

**DUMONT
MODEL RA-119A**

Dumont Model "Royal Sovereign"

TRADE NAME	Dumont Model RA-119A	
MANUFACTURER	Allen B. Dumont Labs., Inc., 2 Main St., Passiac, N. J.	
TYPE SET	Television Receiver	
TUBES	Forty-Five	
POWER SUPPLY	110-120 Volts AC-60 Cycle	Rating 5.4 Amp. @ 117 Volts AC
TUNING RANGE	44-217MC (Continuous Tuning)	

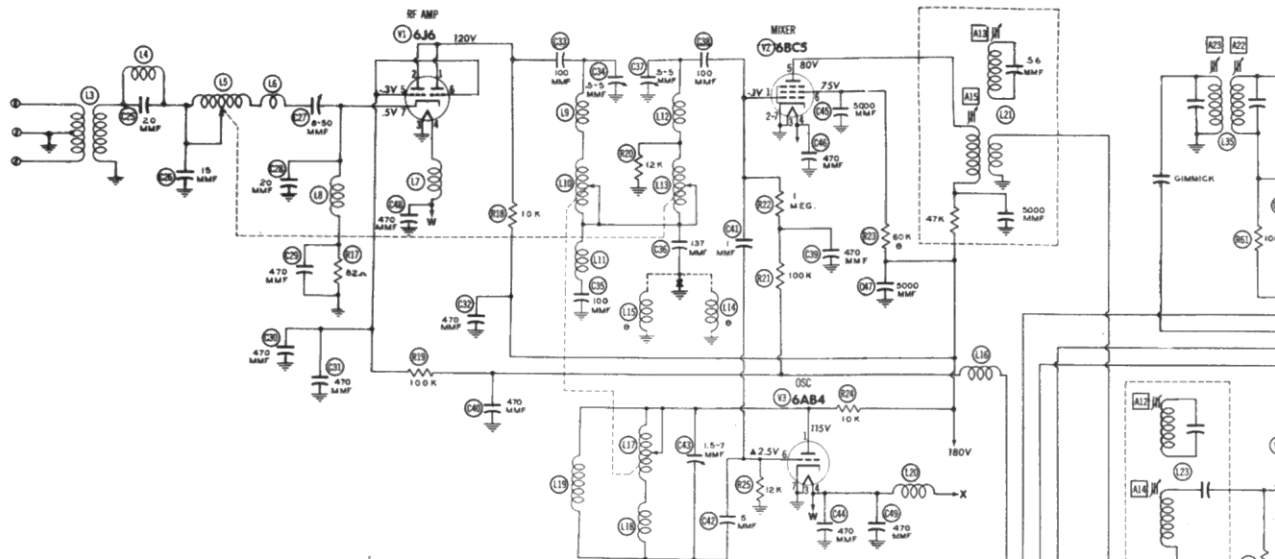
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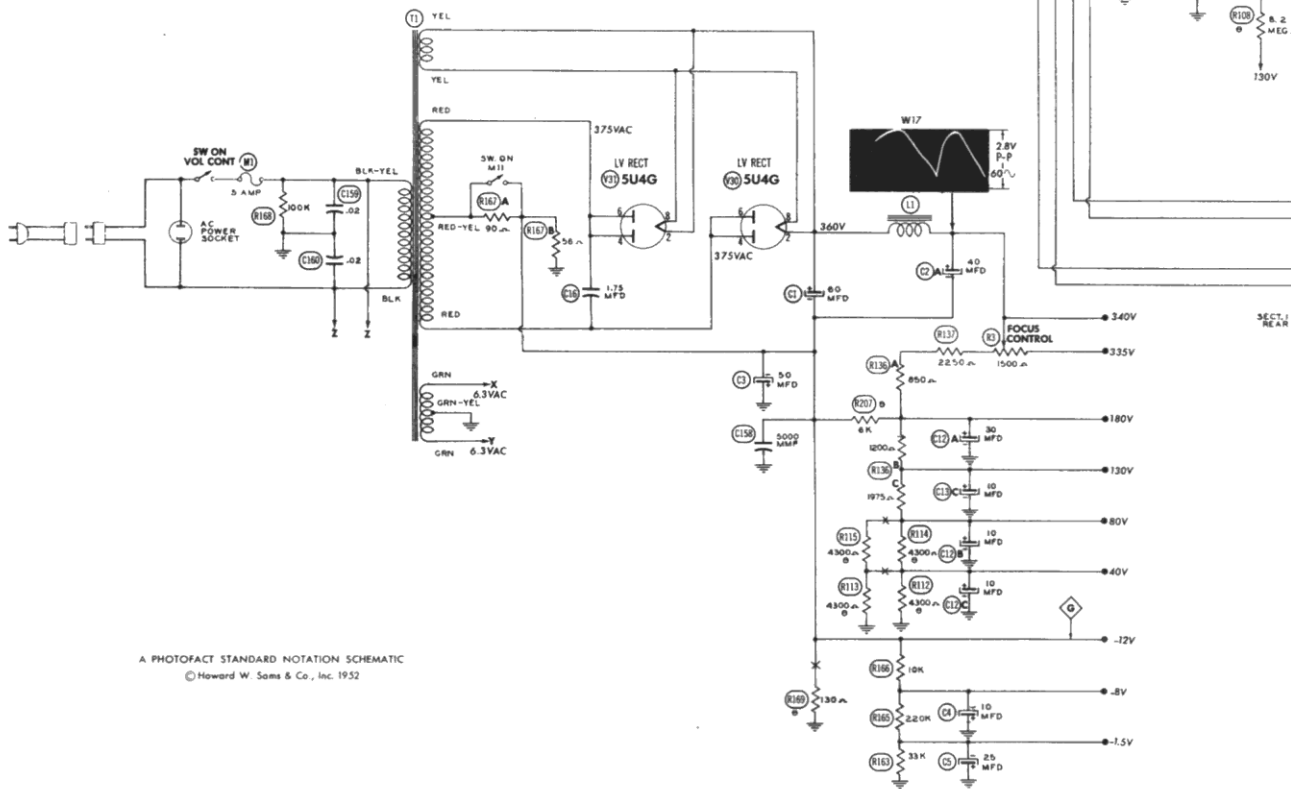
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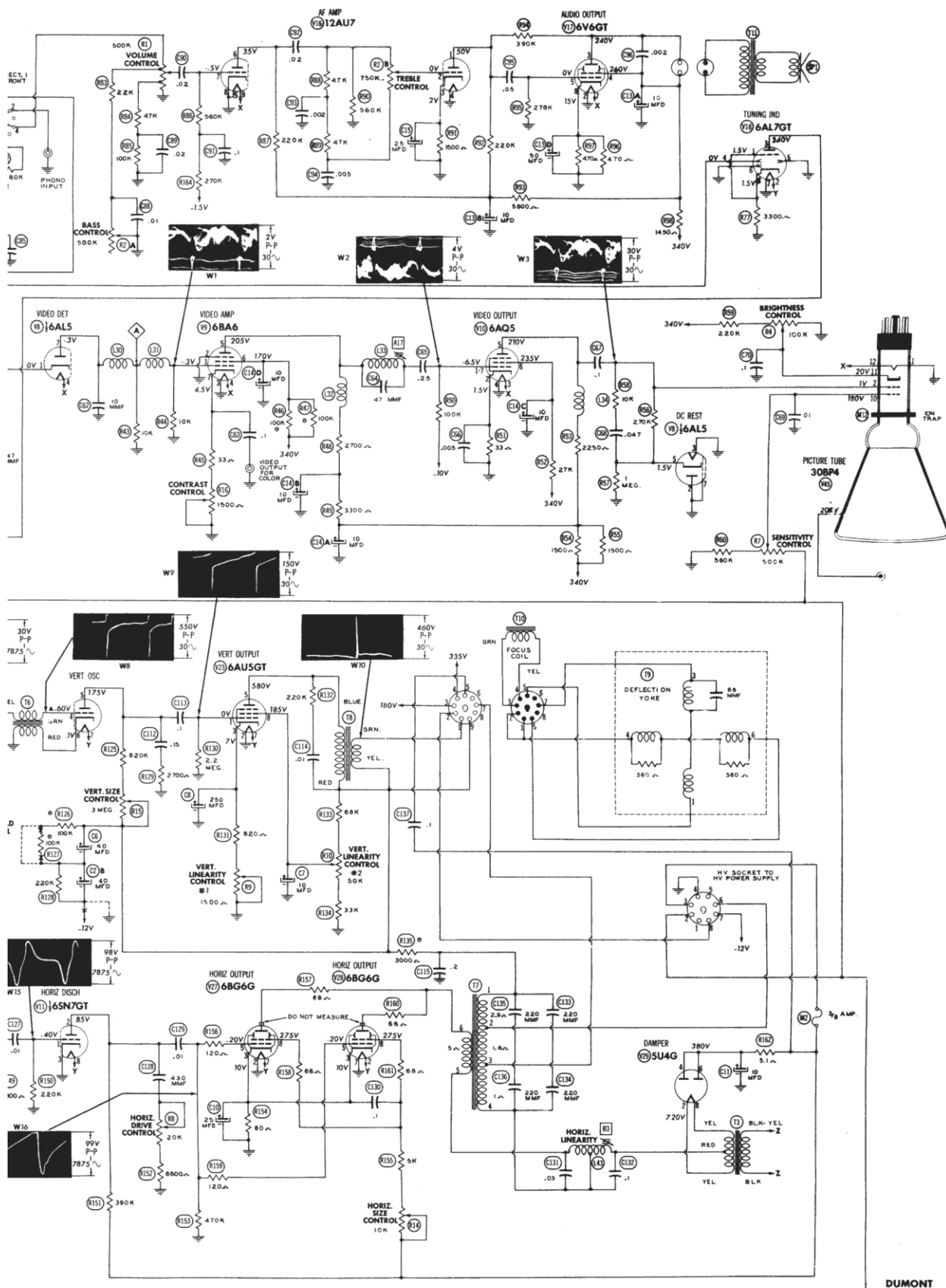


THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

- FUNCTION SWITCH SHOWN IN TV LIGHT-OFF POSITION SWITCH SEQUENCE
1. AM
 2. PHONO
 3. FM
 4. TV LIGHT ON
 5. TV LIGHT OFF

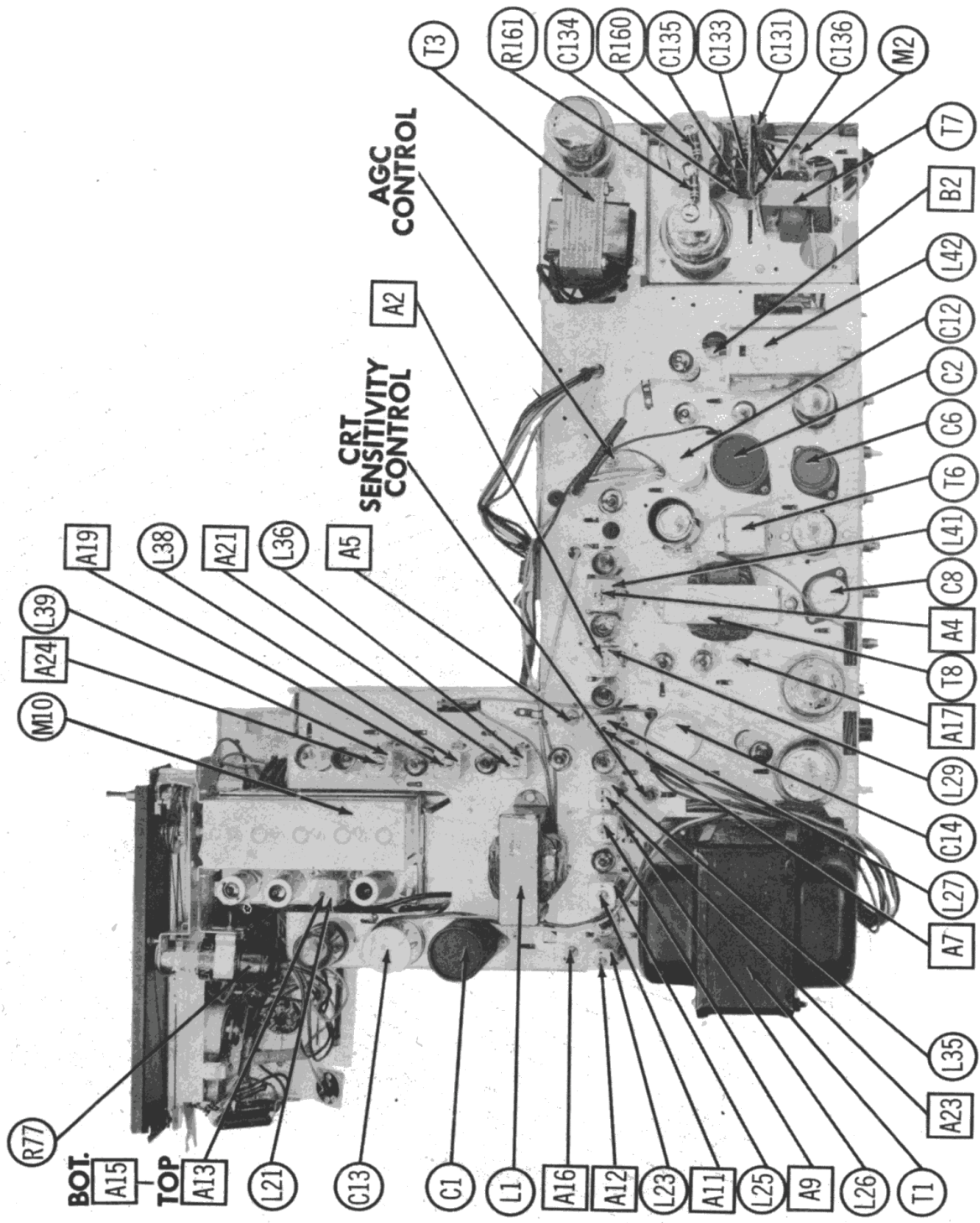


A PHOTOFAC STANDARD NOTATION SCHEMATIC
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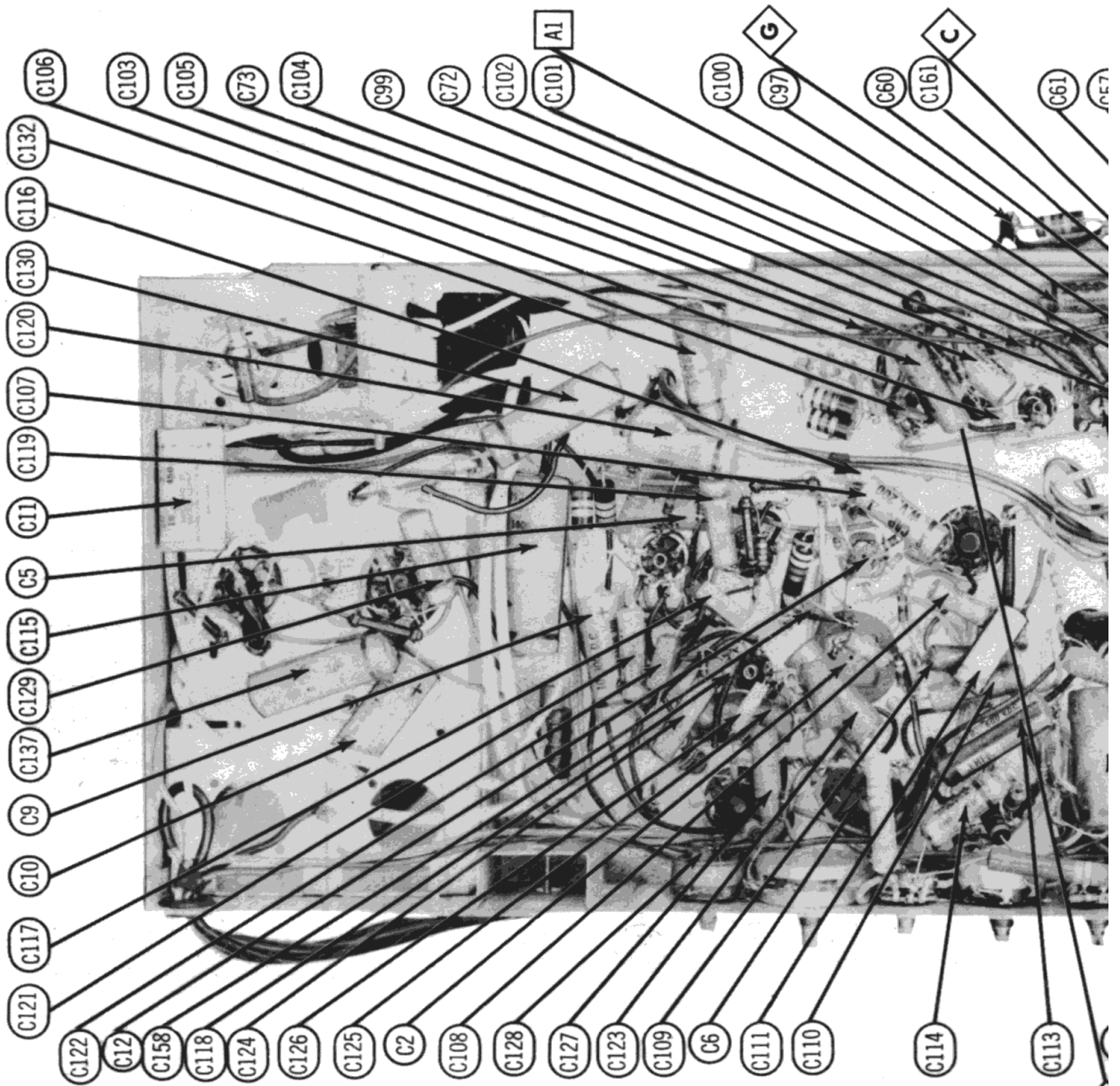
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CHASSIS TOP VIEW

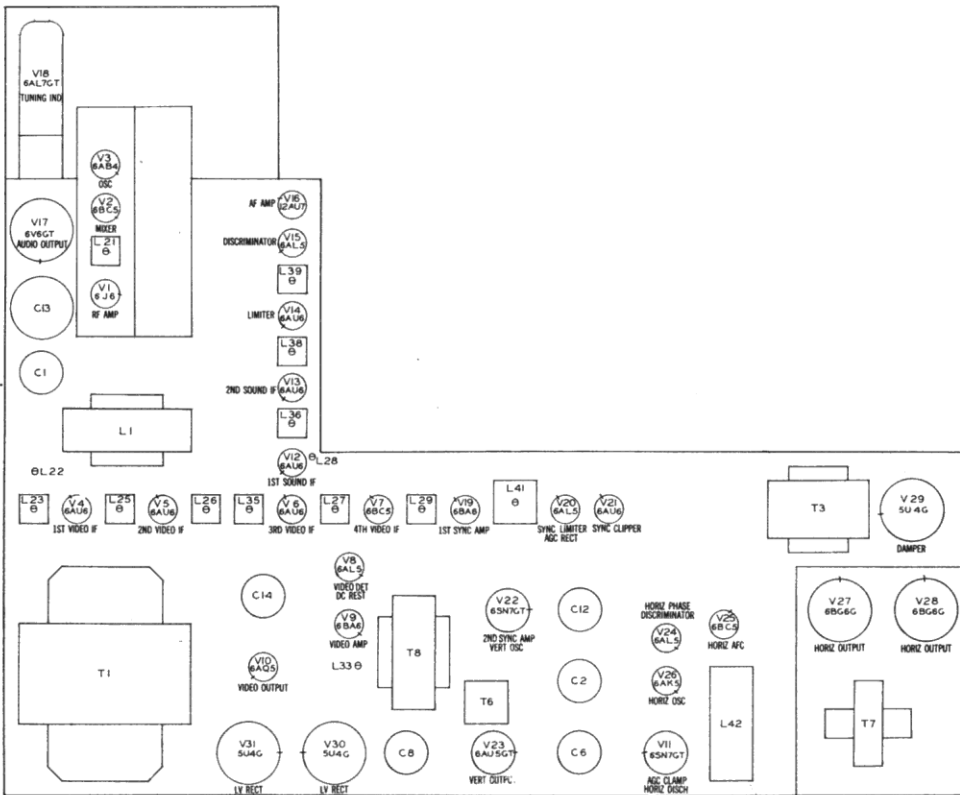
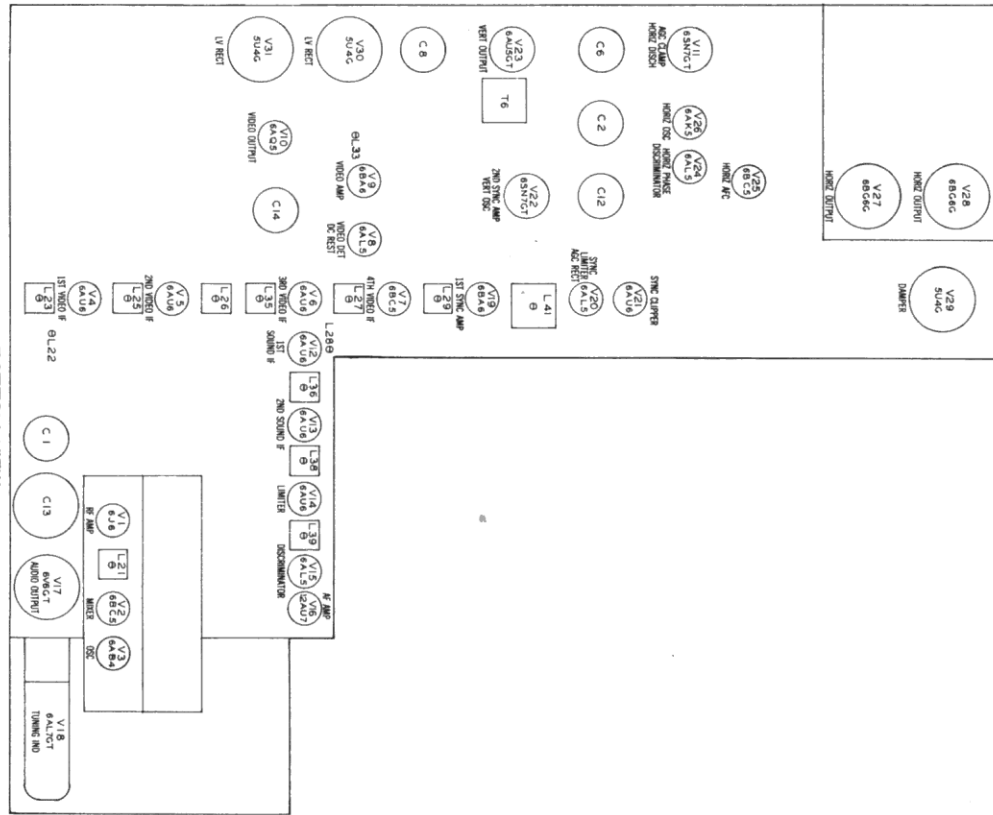
DUMONT
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H

A20

**DUMONT
MODEL RA-119A**



TUBE PLACEMENT CHART-MAIN CHASSIS

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard may be eliminated by removing the power cord, and cable connecting the high voltage supply to the main chassis. Do not operate the set without the focus and deflection plug connected.

VIDEO IF ALIGNMENT

Remove the oscillator tube (V3), the mixer tube (V2), AF output (V17) and the sync. clipper (V21), from their respective sockets. Since the IF transformers are over coupled, the use of two alignment tools used simultaneously to align the primary and secondary is recommended to facilitate alignment. The use of 60v internal saw tooth sweep on the scope is recommended, however synchronized sine wave sweep may be used if preferred.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. 270MMF	High side to pin 1 (grid) of 6AU6, (V2). Low side to chassis	24MC (10MC Swp)	21.9MC 22.4MC 22.9MC 25.65MC 26.4MC	7	Vert. Amp. to point A . Low side to chassis.	A1, A2	Adjust for response curve similar to fig. 1.
2. "	"	26MC (2MC Swp)	25.65MC 26.4MC	"	Vert. Amp. to Point B . Low side to chassis.	A3, A4	Adjust for response curve similar to fig. 2.
3. "	High side to pin 1 (grid) of 6AU6 (V6). Low side to chassis.	24MC (10MC)	21.9MC	"	Vert. Amp. thru detector probe (fig 3) to point C . Low side to chassis.	A5	Adjust for MINIMUM marker amplitude at the 21.9MC point on response curve.
4. "	"	"	22.4MC 22.9MC 25.65MC 26.4MC	"	"	A6, A7	Adjust for response curve similar to fig. 4.
5. "	High side to pin 1 (grid) of 6AU6 (V5).	"	21.9MC 22.4MC 22.9MC 25.65MC 26.4MC	"	High side thru detector probe to point D . Low side to chassis.	A8, A9	Adjust for response curve similar to fig. 5.
6. "	High side to pin 1, (grid) of 6AU6, (V4). Low side to chassis.	"	21.9MC 22.4MC 22.9MC 25.65MC 26.4MC	"	High side thru detector probe to point E . Low side to chassis.	A10, A11	Adjust for response curve similar to fig. 6.
7. "	Replace mixer tube (V2). High side to an ungrounded tube shield floating over mixer tube. (V2). Low side to chassis	"	27.9MC	"	High side thru detector probe to point F . Low side to chassis.	A12, A13	Adjust for MINIMUM marker indication at the 27.9MC point on response curve.
8. "	"	"	21.9MC 22.4MC 22.9MC 25.65MC 26.4MC	"	"	A14, A15 A16	Adjust for response curve similar to fig. 7.
9. 270MMF	High side to pin 1 (grid) of 6BA6, (V9). Low side to chassis.	Not used.	4.5MC (400v mod.)	7	Vert. Amp. thru detector probe to pin 2 of picture tube. Low side to chassis.	A17	Adjust for MINIMUM 400% indication on scope.

Remove the AGC rectifier tube, (V20), from its socket and connect atVTVM between pin 2 of V20 socket and chassis. Adjust the AGC control until VTVM reads -16Volts.

After alignment is completed connect a signal, known to be of good quality and free from ghosts to the receiver. Examine the picture for evidence of smearing or ringing. If necessary make the following adjustments. Make only adjustments required. If more than a slight adjustment is required repeat the entire alignment procedure.

SMEAR: Readjust A25 no more than 1 turn.
Readjust A6 no more than $\frac{1}{2}$ turn.

RING: Readjust A12 no more than $\frac{1}{2}$ turn.
Readjust A9 no more than $\frac{1}{2}$ turn.

SOUND IF ALIGNMENT

Connect a 100K Ω potentiometer for bias as shown in figure 8. Adjust the potentiometer to read -5 volts on a VTVM connected between point H and chassis.

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection. Turn the selector switch to "FM"

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10. 270MMF	High side to pin 1, (grid) of 6AU6 (V13). Low side to chassis.	22MC (1MC Swp)	21.8MC 21.9MC 22MC	7	Vert. Amp. thru detector probe to point I . Low side to chassis.	A18, A19	Adjust for response curve similar to fig. 9.
11. "	High side to pin 1, (grid) of 6AU6, (V12). Low side to chassis.	"	21.8MC 21.9MC 22MC	"	Vert. Amp. thru detector probe to point J . Low side to chassis.	A20, A21	Adjust for response curve similar to fig. 9.
12. "	High side to pin 1 (grid) of 6AU6, (V4). Low side to chassis.	"	21.8MC 21.9MC 22MC	"	Vert. Amp. thru detector probe to point K . Low side to chassis.	A22, A23	Adjust for response curve similar to fig. 10.
13. "	"	"	21.8MC 21.9MC 22MC	"	Vert. Amp. to point L . Low side to chassis.	A24, A25	Adjust for response curve similar to fig. 11.

THE RF TUNER PORTION OF THIS RECEIVER HAS BEEN PROPERLY ALIGNED AT THE FACTORY AND IS VERY STABLE. ALIGNMENT OF THIS PORTION SHOULD NOT BE REQUIRED IN THE FIELD.

ALIGNMENT INSTRUCTIONS (CONT.)

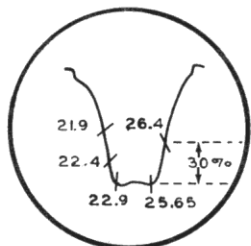


FIG. 1



FIG. 2

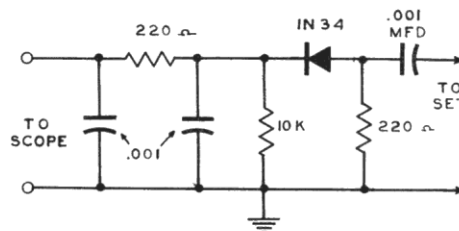


FIG. 3

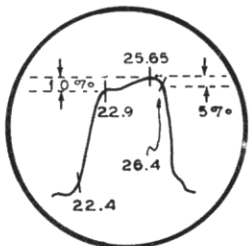


FIG. 4

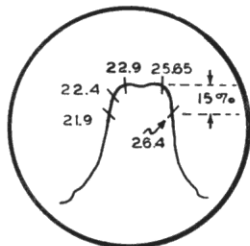


FIG. 5

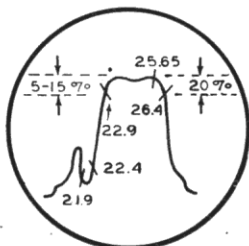


FIG. 6

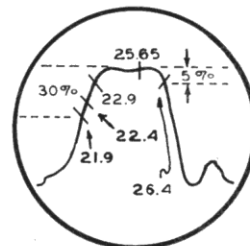


FIG. 7

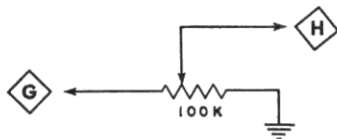


FIG. 8

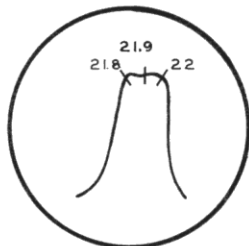


FIG. 9

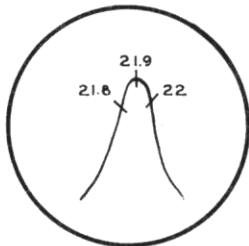


FIG. 10

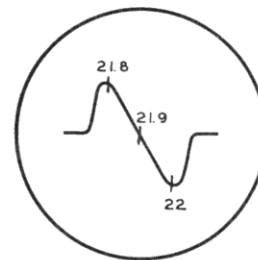


FIG. 11

HIGH VOLTAGE SUPPLY ADJUSTMENT

Unsolder the lead connecting Pin 8 of V34 to R86 and insert a 0-100 millimeter in series with the lead. The meter is used to read cathode current in the H.V. control tube, (V35).

