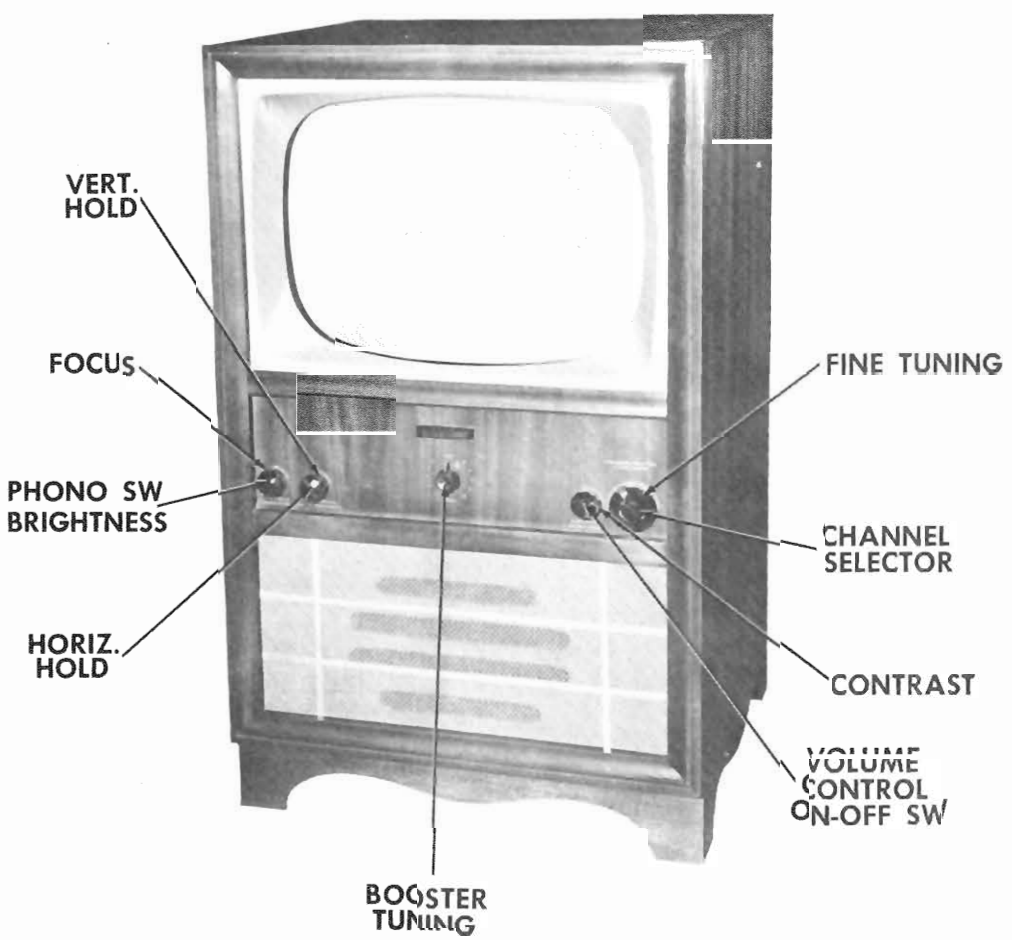


CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION



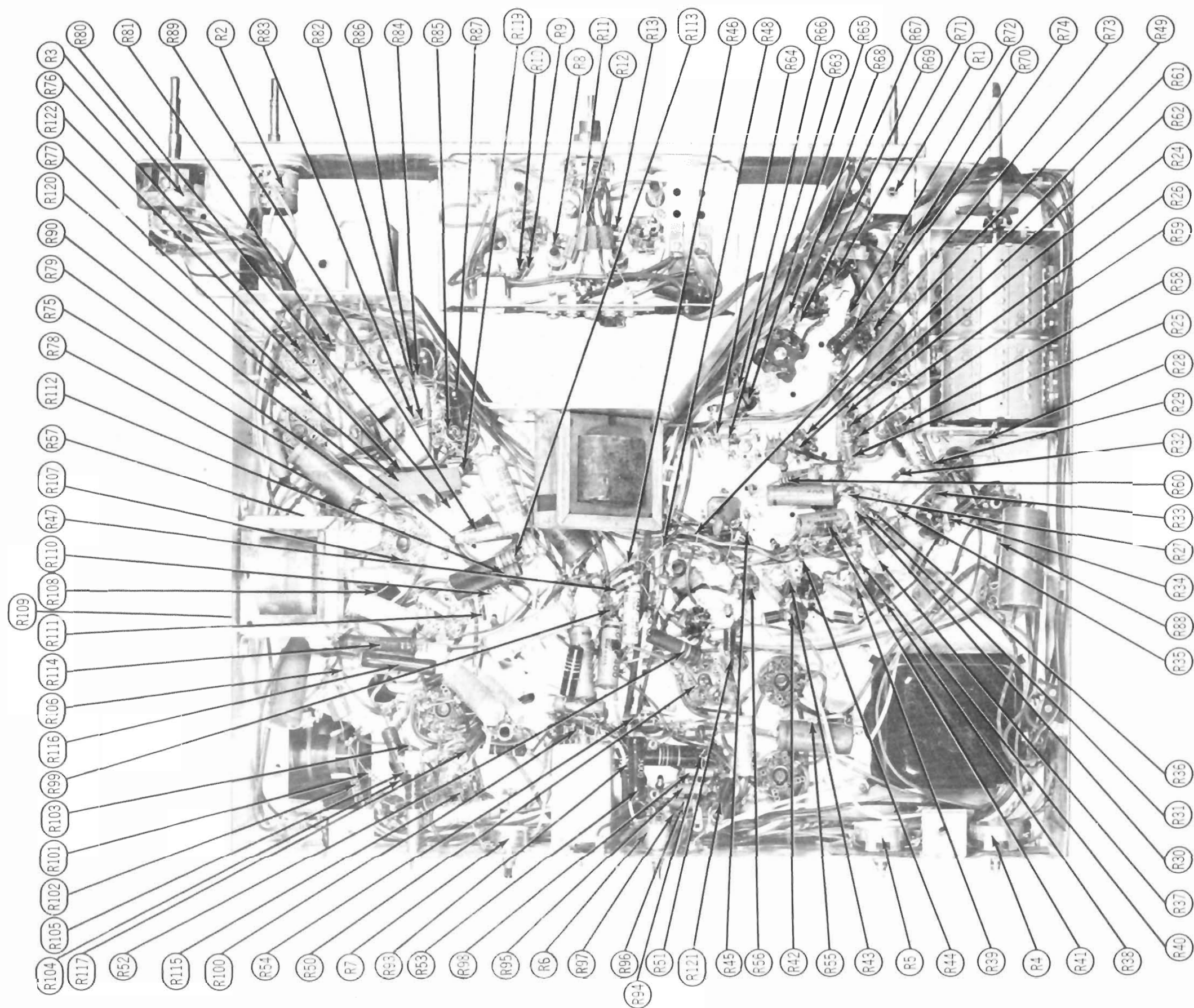
MATTISON
MODELS 630-6A, 630-6AB

MATTISON MODEL 630-6AB	
TRADE NAME	Mattison Models 630-6A, 630-6AB.
MANUFACTURER	Mattison Television & Radio Corp., 10 West 181 st. Street, New York 53, N. Y.
TYPE SET	Television Receiver
TUBES	Thirty-two
POWER SUPPLY	110-120 Volts A C-60 Cycle
TUNING RANGE	Channels 2 thru 13, Video IF 26.25 MC, Sound IF 21.75 MC (Separate Sound)
RATING 2.74 Amp. @ 117 Volts A C	
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Resistor Identification	19, 20

