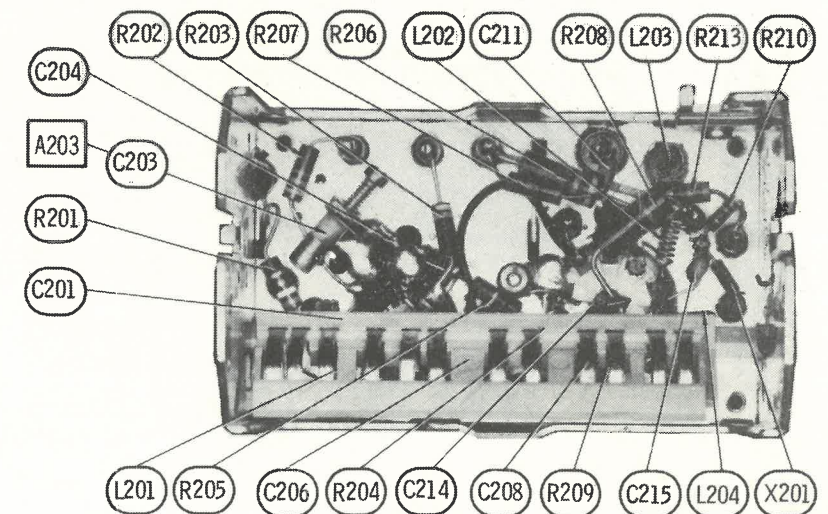


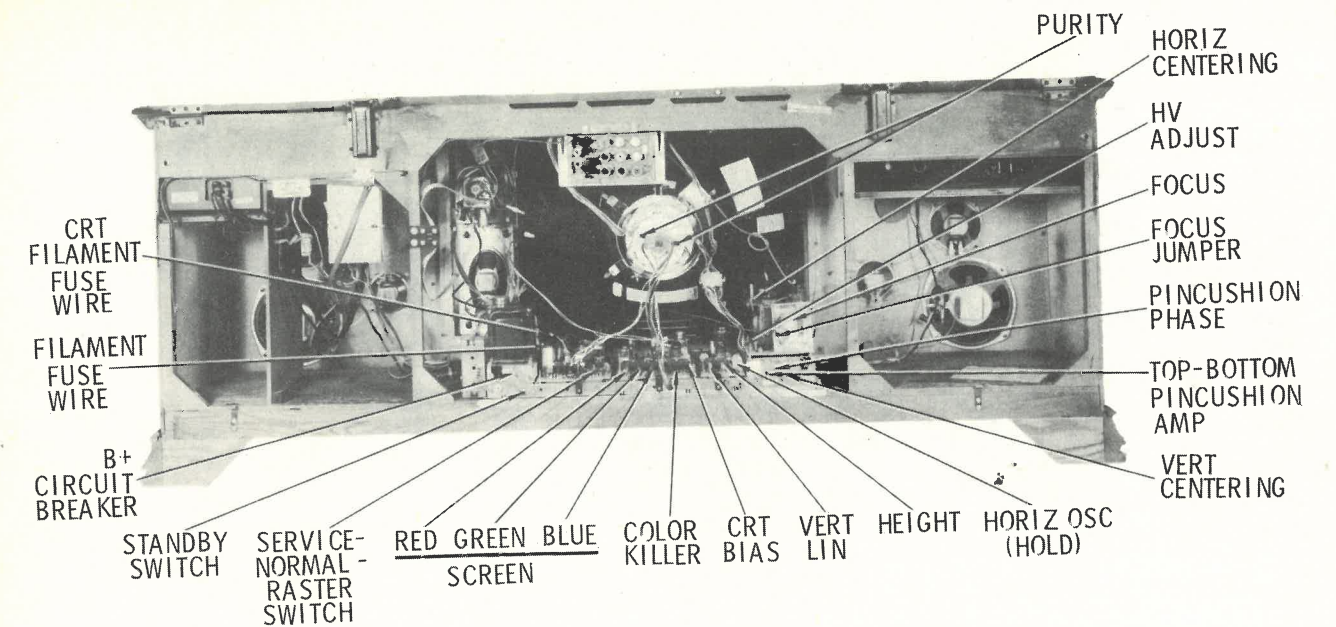
25A1283-001 UHF TUNER ALIGNMENT INSTRUCTIONS

Select a UHF station. Adjust UHF IF input coil for best picture and sound.

25A1275-001/002 UHF TUNER ALIGNMENT INSTRUCTIONS

Select the lowest active UHF channel. Adjust the UHF oscillator trimmer for best picture and sound.





CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove 22 screws securing back and remove back.
Remove all control knobs.

Disconnect yoke plug, convergence plug, degaussing plug, secondary control plug, radio power plug, speaker connections, high-voltage anode lead, and auxiliary control plug. Remove four screws securing chassis to cabinet.

Remove four nuts securing tuner assembly, switch wire and antenna leads. Lay tuner on chassis. Remove chassis and tuner from cabinet.

Remove three screws securing volume, color and tint control assembly from cabinet.

Remove two nuts securing the brightness, verti-

cal hold and contrast assembly. Remove assembly from cabinet.

PICTURE TUBE REMOVAL

Follow "Chassis Removal" instructions and lay set face down on a soft protective surface.

Remove blue lateral and purity magnet, convergence assembly and deflection yoke from tube neck.

Remove ground lead and four screws securing purity shield to picture tube brackets and remove purity shield. Unhook four springs from yoke mounting and remove springs.

Loosen wire mounting ring and remove the four picture-tube corner brackets. Remove picture tube but do not lift tube by the neck.

PHOTOFACT® Folder

with CIRCUITRACE®

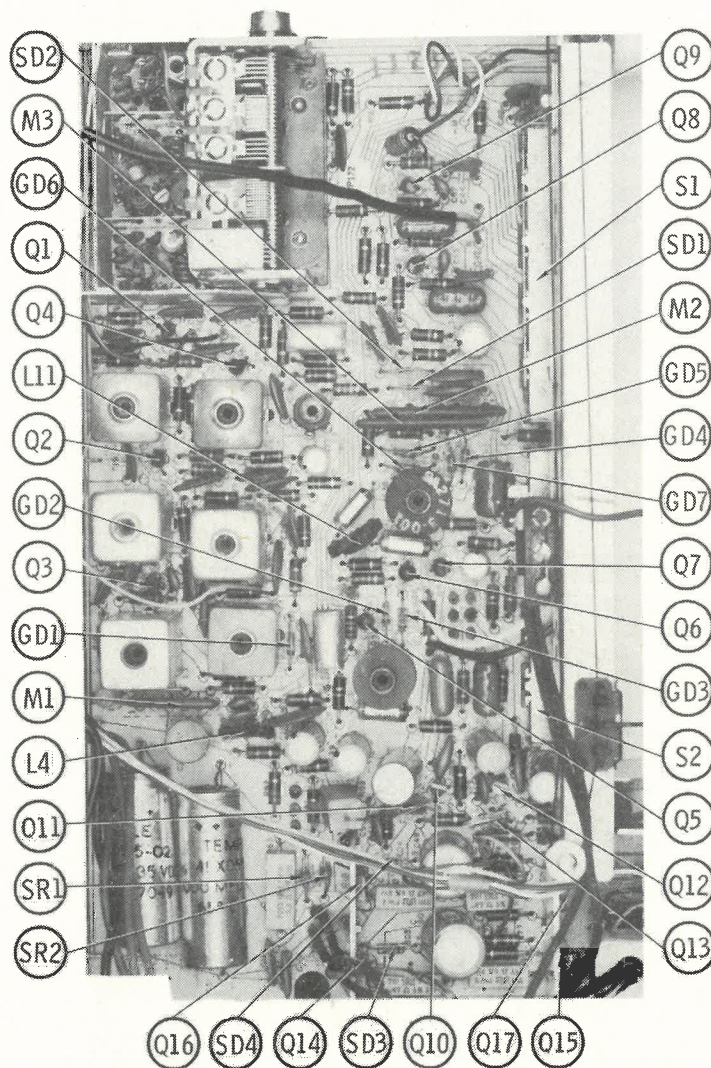
BRADFORD
AM-FM STEREO RADIO

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 1210 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.