Connect a 0-30KV Voltmeter between the picture tube metal cone and chassis.

Connect the vertical input of an oscilloscope between the junction of C138 and C139, and chassis.

Turn the brightness and contrast controls to fully counter-clockwise.

Turn the frequency control on power chassis to fully counter-clockwise.

Turn the drive control on power chassis to fully clockwise.

Turn the control amplifier bias control, (H.V. control) to the mid point of its range.

Turn the set on and adjust the oscilloscope controls until a single waveform is obtained on the scope, use as little synchronization as possible.

Do not disturb the oscilloscope controls after they are set.

Move the oscilloscope to across R84.

Adjust the frequency control until two pulses are obtained on the scope. As this adjustment is made the current reading on the millimeter should dip. The point of two stable pulses on the scope should coincide with minimum current reading.

Adjust the drive control for minimum reading on the millimeter.

Readjust the frequency control for minimum reading on the millimeter. When making this adjustment the two pulses on the oscilloscope should remain stable.

Repeat adjustment of the drive control.

Adjust the H.V. Control until the high voltage output reads 22KV. Note: under no circumstances should the high voltage be allowed to exceed 25KV.

Check the operation of the high voltage supply by varying the brightness control over its entire range. If the picture size remains substantially constant the high voltage supply is operating properly.

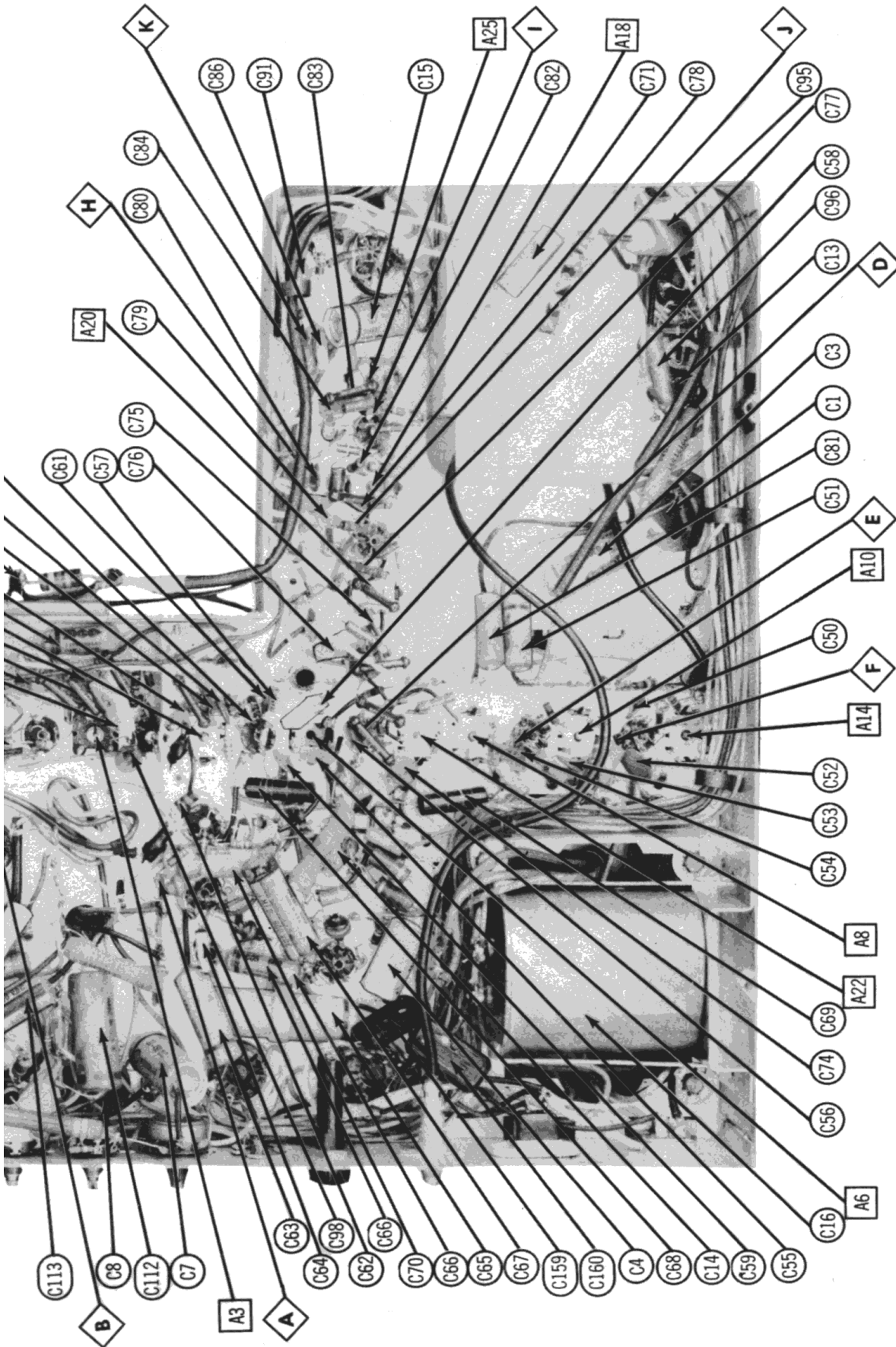
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RESISTANCE MEASUREMENTS

RESISTANCE READINGS

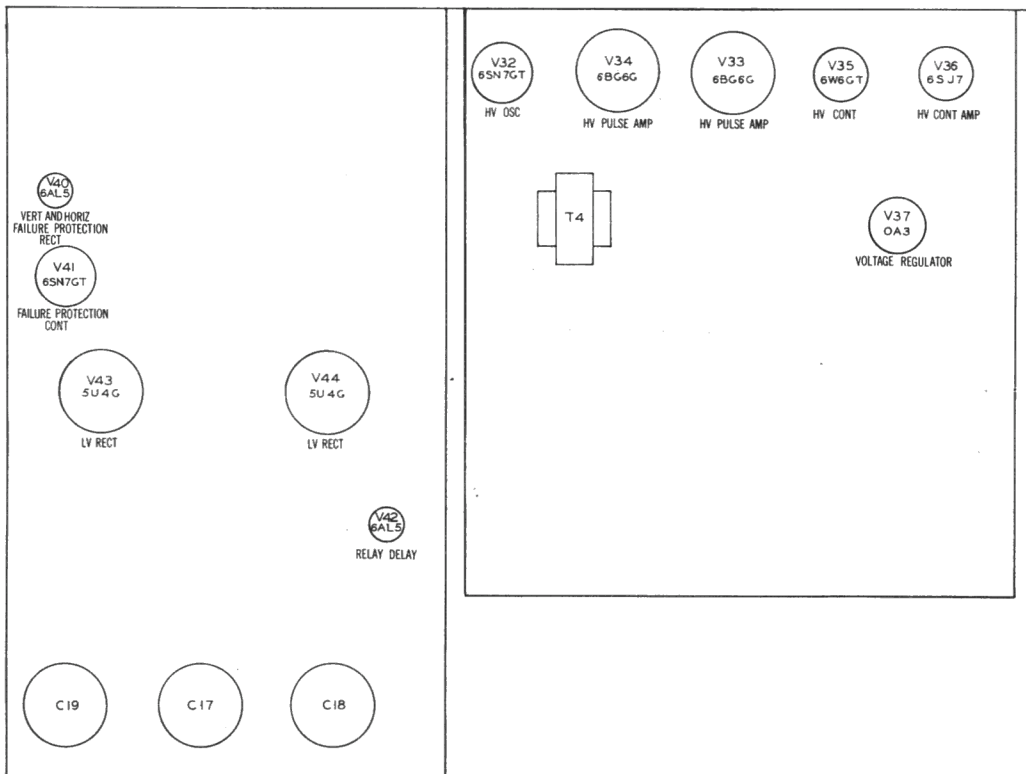
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	
V 1	6J6	†11KΩ	†11KΩ	0Ω	.1Ω	2.2Meg	2.2Meg	82Ω			
V 2	6BC5	3.2Meg	0Ω	0Ω	.1Ω	†50KΩ	†60KΩ	0Ω			
V 3	6AB4	†10KΩ	Inf.	0Ω	.1Ω	Inf.	12KΩ	0Ω			
V 4	6AU6	1.5Meg	0Ω	0Ω	.1Ω	†3.3KΩ	†71KΩ	39Ω			
V 5	6AU6	1.5Meg	0Ω	0Ω	.1Ω	†3.3KΩ	†71KΩ	39Ω			
V 6	6AU6	.6Ω	0Ω	0Ω	.1Ω	†3.5KΩ	†3KΩ	120Ω			
V 7	6BC5	6.8KΩ	220Ω	0Ω	.1Ω	†2KΩ	†3KΩ	220Ω			
V 8	6AL5	.6Ω	0Ω	0Ω	.1Ω	1Meg	0Ω	5KΩ			
V 9	6BA6	5KΩ	0Ω	0Ω	.1Ω	†6.8KΩ	†50KΩ	90Ω			
V 10	6AQ5	110KΩ	33Ω	.1Ω	0Ω	†3KΩ	†27KΩ	110KΩ			
V 11	6SN7GT	220KΩ	†390KΩ	0Ω	1.8Meg	1.8Meg	0Ω	0Ω	.1Ω		
V 12	6AU6	1.6Meg	0Ω	.1Ω	0Ω	†2KΩ	†6.9KΩ	120Ω			
V 13	6AU6	1.6Meg	0Ω	.1Ω	0Ω	†2KΩ	†6.7KΩ	150Ω			
V 14	6AU6	270KΩ	0Ω	.1Ω	0Ω	†2KΩ	†24KΩ	150Ω			
V 15	6AL5	0Ω	100KΩ	.1Ω	0Ω	200KΩ	0Ω	100KΩ			
V 16	12AU7	†160KΩ	560KΩ	1.5KΩ	0Ω	0Ω	†226KΩ	825KΩ	0Ω	.1Ω	
V 17	6V6GT	0Ω	0Ω	†1.9KΩ	†1.5KΩ	270KΩ	Inf.	.1Ω	235Ω		
V 18	6AL7GT	3.3KΩ	.1Ω	†45Ω	1.5Meg	0Ω	0Ω	0Ω	3.3KΩ		
V 19	6BA6	2.8Ω	0Ω	0Ω	.1Ω	†2KΩ	†3KΩ	535Ω			
V 20	6AL5	7.1KΩ	7.1KΩ	0Ω	.1Ω	1Meg	0Ω	950KΩ			
V 21	6AU6	1.2Meg	0Ω	0Ω	.1Ω	†22KΩ	†3.9KΩ	0Ω			
V 22	6SN7GT	†1.2Meg	†8.2KΩ	0Ω	650KΩ	#1Meg	140Ω	.1Ω	0Ω		
V 23	6AU5GT	2.2Meg	0Ω	875Ω	Inf.	#3.6KΩ	Inf.	.1Ω	#28KΩ		
V 24	6AL5	975KΩ	500KΩ	0Ω	.1Ω	33KΩ	0Ω	500KΩ			
V 25	6BC5	1.4Meg	22Ω	0Ω	.1Ω	†22KΩ	†19KΩ	22Ω			
V 26	6AK6	220KΩ	0Ω	.1Ω	0Ω	†7.5KΩ	†47KΩ	18Ω			
V 27	6BG6G	Inf.	0Ω	80Ω	470KΩ	470KΩ	Inf.	.1Ω	†5.3KΩ	TOP CAP #78Ω	
V 28	6BG6G	Inf.	.1Ω	80Ω	Inf.	470KΩ	470KΩ	0Ω	†5.3KΩ	TOP CAP #78Ω	
V 29	5U4G	Inf.	100KΩ	Inf.	†300Ω	Inf.	†300Ω	INF	100KΩ		
V 30	5U4G	Inf.	3.7KΩ	Inf.	45Ω	Inf.	45Ω	Inf.	3.7KΩ		
V 31	5U4G	Inf.	3.7KΩ	Inf.	47Ω	Inf.	47Ω	Inf.	3.7KΩ		
V 32	6SN7GT	70KΩ	†6.9KΩ	0Ω	1Meg	†6.9KΩ	4.7KΩ	.1Ω	0Ω		
V 33	6BG6G	Inf.	0Ω	80Ω	Inf.	29KΩ	Inf.	.1Ω	Inf.	TOP CAP #180Ω	
V 34	6BG6G	Inf.	0Ω	80Ω	Inf.	29KΩ	Inf.	.1Ω	Inf.	TOP CAP #180Ω	
V 35	6W6GT	Inf.	.1Ω	†82Ω	†82Ω	†300KΩ	Inf.	0Ω	Inf.		
V 36	6SJ7	Inf.	0Ω	†25KΩ	1.2Meg	†25KΩ	†82Ω	.1Ω	†300KΩ		
V 37	0A3	Inf.	0Ω	Inf.	Inf.	†25KΩ	Inf.	Inf.	Inf.		
V 38	1B3GT	PINS 1 THROUGH 8 HAVE INF RESISTANCE								TOP CAP #522Ω	
V 39	1B3GT	PINS 1 THROUGH 8 HAVE INF RESISTANCE								TOP CAP Inf.	
V 40	6AL5	#390KΩ	#68KΩ	0Ω	.1Ω	#470KΩ	Inf.	#390KΩ			
V 41	6SN7GT	#470KΩ	†5KΩ	5.6KΩ	#390KΩ	†5KΩ	2.2KΩ	0Ω	.1Ω		
V 42	6AL5	0Ω	†49KΩ	0Ω	2.4Ω	0Ω	Inf.	†49KΩ			
V 43	5U4G	Inf.	41KΩ	Inf.	5.1Ω	Inf.	6.5Ω	Inf.	41KΩ		
V 44	5U4G	Inf.	41KΩ	Inf.	5.1Ω	Inf.	6.5Ω	Inf.	41KΩ		
V 45	30BP4	0Ω	1.3Meg	†250KΩ	†17KΩ	.1Ω					

ALL MEASUREMENTS TAKEN IN TV POSITION ONLY
 ALL CONTROLS SET FOR NORMAL OPERATION
 THE THREE RELAYS MUST BE IN THE CLOSED POSITION
 † MEASURED FROM PINS 2 OF V30 & V31
 # MEASURED FROM PIN 2 OF V29
 † MEASURED FROM PINS 2 OF V43 & V44
 ■ MEASURED FROM - 12VDC LINE