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

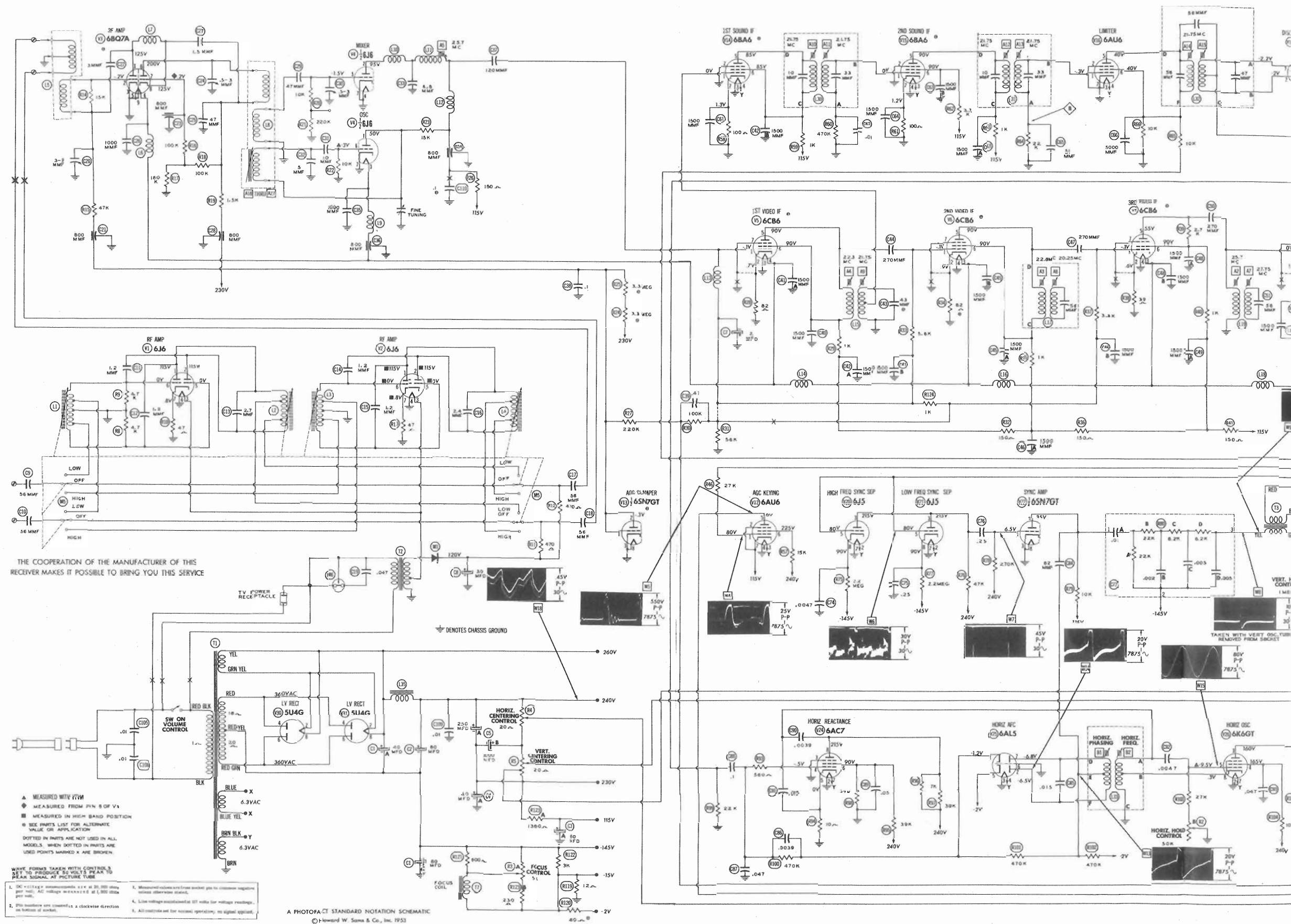
"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W.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

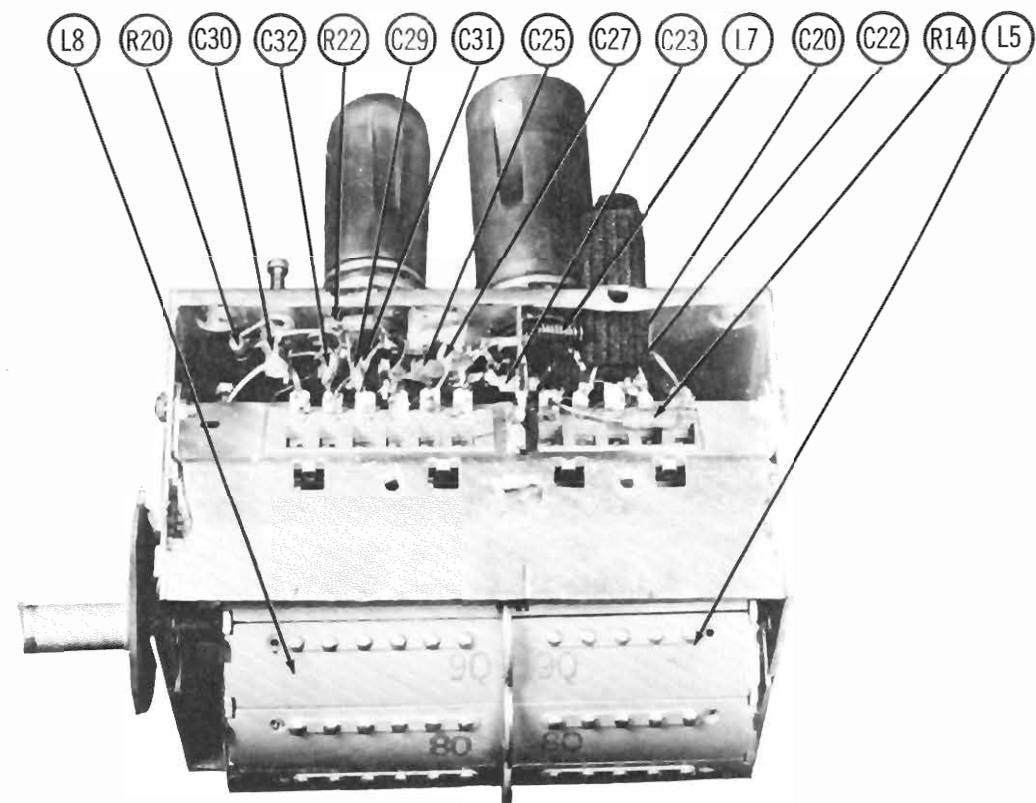
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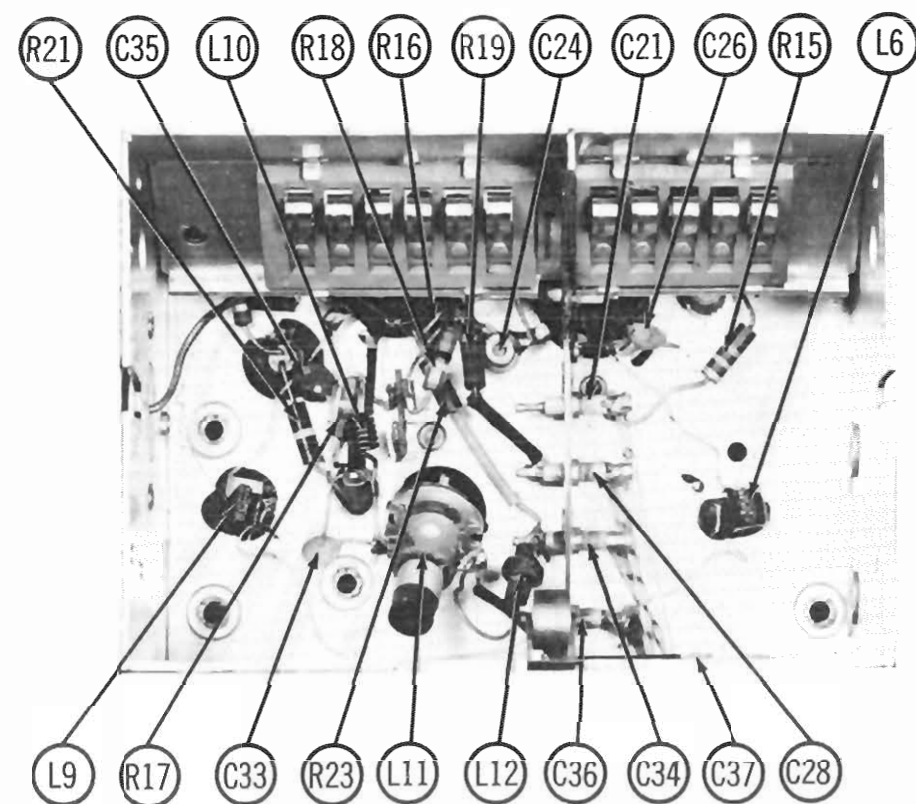
CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION



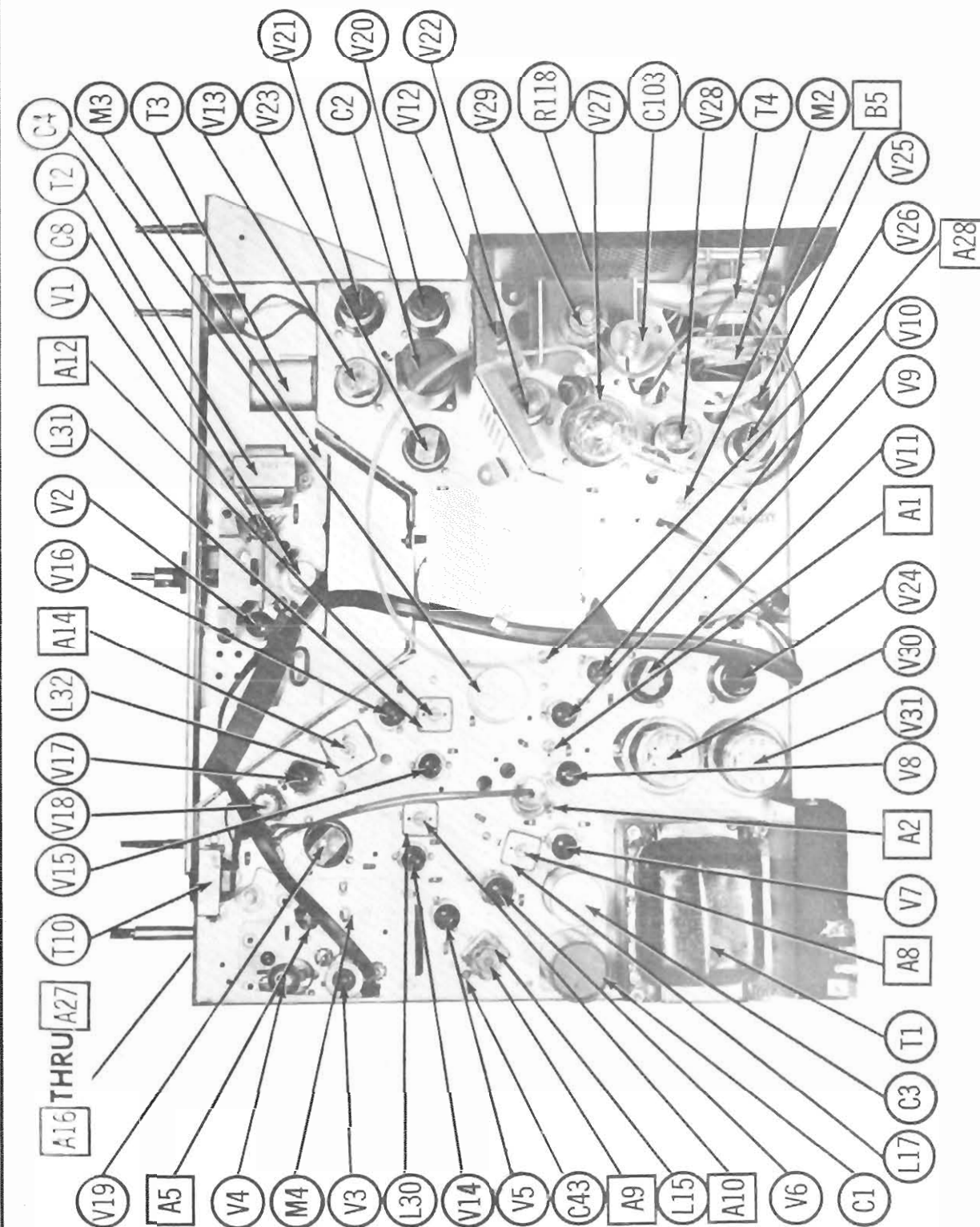




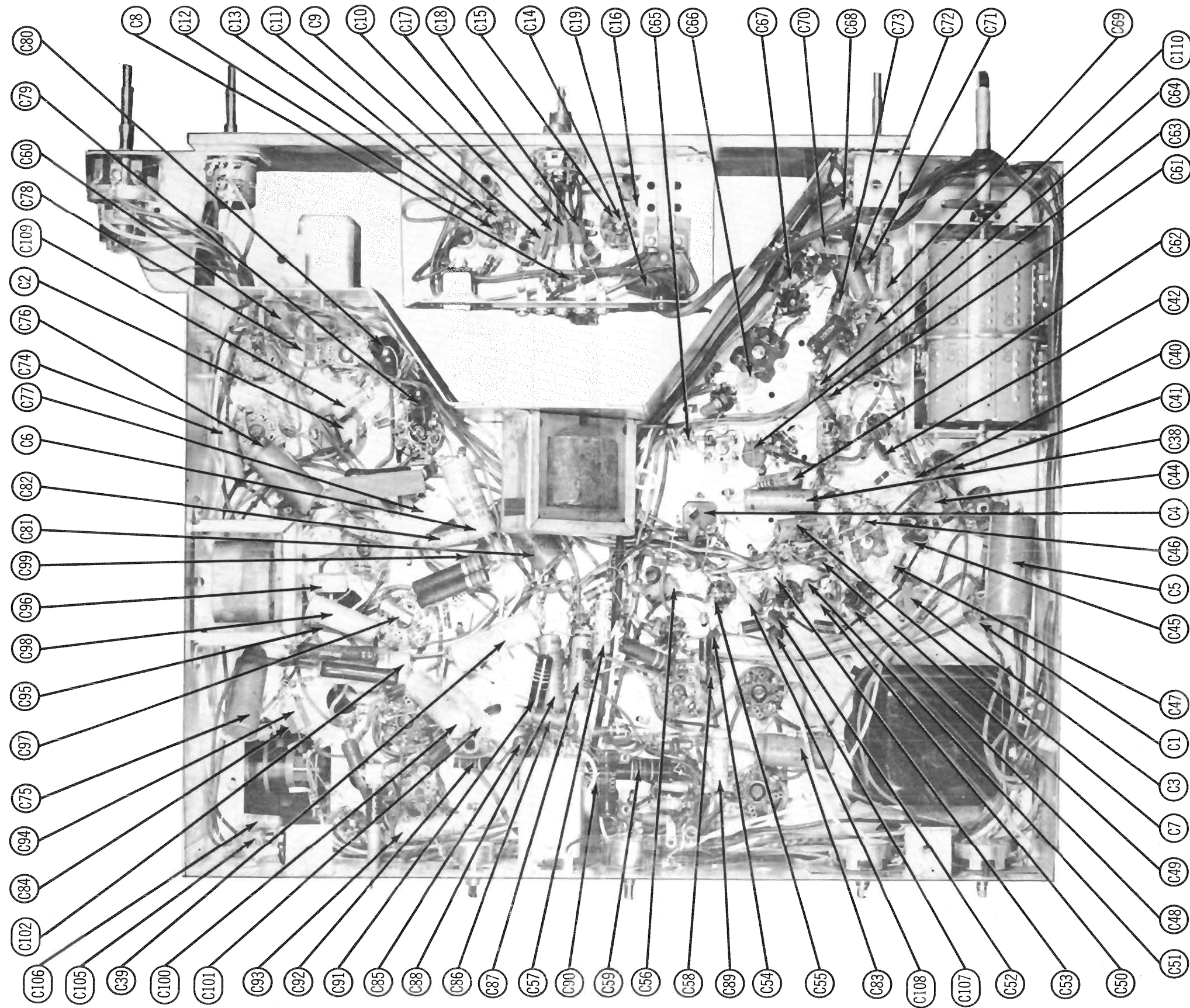
RF TUNER-RIGHT SIDE



RF TUNER-BOTTOM VIEW



MATTISON
MODELS 630-6A, 630-6AB
VIEW TOP SISSYHJ

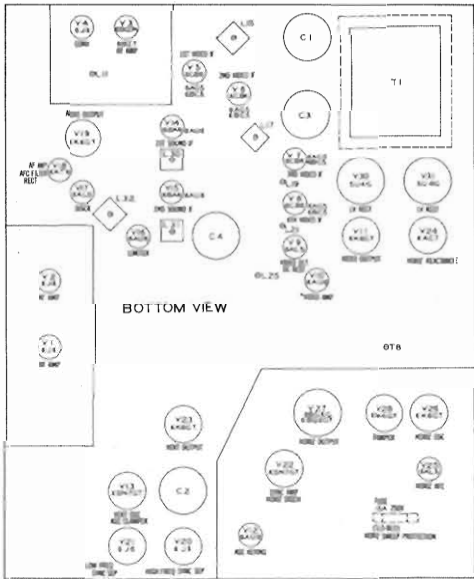


MATTISON
MODELS 630-6A, 630-6AB
CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