For Service Information On Record Changer Part #VM1293-J41 -- See Similar Changer In Photofact Set 1108, Folder 5.

For Service Information On Tape Recorder Part #28A0445-001 -- See Similar Tape Recorder In TR72 Manual, Page 55.

BRADFORD
AM-FM STEREO RADIOBRADFORD
AM-FM STEREO RADIO

REMEMBER TO ASK— "What else needs fixing?"

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

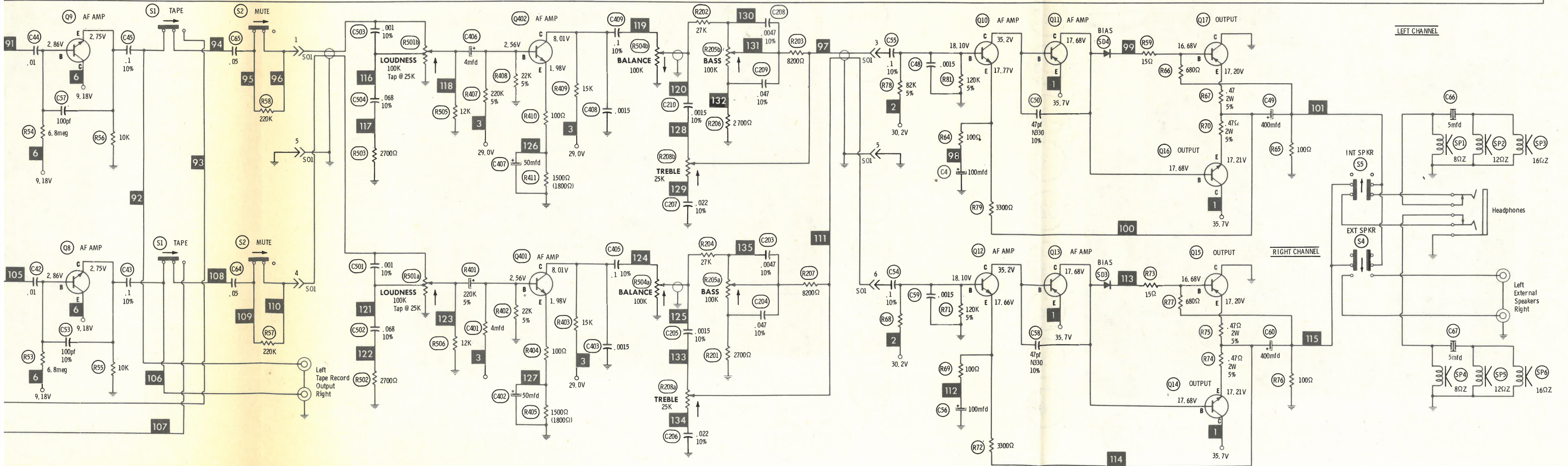
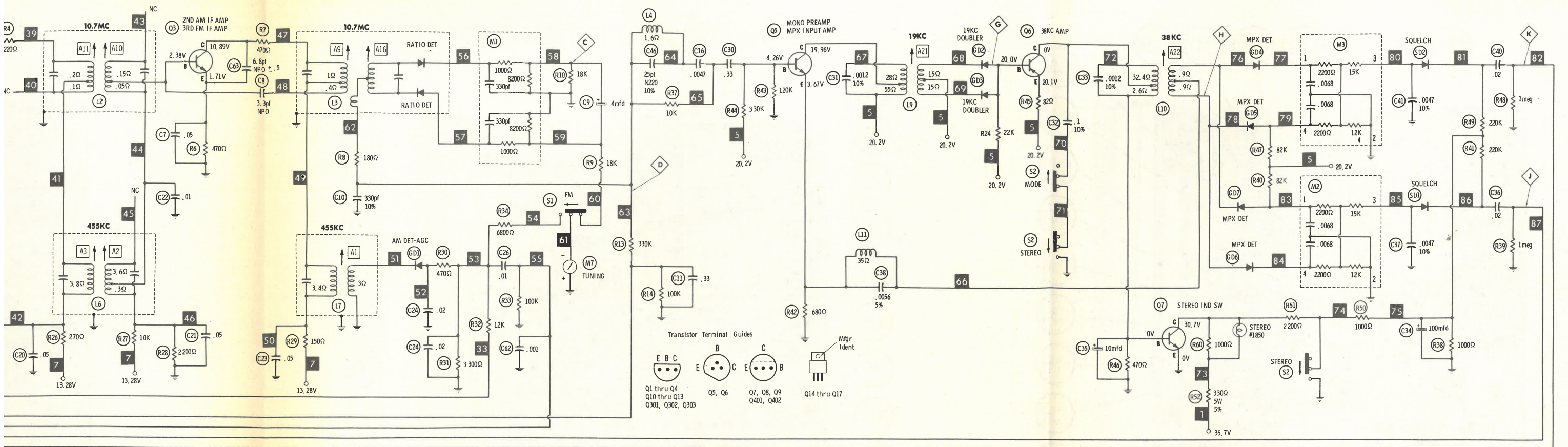