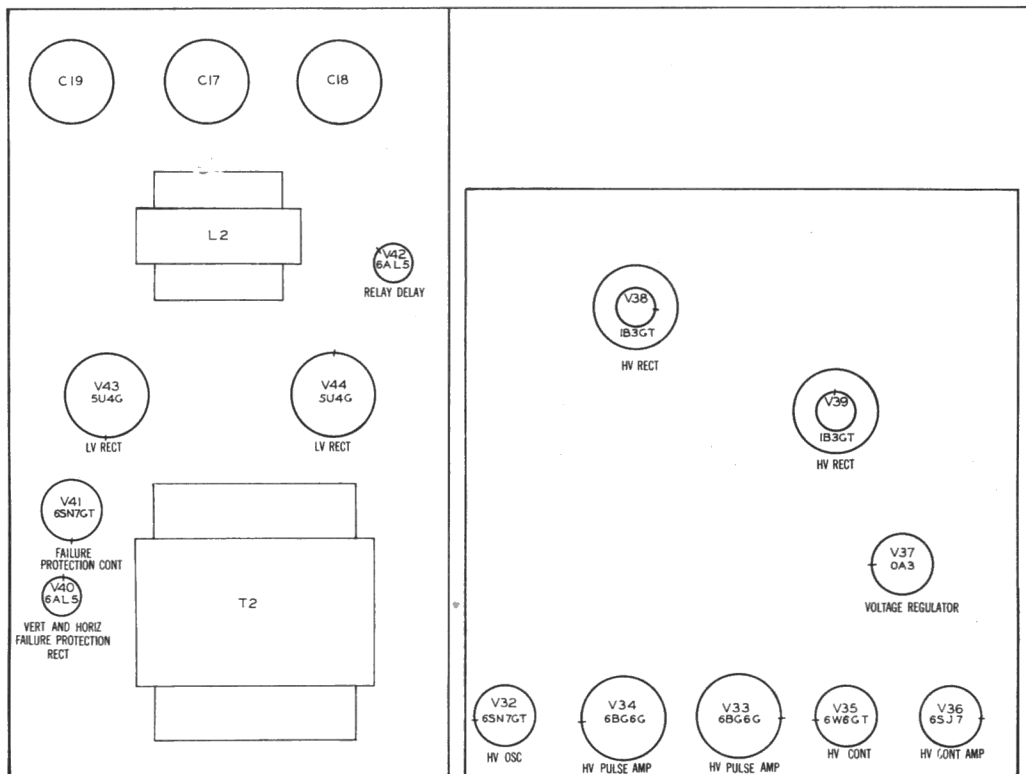


CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

DUMONT
MODEL RA-119A



BOTTOM VIEW



TOP VIEW

TUBE PLACEMENT CHART - POWER SUPPLY CHASSIS

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		DUMONT PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	25000190	6J6	7BF	
V2	Mixer	25002020	6BC5	7bD	
V3	Oscillator	25001760	6AB4	5CE	
V4	1st. Video IF Amp.	25000050	6AU6	7BK	
V5	2nd. Video IF Amp.	25000050	6AU6	7BK	
V6	3rd. Video IF Amp.	25000050	6AU6	7BK	
V7	4th. Video IF Amp.	25002020	6BC5	7BD	
V8	Video Detector-DC Restorer	25000020	6AL5	6BT	
V9	Video Amplifier	25003240	6BA6	7BK	
V10	Video Output	25000340	6AQ5	7BZ	
V11	AGC Clamp Horiz Discharge	25000110	6SN7GT	8BD	
V12	1st Sound IF Amp.	25000050	6AU6	7BK	
V13	2nd Sound IF Amp.	25000050	6AU6	7BK	
V14	Limiter	25000050	6AU6	7BK	
V15	Discriminator	25000020	6AL5	6BT	
V16	AF Amplifier	25000130	12AU7	9A	
V17	Audio Output	25000090	6V6GT	7AC	
V18	Tuning Indicator	25000200	6AL7GT	8CH	
V19	1st Sync. Amp.	25000240	6BA6	7BK	
V20	Sync. Limiter AGC Rectifier	25000020	6AL5	6BT	
V21	Sync. Clipper	25000050	6AU6	7BK	
V22	2nd. Sync. Amp.	25000110	6SN7GT	8BD	
V23	Vert. Oscillator	25002770	6AU5GT	6CK	
V24	Vert. Output Horizontal Phase Discriminator	25000020	6AL5	6BT	
V25	Horizontal AFC	25002020	6BC5	7BD	
V26	Horiz. Oscillator	25000350	6AK6	7BK	
V27	Horiz. Output	25000140	6BG6G	5BT	
V28	Horiz. Output	25000140	6BG6G	5BT	
V29	Damper	25000060	5U4G	5T	
V30	LV Rectifier	25000060	5U4G	5T	
V31	LV Rectifier	25000060	5U4G	5T	
V32	HV Oscillator	25000110	6SN7GT	8BD	
V33	HV Pulse Amp.	25000140	6BG6G	5BT	
V34	HV Pulse Amp	25000140	6BG6G	5BT	
V35	HV Control	25002680	6W6GT	7AC	
V36	HV Control Amp.	25000270	6SJ7	8BD	
V37	Voltage Regulator	25000430	0A3	4AJ	
V38	HV Rectifier	25000150	1B3GT	3C	
V39	HV Rectifier	25000150	1B3GT	3C	
V40	Horiz. Failure Protection Rect.				
V41	Vert. Failure Protection Rect.	25000020	6AU5	6BT	
V42	Failure protection control	25000110	6SN7GT	8BD	
V43	Relay Delay	25000020	6AL5	6BT	
V44	LV Rectifier	25000060	5U4G	5T	
V45	LV Rectifier	25000060	5U4G	5T	
V45	Picture Tube	25003000	30BP4	12D	

CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA			RTMA BASE TYPE	NOTES
	DUMONT PART No.	SYLVANIA PART No.	THOMAS PART No.		
V45	30BP4			12D	

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					IDENTIFICATION CODES AND INSTALLATION NOTES	
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.		SPRAGUE PART No.
C1	60	450	03017880	AFH 1-54		UP6045		TVL-2759	Filter
C2A	40	450	03018670	AFH 3-190		UPT4445		TVL-3813	▲ Filter
B	40	350							■ Vert. Osc. Dec.
C	25	50							▲ Not Used
C3	50	25	03000020	PRS25/50		BR502A		TVA-1206	Bias Filter
C4	10	25	03016730	PRS25/10		BR102A		TVA-1204	Bias Filter
C5	25	25	03015310	PRS25/25		BR252A		TVA-1205	Bias Filter
C6	40	350	03018680	AFH 1-40		UP4045		TVL-1622	Vert. Osc. Dec.
C7	10	450	03019410	PRS450/10		BR1045A		TVA-1705	Vert. Output Screen
C8	250	50	03103700	AFH 1-24		BRH5025			Vert. Output Cathode
				PRS 50/100					
C9	10	300	03019320	PRS350/12		BR1235A		TVA-1604	AFC Screen
C10	25	50	03013890	PRS50/25		BR255A		TVA-1306	Horiz. Output Cathode
C11	10	450	03019410	PRS450/10		BR1045A		TVA-1705	Damper Decoupling
C12A	30	450	03019330	AFH 3-35		UP3145			■ Decoupling
B	10	300				BR1015			▲ Decoupling
C	10	150							Decoupling
C13A	10	450	03018610	AFH 4-61		UPT11145C			▲ Audio Output Dec.
B	10	450							■ AF Amp. Plate
C	10	300							▲ Decoupling
D	50	25							Audio Output Cathode
C14A	10	450	03019150	AFH 4-10		UPT11145		TVL-4760	▲ Decoupling
B	10	450							■ Decoupling
C	10	450							▲ Video Output Screen
D	10	450							Video Amp. Screen
C15	25	25	03015310	PRS25/25		BR252A		TVA-1205	AF Amp. Cathode
C16	1.75	850				CRA85175			Power Trans. Shunt
C17	80	350	03016620	AFH 1-42		UP8040		TVL-1630	Filter
C18	80	350	03015320	AFH 1-42		UP8045		TVL-1630	Filter
C19A	40	475	03016050	AFH 2-72		UP4450		TVL-2830	▲ Filter
B	40	400							■ Not Used
C20	8	250	03017440	PRS250/8		BR825		TVA-1503	Relay Shunt

PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES	
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.		SPRAGUE PART No.
C21	8	250	03017440	PRS250/8		BR825		TVA-1503	Relay Shunt
C22	8	250	03017440	PRS250/8		BR825		TVA-1503	Relay Shunt
C23	10	450	03019410	PRS450/10		BR1045A		TVA-1705	Decoupling
C24	1.5	950							Power Trans. Shunt
C25	20		03015790	SI20NP0	TCZ-20		NP0K-200		Fixed Trimmer
C26	15		03012050		TCZ-15		NP0K-150	5TCC-Q15	Fixed Trimmer
C27	8-50		03017500	SI20NP0					Variable Trimmer
C28	20		03105790	SI20NP0	TCZ-20		NP0K-200		Fixed Trimmer
C29	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	RF Amp. Cathode
C30	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	AGC Filter
C31	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	AGC Filter
C32	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	RF Bypass
C33	100		03016700	SI100	D6-101		GPIK-101	5GA-T1	RF Coupling
C34	.5-5		03016650						Variable Trimmer
C35	100		03016700	SI100	D6-101		GPIK-101	5GA-T1	Fixed Trimmer
C36	137		03019960						Fixed Trimmer
C37	.5-5		03016650						Variable Trimmer
C38	100		03016700	SI100	D6-101		GPIK-101	5GA-T1	RF Coupling
C39	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	AGC Filter
C40	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	AGC Filter
C41	1		03012150		TCZ-1		NP0K-010		Osc. Coupling
C42	5		03014730	SI5NP0			NP0K-050		Osc. Grid Cap.
C43	1.5-7		03016870						Variable Trimmer
C44	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	Osc. Fil.
C45	5000		03015610	BPD-005	DD-502		811-005	5HK-D5	Mixer Screen
C46	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	Mixer Fil.
C47	5000		03015610	BPD-005	DD-502		811-005	5HK-D5	RF Bypass
C48	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	Fil. Bypass
C49	470		03016480	SI470	D6-471		GP2K-471	5GA-T47	Fil. Bypass
C50	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AGC Filter
C51	.05	200	03000950	P288-05	DF-503	PTE4S5		2TM-S5	AGC Filter
C52A	4000		03017790	BPD-2X004	D6-402	ID5D4	822-004	5HK-2D4	1st. Video IF Plate
B	4000				D6-402	ID5D4			1st. Video IF Screen
C53	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AGC Filter
C54A	4000		03017790	BPD-2X004	D6-402	ID5D4	822-004	5HK-2D4	2nd. Video IF Plate
B	4000				D6-402	ID5D4			2nd. Video IF Screen
C55A	4000		03017790	BPD-2X004	D6-402	ID5D4	822-004	5HK-2D4	3rd. Video IF Plate
B	4000				D6-402	ID5D4			3rd. Video IF Screen
C56	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	3rd. Video IF Cathode
C57	20	500	03013800	SI20NP0	TCZ-20		NP0K-200		Fixed Trimmer
C58	110		03020980						Decoupling
C59	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	Video IF Coupling
C60A	4000		03017790	BPD-2X004	D6-402	ID5D4	822-004	5HK-2D4	4th. Video IF Plate
B	4000				D6-402	ID5D4			4th. Video IF Screen
C61	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	4th. Video IF Cathode
C62	10	400	03013080	SI10NP0	TCZ-10		NP0K-100	5TCC-Q1	Video Det. Filter
C63	.1		03019260	P488-1	DF-104	PTE4P1		4TM-P1	Video Coupling
C64	47		03015300		TCZ-47		NP0L-470	5TCC-Q47	Fixed Trimmer
C65	.25	400	03021840	P488-25		GT4P25		4TM-P25	Video Coupling
C66	.005	600	03018620	P688-005	D6-502	PTE6D5	GP2-333-502	6TM-D5	Video Output Cathode
C67	.1	600	03014820	P688-1	DF-104	PTE6P1		6TM-P1	Video Coupling
C68	.047	200	03000950	P288-.047	DF-503	PTE4S5		2TM-S47	Video Coupling
C69	.01	600	03014810	P688-.01	D6-103	PTE6S1	GP2-333-103	6TM-S1	ACC. Anode Dec.
C70	.1	400	03019260	P488-1	DF-104	PTE4P1		4TM-P1	Picture Tube Cathode
C71	.05	200	03000950	P288-.05	DF-503	PTE4S5		2TM-S5	AGC Filter
C72	.05	200	03000950	P288-.05	DF-503	PTE4S5		2TM-S5	AGC Filter
C73	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AGC Filter
C74	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AVC Filter
C75	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	1st. Sound IF Plate
C76	1500	500	03033560	I467-0015	D6-152	IWS1D5	GP2L-152	1FM-215	1st. Sound IF Screen
C77	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AVC Filter
C78	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	2nd. Sound IF Plate
C79	1500	500	03033560	I467-0015	D6-152	IWS1D5	GP2L-152	1FM-215	2nd. Sound IF Screen
C80	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AVC Filter
C81	.05	400	03015370	P488-.05	DF-503	PTE4S5		4TM-S5	AVC Filter
C82	10		03018730	SI10NP0	TCZ-10		NP0K-100	5TCC-Q1	Sound IF Coupling
C83	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	Limiter Plate
C84	1500	500	03033560	I467-0015	D6-152	IWS1D5	GP2L-152	1FM-215	Limiter Screen
C85	.05	200	03000950	P288-.05	DF-503	PTE4S5		2TM-S5	Tuning Ind. Filter
C86	680	500	03012750	I479-0007	D6-681	IWS1T7	GP2K-681	1FM-37	De-emphasis
C87	.02	400	03001460	P488-.02	DF-203	PTE4S2		4TM-S2	Audio Coupling
C88	.01	400	03001450	P488-.01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Tone Comp.
C89	.02	200	03018470	P488-.02	DF-203	PTE4S2		2TM-S2	Tone Comp.
C90	.02	400	03001460	P488-.02	DF-203	PTE4S2		4TM-S2	Audio Coupling
C91	.1	200	03013910	P288-.1	DF-104	PTE4P1		2TM-P1	Bias Filter
C92	.02	600	03018570	P688-.02	DF-203	PTE6S2		6TM-S2	Audio Coupling
C93	.002	600	03014670	P688-.002	D6-202	PTE6D2	GP2-333-202	6TM-D2	Tone Comp.
C94	.005	600	03018620	P688-.005	D6-502	PTE6D5	GP2-333-502	6TM-D5	Tone Comp.
C95	.05	600	03015370	P688-.05	DF-503	PTE6S5		6TM-S5	Audio Coupling
C96	.002	600	03014670	P688-.002	D6-202	PTE6D2	GP2-333-202	6TM-D2	Audio Output Plate
C97	47	500	03020080	I468-00005	D6-470	5WSQ5	GPIK-470	1FM-45	Sync. Coupling
C98	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	Sync. Amp. Plate
C99	820	500	03033530						Sync. Amp. Screen
C100	.05	200	03000950	P288-.05	DF-503	PTE4S5		2TM-S5	Sync. Amp. Cathode
C101A	4000		03017790	BPD-2X004	D6-402	ID5D4	822-004	5HK-2D4	RF Bypass
B	4000				D6-402	ID5D4			RF Bypass
C102	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	AGC Filter
C103	33		03018690	SI33	D6-330		GPIK-330	5GA-Q33	Sync. Limiter Cathode
C104	.1	200	03013910	P288-.1	DF-104	PTE4P1		2TM-P1	Sync. Coupling *
C105	.1	200	03013910	P288-.1	DF-104	PTE4P1		2TM-P1	Sync. Coupling
C106	5000		03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	RF Bypass
C107	.1	200	03013910	P288-.1	DF-104	PTE4P1		2TM-P1	Sync. Coupling
C108	.002	600	03014670	P688-.002	D6-202	PTE6D2	GP2-333-202	6TM-D2	Vert. Integrator Net.
C109	.005	600	03018620	P688-.005	D6-502	PTE6D5	GP2-333-502	6TM-D5	Vert. Integrator Net.
C110	.02	400	03001460	P488-.02	DF-203	PTE4S2		4TM-S2	Vert. Integrator Net.
C111	.01	600	03014810	P688-.01	D6-103	PTE6S1	GP2-333-103	6TM-S1	Vert. Osc. Grid Cap.
C112	.15	600	03019940	684-15					Vert. Discharge
C113	.1	600	03014820	P688-.1	DF-104	PTE6P1		6TM-P1	Vert. Sweep Coupling
C114	.01	600	03014810	P688-.01	D6-103	PTE6S1	GP2-333-103	6TM-S1	Vert. Output Plate
V115	.2	1000	03018750						Vert. Output Dec.
C116	100	500	03020430	I468-0001	D6-101	5WS1T1	GPIK-101	1FM-31	Horiz. Sync. Coupling
C117	12000	500	03018240						Fixed Trimmer
C118	20		03015790	SI20NP0	TCZ-20		NP0K-200		Balancing
C119	.005	600	03018620	P688-.005	D6-502	PTE6D5	GP2-333-502	6TM-D5	Horiz. Sync. Coupling
C120	.1	200	03013910	P288-.1	DF-203	PTE4P1		2TM-P1	AFC Grid

DUMONT
MODEL RA-119A

CAPACITORS (CONT.)