RESISTANCE MEASUREMENTS

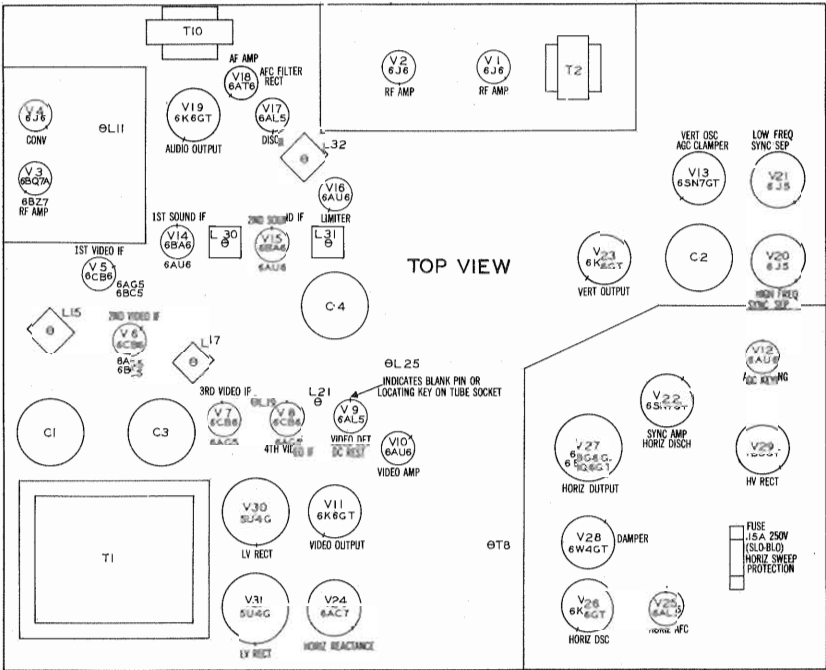
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	+235Ω	+235Ω	.5Ω	0Ω	0Ω	0Ω	47Ω		
V 2	6J6	+235Ω	+235Ω	.5Ω	0Ω	0Ω	0Ω	47Ω		
V 3	6BQ7A	INF	420KΩ	0Ω	.1Ω	0Ω	†1.6KΩ	†105KΩ	INF	0Ω
V 4	6J6	†16.6KΩ	†1.6KΩ	.1Ω	0Ω	230KΩ	10KΩ	0Ω		
V 5	6CB6	57KΩ	82Ω	0Ω	.1Ω	†2.9KΩ	†2.9KΩ	0Ω		
V 6	6CB6	63KΩ	82Ω	.1Ω	0Ω	†2.8KΩ	†2.8KΩ	0Ω		
V 7	6CB6	60KΩ	39Ω	.1Ω	0Ω	†5.2KΩ	†2.5KΩ	0Ω		
V 8	6CB6	.4Ω	150Ω	.1Ω	0Ω	7.9KΩ	†2.3KΩ	0Ω		
V 9	6AL5	.4Ω	200Ω	.1Ω	0Ω	1Meg	0Ω	3.9KΩ		
V 10	6AU6	3.9KΩ	0Ω	0Ω	.1Ω	†4.7KΩ	†1.4KΩ	.4Ω		
V 11	6K6GT	INF	0Ω	†3.1KΩ	†1.4KΩ	1Meg	2.3KΩ	.1Ω	2.6KΩ	
V 12	6AU6	†32KΩ	†1.4KΩ	.1Ω	0Ω	150KΩ	†15KΩ	†1.4KΩ		
V 13	6SN7GT	380KΩ	380KΩ	0Ω	2.2Meg	†1.2Meg	850Ω	.1Ω	0Ω	
V 14	6BA6	0Ω	0Ω	0Ω	.1Ω	†2.4KΩ	†2.4KΩ	100Ω		
V 15	6BA6	470KΩ	0Ω	.1Ω	0Ω	†2.4KΩ	†4.7KΩ	100Ω		
V 16	6AU6	22KΩ	0Ω	0Ω	.1Ω	†8.4KΩ	†8.4KΩ	0Ω		
V 17	6AL5	200KΩ	100KΩ	.1Ω	0Ω	0Ω	0Ω	100KΩ		
V 18	6AT6	10Meg	0Ω	.1Ω	0Ω	22KΩ	22KΩ	†330KΩ		
V 19	6K6GT	82Ω	.1Ω	†1.3KΩ	†1KΩ	270KΩ	350KΩ	0Ω	0Ω	
V 20	6J5	0Ω	.1Ω	†47KΩ	INF	†14.7KΩ	†66Ω	0Ω	2.2Meg	
V 21	6J5	0Ω	.1Ω	†47KΩ	INF	†14.7KΩ	†66Ω	0Ω	2.2Meg	
V 22	6SN7GT	†270KΩ	†11KΩ	0Ω	220KΩ	†270KΩ	850Ω	.1Ω	0Ω	
V 23	6K6GT	51KΩ	.1Ω	†1.6KΩ	†1.6KΩ	2.2Meg	850Ω	0Ω	5KΩ	
V 24	6AC7	0Ω	0Ω	0Ω	1.4Meg	10Ω	†19KΩ	.1Ω	†21KΩ	
V 25	6AL5	940KΩ	470KΩ	0Ω	.1Ω	12Ω	0Ω	470KΩ		
V 26	6K6GT	INF	0Ω	†5.1KΩ	†10KΩ	72KΩ	‡ 5.4Ω	.1Ω	9.5Ω	
V 27	6BG6G	INF	.1Ω	975Ω	INF	470KΩ	470KΩ	0Ω	†5.1KΩ	TOP CAP ‡ 66Ω
V 28	6W4GT	†66Ω	INF	30KΩ	†70Ω	†76Ω	†73Ω	‡ .2Ω	‡0Ω	
V 29	1B3GT	PINS 1 - 8 HAVE INFINITE RESISTANCE								TOP CAP ‡370Ω
V 30	5U4G	INF	15KΩ	INF	868 Ω	INF	870Ω	280Ω	15KΩ	
V 31	5U4G	INF	15KΩ	INF	868Ω	INF	870Ω	INF	15KΩ	
V 3 2	20"	0Ω	1Meg	PIN 10 †104Ω	PIN 11 102KΩ	PIN 12 .1Ω				

ALL MEASUREMENTS TAKEN WITH BOOSTER IN "LOW BAND" POSITION
■ BOOSTER IN "HIGH BAND" POSITION.
† MEASURED FROM PIN #8 OF V31.
‡ MEASURED FROM PIN #3 OF V28.
◆ MEASURED FROM OUTPUT OF M1.



TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

The following chart lists tubes whose failures are most likely to produce the indicated symptoms. Refer to tube placement chart for location and type of tube.

POWER SUPPLY FAILURE
No raster, no sound - V30, V31









LOSS OF PICTURE OR SOUND
No pic, no sound, has raster - V4, V5
No pic, no sound, has snow - V3, V4, V5
No pic, has sound, has raster - V6, V7, V8, V9, V10, V11, V32
Has pic, no sound - V14, V15, V16, V17, V18, V19
Overloaded picture - V12, V13

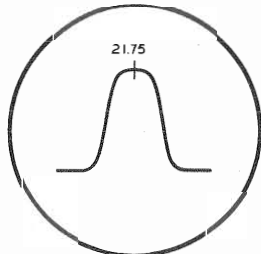
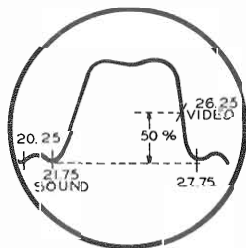
SYNC FAILURE
No vert. sync - V13, V22, V23
No horiz. sync - V22, V24, V25, V26
No vert. or horiz. sync - V20, V21, V22

SWEEP FAILURE
No raster, has sound - V22, V26, V27, V28, V29, V32, Fuse (M2)
No vertical deflection - V13, V23
Poor vert. linearity or foldover - V13, V23
Poor horiz. linearity or foldover - V22, V26, V27, V28
Narrow picture - V22, V26, V27, V28, V29, V30, V31
Vert. off freq. - V13, V22, V23
Horiz. off freq. - V22, V24, V25, V26

MATTISON
MODELS 630-6A, 630-6AB

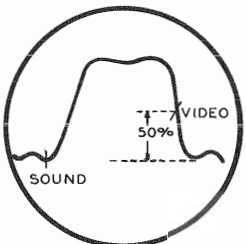
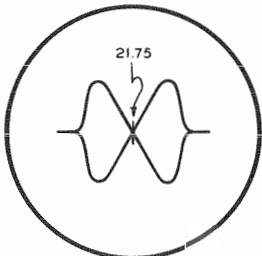
ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT							
The high voltage shock hazard can be eliminated by removing the horizontal oscillator tube, V26. Turn TV booster to "Off" position.							
VIDEO IF ALIGNMENT							
Remove the converter tube, V4, from its socket and replace with a 6J6 which has pin 1 removed. This will disable the local oscillator and reduce the possibility of erroneous indications. Connect the negative lead of a 3 volt battery to the junction of R30 and R31. Connect the positive lead to chassis.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS	
1. Direct	High side to an un-grounded tube shield floating over dummy converter tube. Low side to chassis.	23.9MC (Unmod.)	Any	DC probe to point  . Common to chassis.	A1	Adjust for maximum deflection.	
2. "	"	25.7MC	"	"	A2	"	
3. "	"	22.3MC	"	"	A3	"	
4. "	"	22.3MC	"	"	A4	"	
5. "	"	25.7MC	"	"	A5	"	
6. "	"	21.75MC	"	"	A6	Adjust for MINIMUM deflection.	
7. "	"	27.75MC	"	"	A7	"	
8. "	"	20.25MC	"	"	A8	"	
9. "	"	21.75MC	"	DC probe to point  . Common to chassis.	A9	Adjust for maximum deflection. Attenuate generator to maintain not more than 1 volt at VTVM.	
OVERALL VIDEO IF RESPONSE CHECK							
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.							
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10. Direct	High side to an un-grounded tube shield floating over dummy converter tube. Low side to chassis.	24.0MC (10MC Swp)	20.25MC 21.75MC 26.25MC 27.75MC	Any	Vert. Amp. to point  . Low side to chassis.		Check for response similar to Fig. 1. If necessary retouch A1 thru A5 for desired response.
SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS	
11. Direct	High side to an un-grounded tube shield floating over dummy converter tube. Low side to chassis.	21.75MC (Unmod.)	Any	DC probe to point  . Common to chassis.	A10, A11, A12, A13	Adjust for maximum deflection. Attenuate generator output to maintain not more than 1 volt at VTVM.	
12. "	"	"	"	DC probe to point  . Common to chassis.	A14	Adjust for maximum deflection.	
13. "	"	"	"	DC probe to point  . Common to chassis.	A15	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.	
SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE							
Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120% sawtooth voltage in scope for horizontal deflection.							
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
11. Direct	High side to an un-grounded tube shield floating over dummy converter tube. Low side to chassis.	21.75MC (450KC Swp)	21.75MC	Any	Vert. amp. thru 27KΩ to point  . Low side to chassis.	A10, A11, A12, A13	Adjust for response curve of maximum amplitude and symmetry as in Fig. 2. Attenuate generator to avoid distortion of response curve.
12. "	"	"	"	"	Vert. Amp. to point  . Low side to chassis.	A14, A15	Adjust A14 for maximum amplitude and straightness of crossover lines as in Fig. 3. Adjust A15 so that 21.75MC occurs at center of crossover lines. SLIGHTLY retouch A14 as before. Continue alignment with step 14.