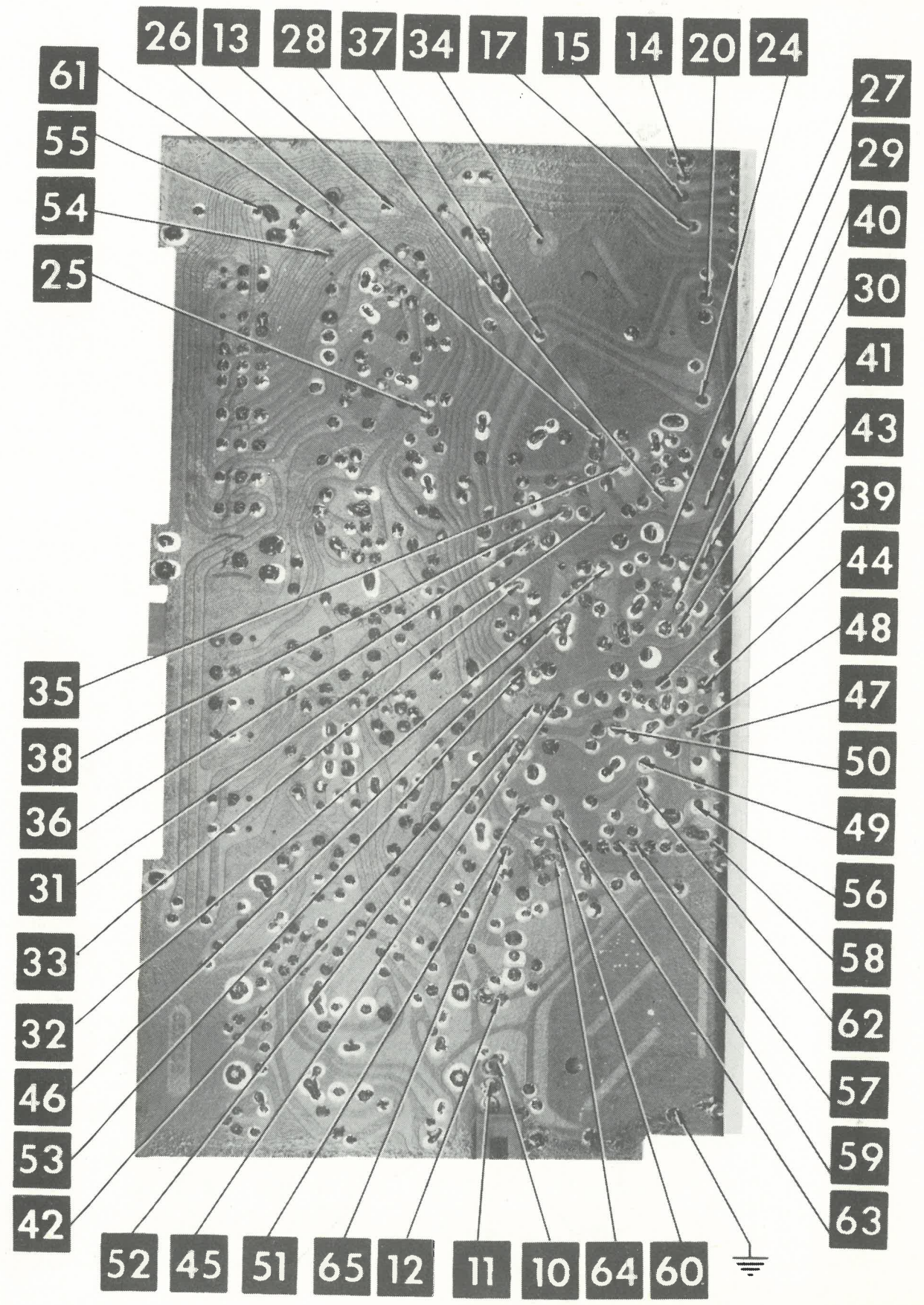
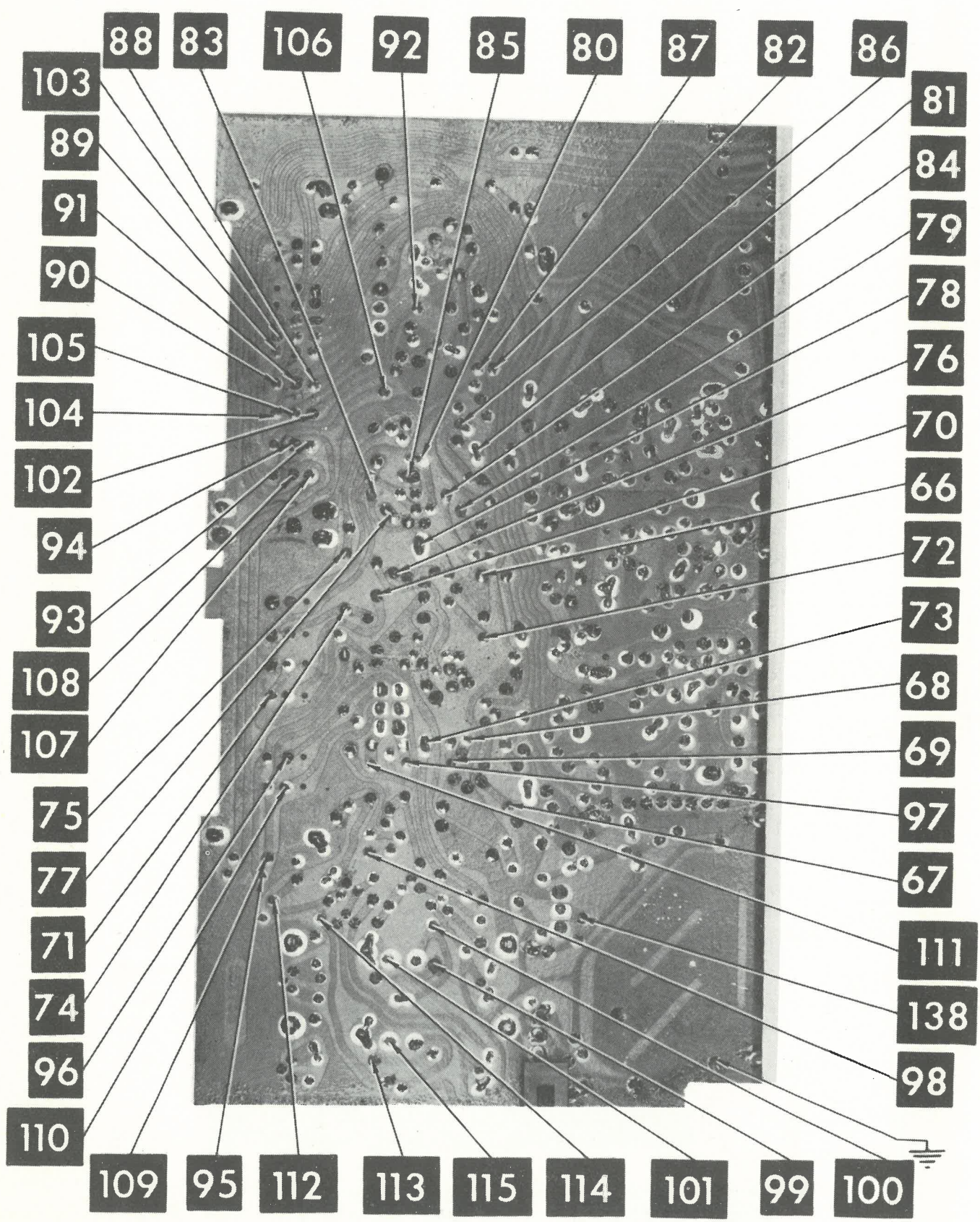
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W.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