RESISTOR

ITEM No.	RATING		REPLACEMENT DATA						IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C121	.005	600	03018620	P688-005	D6-502	PTE6D5	GP2-333-502	6TM-D5	AFC Plate
C122	10000	500	03034420	I487-01	D6-103	ID3S1	GP2-333-103	1FM-11	AFC Cathode
C123	.05	600	03015370	P688-005	DF-503	PTE6S5		6TM-S5	RF Bypass
C124	.002	600	03014670	P688-002	D6-202	PTE6D2	GP2-333-202	6TM-D2	AFC Coupling
C125	.05	600	03015370	P688-005	DF-503	PTE6S5		6TM-S5	Horiz. Osc. Screen
C126	330	500	03020490	I468-00035	D6-331		GP2K-331	1FM-335	Horiz. Sweep Coupling
C127	01	400	03001450	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Horiz. Sweep Coupling
C128	430	500	03055830						Horiz. Discharge
C129	.01	600	03014810	P688-01	D6-103	PTE6S1	GP2-333-103	6TM-S1	Horiz. Sweep Coupling
C130	.1	600	03014820	P688-1	DF-104	PTE6P1		6TM-P1	Horiz. Output Screen
C131	.03	200	03018580	P488-03		PTE6S3		6TM-S3	Damper Filter
C132	.1	200	03013910	P288-1	DF-104	PTE4P1		2TM-P1	Damper Filter
C133	220	2000	03016940						Fixed Trimmer
C134	220	2000	03016940						Fixed Trimmer
C135	220	2000	03016940						Fixed Trimmer
C136	220	2000	03016940						Fixed Trimmer
C137	.1	600	03014820	P688-1	DF-104	PTE6P1		6TM-P1	Horiz. Sweep Coupling
C138	68	1500	03016895						Horiz. Sweep Coupling
C139	.01	600	03014810	P688-01	D6-103	PTE6S1	GP2-333-103	6TM-S1	Voltage Divider
C140	1000	500	03033180	I468-001	D6-102		GP2L-102		Horiz. Sweep Coupling
C141	.1	200	03013910	P288-1	DF-104	PTE4P1		2TM-P1	HV Osc. Cathode
C142	270	500	03020170	I469-0003		5R5T3		MS-33	HV Osc. Feedback
C143	1000	500	03033180	I468-001	D6-102	IW5D1	GP2L-102	1FM-21	Voltage Divider
C144	.05	600	03015370	P688-05	DF-503	PTE6S5		6TM-S5	HV Pulse Coupling
C145	.1	600	03019250	P688-1	DF-104	PTE6P1		6TM-P1	HV Control Cathode
C146	1000	500	03033180	I468-001	D6-102	IW5D1	GP2L-102	1FM-21	HV Control Amp. Grid
C147	500	20000	03014880	HV 20A	TV3-502		410-501		HV Doubler
C148	500	20000	03014880	HV 20A	TV3-502		410-501		HV Filter
C149	500	30000	0301510						HV Filter
C150	500	30000	0301510						HV Filter
C151	.005	600	03018620	P688-005	D6-502	PTE6D5	GP2-333-502	6TM-D5	Horiz. Sweep Coupling
C152	.1	200	03018720	P288-1	DF-104	PTE4P1		2TM-P1	Voltage Divider
C153	.05	1000	03015370	P1088-05		GT16S5		MB-S5	Vert. Sweep Coupling
C154	.05	200	03000950	P288-05	DF-503	PTE4S5		2TM-S5	Integrator Net.
C155	.01	200	03014900	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Integrator Net.
C156	.1	200	03018720	P288-1	DF-104	PTE4P1		2TM-P1	Voltage Divider
C157	.01	600	03014810	P688-01	D6-103	PTE6S1	GP2-333-103	6TM-S1	RF Bypass *
C158	500	500	0301510	BPD-005	DD-502	ID5D5	811-005	5HK-D5	Bias Filter
C159	.02	600	03018570	P688-02	DF-203	PTE6S2		6TM-S2	Line Filter
C160	.02	600	03018570	P688-02	DF-203	PTE6S2		6TM-S2	Line Filter
C161	5000	5000	03015610	BPD-005	DD-502	ID5D5	811-005	5HK-D5	RF Bypass *

* Not Used In All Models

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES AND INSTALLATION NOTES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R34	3300Ω	1	02034830	BTA-3300	
R35	120Ω	1	02031660	BTS-120	
R36	1000Ω	1	02031770	BTS-1000	
R37	1000Ω	1	02031770	BTS-1000	
R38	6800Ω	1	02031770	BTS-6800	
R39	220Ω 5%	1	02031690	BTS-220 5%	
R40	1000Ω	1	02031770	BTS-1000	
R41	1000Ω	1	02031770	BTS-1000	
R42	68KΩ	1	02031770	BTS-68K	
R43	10KΩ 5%	1	02030720	BTS-10K 5%	
R44	10KΩ 5%	1	02030720	BTS-10K 5%	
R45	33Ω 20%	1	02031590	BTA-3300	
R46	100KΩ 5%	1	02030580	BTA-100K 5%	
R47	100KΩ 5%	1	02034830	BTS-100K 5%	
R48	2700Ω 5%	1	02032010	BTS-2700 5%	
R49	3300Ω	1	02034830	BTA-3300	
R50	100KΩ 5%	1	02032010	BTS-100K 5%	
R51	33Ω 20%	1	02031590	BTA-3300	
R52	27KΩ	1	02034940	BTA-27K	
R53	2250Ω	10	02122470	1 3/4-2250	
R54	1500Ω	2	02037790	BTB-1500	
R55	1500Ω	2	02037790	BTB-1500	
R56	270KΩ	2	02032060	BTS-270K	
R57	1Meg	2	02032130	BTS-1Meg	
R58	10KΩ 20%	2	02031890	BTS-10K	
R59	220KΩ	2	02032050	BTS-220K	
R60	560KΩ	2	02032100	BTA-560K	
R61	100KΩ	2	02032010	BTS-100K	
R62	47KΩ	2	02031970	BTS-47K	
R63	12KΩ	2	02031660	BTS-120	
R64	4700Ω	2	02031850	BTS-4700	
R65	1000Ω	2	02031770	BTS-1000	
R66	100KΩ	2	02032010	BTS-100K	
R67	100KΩ 5%	2	02032010	BTS-100K 5%	
R68	150Ω 5%	2	02031670	BTS-150 5%	
R69	4700Ω	2	02031850	BTA-4700	
R70	1000Ω	2	02031770	BTS-1000	
R71	100KΩ 5%	2	02032010	BTS-100K 5%	
R72	1.2Meg	2	02032140	BTS-1.2Meg	
R73	270KΩ	2	02032060	BTS-270K	
R74	150Ω 5%	2	02031670	BTS-150 5%	
R75	22KΩ	2	02031930	BTS-22K	
R76	1000Ω	2	02031770	BTS-1000	
R77	3300Ω	2	02032010	BTS-3300	
R78	100KΩ	2	02032010	BTS-100K	
R79	100KΩ	2	02032010	BTS-100K	
R80	100KΩ	2	02032010	BTS-100K	
R81	1.2Meg	2	02032140	BTS-1.2Meg	
R82	680KΩ 20%	2	02042110	BTS-680K	
R83	22KΩ	2	02031930	BTS-22K	
R84	47KΩ	2	02031970	BTS-47K	
R85	100KΩ	2	02032010	BTS-100K	
R86	560KΩ	2	02032100	BTA-560K	
R87	220KΩ	2	02032050	BTS-220K	
R88	47KΩ	2	02031970	BTS-47K	
R89	47KΩ	2	02031970	BTS-47K	
R90	560KΩ	2	02032100	BTA-560K	
R91	1500Ω	2	02031790	BTS-1500	
R92	220KΩ 20%	2	02032050	BTS-220K	
R93	5600Ω	2	02031860	BTS-5600	
R94	390KΩ 5%	2	02031100	BTS-390K 5%	
R95	270KΩ	2	02032060	BTS-270K	
R96	470Ω	2	02034730	BTA-470	
R97	470Ω	2	02034730	BTA-470	
R98	1450Ω	2	02121300	1 3/4A-1450	
R99	68Ω	2	02031630	BW-1/2-68	
R100	470Ω	2	02031730	BTS-470	
R101	1000Ω	2	02031770	BTS-1000	
R102	1000Ω	2	02031770	BTS-1000	
R103	27KΩ	2	02031770	BTS-27K	
R104	1000Ω	2	02031770	BTS-1000	
R105	680KΩ 20%	2	02042110	BTS-680K	
R106	270KΩ	2	02032060	BTS-270K	
R107	1.2Meg	2	02032140	BTS-1.2Meg	
R108	8.2Meg	2	02032140	BTS-8.2Meg	
R109	1.2Meg	2	02032140	BTS-1.2Meg	
R110	10KΩ 20%	2	02031890	BTS-10K	
R111	1Meg	2	02032130	BTS-1Meg	
R112	4300Ω	2			
R113	4300Ω	2			
R114	4300Ω	2			
R115	4300Ω	2			
R116	1.2Meg	2	02032140	BTS-1.2Meg	
R117	22KΩ	2	02031930	BTS-22K	
R118	1.2Meg	2	02032140	BTS-1.2Meg	
R119	4700Ω	2	02031850	BTA-4700	
R120	10KΩ	2	02031890	BTS-10K	
R121	10KΩ	2	02031890	BTS-10K	
R122	10KΩ	2	02031890	BTS-10K	
R123	470KΩ	2	02031890	BTS-470K	
R124	1.2Meg	2	02032090	BTS-1.2Meg	
R125	820KΩ 5%	2	02031880	BTS-820K 5%	
R126	100KΩ 5%	2	02035540	BTA-100K 5%	
R127	100KΩ 5%	2	02035540	BTA-100K 5%	
R128	220KΩ 5%	2	02035050	BTA-220K	
R129	2700Ω 5%	2	02030580	BTS-2700 5%	
R130	2.2Meg	2	02032170	BTS-2.2Meg	
R131	820Ω 5%	2	07037760	BTB-820 5%	
R132	220KΩ	2	02035050	BTB-220K	
R133	68KΩ	2	02047990	BTB-68K	
R134	33KΩ	2	02037950	BTB-33K	
R135	3000Ω	2	02037950	1 3/4A-3000	
R136A	850Ω	2	02121400	1 3/4A-800	
R136B	1200Ω	2	02121400	1 3/4A-1200	
R136C	1975Ω	2	02121400	1 3/4A-A-2000	
R137	2250Ω	2	02122470	1 3/4A-2250	
R138	470KΩ	2	02032090	BTS-470K	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			CENTRALAB	INSTALLATION NOTES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	CLAROSTAT PART No.		
R1A	500KΩ	2	01025700		AT-92	Volume Control and Switch Tapped @ 150K-250KΩ	
B	Shaft				FS-3		
C	Switch				SW-A		
R2A	500KΩ	2	01028700	Concentrikrit	RTV-151	Tone Control-Bass-Panel Tone Control-Treble-Rear Attach per instructions in "Concentrikrit"	
B	750K						
C	Shaft End						
R3A	100KΩ	2	01027200				

ID DESCRIPTIONS (Continued)

RESISTORS (CONT.)