ALIGNMENT INSTRUCTIONS (cont)

OSCILLATOR ALIGNMENT											
Remove the dummy converter tube and replace the original 6J6 in its socket. The channel oscillator adjustment screws are reached through a hole just to the right of the channel switch shaft. The correct adjustment screw is accessible through the hole as the channel switch is turned to each channel. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Set the fine tuning control to themmid-position of its range.											
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS				
14. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp)	211.25MC 215.75MC	13	Vert. Amp. to point A. Low side to chassis.	A16	Adjust to place sound marker in trap notch as in Fig. 4. Video marker should be at 50%.				
		207MC (10MC Swp)	206.25MC 209.75MC	12		A17					
		201MC (10MC Swp)	199.25MC 203.75MC	11		A18					
		195MC (10MC Swp)	193.25MC 197.75MC	10		A19					
		189MC (10MC Swp)	187.25MC 191.75MC	9		A20					
		183MC (10MC Swp)	181.25MC 185.75MC	8		A21					
		177MC (10MC Swp)	175.25MC 179.75MC	7		A22					
		85MC (10MC Swp)	83.25MC 87.75MC	6		A23					
		79MC (10MC Swp)	77.25MC 81.75MC	5		A24					
		69MC (10MC Swp)	67.25MC 71.75MC	4		A25					
		63MC (10MC Swp)	61.25MC 65.75MC	3		A26					
		57MC (10MC Swp)	55.25MC 59.75MC	2		A27					
		4.5MC TRAP ALIGNMENT									
		Tune in a TV station and adjust the fine tuning for best picture and sound. If any evidence of 4.5MC beat interference appears in picture, adjust A28 to minimize it.									
RF ALIGNMENT											
The tuner RF section and the booster section of this receiver have been properly aligned at the factory and are very stable. Alignment of these sections should not be required in the field.											



MATTISON
MODELS 630-6A, 630-6AB

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENTS

Touch-up adjustments of the RF Tuner Oscillator Circuit may be accomplished by removal of the channel selector and fine tuning knobs. The adjustments are accessible, one at a time, through the small hole in the cabinet to the right of the channel selector shaft.

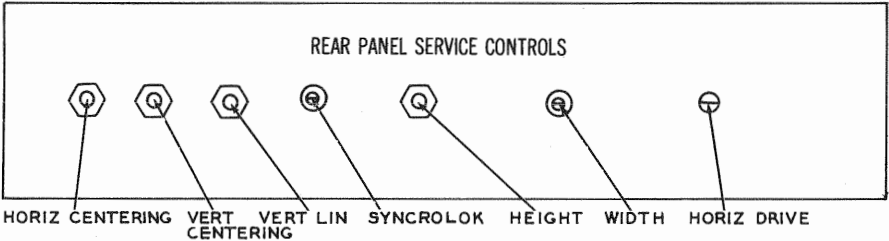
PICTURE TUBE SAFETY GLASS CLEANING

For picture tube safety glass cleaning, it is necessary to remove chassis. (See disassembly instructions).

PICTURE TUBE REMOVAL

For picture tube removal it is necessary to remove chassis. (See disassembly instructions)

SERVICE ADJUSTMENT LOCATION



HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Adjustment of the horizontal oscillator circuit can be made from the rear panel of the chassis. Set the horizontal hold control at the mid-position of its range and adjust the horizontal frequency slug (L33) until the picture synchronizes horizontally.

SOUND IF DETECTOR BUZZ ADJUSTMENT

To eliminate sound IF detector buzz, adjust the discriminator secondary (L32) located on bottom of chassis. (See tube placement chart).

FUSES

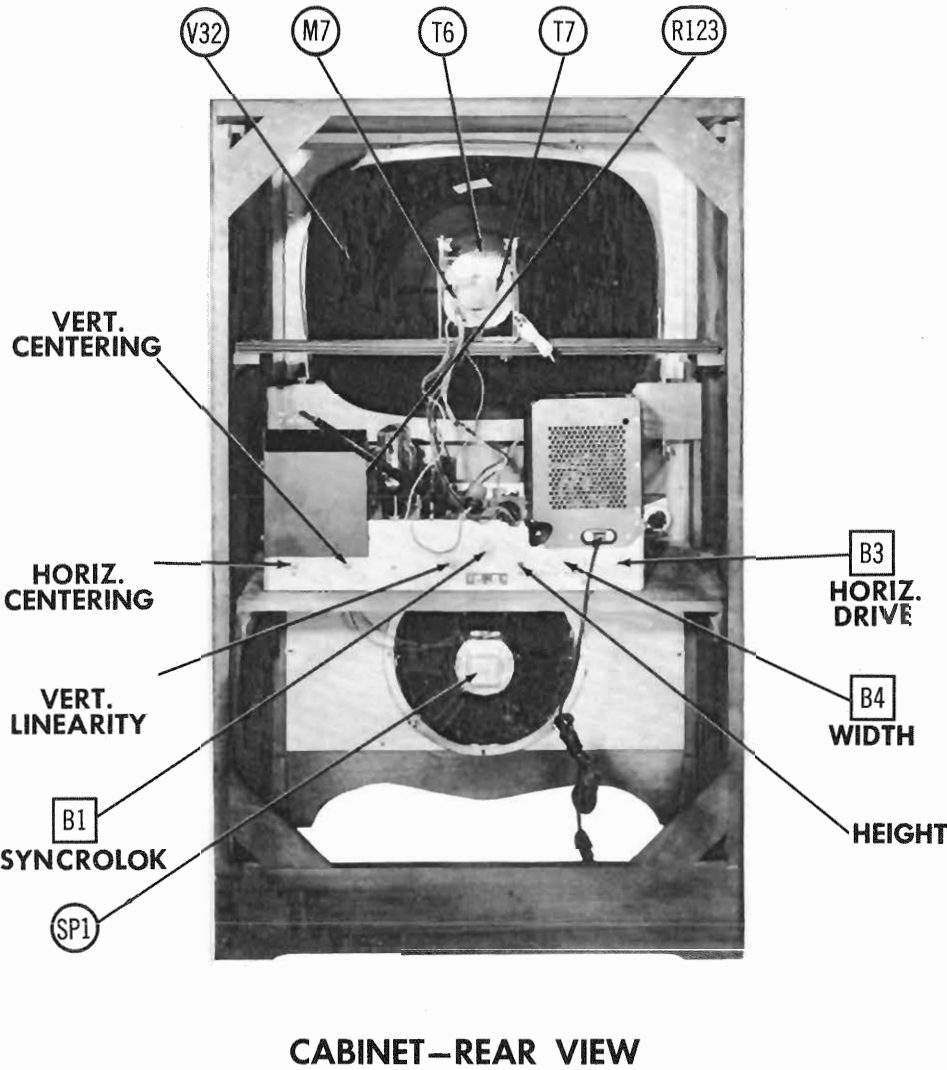
One fuse is used for Horizontal Sweep Circuit protection. (For location, see tube placement chart).

CENTERING

Centering is accomplished electrically. Adjust the vertical and horizontal centering controls until picture is properly centered.

DISASSEMBLY INSTRUCTIONS

1. Remove 9 push on type control knobs from front panel.
2. Remove 4 wood screws. Remove rear cover.
3. Disconnect speaker plug, yoke plug, focus plug and HV lead.
4. Remove 4 chassis bolts. Remove chassis.
5. Remove 4 wood screws. Remove speaker.



HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.

Adjust the contrast control to slightly less than normal contrast.

If blanking bar appears at the right of the picture adjust the horizontal phasing slug (B1) until blanking bar moves off the raster to the right.

Turn the horizontal hold control fully counter clockwise and adjust the horizontal frequency slug (B2) until picture falls out of sync, then reverse the adjustment until picture just synchronizes.

Readjust B1 so that left side of the picture is close to left side of raster, but does not foldover.

Turn the horizontal hold control fully clockwise. The right side of picture should be near the right side of the raster, but should not foldover. If it does, readjust B1.

Momentarily remove the signal by switching off channel and back again. If it does not, readjust B2 until picture synchronizes.

Turn the horizontal hold control fully counter clockwise. Picture should return to sync after momentarily removal of the signal.

Adjust the horizontal drive trimmer (B3) counter clockwise as far as possible without the presence of vertical white lines or compression of the center of the picture. Adjust the width slug (B4) for a picture slightly wider than necessary to fill the picture mask horizontally.

Adjust the horizontal linearity slug (B5) for a picture that is symmetrical from left to right.