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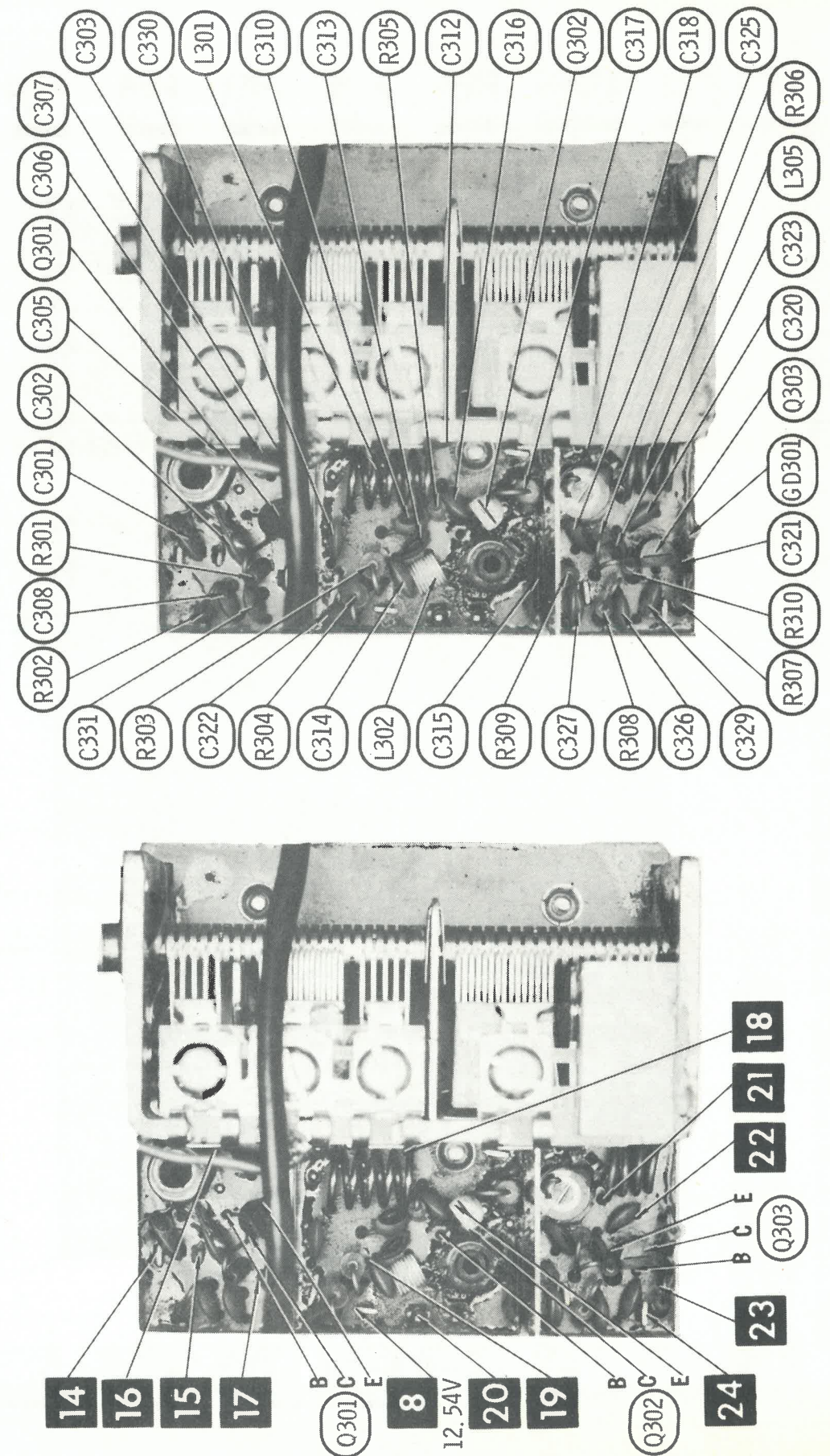
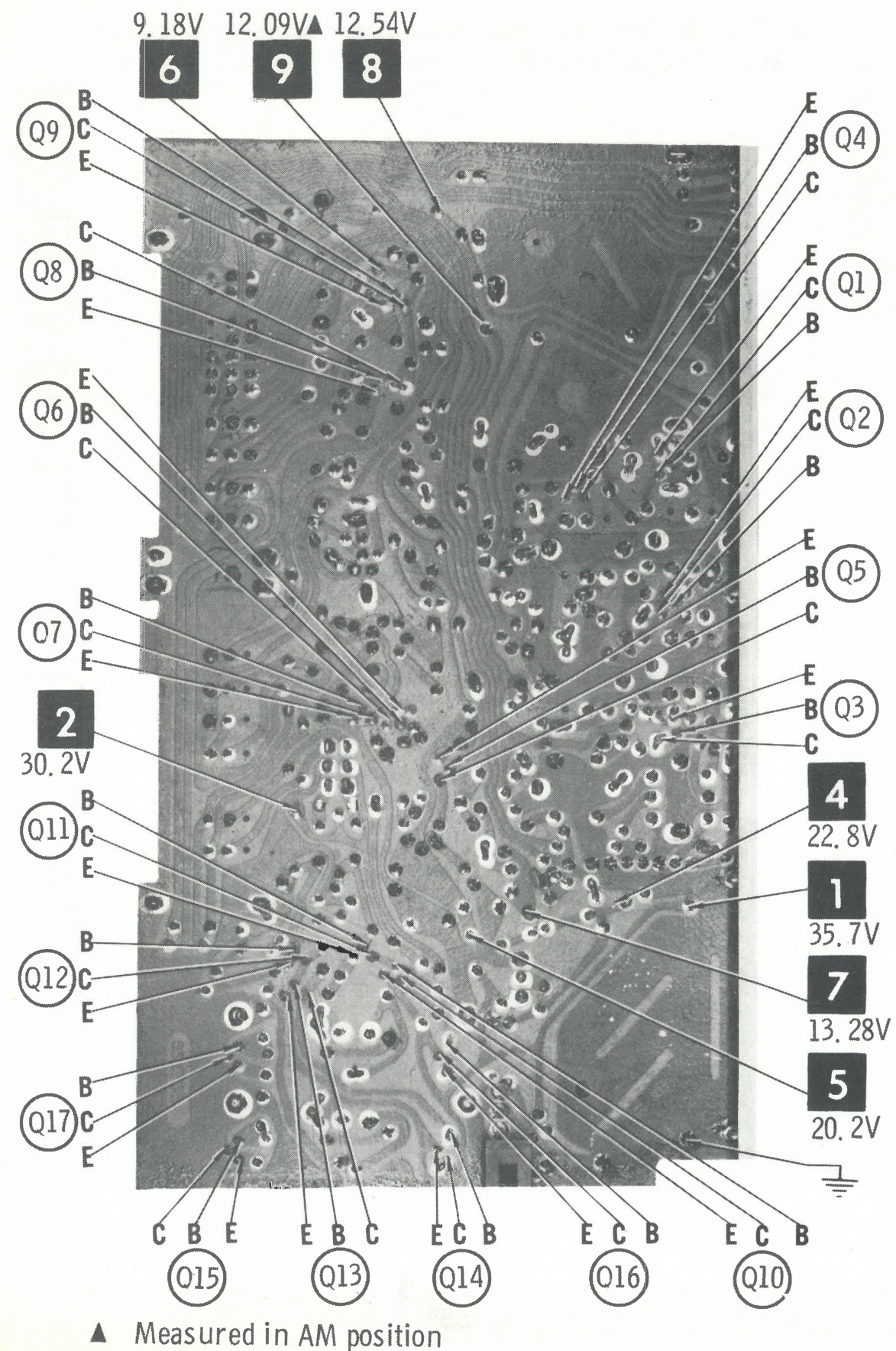
SET 1 210 FOLDER 1-A