CEMENT DATA		IDENTIFICATION CODES
IR PART No.		
BTA-3300	2nd. Video IF Plate Decoupling	
BTS-120	3rd. Video IF Cathode	
BTS-1000	3rd. Video IF Screen	
BTS-1000	3rd. Video IF Plate Decoupling	
BTS-6800	4th. Video IF Grid	
BTS-220 5%	4th. Video IF Cathode	
BTS-1000	4th. Video IF Screen	
BTS-1000	4th. Video IF Plate Decoupling	
BTS-68K	Video IF Coil Shunt	
BTS-10K 5%	Video Detector Load	
BTS-10K 5%	Video Amplifier Grid	
BTA-100K 5%	Video Amplifier Cathode	
BTA-100K 5%	Video Amplifier Screen SEE NOTE 1	
BTS-2700 5%	Video Amplifier Screen SEE NOTE 2	
BTA-3300	Video Amplifier Plate Load	
BTS-100K 5%	Video Amplifier Plate Decoupling	
BTA-27K	Video Output Grid	
1 3/4-2250	Video Output Cathode	
BTB-1500	Video Output Screen	
BTB-1500	Video Output Plate Load Wire-Wound	
BTS-270K	Decoupling	
BTS-1Meg	Decoupling	
BTS-10K	Picture Tube Grid	
BTS-220K	Picture Tube Grid	
BTA-560K	Video Peaking	
BTS-100K	Voltage Divider	
BTS-100K	Voltage Divider	
BTS-47K	AVC Network	
BTS-120	Sound IF Transformer Shunt	
BTS-4700	1st. Sound IF Cathode	
BTS-1000	1st. Sound IF Screen	
BTS-100K	1st. Sound IF Plate Decoupling	
BTS-100K 5%	AVC Network	
BTS-150 5%	Sound IF Transformer Shunt	
BTS-4700	2nd. Sound IF Cathode	
BTS-1000	2nd. Sound IF Screen	
BTS-100K 5%	2nd. Sound IF Plate Decoupling	
BTS-1.2Meg	Sound IF Transformer Shunt	
BTS-270K	AVC Network	
BTS-150 5%	Limiter Grid	
BTS-22K	Limiter Cathode	
BTS-1000	Limiter Screen	
BTS-3300	Limiter Plate Decoupling	
BTS-100K	Tuning Indicator Cathode	
BTS-100K	Discriminator Diode Load	
BTS-100K	Discriminator Diode Load	
BTS-100K	De-emphasis	
BTS-1.2Meg	Tuning Indicator Filter	
BTS-680K	Tone Compensation	
BTS-22K	Tone Compensation	
BTS-47K	Tone Compensation	
BTS-100K	Tone Compensation	
BTA-560K	1st. Audio Amplifier Grid	
BTS-220K	1st. Audio Amplifier Plate Load	
BTS-47K	Tone Compensation	
BTS-47K	Tone Compensation	
BTA-560K	Tone Compensation	
BTS-1500	2nd. Audio Amplifier Cathode	
BTS-220K	2nd. Audio Amplifier Plate Load	
BTS-5600	Decoupling	
BTS-390K 5%	Feedback	
BTS-270K	Audio Output Grid	
BTA-470	Audio Output Cathode	
BTA-470	Audio Output Cathode	
1 3/4A-1450	Voltage Divider Wire-Wound	
BW-1/2-68	Sync. Amplifier Cathode	
BTS-470	Sync. Amplifier Cathode	
BTS-1000	Sync. Amplifier Screen	
BTS-1000	Sync. Amplifier Plate Decoupling	
BTS-27K	Sync. Detector Diode Load SEE NOTE 3	
BTS-1000	Sync. Detector Decoupling	
BTS-680K	AGC Network	
BTS-270K	AGC Network	
BTS-1.2Meg	AGC Network	
BTS-8.2Meg	AGC Network SEE NOTE 4	
BTS-1.2Meg	AGC Network	
BTS-10K	Sync. Coupling	
BTS-1Meg	Sync. Coupling SEE NOTE 2	
BTS-1.2Meg	Voltage Divider SEE NOTE 5	
BTS-220K	Voltage Divider SEE NOTE 2	
BTA-100K 5%	Voltage Divider SEE NOTE 5	
BTA-220K	Voltage Divider SEE NOTE 2	
BTS-2700 5%	Voltage Divider SEE NOTE 2	
BTS-10K	Sync. Clipper Grid	
BTS-22K	Sync. Clipper Plate Load	
BTS-1.2Meg	Sync. Amplifier Grid	
BTS-4700	Sync. Amplifier Plate Load	
BTS-10K	Integrator Network	
BTS-10K	Integrator Network	
BTS-470K	Vertical Oscillator Grid	
BTS-1.2Meg	Vertical Hold Control Shunt	
BTS-820K 5%	Vertical Oscillator Plate Load	
BTA-100K 5%	Voltage Divider SEE NOTE 6	
BTA-100K 5%	Voltage Divider SEE NOTE 2	
BTA-220K	Voltage Divider	
BTS-2700 5%	Vertical Peaking	
BTB-820 5%	Vertical Output Grid	
BTA-220K	Vertical Output Cathode	
BTB-68K	Vertical Peaking	
BTB-33K	Voltage Divider	
1 3/4A-3000	Voltage Divider Wire-Wound SEE NOTE 7	
1 3/4A-800	Voltage Divider Wire-Wound	
1 3/4A-1200	Voltage Divider Wire-Wound	
1 3/4A-2000	Voltage Divider Wire-Wound	
1 3/4A-2250	Voltage Divider Wire-Wound	
BTS-470K	Horizontal Phase Detector Load	

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R139	470KΩ	1/2	02032090	BTS-470K	Horizontal Phase Detector Load
R140	470KΩ	1/2	02032090	BTS-470K	Horizontal AFC Filter
R141	220KΩ 5%	1	02032050	BTS-220K 5%	Horizontal Oscillator Grid
R142	47KΩ	1	02034970	BTA-47K	Horizontal Oscillator Screen
R143	7500Ω	5	02112370	1 3/4A-7500	Horizontal Oscillator Plate Load Wire-Wound
R144	470Ω	1	02031730	BTS-470	Horizontal AFC Grid
R145	22Ω 20%	1	02031570	BW-1/2-22	Horizontal AFC Cathode
R146	68KΩ	2	02037990	BTS-68K	Horizontal AFC Screen
R147	22KΩ	2	02037930	BTB-22K	Horizontal AFC Plate Load
R148	27KΩ	1	02034940	BTA-27K	Bleeder
R149	6800Ω	1	02030680	BTS-6800 5%	Differentiator
R150	220KΩ 5%	1	02032050	BTS-220K 5%	Horizontal Discharge Grid
R151	390KΩ	1	02035080	BTA-390K	Horizontal Discharge Plate Load
R152	6800Ω	1	02031870	BTS-6800	Voltage Divider
R153	470KΩ	1	02032090	BTS-470K	Horizontal Output Grid
R154	80Ω	5	02112530		Horizontal Output Cathode Wire-Wound
R155	5000Ω	10	02122550	13/4A-5000	Horizontal Output Screen Wire-Wound
R156	120Ω	1/2	02031660		Parasitic Suppressor
R157	68Ω	1/2	02034630		Parasitic Suppressor
R158	68Ω 20%	1/2	02031630		Parasitic Suppressor
R159	120Ω	1/2	02031660		Parasitic Suppressor
R160	68Ω	1/2	02034630		Parasitic Suppressor
R161	68Ω 20%	1/2	02031630		Parasitic Suppressor
R162	5.1Ω	1	02102650		Parasitic Suppressor Wire-Wound
R163	33KΩ	1	02031950	BTS-33K	Bias Network
R164	270KΩ	1	02032060	BTS-270K	Bias Network
R165	220KΩ	1	02032050	BTS-220K	Bias Network
R166	10KΩ 20%	1	02031890	BTS-10K	Bias Network
R167A	90Ω	11	02121500		Bias Network Wire-Wound
B	56Ω	3			Bias Network Wire-Wound
R168	100KΩ	1	02035540	BTA-100K	Line Isolation
R169	130Ω 5%	2			Bias Network SEE NOTE 2
R170	1Meg	1	02032130	BTS-1Meg	Horizontal Sweep Coupling
R171	68KΩ	1	02034990	BTA-68K	Horizontal Rectifier Load
R172	470KΩ	1	02032090	BTS-470K	Horizontal Protection Grid
R173	5600Ω	1	02034860	BTA-5600	Horizontal Protection Cathode
R174	10KΩ	1	02031890	BTS-10K	Vertical Sweep Coupling
R175	390KΩ	1	02032080	BTS-390K	Vertical Rectifier Load
R176	390KΩ	1	02032080	BTS-390K	Vertical Rectifier Grid
R177	2200Ω	1	02031810	BTS-2200	Vertical Protection Cathode
R178	100Ω	10		1 3/4A-100	Decoupling Wire-Wound SEE NOTE 8
R179	100Ω	10		1 3/4A-100	Decoupling Wire-Wound SEE NOTE 2
R180	1Meg	1	02032130	BTS-1Meg	H. V. Oscillator Grid
R181	4700Ω 5%	1	02033640	BTS-4700 5%	H. V. Oscillator Cathode
R182	15KΩ 5%	1	02030706	BTS-15K 5%	H. V. Oscillator Grid
R183	6800Ω	2	02037870	BTB-6800	H. V. Oscillator Plate Load
R184	1000Ω	2	02031770	BTS-1000	H. V. Amplifier Grid
R185	80Ω	2	02112530		H. V. Amplifier Cathode Wire-Wound
R186	6000Ω	20	02017840	2D-6000	H. V. Amplifier Screen Wire-Wound
R187	100Ω	2	02031850		Parasitic Suppressor
R188	100Ω	2	02031850		Parasitic Suppressor
R189	33Ω 5%	1	02034590		Parasitic Suppressor
R190	33Ω 5%	1	02034590		Parasitic Suppressor
R191	300KΩ 5%	1	02031070		Voltage Control Plate Load
R192	25KΩ	10	02108110	1 3/4A-25K	Voltage Control Cathode Wire-Wound
R193	500Meg	2	02126000		Voltage Divider
R194	1Meg	2	02032130	BTS-1Meg	Voltage Divider
R195	100KΩ	2			H. V. Rectifier Load SEE NOTE 9
R196	180KΩ	2			H. V. Rectifier Load SEE NOTE 9
R197	330KΩ	2			H. V. Rectifier Load SEE NOTE 9
R198	470KΩ	2	02038090		H. V. Rectifier Load
R199	560KΩ	2			H. V. Rectifier Load SEE NOTE 9
R200	820KΩ	2			H. V. Rectifier Load SEE NOTE 9
R201	150KΩ	2	02038030		H. V. Filter
R202	22KΩ	2	02037930	BTB-22K	Current Limiter
R203	22KΩ	2	02037930	BTB-22K	Current Limiter
R204	5.1Ω	1	02102650		Filament Dropping Wire-Wound
R205	150KΩ	2	02038030	BTB-150K	Bleeder
R206	150KΩ	2	02038030	BTB-150K	Bleeder
R207	6000Ω	20	02017840	2D-5000	Bleeder SEE NOTE 11

NOTE 1: Some models may use a 56KΩ resistor in this application.
 NOTE 2: Not used in all models.
 NOTE 3: Some models may use an 18KΩ resistor in this application.
 NOTE 4: Some models may use a 10Meg resistor in this application.
 NOTE 5: Some models may use a 2200Ω resistor in this application.
 NOTE 6: Some models may use a 220KΩ resistor in this application.
 NOTE 7: Some models may use a 56KΩ resistor in this application.
 NOTE 8: Some models may use a 200Ω resistor in this application.
 NOTE 9: Some models may use a 470KΩ resistor in this application.
 NOTE 10: Some models may use a 150KΩ resistor in this application.
 NOTE 11: Some models may use a 5000Ω resistor in this application.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	DUMONT PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	117VAC	780VCT	5VAC	6.3VAC	20004961			
T2	② 2.5A	② .315A	② 6.0A	② 5.7A	20005621			
T3	② 2.7A	② .380A	6.0A	② 5.0A	20005840	P-3026 ①	P-3040 ①	FO-53

① Drill New Mounting Holes

DUMONT
MODEL RA-119A

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		DUMONT PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.					
T4	44Ω	74Ω	20005591				H. V. Pulse Osc. Trans. H. V. Trans.
T5	440Ω	SEC. 1	20006471				
	Tapped	0Ω					
	④ 40Ω	SEC. 2					
T6	160Ω	0Ω	20004723	A-8122	A-4003	TB0-1①	Vert. Blocking Osc. Horiz. Output Trans.
T7	5Ω	1000Ω	20005611				
		5.5Ω					
		Tapped					
		④ 2.9Ω &					
		4.5Ω					
T8	580Ω	7Ω	20005662	A-8112②	A-3038①		Vert. Output Trans. Horiz. Deflection Coils Vert. Deflection Coils Focus Coil
T9A	11Ω		87000191		MF-4		
T9B	50Ω						
T10	825Ω		21005343				

① Drill New Mounting Holes
② Drill One New Mounting Hole

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		DUMONT PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T11	6.5KΩ	4.2Ω	400Ω	.5Ω	Part of 18002791	A-3824	A-3019②	RO-201②	② Drill One New Mounting Hole

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	DUMONT PART No.	JENSEN PART No.	QUAM PART No.	
	SP1	PM	4.2Ω	Part of 18002791	10J12	
SP2	CONE DIA.	V. C. DIA.				
	9½"	1"				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 μ)	DUMONT PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L1	.315A	45Ω	2.2H	21005212	C-2326②	C-2996①	TR-3300	① Drill New Mounting Holes ② Drill New Mounting Hole
L2	.380A	82Ω	5.5H	21004022		C-3190①		

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	DUMONT PART No.	MERIT PART No.	
		L3	Ant. Trans.	0Ω	0Ω	
L4	Ant. Loading Coil	.4Ω		21005801		
L5	Ant. Coil	.1Ω				
L6	Ant. End Ind.	0Ω		21005721		
L7	Fil. Choke	0Ω		21005421		
L8	Cath. Choke	.3Ω		21005741		
L9	RF End Ind.	0Ω		21005722		
L10	RF Coil	0Ω				
L11	Band Pass Coil	0Ω		21005731		
L12	Mixer Grid End Ind.	0Ω		21005081		
L13	Mixer Grid Coil	0Ω				
L14	Band Pass Coil	0Ω		21005521		Not used in all models
L15	Band Pass Coil Shunt	0Ω		35009601		Not used in all models
L16	RF Choke	0Ω		21005421		
L17	Osc. Coil	0Ω				
L18	Osc. End Ind.	0Ω		21005111		
L19	Osc. Shunt	0Ω		21005131		
L20	Fil. Choke	0Ω		21005421		
L21	Conv. Plate Coil	.3Ω	.1Ω	21005911		Includes Trap
L22	Video IF Coupling	0Ω		21006781		
L23	1st. Video IF	.2Ω		20005211		Includes Trap
L24	Fil Choke	.2Ω		21005601		
L25	2nd. Video IF	.7Ω	.7Ω	20005801		
L26	3rd. Video IF	.7Ω	.7Ω	20005781		
L27	4th Video IF	.5Ω	.5Ω	20005791		
L28	Sound Trap	.1Ω		21004801		
L29	5th. Video IF	.8Ω	.5Ω	20005821		
L30	Peaking Coil	2.6Ω		21006621		
L31	Peaking Coil	8.3Ω		21006624		Black Dot 24Microhenries
L32	Peaking Coil	7.2Ω		21006623		Orange Dot 166Microhenries
L33	4.5MC Trap	2.7Ω		21004831		Red Dot 142 Microhenries
L34	Peaking Coil	7.2Ω		21006622		Brown Dot 110Microhenries
L35	1st. Sound IF	.2Ω	.2Ω	20004511		
L36	2nd. Sound IF	.2Ω	.2Ω	20004511		

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF) CONT.