MATTISON
MODELS 630-6A, 630-6AB

TROUBLE SHOOTING AIDS

SWEEP

HORIZONTAL	VERTICAL								
<p><u>LOSS OF SWEEP</u></p> <p>See "Loss of High Voltage".</p> <p><u>INSUFFICIENT SWEEP</u></p> <p>Check by substitution V22, V26, V27, V28, V30 and V31. Check adjustment of horizontal linearity coil (B5) width coil (B4) and horizontal drive (B3). Check waveform at W17.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check C100, C101, C102, T4, T6A, T8, T9 and other associated components.</td><td>Check C96, C97, C94, C95, R108, R110, R104, R105 and other associated components.</td></tr> </table> <p><u>DRIVE LINES</u></p> <p>Check by substitution V22, V27 and V28. Check adjustment of horizontal drive (B3). Check C97, C98, C101, C100, C102, T4, T6A and other associated components.</p> <p><u>COMPRESSED LEFT SIDE</u></p> <p>Check, by substitution, V22, V26, V27 and V28. Check adjustment of horizontal drive (B3), width (B4), and horizontal linearity (B5). Check components associated with these stages especially T4, T6A, C100, C101, C102, C96, C97 and C98.</p> <p><u>FOLDS</u></p> <p>Check, by substitution, V22, V27 and V28. Check C96, C97, C100, C101, C102, T4, T6A and other associated components.</p> <p><u>XMAS TREE EFFECT</u></p> <p>Check, by substitution, V22, V24 and V26. Check components associated with these stages especially C92, C94, C90, C91 and L33.</p>	If Satisfactory	If Unsatisfactory	Check C100, C101, C102, T4, T6A, T8, T9 and other associated components.	Check C96, C97, C94, C95, R108, R110, R104, R105 and other associated components.	<p><u>LOSS OF SWEEP</u></p> <p>Check, by substitution, V13 and V23. Check waveform at W10.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check T5, T6B, R5, R88 and other associated components.</td><td>Check C78, C79, and C80. Check T3 and other associated components.</td></tr> </table> <p><u>INSUFFICIENT SWEEP</u></p> <p>Check by substitution V13 and V23. Check adjustment of vertical linearity and height controls, readjust vertical centering control if necessary to maintain vertical linearity. Check components associated with V13B and V23.</p> <p><u>COMPRESSED AT BOTTOM</u></p> <p>Check, by substitution, V13 and V23. Check components associated with these stages especially C1B, C6 and T5.</p> <p><u>COMPRESSED AT TOP</u></p> <p>Check, by substitution, V13 and V23. Check T3, T5, C1B, C6, C79, C80, T6B and other associated components.</p> <p><u>FOLDS</u></p> <p>Check, by substitution, V13 and V23. Check components associated with these stages especially all grid load resistors and coupling capacitors.</p>	If Satisfactory	If Unsatisfactory	Check T5, T6B, R5, R88 and other associated components.	Check C78, C79, and C80. Check T3 and other associated components.
If Satisfactory	If Unsatisfactory								
Check C100, C101, C102, T4, T6A, T8, T9 and other associated components.	Check C96, C97, C94, C95, R108, R110, R104, R105 and other associated components.								
If Satisfactory	If Unsatisfactory								
Check T5, T6B, R5, R88 and other associated components.	Check C78, C79, and C80. Check T3 and other associated components.								

SYNC

HORIZONTAL	VERTICAL												
<p><u>LOSS OF SYNC</u></p> <p>Check, by substitution, V24, V25 and V26. Check waveform W13.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check L33, C92, R103, R2B and other associated components. Check components associated with V24.</td><td>Check C84 and components associated with V22A.</td></tr> </table> <p><u>CRITICAL HOLD</u></p> <p>Check, by substitution, V20, V24, V25 and V26. Check components associated with these stages.</p> <p><u>PULLING PICTURE</u></p> <p>Check by substitution V20, V24, V25, V26, V22 and V27. Check signal at W6 for 60 cycle modulation.</p> <table> <tr> <td>If Present</td><td>If Absent</td></tr> <tr> <td>Check video IF, amplifier and detector stages for heater to cathode leakage.</td><td>Check components associated with the horizontal oscillator and control circuits.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check L33, C92, R103, R2B and other associated components. Check components associated with V24.	Check C84 and components associated with V22A.	If Present	If Absent	Check video IF, amplifier and detector stages for heater to cathode leakage.	Check components associated with the horizontal oscillator and control circuits.	<p><u>LOSS OF SYNC</u></p> <p>Check, by substitution, V21, V22, V13 and V23. Check waveform at W7.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check vertical integrator network. Check components associated with V13B.</td><td>Check video stages for signal overload and sync compression.</td></tr> </table> <p><u>CRITICAL HOLD</u></p> <p>Proceed as outlined under "Loss of Sync".</p> <p><u>TRIGGERING</u></p> <p>Check, by substitution, V13, V21, V22 and V23. Check circuit near the stages for filament lead dress.</p>	If Satisfactory	If Unsatisfactory	Check vertical integrator network. Check components associated with V13B.	Check video stages for signal overload and sync compression.
If Satisfactory	If Unsatisfactory												
Check L33, C92, R103, R2B and other associated components. Check components associated with V24.	Check C84 and components associated with V22A.												
If Present	If Absent												
Check video IF, amplifier and detector stages for heater to cathode leakage.	Check components associated with the horizontal oscillator and control circuits.												
If Satisfactory	If Unsatisfactory												
Check vertical integrator network. Check components associated with V13B.	Check video stages for signal overload and sync compression.												

VIDEO

<p><u>SOUND BARS</u></p> <p>Check adjustment of local oscillator. Check 4.5MC trap alignment (A28). Check video IF alignment.</p> <p><u>POOR RESOLUTION</u></p> <p>Check, by substitution, V6, V7, V8, V9, V10 and V11. Check all bypass and coupling capacitors. Check video IF alignment.</p> <p><u>LOSS OF VIDEO</u></p> <p>Check, by substitution V6, V7, V8, V9, V10 and V11. Check components associated with these stages especially all bypass and coupling capacitors.</p> <p><u>NEGATIVE PICTURE</u></p> <p>Check V6, V7, V8, V9, V10 and V11. Check associated circuit components for change of value.</p>	<p><u>POOR CONTRAST</u></p> <p>Check, by substitution, V6, V7, V8, V9, V10 and V11. Check components associated with video amplifier and detector stages.</p> <p><u>SMEAR</u></p> <p>Check, by substitution, V9, V10 and V11. Check L23, L26 and L28. Check R48, R50, R53, R54 and R56 for change of value. Check C57 and C59 for leakage. Check other associated components including picture tube.</p> <p><u>ONE BLACK BAR ACROSS PICTURE</u></p> <p>Check tuner, video IF, video detector and video amplifier tubes for heater to cathode leakage.</p>
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TROUBLE SHOOTING AIDS (cont)

AUDIO

<p><u>WEAK OR NO SOUND</u></p> <p>Check, by substitution V5, V14, V15, V16, V17, V18 and V19. Check stages of V18 and V19 by applying audio signal to control grid of V18 (pin #1).</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check components associated with V18 and V19 especially C71, C72, C73, T10 and speaker.</td><td>Check audio IF alignment and components especially all bypass capacitors.</td></tr> </table> <p><u>BUZZ</u></p> <p>Adjust discriminator secondary A15 for minimum buzz. If buzz is still objectionable, substitute V17 and readjust A14 and A15 as outlined in the alignment section.</p>	If Satisfactory	If Unsatisfactory	Check components associated with V18 and V19 especially C71, C72, C73, T10 and speaker.	Check audio IF alignment and components especially all bypass capacitors.	<p><u>DISTORTED</u></p> <p>Check, by substitution, V5, V14, V15, V16, V17, V18 and V19. Check stages of V18 and V19 using audio signal generator and scope. Apply audio signal between pin #1 of V18 and ground, connect scope across secondary of T10.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check audio IF and discriminator alignment and components.</td><td>Check components associated with V18 and V19.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check audio IF and discriminator alignment and components.	Check components associated with V18 and V19.
If Satisfactory	If Unsatisfactory								
Check components associated with V18 and V19 especially C71, C72, C73, T10 and speaker.	Check audio IF alignment and components especially all bypass capacitors.								
If Satisfactory	If Unsatisfactory								
Check audio IF and discriminator alignment and components.	Check components associated with V18 and V19.								

POWER

<p><u>SMALL AND/OR DIM RASTER</u></p> <p>Substitute V30 and V31. Check B+ filter and decoupling network and components especially all filter capacitors.</p>	<p><u>DEAD SET</u></p> <p>Check AC interlock assembly. Check switch on volume control. Check T1.</p>
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HIGH VOLTAGE

<p><u>LOSS OF HIGH VOLTAGE</u></p> <p>Check fuse M2. Check by substitution V22, V26, V27, V28 and V29. Check waveform at W17.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check C98, C100, C101, C102, C103, T4, T6A, R118 and other associated components.</td><td>Check C96, C97, R108, R109, R110 and other associated components.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check C98, C100, C101, C102, C103, T4, T6A, R118 and other associated components.	Check C96, C97, R108, R109, R110 and other associated components.	<p><u>INSUFFICIENT HIGH VOLTAGE</u></p> <p>Check, by substitution, V22, V26, V27, V8, V29, V30 and V31. Proceed as outlined under "Loss of High Voltage".</p> <p><u>BLOOMING</u></p> <p>Check, by substitution, V22, V27, V28 and V29. Check R118, C103, T4, T6A and other associated components. Check picture tube.</p>
If Satisfactory	If Unsatisfactory				
Check C98, C100, C101, C102, C103, T4, T6A, R118 and other associated components.	Check C96, C97, R108, R109, R110 and other associated components.				

GENERAL

<p><u>RASTER SOUND NO PICTURE</u></p> <p>Check, by substitution, V6, V7, V8, V9, V10 and V11. Check picture tube and other associated circuit components especially those associated with V10 and V11.</p> <p><u>RASTER NO PICTURE NO SOUND</u></p> <p>Check by substitution V3, V4 and V5. If booster is used, check V1 and V2. Check components associated with these stages.</p>	<p><u>TOTAL LOSS OF SYNC</u></p> <p>Check by substitution V20, V21 and V22. Check associated circuit components.</p> <p><u>INTERMITTENT STREAKS</u></p> <p>Check high voltage section for corona discharge and arcing.</p>
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Symptoms shown are assumed and are not indicative of the quality and workmanship of this receiving equipment.