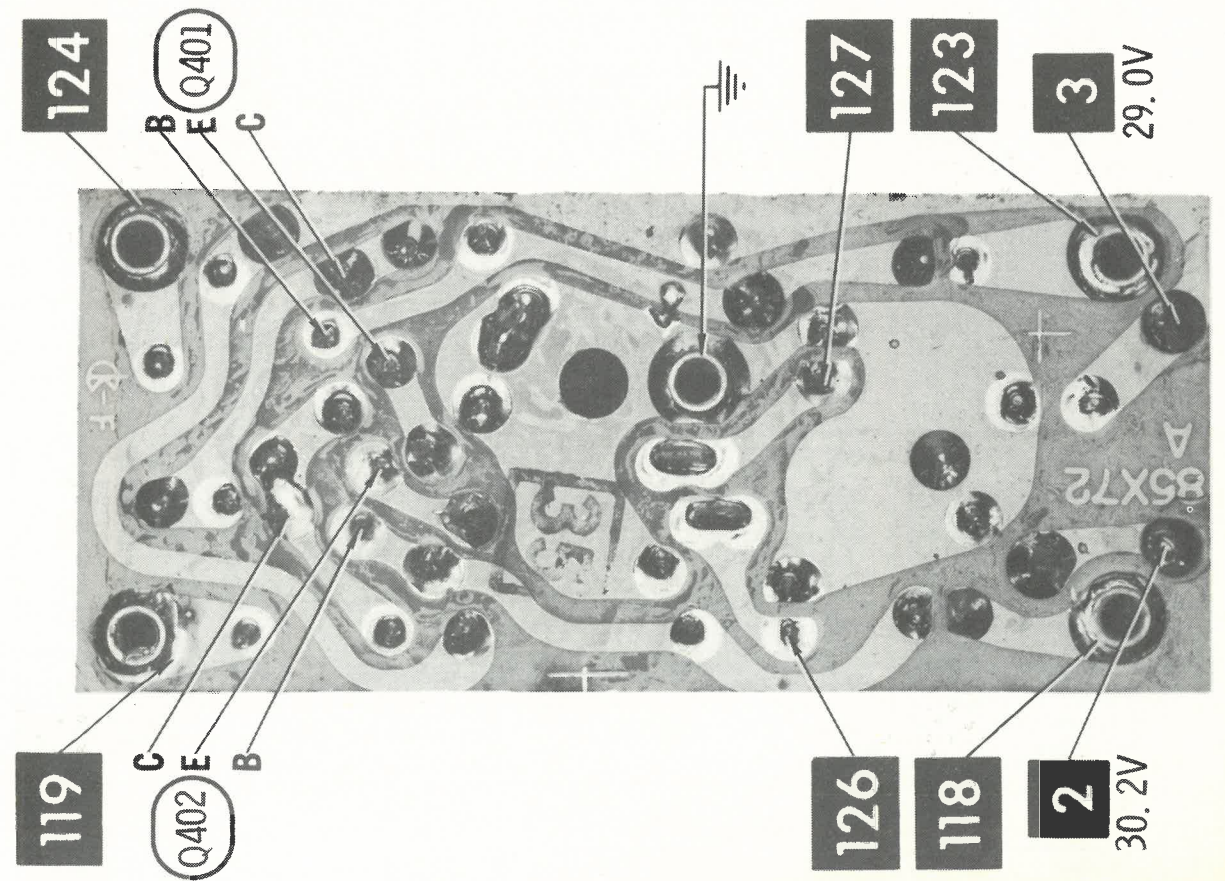
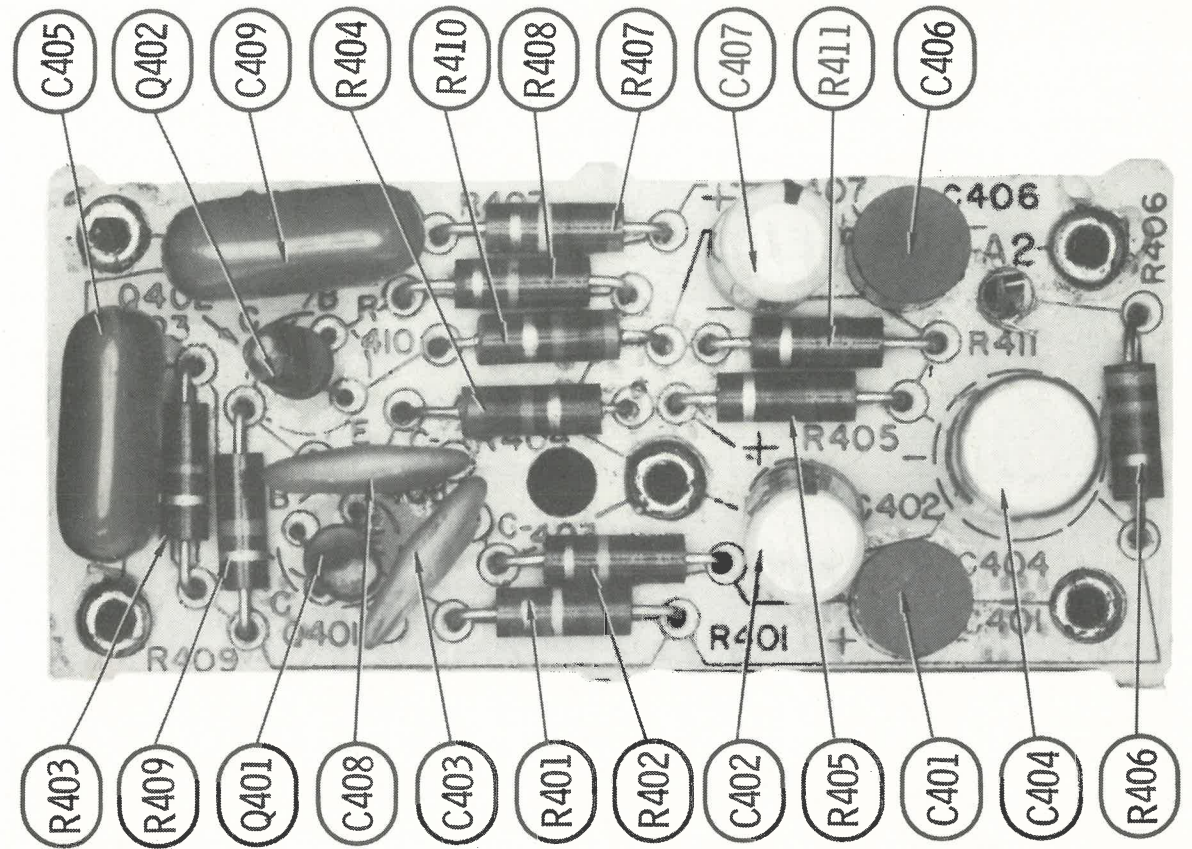
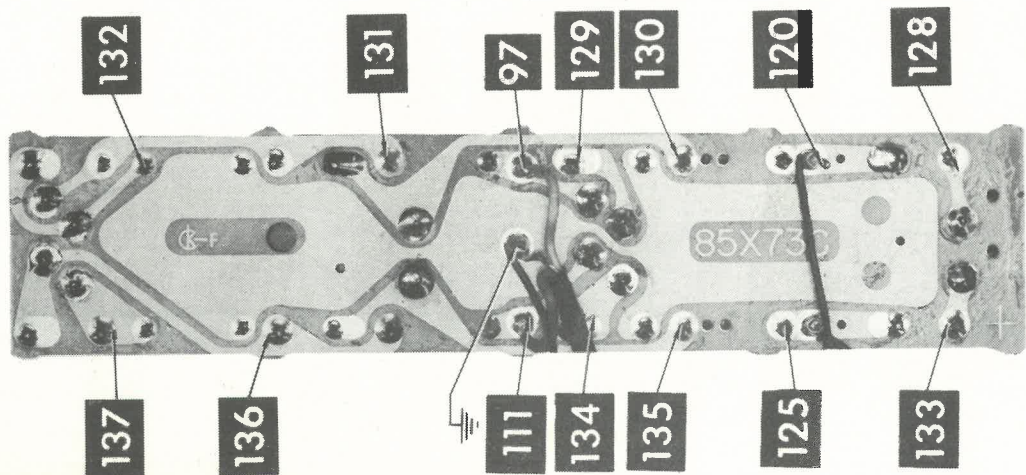
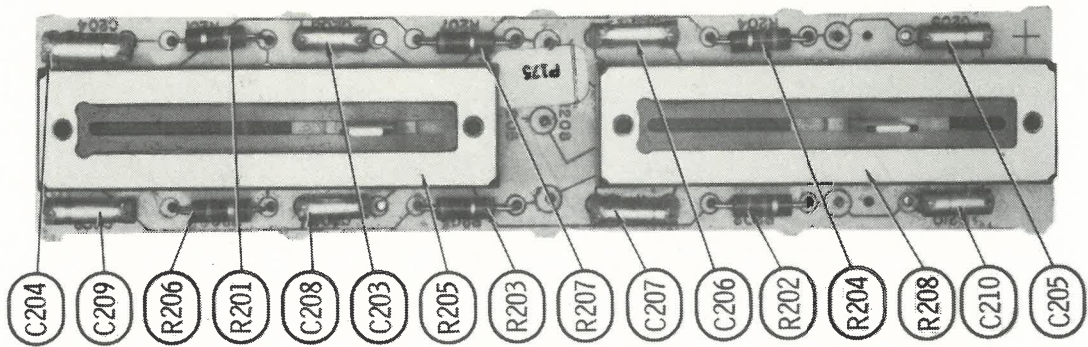
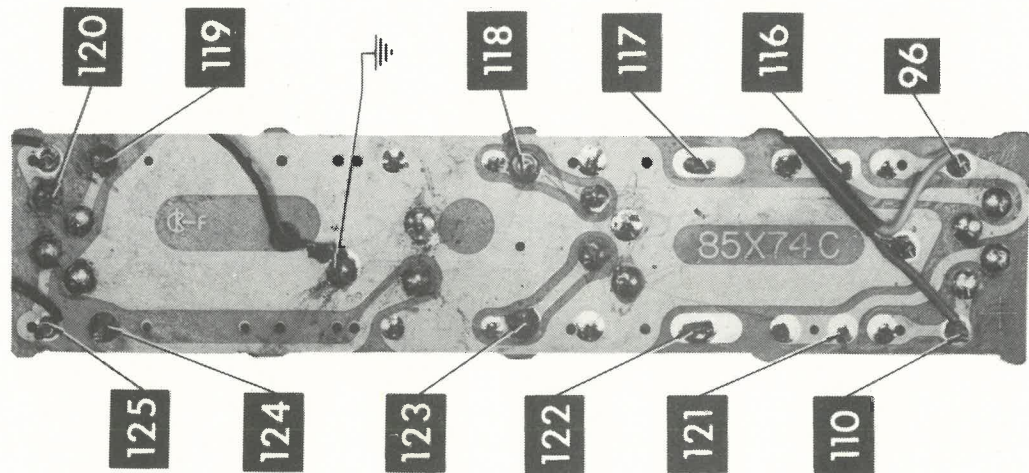
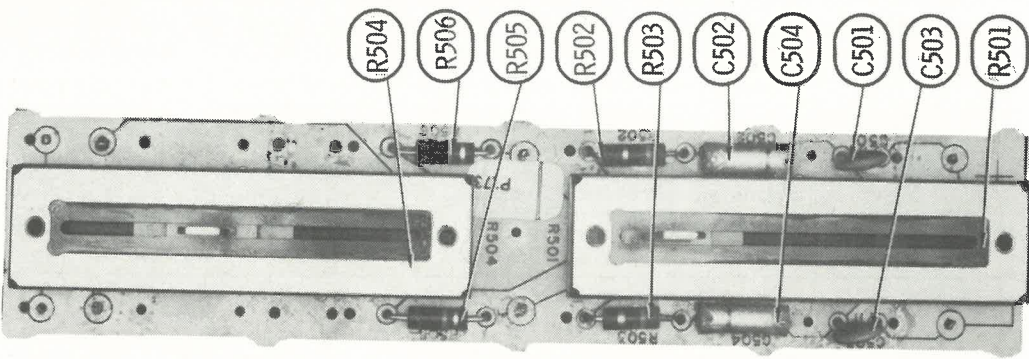