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	DUMONT	MERIT	
				PART No.	PART No.	
L37	Fil. Choke	.2Ω		21005601		Tap at .2Ω
L38	3rd. Sound IF	.2Ω	.2Ω	20004511		
L39	Discrim. Trans.	.3Ω	.3Ω	20004441		
L40	RF Choke	2.6Ω		21006621		
L41	Sync. Det. Trans.	.1Ω	.1Ω	20005251		
L42	Horiz. Osc.	58Ω	58Ω	20003923		Primary Tap At 33Ω-Secondary Tap At 18Ω Tap at 3.1Ω
L43	Horiz. Lin.	7.7Ω		21005491		

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				REMARKS
			DUMONT PART No.		LITTELFUSE PART No.		
			FUSE	HOLDER	FUSE	HOLDER	
M1	3AG	5A	11000810	11000600	313005	341001	
M2	3AG	3/8A	11000730	11000550	312.375	357001	
M3	3AG	5A	11000810	11000600	313005	341001	
M4	3AG	3/8A	11000730	11000550	312.375	357001	

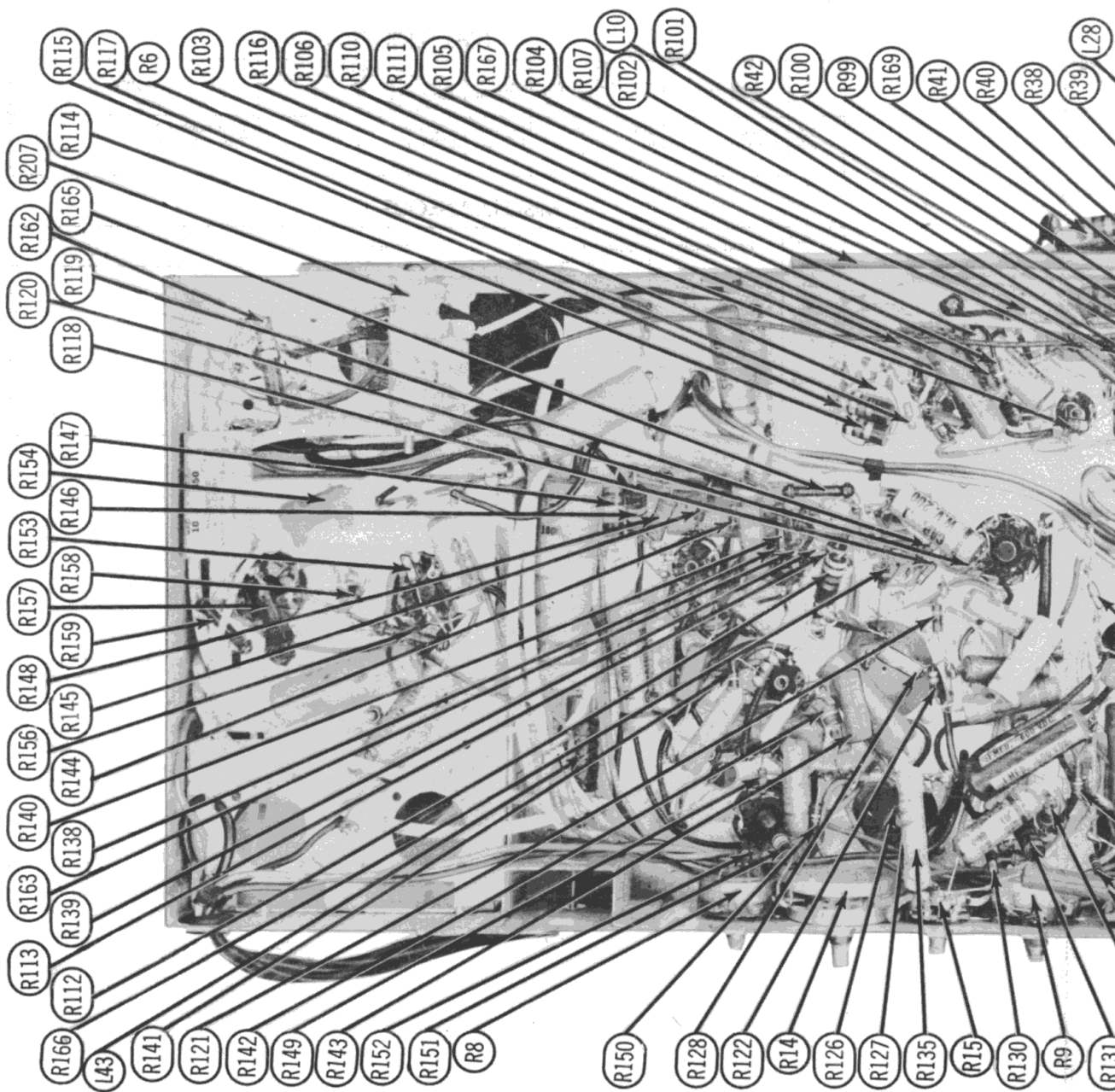
DIAL LIGHTS

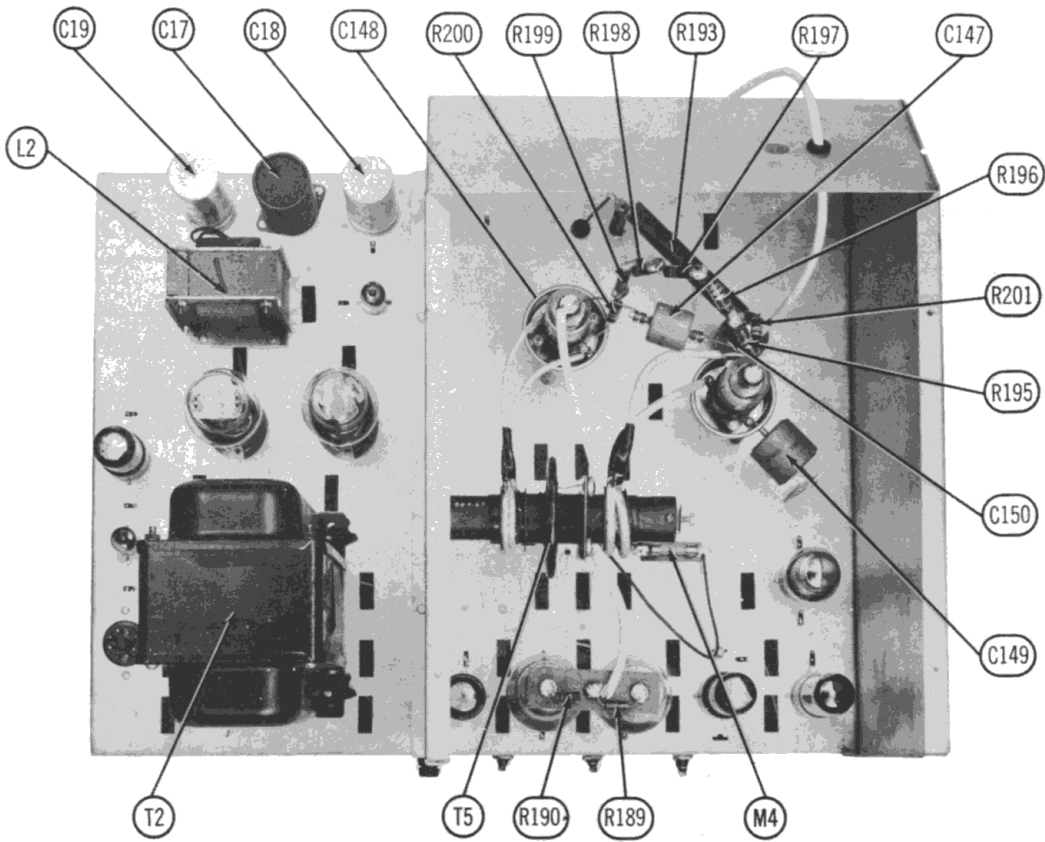
ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					DUMONT PART No.		
M8	Bayonet	6-8	.15	Brown	12002770		Type number 47.
M9	Bayonet	6-8	.15	Brown	12002770		Type number 47.

MISCELLANEOUS

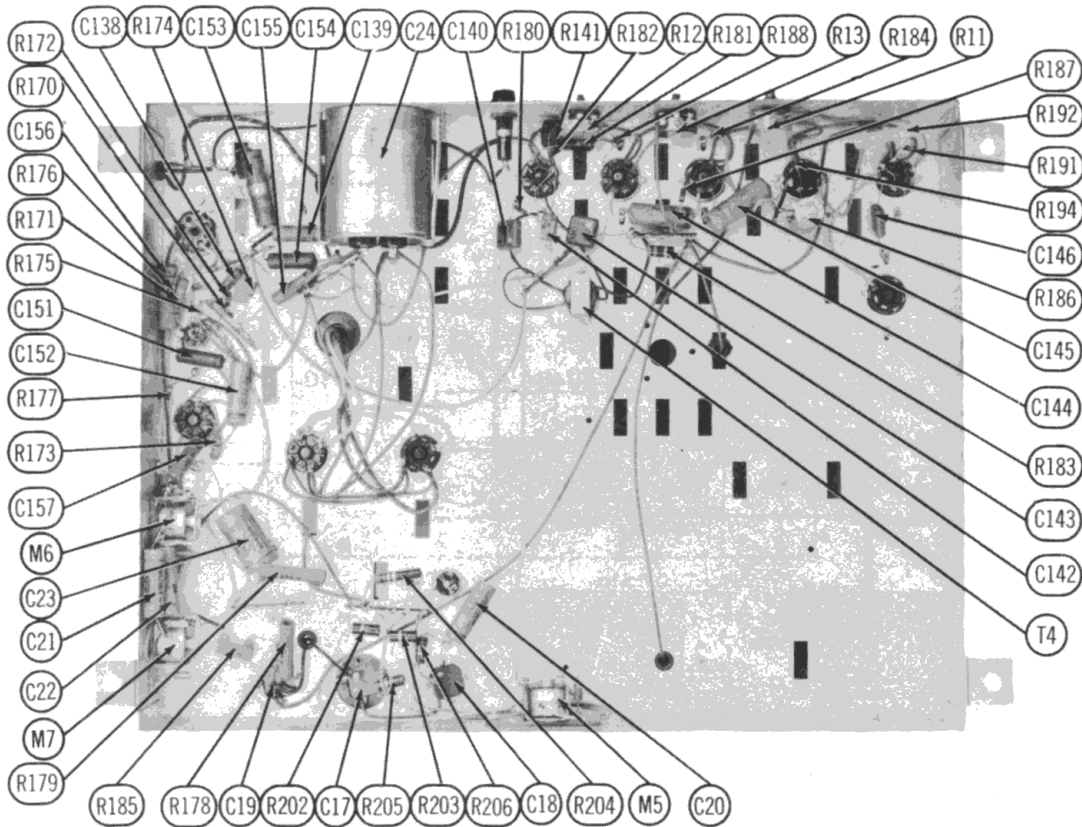
ITEM No.	PART NAME	DUMONT PART No.	NOTES
M5	Relay	05003260	B+ Delay Relay
M6	Relay	05003260	Horiz. Sweep Protection
M7	Relay	05003260	Vert. Sweep Protection
M10	RF Tuner	89003022	
M11	Switch	05003891	Phono FM-TV
M12	Ion Trap	21006931	
	Knob	45001873	Controls
	Knob	45001931	Tone (Treble)
	Lever	05004032	Tone (Bass)
	Knob	45001371	Fine Tuning
	Knob	45001551	Tuning