MATTISON
MODELS 630-6A, 630-6AB

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (cont)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	MATTISON PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L29	Shunt Peak- ing Coil	4.4Ω			19-3093	TV-181	6177	93 Microhenries
L30	1st. Sound IF	.1Ω	.1Ω		17-1011	TV-104	6190	
L31	2nd. Sound IF	.1Ω	.1Ω		17-1012	TV-105	6191	
L32	Sound Dis- criminator	.1Ω	.1Ω CT		17-1013	TV-106	6192	
L33	Horiz. Osc.	48Ω	50Ω CT		20-1400	TV-160	6194	Pri. Tapped @ 12Ω 35 Microhenries, not used in all Models
L34	RF Choke	3Ω			19-3036	TV-180	4628	

* Parallel with 22KΩ resistor.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (O CURRENT 1000 A.)	MATTISON PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
L35	.300ADC	66Ω	2.1 Hy.	EL-113	C-2326		TR-1733 ①	C-17X ①

① Drill one new mounting hole.

SELENIUM RECTIFIER

ITEM No.	RATING	REPLACEMENT DATA					
	CURRENT	MATTISON PART No.	SYLVANIA PART No.	SELETRON PART No.	FEDERAL PART No.	MALLORY PART No.	SARKES TARZIAN PART No.
M1	.018ADC			8Y1 ①		8S35 ①	35

① Drill new mounting hole.

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MATTISON PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	3 AG (Slo-Blo) P/T	15/100 A. 250 V.			315.150 (3AG 15/100 A. Slo-Blo P/T)		MDV 15/100	

MISCELLANEOUS

ITEM No.	PART NAME	MATTISON PART No.	NOTES
M3	RF Booster		Model 630-6AB
M4	RF Tuner		
M5	Switch		High-Low Channel Selector (Booster)
M6	Switch		Thermal, Booster Off/On (By passed in this application).
M7	Ion Trap		
B3	Trimmer		Horizontal Drive (20-270 MMF)

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA, GENERAL ELECTRIC or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		MATTISON PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	6J6	6J6	7BF	* On chassis under Serial #25000 the AGC Delay is not used and a 6J5 is used as Vert. Oscillator
V2	RF Amplifier	6J6	6J6	7BF	
V3A	RF Amplifier	6BQ7A	6BQ7A	9AJ	
B	RF Amplifier	6BZ7	6BZ7	9AJ	
V4	Converter	6J6	6J6	7BF	
V5A	1st. Video IF Amp.	6CB6	6CB6	7CM	
B	1st. Video IF Amp.	6AG5	6AG5	7BD	
C	1st. Video IF Amp.	6BC5	6BC5	7BD	
V6A	2nd. Video IF Amp.	6CB6	6CB6	7CM	
B	2nd. Video IF Amp.	6AG5	6AG5	7BD	
C	2nd. Video IF Amp.	6BC5	6BC5	7BD	
V7A	3rd. Video IF Amp.	6CB6	6CB6	7CM	
B	3rd. Video IF Amp.	6AG5	6AG5	7BD	
C	3rd. Video IF Amp.	6BC5	6BC5	7BD	
V8A	4th. Video IF Amp.	6CB6	6CB6	7CM	
B	4th. Video IF Amp.	6AG5	6AG5	7BD	
C	4th. Video IF Amp.	6BC5	6BC5	7BD	
V9	Video Detector- DC Restorer	6AL5	6AL5	6BT	
V10	Video Amplifier	6AU6	6AU6	7BK	
V11	Video Output	6K6GT	6K6GT	7S	
V12	AGC Keying	6AU6	6AU6	7BK	
V13	AGC Clamper - Vert. Oscillator	6SN7GT	6SN7GT	8BD	
V14A	1st. Sound IF Amp.	6BA6	6BA6	7BK	
B	1st. Sound IF Amp.	6AU6	6AU6	7BK	
V15A	2nd. Sound IF Amp.	6BA6	6BA6	7BK	
B	2nd. Sound IF Amp.	6AU6	6AU6	7BK	
V16	Limiter	6AU6	6AU6	7BK	
V17	Discriminator	6AL5	6AL5	6BT	
V18	AF Amplifier- AFC Filter Rect.	6AT6	6AT6	7BT	
V19	Audio Output	6K6GT	6K6GT	7S	
V20	High Freq. Sync Separator	6J5	6J5	6Q	
V21	Low Freq. Sync Separator	6J5	6J5	6Q	
V22	Sync Amplifier	6SN7GT	6SN7GT	8BD	
V23	Horiz. Discharge	6K6GT	6K6GT	7S	
V24	Vert. Output	6AC7	6AC7	8N	
V25	Horiz. Reactance	6AL5	6AL5	6BT	
V26	Horiz. Oscillator	6K6GT	6K6GT	7S	
V27A	Horiz. Output	6BG6G	6BG6G	5BT	
B	Horiz. Output	6BQ6GT	6BQ6GT	6AM	
V28	Damper	6W4GT	6W4GT	4CG	
V29	HV Rectifier	1B3GT	1B3GT	3C	
V30	LV Rectifier	5U4G	5U4G	5T	
V31	LV Rectifier	5U4G	5U4G	5T	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	MATTISON PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	.40	450	}	AFH3-146		C105		FP370	TVL-3761	Red
B	.10	450								
C	.80	150								
C2	80	450		AFH1-55		A051		FP149	TVL-1735	
C3A	.80	350		AFH2-95		B068		FP235	TVL-2730	
B	.20	450								
C4A	.40	450		AFH3-154		C040		FP396.2	TVL-3772	
B	.10	450								
C	.10	350								
C5A	250	12		}	PRS12/250		BRH1225A			
B	1000	6	PRS6/1000			BRH610			TVA-1104	
C6	50	50	PRS50/50			BR505		TC39	TVA-1308	
C7	2	50	PRS150/4			BBR-2-50T		TC302	TVA-1301	
C8	30	150	AFH1-28			A018		FP113		
C9	56	500								
C10	56	500								
C11	1.2		SIL.2NP0		TCZ-1.2		NP0K-IR2	ZT-5512	5TCCB-V12	
C12	1.2		SIL.2NP0		TCZ-1.2		NP0K-IR2	ZT-5512	5TCCB-V12	
C13	2.7									
C14	1.2		SIL.2NP0	TCZ-1.2		NP0K-IR2	ZT-5512	5TCCB-V12		
C15	1.2		SIL.2NP0	TCZ-1.2		NP0K-IR2	ZT-5512	5TCCB-V12		
C16	2.4									
C17	56	500								
C18	56	500								
C19	.047	400								
C20	3-9			489ZX-05		PJ4847		PT4147	4TM-S47	
C21	800				829-10					
C22	3			CN-1-001	MFT-1000				503C-D1	
C23	800			SILNP0	TCZ-3.3		NP0K-030	ZT-5533	5TCCB-V33	
C24	.5-3			CN-1-001	MFT-1000				503C-D1	
C25	47			BPD-000047	D6-471			CT565A	5GA-Q47	
C26	1000			BPD-001	DD-102	TM5D1	GPIK-470	UC-5447	5HK-D1	
C27	1.5			SIL.5NP0	TCZ-1.5		801-001	DC-521	5TCCB-V15	
C28	800			CN-1-001	MFT-1000		NP0K-IR5	ZT-5515	503C-D1	
C29	47			BPD-000047	D6-470		GPIK-470	UC-5447	5GA-Q47	
C30	.5-3				829-3			CT565A		
C31	10			SIL0NP0	TCZ-10		NP0K-100	ZT-541	5TCC-Q1	
C32	5			SIL5N750	TCN-5		N750K-050	NT-555	5TCUB-V5	
C33	6.8			SIL6.8NP0	TCZ-6.8		NP0K-6R8	ZT-5568	5TCCB-V68	
C34	800			CN-1-001	MFT-1000				503C-D1	
C35	1000			BPD-001	DD-102	TM5D1	801-001	DC-521	5HK-D1	
C36	800			CN-1-001	MFT-1000				503C-D1	
C37	120			BPD-00012	D6-121	TM5T12	GP2K-121	UC-5312	5GA-T12	
C38	.1	400		P488-1	DF-104	PTE4P1		PT401	4TM-P1	

MATTISON
MODELS 630-6A, 630-6AB

CAPACITORS (cont)