BRADFORD
AM-FM STEREO RADIO

FOLDER 1-A








ALIGNMENT INSTRUCTIONS

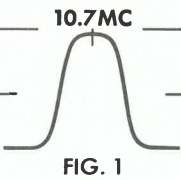
CAUTION: Use isolation transformer or observe polarity when connecting test equipment.	
Maintain line voltage at 117VAC. Allow a 15-minute warm-up period.	
Use only enough generator output to obtain a suitable indication.	
Suggested Alignment Tools:	
	GENERAL CEMENT:
A1 thru A5, A8 thru A13, A16, A21, A22	#8606, 8606L, 8869
A6, A7, A17 thru A19	#8868, 8987, 9089
A14, A15, A20	#9296, 9297, 9300

AM ALIGNMENT—SELECTOR IN AM POSITION




Connect generator across loop fashioned of several turns of wire. Set volume at maximum.				
GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC 400 cycle modulation	Tuning gang fully open.	Output Meter across voice coil.	A1 Thru A5	Adjust for maximum. Repeat until no further improvement can be made.
2. 1640KC	"	"	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 IF ALIGNMENT USING AM SIGNAL GENERATOR—SELECTOR IN FM POSITION


High side of generator thru .001mfd to point  , low side to ground.				
GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC Unmodulated	Point of non-interference	DC probe of VTVM to point  , common to ground.	A9 Thru A15	Adjust for maximum.
6. "	"	DC probe of VTVM to point  , common to ground.	A16	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.

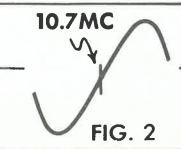


FM IF ALIGNMENT USING FM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001mfd to point  , low side to ground. Use only enough marker signal for indication. Use 60 cycle frequency modulated signal with 450KC sweep. Use 60 cycle sawtooth voltage in scope for horizontal deflection.				
GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC 450KC Sweep	Point of non-interference	Vert. amp of scope to point  , low side to ground.	A9 Thru A15	Disconnect stabilizing capacitor C 9 . Adjust for maximum gain and symmetry of response similar to Fig.1 with marker as shown. Reconnect C 9 .
6. "	"	Vert. amp of scope to point  , low side to ground.	A16	Adjust A16 (secondary) to place marker at center of "S" curve similar to Fig. 2. Readjust A9 (primary) for maximum amplitude and straightness of line.






FM RF ALIGNMENT—SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120-ohm carbon resistor in series with each lead.				
GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 108.5MC	High freq. end	DC probe of VTVM to point  , common to ground.	A17, A18, A19	Adjust for maximum.
8. 90MC Unmodulated	Tune to signal.	"	A20	Rock tuning and adjust for maximum. Repeat steps 7 and 8 until no further improvement can be made.



ALIGNMENT INSTRUCTIONS (Continued)

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001% ACCURACY)

High side of generator thru 47K to point  , low side to ground.			
GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
9. 19KC	Vert. amp of scope thru 47K to point  , low side to ground.	A21	Adjust for maximum.
10. "	Vert. amp of scope thru 47K to point  , low side to ground.	A22	Adjust for maximum 38KC response.
11. Modulated Left Channel	Vert. amp of scope to point  , low side to ground.	A21 A22	Adjust for MINIMUM. This step should require only slight adjustment.
12. Modulated Right Channel	Vert. amp of scope to point  , low side to ground		Check for MINIMUM. If necessary make compromise adjustment of A21 & A22.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	8" PM, 8 ohms	12A0570-001	8A1Z8	
SP2	5" PM, 12 ohms	12A0593-000	5A15Z12	
SP3	3-1/2" PM, 16 ohms	12A0658-001		
SP4	8" PM, 8 ohms	12A0570-001	8A1Z8	
SP5	5" PM, 12 ohms	12A0593-000	5A15Z12	
SP6	3-1/2" PM, 16 ohms	12A0658-001		

PHONO CARTRIDGE & NEEDLES

ITEM No.	REPLACEMENT DATA						NOTES
	MFRG. PART No.		ASTATIC PART No.		ELECTRO-VOICE PART No.		
	CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	
M4 M5	2-11D-V133	D/S11D	1260d	N730sd N730sd	5498D	3373DS 3310DS	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	Tuner Component Combination	25A1281-001 76X0076-001 (76X76-001)	AM/FM Ratio Det. Filter
M2	Component Combination	76X0077-001 (76X77-001)	MPX Det. Filter
M3	Component Combination	76X0077-001 (76X77-001)	MPX Det. Filter
M6	Motor	16A0026-001	Phono Tuning
M7	Meter	2A0625-001	Function (AM-FM-Phono-Tape)
S1	Switch	2A0626-001	Function (AFC-FM Stereo-Mode-Mute)
S2	Switch	2A0621-001	Power, On-Off
S3	Switch	2A0616-001	Ext. Speakers
S4	Switch	2A0616-001	Int. Speakers
S5	Switch	2A0616-001	On-Off (On Changer)
S6	Printed Circuit Board	38A4303-000	IF, MPX, Audio Assembly, Complete (P172)
	Printed Circuit Board	38A4304-000	Control, Vol., Bal., Complete (P173)
	Printed Circuit Board	38A4305-000	Preamp Assembly, Complete (P174)
	Printed Circuit Board	38A4306-000	Control, Bass, Treble Complete (P175)
	45RPM Adapter	28A0437-001	
	Idler Wheel		
	Hold Down Arm		
	Tone Arm		WALSCO Replacement 1496-05

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord	8524 (Stranded) Available in 12 Colors
	17106 (Plastic) or 17126 (Rubber) - 6 Feet
	17109 (Plastic) or 17129 (Rubber) - 9 Feet
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)

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

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.
C315	120 NPO	(1)	NPO-DI 100	DTZ-100	NP0100	CCTO-101	CN0310	10TCC-T10
C316	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C317	1.5		NPO-DI 1.5	DTZ-1R5	NP01P5	*	CN0515	10TCC-V15
C318	12 N470						*	10TCT-Q12
C319	Trimmer							
C320	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C321	15 NPO		NPO-DI 15	DTZ-15	NP015	CCTO-150	CN0415	10TCC-Q15
C322	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C323	10 NPO		NPO-DI 10	DTZ-10	NP010	CCTO-100	CN0410	10TCC-Q10
C325	20 NPO		NPO-DI 20	DTZ-20	NP020	CCTO-200	CN0420	10TCC-Q20
C326	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C327	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C329	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C330	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C331	.01		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C403	.0015 500V		GPD X5F152K	DD-152	GP10000	CCD-152	GP215	10TS-D15
C405	.1 100V 10%		DBE2P1		DPMS2P1	1DP-2-104	PVC101	225P10491WD3
C408	.0015 500V 10%		GPD X5F152K	DD-152	GP10000	CCD-152	GP215	10TS-D15
C409	.1 100V 10%		DBE2P1		DPMS2P1	1DP-2-104	PVC101	225P10491WD3
C501	.001 500V 10%		GPD X5F102K	DD-102	GP10000	CCD-102	GP210	10TS-D10
C502	.068 100V 10%		DBE4S68		DPMS6S68	4DP-3-683	PVC6168	4PS-S68
C503	.001 500V 10%		GPD X5F102K	DD-102	GP10000	CCD-102	GP210	10TS-D10
C504	.068 100V 10%		DBE4S68		DPMS6S68	4DP-3-683	PVC6168	4PS-S68

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

Bradford Part Number. (1) Part of Tuner, Part #25A1281-001.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R205a	Bass, Right	100K	40X0624-001				
b	Bass (Left)	100K					
R208a	Treble (Right)	25K	40X0625-001				
b	Treble (Left)	25K					
R501a	Loudness (Right)	100K	36X0480-001				
b	Loudness (Left)	100K					
R504a	Balance (Right)	100K	36X0481-001				
b	Balance (Left)	100K					

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.			WORKMAN PART No.	MFGR. PART No.
R52	330 5% 5W WW		43X0401-034	R70	.47 5% 2W WW	WS-.47	43X0401-015
R63	3.3 5W WW	5W-SQ-3	43X0401-029	R74	.47 5% 2W WW	WS-.47	43X0401-015
R67	.47 5% 2W WW	WS-.47	43X0401-015	R75	.47 5% 2W WW	WS-.47	43X0401-015