DUMONT
MODEL RA-119A



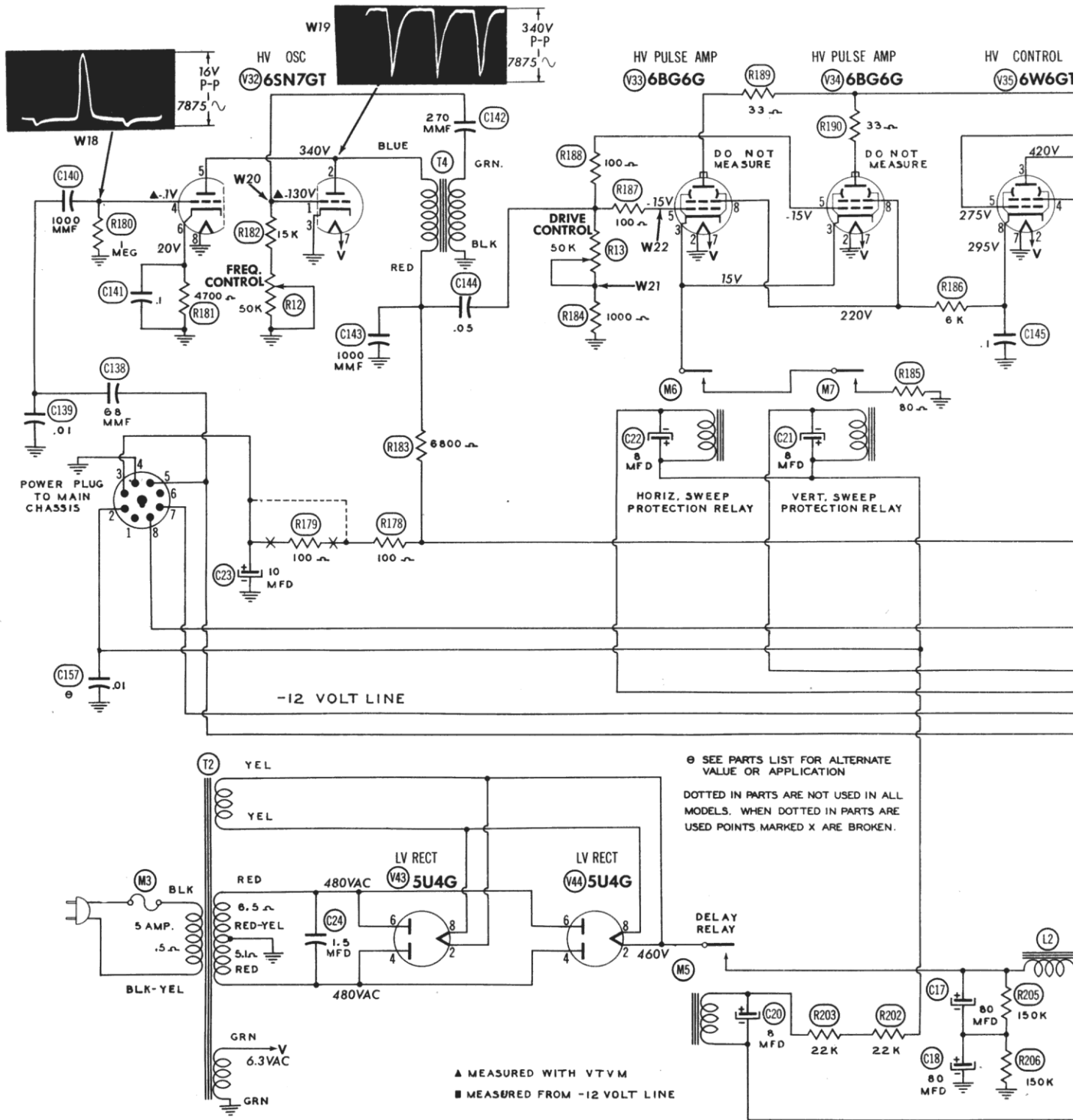


POWER SUPPLY CHASSIS-TOP VIEW



POWER SUPPLY CHASSIS-BOTTOM VIEW

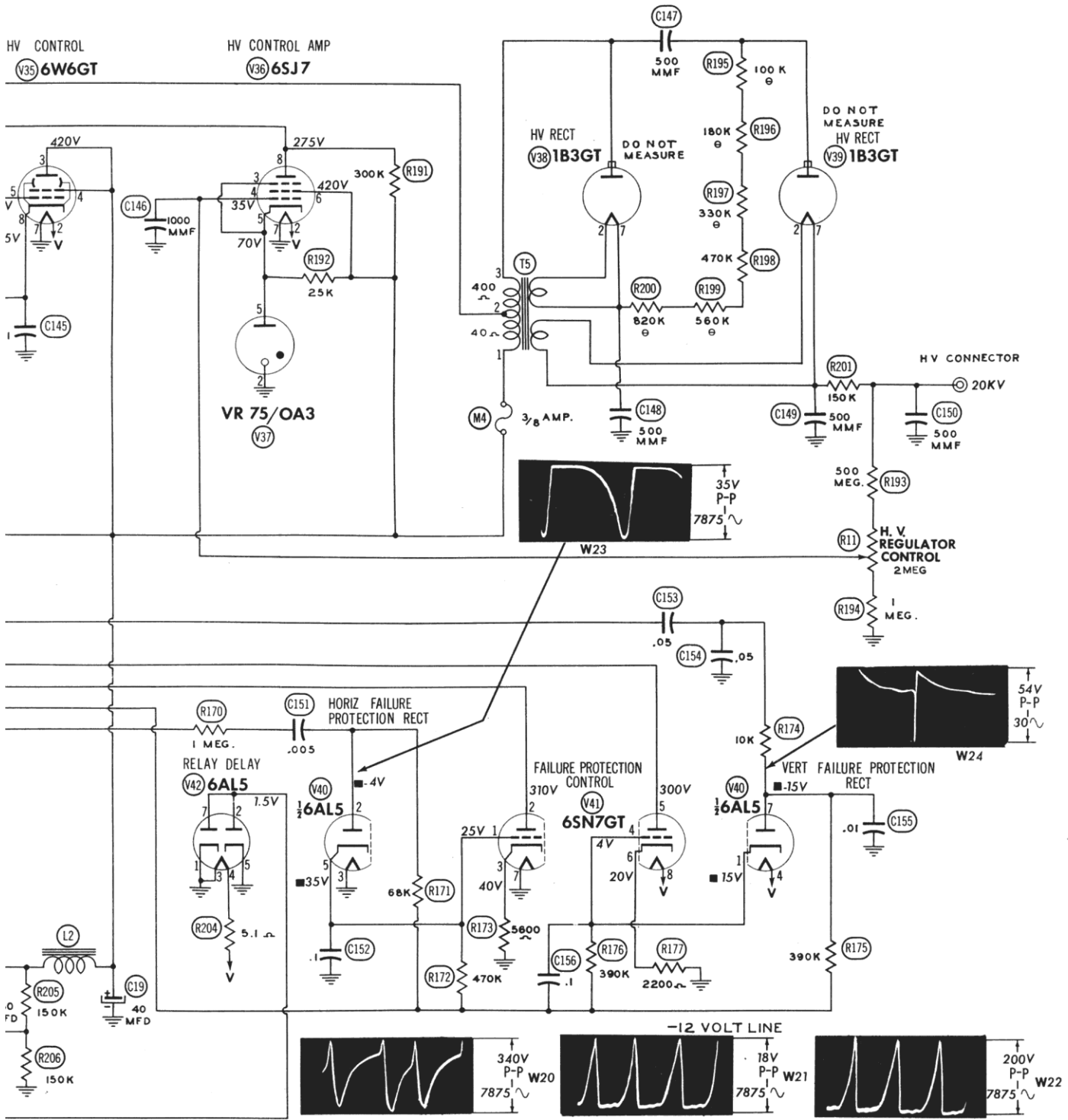
DUMONT
MODEL RA-119A



A PHOTOFAC STANDARD NOTATION SCHEMATIC

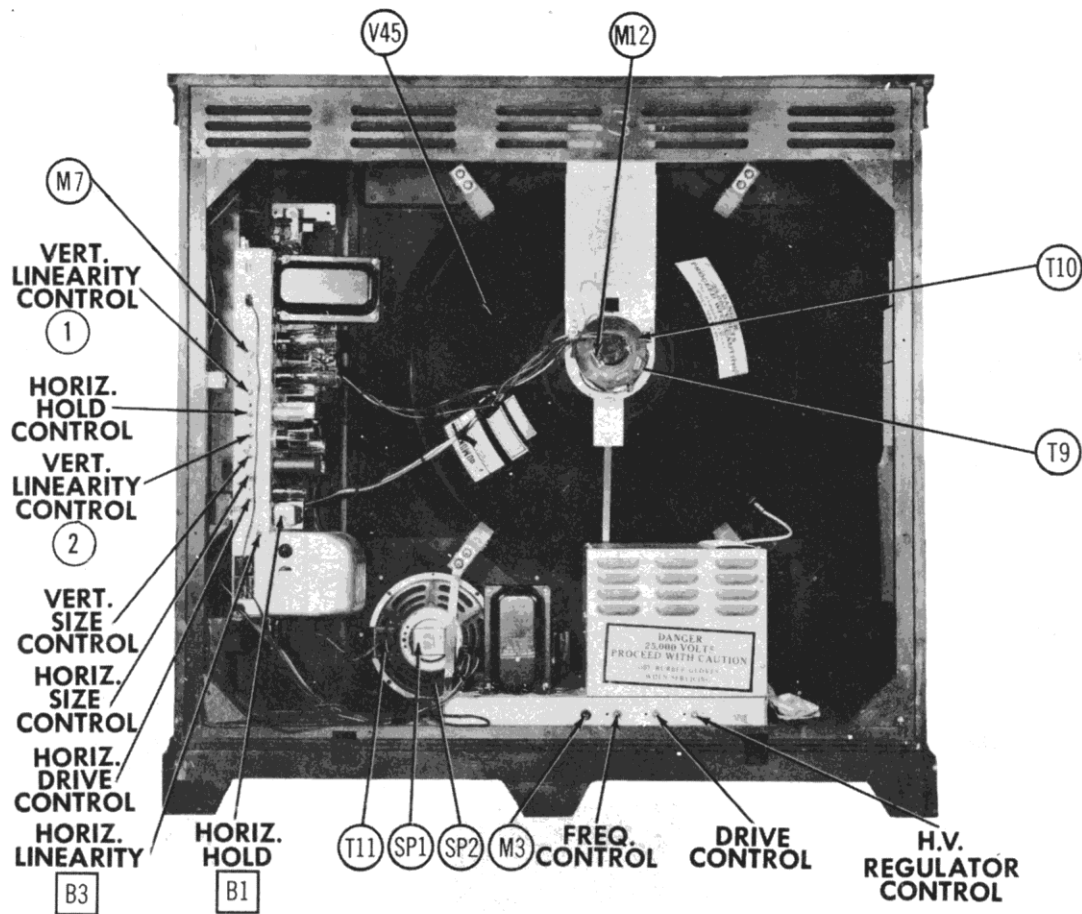
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POWER SUPPLY SCHEM



DUMONT
MODEL RA-119A

SCHEMATIC



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Adjust the horizontal hold slug, (B1), to the mid position between the points where the picture falls into synchronization, not out of synchronization.

Reduce the picture width, and increase the brightness until the normally blanked edges of the raster are visible.

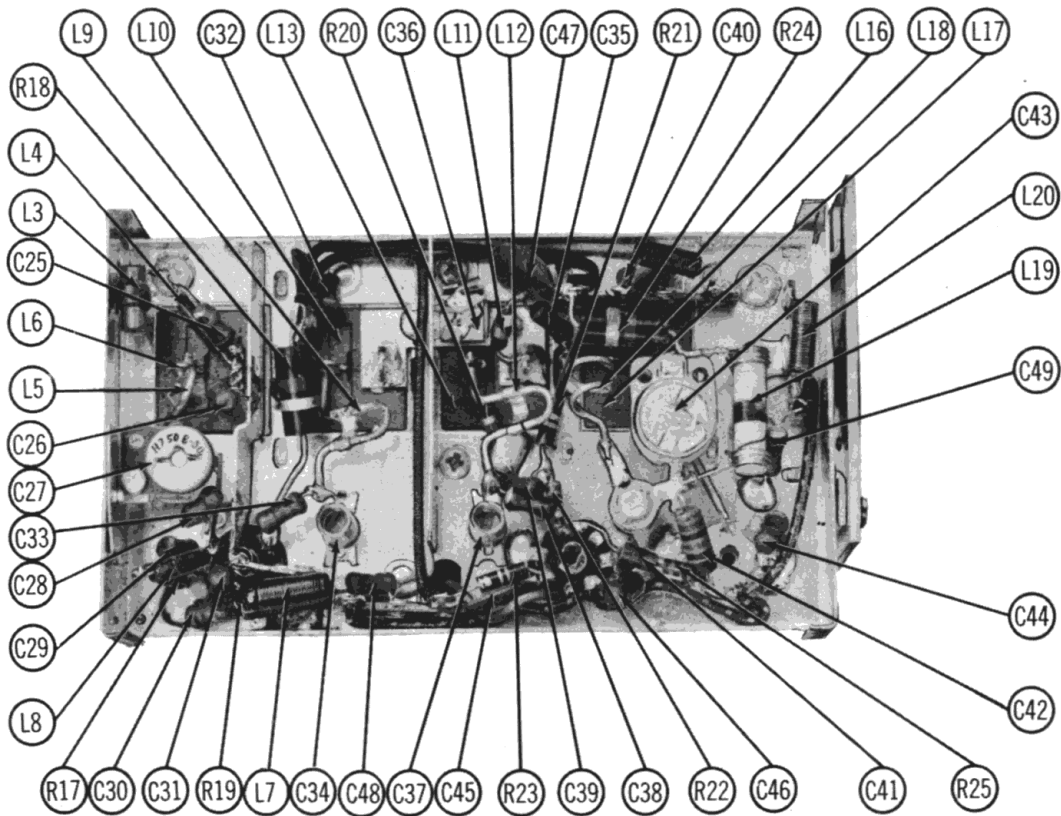
If the normally blanked edges of the raster are not of equal width, adjust the horizontal phase slug, (B2), until the normally blanked border is equal in width on both sides.

Turn the horizontal peaking control clockwise as far as possible without crowding, or vertical bars, appearing in the picture.

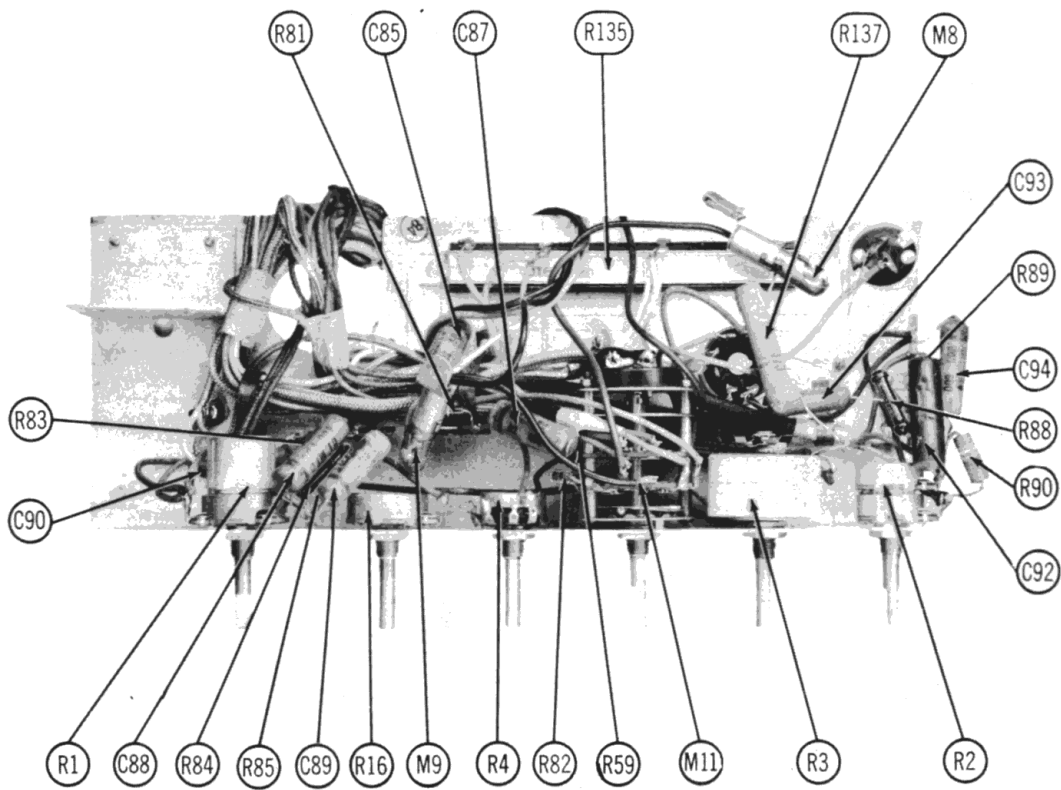
Adjust the horizontal size control until the picture is slightly wider than necessary to fill the mask horizontally. (Note : Slight pincushioning is normal in these larger picture tube models. (That is, the vertical and horizontal edges of the picture bow slightly inward at the center axis.) The horizontal and vertical size controls should be adjusted so the pincushioning effect falls outside the mask edges where it cannot be seen).

Adjust the horizontal linearity slug, (B3), until the picture is symmetrical from left to right.

Slight readjustment of the peaking control may be necessary to obtain optimum results.



RF TUNER - BOTTOM VIEW



CONTROL PANEL - SIDE VIEW

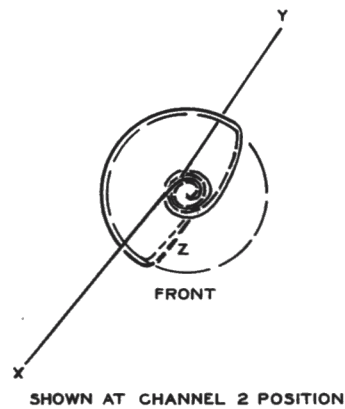
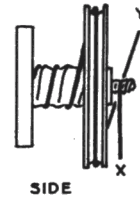
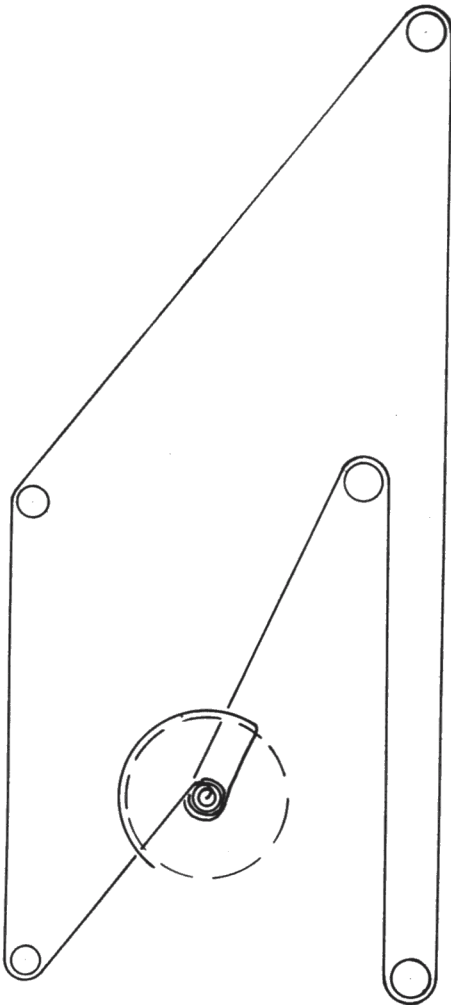
DISASSEMBLY INSTRUCTIONS

1. Remove eight push-on type control knobs, and the tone control pointer.
2. Remove sixteen wood screws from rear cover. Remove rear cover.
3. Disconnect speaker.
4. Disconnect focus coil plug.
5. Disconnect power plug from power supply chassis.
6. Disconnect yoke plug.
7. Remove phillips head screw securing control panel to cabinet.
8. Remove four metal bolts fastening main chassis to cabinet. Remove chassis.
9. Remove four 11/32 hex nuts from speaker. Remove speaker.

Power chassis removal:

1. Disconnect high voltage lead.
2. Disconnect bonding strap from picture tube guard.
3. Remove four 7/16" hex head bolts from power supply chassis. Remove chassis.

Note: For picture tube removal it is necessary to remove the power supply chassis as outlined above.



DIAL CORD STRINGING