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA						NOTES
		MATTISON PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	
C39 .47	200		P288-47	DD-152	J2P25	801-0015	PT405	2TM-P47
C40 1500			BPD-0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-D15
C41A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C42A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C43 43	500							
C44 270			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
C45A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C46A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
H 1500								
C47 270	500		BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
C48A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C49A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C50 270	500							
C51 56			SI56	D6-560	GPIK-560	UC-5456	5GA-Q56	
C52A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
H 1500								
C53 75			SI75NP0	TCZ-75	TM5D15	NP0L-750	ZT-5475	5TCC-Q75
C54 1500			BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15
C55 10			SI10	D6-100	5W5Q1	GPIK-100	UC-541	5GA-Q1
C56 470	500							
C57 470	400		P488-047	DF-503	PTE4847		PT4147	4TM-847
C58 470	500							
C59 .047	600		P688-047	DF-503	PTE6847		PT6147	6TM-847
C60 .1	400		P488-1	DF-104	PTE4P1		PT401	4TM-P1
C61 1500			BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15
C62 .01	400		P488-01	DD-103	PTE481	GP2-333-103	PT411	4TM-S1
C63A 1500			BPD-2X0015	DD2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15
B 1500								
C64 1500			BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15
C65 51			BPD-005	MD-502	TM5D5	811-005	DC-525	5HK-D5
C66 5000								
C67 270	500		P688-0022	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22
C68 .0022	400		P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47
C69 .0047	600		P488-01	D6-103	PTE481	GP2-333-103	PT411	4TM-S1
C70 .01	400		P688-0022	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22
C71 .0022	600		P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47
C72 .0047	600		P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47
C73 .0047	600		P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47
C74 .0047	600		P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47
C75 .25	400		P488-25		PTE4P25		PT4025	4TM-P25
C76 .25	400		P488-25		PTE4P25		PT4025	4TM-P25
C77A .01			P688-01		PTE681	GP2-333-103	PT611	6TM-S1
B .002			P688-002		PTE6D2	GP2-333-202	PT622	6TM-D2
C .005			P688-005		PTE6D5	GP2-333-502	PT625	6TM-D5
D .005			P688-005		PTE6D5	GP2-333-502	PT625	6TM-D5
C78 4700	500		1464-005		IDR5D5		MCB465	MS-25
C79 .047	600		P688-047	DF-503	PTE6847		PT6147	6TM-847
C80 .1	600		P688-1	DF-104	PTE4P1		PT401	4TM-P1
C81 .25	400		P488-25		PTE4P25		PT4025	4TM-P25
C82 .047	400		P488-047	DF-503	PTE4847		PT4147	4TM-847
C83 .25	400		P488-25		PTE4P25		PT4025	4TM-P25
C84 82	500							
C85 .015	400							
C86 .0039	600							
C87 .047	400		P488-047	DF-503	PTE4847		PT4147	4TM-847
C88 .1	400		P488-1	DF-104	PTE4P1		PT401	4TM-P1
C89 .05	400		P488-05	DF-503	PTE485		PT415	4TM-S5
C90 .0039	400							
C91 .015	400							
C92 .0047	400							
C93 .047	600		1464-005	DF-503	IDR5D5		MCB465	MS-25
C94 390	500		P688-047		PT6147		PT6147	6TM-847
C95 .01	400		1468-0004		5R5T4		MCB243	MS-34
C96 390	500		P488-01	D6-103	PTE481	GP2-333-103	PT411	4TM-S1
C97 680	500		1469-0004		5R5T4		MCB243	MS-34
C98 .1	600		1479-0007		2R5T7		MS-37	
C99 .1	400		P688-1	DF-104	PTE6P1		PT601	6TM-P1
C100 .15	600		P488-1	DF-104	PTE4P1		PT401	4TM-P1
C101 .047	600		P688-15		PTE6P15		PT6015	6TM-P15
C102 .25	600		P688-047		PTE6847		PT6147	6TM-847
C103 500	20000		664-25		PTE6P25		PT6025	6TM-P25
C104 51			HV20C	TV3-502	MM-C20T5	413-501	HV20035A	20DK-T5
C105 .01	400		489ZX-01		PJ481		PT411	4TM-S1
C106 .01	400		489ZX-01		PJ481		PT411	4TM-S1
C107 1500			BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15
C108 270	500							
C109 .01	400		P488-01	D6-103	PTE481		PT411	4TM-S1
C110 .1	400		P488-1	DF-104	PTE4P1		PT401	4TM-P1

Note 1. Some Models use 68MMF in this application.

Note 2. Some Models use 56MMF in this application.

Note 3. Not used in all Models.

* Items C77A, C77B, C77C, C77D, R80A, R80B, R80C, R80D are combined in one unit.

PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS (cont)

ITEM No.	RATING RESIST-ANCE WATTS	REPLACEMENT DATA					INSTALLATION NOTES
		MATTISON PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.	
R6A 5000Ω	2	EP-111	WK-5000	A43-5000	VK-135	R5000L	Vert. Linearity-wire wound
B 5000Ω		Not Req.	FES-1/4	FES-1/4	Not Req.	Not Req.	Attach to R6A
R7A 2.5Meg		EP-101	QIL-289	AG-84-S	AK-3	SU-565	Height
B 2.5Meg		Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to RTA

* CONCENTRIKIT EQUIVALENT - KIT K-2, BASE ELEMENTS & SHAFTS B17-116 & P1-121 (Panel),

B13-137X & R1-205 (Rear) & SWITCH 76-1.

** CONCENTRIKIT EQUIVALENT - KIT K-2, BASE ELEMENTS & SHAFTS B11-137 & P1-121 (Panel)

† UNIVERSAL REPLACEMENT (Mallory exact duplicate part #UE1661).

RESISTORS

ITEM No.	RATING OHMS WATT	REPLACEMENT DATA		NOTES
		MATTISON PART No.	IRC PART No.	
R8 4700Ω			BTS-4700	
R9 4700Ω			BTS-4700	
R10 470Ω			BTS-47	
R11 470Ω			BTS-470	
R12 470Ω			BTS-470	
R13 470Ω			BTS-47	
R14 15KΩ			BTS-15K	
R15 47KΩ				
R16 100KΩ				
R17 160KΩ 5%			BTS-160K 5%	
R18 100KΩ 5%			BTS-100K 5%	
R19 1500Ω			BTS-1500	
R20 10KΩ			BTS-10K	
R21 220KΩ				
R22 10KΩ			BTS-10K	
R23 15KΩ				
R24 3.3Meg			BTA-3.3Meg	Note 1
R25 3.3Meg			BTA-3.3Meg	Note 1
R26 150Ω			BTS-150	
R27 220KΩ			BTS-220K	
R28 82Ω			BTS-82	
R29 1000Ω			BTS-1000	
R30 100KΩ			BTS-100K	
R31 56KΩ			BTA-56K	
R32 150Ω			BTS-150	
R33 5600Ω 5%				
R34 82Ω			BTS-82	Note 2
R35 1000Ω			BTS-1000	
R36 150Ω			BTS-150	
R37 3300Ω			BTS-3300	
R38 39Ω			BTS-39	
R39 2700Ω 5%			BTS-2700 5%	
R40 1000Ω			BTS-1000	
R41 150Ω			BTS-150	
R42 150Ω			BTS-150	
R43 5600Ω 5%				
R44 1000Ω			BTS-1000	
R45 3900Ω 5%			BTS-3900 5%	
R46 27KΩ			BTS-27K	
R47 10KΩ			BTA-10K	
R48 3300Ω			BTS-3300	
R49 220KΩ			BTS-220KΩ	Note 3
R50 1Meg			BTS-1Meg	
R51 330Ω			BTS-330	
R52 12KΩ			BTS-12K	
R53 3000Ω				
R54 10KΩ			BTA-10K	
R55 100KΩ			BTS-100K	
R56 1Meg			BTS-1Meg	
R57 15KΩ			BTS-15K	
R58 100Ω			BTS-100	
R59 1000Ω			BTS-1000	
R60 470KΩ				
R61 100Ω			BTS-100	
R62 3300Ω			BTS-3300	
R63 1000Ω			BTS-1000	
R64 22KΩ			BTS-22K	
R65 10KΩ			BTA-10K	
R66 10KΩ			BTS-10K	
R67 22KΩ			BTS-22K	
R68 100KΩ			BTS-100K	

Note 1. Some Models may use a single 6.8Meg resistor in this application.

Note 2. Some Models may use a 62Ω resistor in this application.

Note 3. Not used in all Models.

Note 4. Some Models may use a single 100Ω resistor in this application.

Note 5. Some Models may use a 15KΩ resistor in this application.

Note 6. Some Models may use a 93Ω resistor in this application.

* Items R80A, R80B, R80C, R80D, C77A, C77B, C77C, C77D are combined in one unit.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA				
	PRI.	SEC. 1	SEC. 2	SEC. 3	MATTISON PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
T1	117VAC @2.74A	720VCT .300ADC	5VAC @6A	6.3VAC @1.2A	ET-101B	P-8161 ①	P-3053 ②		R-37BC
				SEC. 4 6.3VAC @10A			③ ④		
T2	117VAC @.1A	117VAC .018ADC tap @ 6.3VAC @.84A			T-393	PS-8416 ①			

① Use 1/2 of HV winding

② Drill one new mounting hole.

③ Parallel the two 6.3V, 5A windings and use as sec.4.

④ Parallel 5V windings.

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	DC RESISTANCE		MATTISON PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	RCA TYPE No.	
	PRI.	SEC.							
T3	170Ω	950Ω	ET-102	A-8121	A-4000	TBO-1	A-97K	208T2	Vert. Osc. Trans.
T4	365Ω tap ⑤ 60Ω	100Ω tap ④ 7Ω		A-8136 ①	HVO-10 ③	TFB-8 ④	D-15 ⑤		Horiz. Output Trans.
		SEC. 2							
		2Ω							
		SEC. 3							
		0Ω							
		6Ω							
T5	570Ω		ET-103	A-8112 ⑥	A-3036 ⑥	TSO-10	A-107X	204T2 ①	Vert. Output Trans.
T6A	13Ω		EL-138A	DY-9A ⑦	MDF-70	TY-5	Y-21 ⑧	206D1 ⑨	Horiz. Deflection Coils
T7	58Ω								Vert. Deflection Coils
T8	900Ω		EL-114C		MWC-5		B-1000		Focus Coil
T7	8.7Ω tap ④ 3.3Ω							201R5	Horiz. Lin. Coil
T9	100Ω				MWC-6	TL-3 ⑨	WC-12 ⑩	211R1	Width Coil