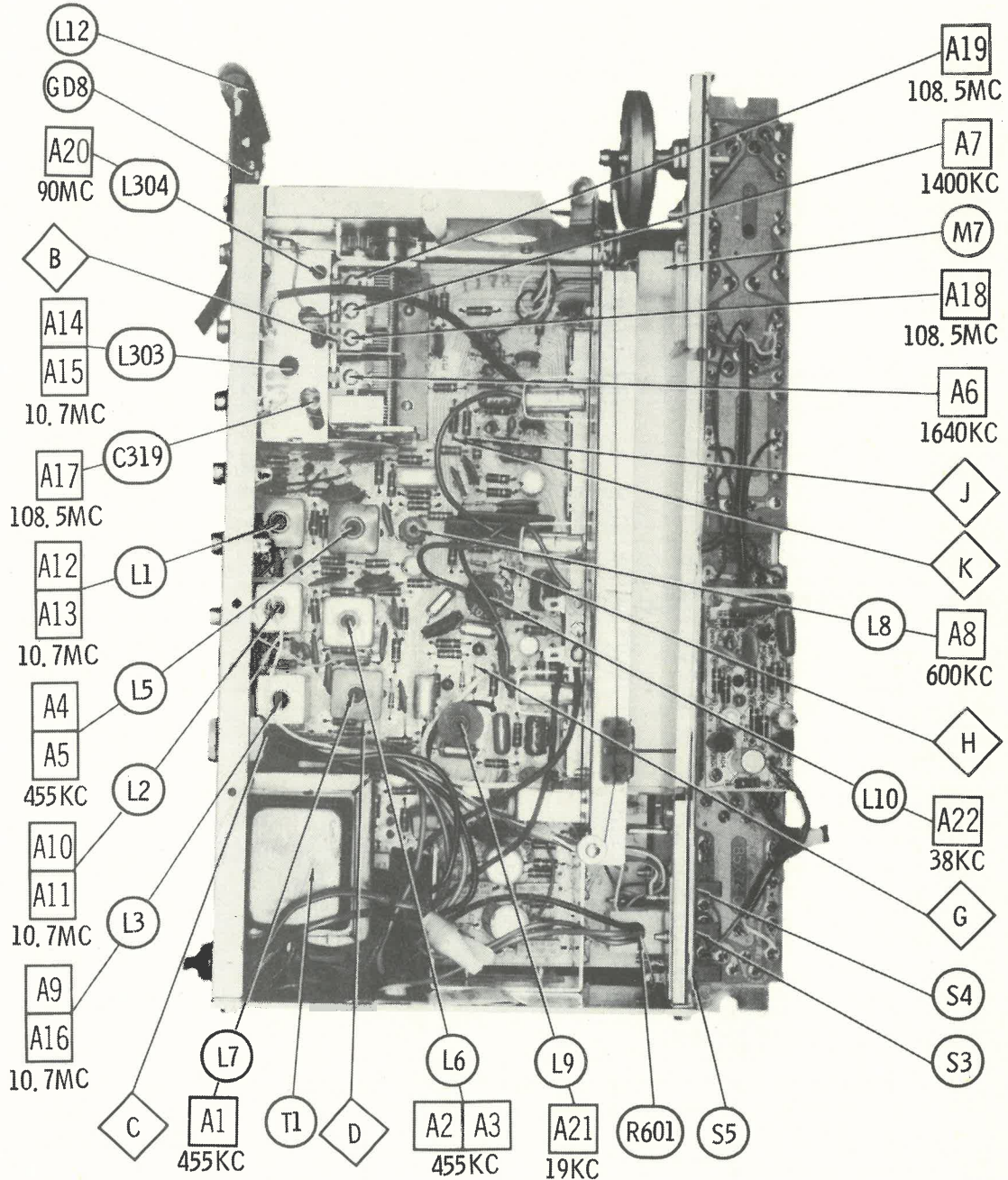
COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	FM Interstage IF	9A2674-001			
L2	FM Interstage IF	9A2675-001			
L3	Ratio Detector	9A2702-001			
L4	RF Choke (10uh)	36A0095-002	19-2016	72F105AP	T823
L5	AM Input IF	9A2700-001			
L6	AM Interstage IF	9A2715-001			
L7	AM Output IF	9A2670-001			
L8	AM Oscillator	9A2714-001			
L9	19KC Doubler	9A2612-001			
L10	38KC Output	9A2713-001			
L11	72KC Trap	36A0095-005	19-2032	72F103AP	T873
L12	Loopstick (AM)	9A2712-001			
L301	FM RF	*			
L302	RF Choke (8 Turns)	*			
L303	FM Input IF	*			
L304	FM Antenna	*			
L305	FM Oscillator	*			

* Part of 25A1281-001 Tuner Assembly.

TRANSFORMER (Power)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .14AAC	53VAC/CT @ .5ADC Max.	6.3VAC @ .5AAC	53X0457-001 (A)				



BRADFORD
AM-FM STEREO RADIO

FOLDER 1-A

PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q1	SPS2224	1st FM IF Amp	86X0043-001 (043001)	GE-20	TR-21	HEP56	SK3018	ECG 108
Q2	SPS2224	1st AM-2nd FM IF Amp	86X0043-001 (043001)	GE-20	TR-21	HEP56	SK3018	ECG 108
Q3	SPS2224	2nd AM-3rd FM IF Amp	86X0043-001 (043001)	GE-20	TR-21	HEP56	SK3018	ECG 108
Q4	SPS2224	AM Converter	86X0043-001 (043001)	GE-20	TR-21	HEP56	SK3018	ECG 108
Q5	SE4010	Mono Preamp-MPX Input Amp	86X007-004 (86X7-4)	GE-20	TR-21	HEP720	SK3020	ECG 108
Q6	2N4916	38KC Amp	86X0036-001 (0036-001)	GE-21	TR-19	HEP52	SK3025	ECG 159
Q7	MPS6531	Stereo Ind. Switch	86X0022-001 (22-1)	GE-18	TR-24	HEP721	SK3020	ECG 123A
Q8	A749	AF Amp	86X0031-001 (31-1)	GE-18	TR-24	HEP737	SK3020	ECG 123A
Q9	A749	AF Amp	86X0031-001 (31-1)	GE-18	TR-24	HEP737	SK3020	ECG 123A
Q10	SPS2225	AF Amp	86X0040-001 (040001)	GE-18	TR-24	HEP737	SK3020	ECG 123A
Q11	SPS2274	AF Amp	86X0046-001 (86X46)	GE-21	TR-30	HEP717	SK3025	ECG 159
Q12	SPS2225	AF Amp	86X0040-001 (040001)	GE-18	TR-24	HEP737	SK3020	ECG 123A
Q13	SPS2274	AF Amp	86X0046-001 (86X46)	GE-21	TR-30	HEP717	SK3025	ECG 159
Q14	MJE521	Output	86X0042-002 (1)	GE-28	IRTR-55	HEP245		ECG 184
Q15	MJE371	Output	86X0042-001 (1)	GE-29	IRTR-56	HEP246		ECG 185
Q16	MJE521	Output	86X0042-002 (1)	GE-28	IRTR-55	HEP245		ECG 184
Q17	MJE371	Output	86X0042-001 (1)	GE-29	IRTR-56	HEP246		ECG 185
Q301	4167	FM RF Amp	(2)	GE-17	TR-21	HEP56	SK3018	ECG 161
Q302	4168	FM Mixer	(2)	GE-17	TR-21	HEP56	SK3018	ECG 161
Q303	4169	FM Oscillator	(2)	GE-17	TR-21	HEP56	SK3018	ECG 161
Q401	A749	AF Amp	86X0031-001 (31-1)	GE-18	TR-24	HEP737	SK3020	ECG 123A
Q402	A749	AF Amp	86X0031-001 (31-1)	GE-18	TR-24	HEP737	SK3020	ECG 123A

(1) Matched Pair, Matched Pair Part Number 86X0042-100 includes one NPN & one PNP Transistor.
(2) Part of Tuner, Tuner Part Number 25A1281-001.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT DATA				NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.	
GD1	66X0039-001	1N60	1N60	1N60	ECG 109	(6) Matched pair.
GD2	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD3	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD4	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD5	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD6	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD7	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	Varactor
GD8	66X0039-001	1N60	1N60	1N60	ECG 110 (6)	
GD301	*	GE-90				
SD1	66X0044-001	GE-300			ECG 177	
SD2	66X0044-001	GE-300			ECG 177	
SD3	66X0044-001	GE-300			ECG 177	
SD4	66X0044-001	GE-300			ECG 177	
SR1	66X0023-003	GE-504A	8D4 or 5A4D	SK3030 or SK3031	ECG 116 or ECG 117	
SR2	66X0023-003	GE-504A	8D4 or 5A4D	SK3030 or SK3031	ECG 116 or ECG 117	

* Part of Tuner Part No. 25A1281-001.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		BRADFORD PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	100 25V	45X0524-001	MCD-180	EA30-100	WBR100-25	MT1-20	MTV100DB25	TE-1211
C9	4 25V	45X0524-005	MCD-50	EP30-5	WBR5-50	MT1-3	MTV5CB50	TE-1202
C27	10 25V	45X0524-002	MCD-70	EP30-10	WBR10-25	MT1-5	MTV10CB50	TE-1204
C28	100 25V	45X0524-001	MCD-180	EA30-100	WBR100-25	MT1-20	MTV100DB25	TE-1211
C29	100 30V	45X0524-017	MCD-180	EA30-100	WBR100-25	MT1-20	MTV100DB25	TE-1211
C34	100 10V	45X0524-014	MCD-180	EP15-100	WBR100-16	MT1-19	MTV100CB10	TE-1135
C35	10 25V	45X0524-002	MCD-70	EP30-10	WBR10-25	MT1-5	MTV10CB50	TE-1204
C39	100 25V	45X0524-001	MCD-180	EA30-100	WBR100-25	MT1-20	MTV100DB25	TE-1211
C47	2 25V	45X0524-001	CRE751A	EA30-2	WBR2-50	MT1-1	MTA2D50	TE-1201
	1 15V	45X0515-022						

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA							
		PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.	
C49	400 20V	45X0524-015	PRS1290	EA30-500	WBR500-25	QT1-30A	TC2505C	TL-1217	
C51	1000 35V	45X0515-021	PRS1395	EA50-1000	WBR1000-35		TC50100A	TL-1317	
C52	1000 35V	45X0515-021	PRS1395	EA50-1000	WBR1000-35		TC50100A	TL-1317	
C56	100 25V		MCD-180	EA30-100	WBR100-25			TE-1211	
	100 20V	45X0524-001				MT1-20	MTV100DB25		
C60	400 20V	45X0524-015	PRS1290	EA30-500	WBR500-25	QT1-30A	TC2505C	TL-1217	
C61	240 30V	45X0524-016	PRS1380	EA50-250	WBR250-50	QT1-29	TC50025A	TL-1313	
C66	5 10VNP	45X0534-001A	PRS7550		BRNP5-15	NPQT-1	TCN105	TVAN-1203.1	
C67	5 10VNP	45X0534-001A	PRS7550		BRNP5-15	NPQT-1	TCN105	TVAN-1203.1	
C401	4 20V	45X0524-005	MCD-50	EP30-5	WBR5-50	MT1-3	MTV5CB50	TE-1202	
C402	50 10V		MCD-130	EP15-50	WBR50-25	MT1-16	MTV50CB15	TE-1133	
	50 6V	45X0524-018							
C404	100 30V	35X0524-017	CRE900A	EA50-100	WBR100-35	MT1-20	MTV100DB35	TE-1309	
C406	4 20V	45X0524-005	MCD-50	EP30-5	WBR5-50	MT1-3	MTV5CB50	TE-1202	
C407	50 10V		MCD-130	EP15-50	WBR50-25	MT1-16	MTV50CB15	TE-1133	
	50 6V	45X0524-018							

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.
C1	130 N750 500V 10%	#80X0099-111	GPD X5F152K	DD-152	N120	CCTN-121		
C2	.0015 500V		GPD Z5U203P	DD-203		CCD-152	GP215	10TS-D15
C3	.02 100V		TTP-05	CK-503	MGP05	CCD-203	GP120	10TS-S20
C5	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C6	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C7	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C8	3.3 NPO 500V +.25		NPO-DI 3.3	DTZ-3R3	NP03P3	CCN0533	TA150	10TCC-V33
C10	330 500V 10%		GPD X5F331K	DD-331	GP330	CCD-331	GP333	10TS-T33
C11	.33 75V		V1612P33		DPMS2P33	2DP-5-334	PVC2033	2PS-P33
C12	.02 100V		GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C13	.01 500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C14	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C15	.01 500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C16	.0047 500V		GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C17	.01 500V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C18	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C19	.01 100V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C20	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C21	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C22	.01 100V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C23	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C24	.02 100V		GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C25	.02 100V		GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C26	.01 100V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C30	.33 75V		V1612P33		DPMS2P33	2DP-5-334	PVC2033	2PS-P33
C31	.0012 500V 10%			CPR-1200J		DM-19-122	SX212	MS-212
C32	.1 100V 10%		DBE2P1		DPMS2P1	2DP-3-104	PVC201	2PS-P10
C33	.0012 500V 10%			CPR-1200J		DM-19-122	SX212	MS-212
C36	.02 100V		GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C37	.0047 500V 10%		GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C38	.0056 33V 5%			CPR-5600J		DM-20-562	SX256	MS-256
C40	.02 100V		GPD Z5U203P	DD-203		CCD-203	GP120	10TS-S20
C41	.0047 500V		GPD X5R472K	DD-472G	GP4700	CCD-472	JF247	10TS-D47
C42	.01 100V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C43	.1 100V 10%		DBE2P1		DPMS2P1	2DP-3-104	PVC201	2PS-P10
C44	.01 100V		GPD X5S103K	DD-103	GP10000	CCD-103	JF110	10TS-S10
C45	.1 100V		DBE2P1		DPMS2P1	2DP-3-104	PVC201	2PS-P10
C46	25 N150 500V 10%	#80X0099-112				*	*	10TCR-Q25
C48	.0015 500V		GPD X5F152K	DD-152		CCD-152	GP215	10TS-D15
C50	47 N330 10%	#80X0099-019		TCA-47		*	*	10TCS-Q47
C53	100 500V 10%		GPD X5F101K	DD-101	GP100	CCD-101	GP310	10TS-T10
C54	.1 100V 10%		DBE2P1		DPMS2P1	1DP-2-104	PVC101	225P10491WD3
C55	.1 100V 10%		DBE2P1		DPMS2P1	1DP-2-104	PVC101	225P10491WD3
C57	100 500V 10%		GPD X5F101K	DD-101	GP100	CCD-101	GP310	10TS-T10
C58	47 N330 10%	#80X0099-019		TCA-47		*	*	10TCS-Q47
C59	.0015 500V		GPD X5F152K	DD-152		CCD-152	GP215	10TS-D15
C62	.001 500V		GPD X5F102K	DD-102	GP1000	CCD-102	GP210	10TS-D10
C63	6.8 NPO 500V +.5		NPO-DI 6.8	DTZ-6R8	NP06P8	CCN0568	TA150	TGL-S50
C64	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C65	.05 50V		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C203	.0047 100V 10%		DBE6D47		DMS6D47	6DP-1-472	PVC6247	6PS-D47
C204	.047 100V 10%		DBE2P47		DPMS2P47	2DP-5-474	PVC2047	2PS-P47
C205	.0015 100V		DBE6D15		DPMS6D15	6DP-1-152	PVC6215	6PS-D15
C206	.022 100V 10%		V1612S22		DPMS6S22	1DP-1-223	PVC1122	225P22391WD3
C207	.022 100V 10%		V1612S22		DPMS6S22	1DP-1-223	PVC1122	225P22391WD3
C208	.0047 100V 10%		DBE6D47		DMS6D47	6DP-1-472	PVC6247	6PS-D47
C209	.047 100V		DBE2P47		DPMS2P47	2DP-5-474	PVC2047	2PS-P

