

DUMONT MODEL RA103 "Savoy"

TRADE NAME	Dumont Model RA103 "Chatham & Stratford" (Ch. 7040A1), RA103 "Savoy" (Ch. 7040A2)	
MANUFACTURER	Allen B. Dumont Laboratories, 2 Main Ave., Passiac, New Jersey	
TYPE SET	TV-AM-FM-Phono Combination Receiver ("Chatham & Stratford" Models TV & FM only)	
TUBES	Thirty Four-"Savoy" Models Twenty Eight-"Chatham & Stratford"	
POWER SUPPLY	110-120 Volts AC-60 Cycle	
TUNING RANGE	TV & FM 44 thru 216MC (continuous tuning) AM 535-1620KC	RATINGS (TV) 2.7 Amp. at 117 Volts AC (AM) .62 Amp. at 117 Volts AC (FM) 1.5 Amp. at 117 Volts AC

INDEX	
Alignment Instructions	6, 7
Block Diagram	23
Disassembly Instructions	19
Horiz. Sweep Circuit Adjustments	20
Parts List and Description	15 thru 19
Photographs	
Cabinet-Rear View	20
Capacitor Identification	11, 22
Chassis-Bottom View (Radio)	14
Chassis-Top View (Radio)	14
Photographs (continued)	
Chassis-Top View (TV)	3, 7
Inductuner	13
RF Tuner	13
Resistor Identification	12, 21
Trans., Inductor and Alignment Identification	4, 9
Schematic (Radio)	10
Schematic (TV)	2
Tube Placement Chart	5
Voltage and Resistance Measurements	8

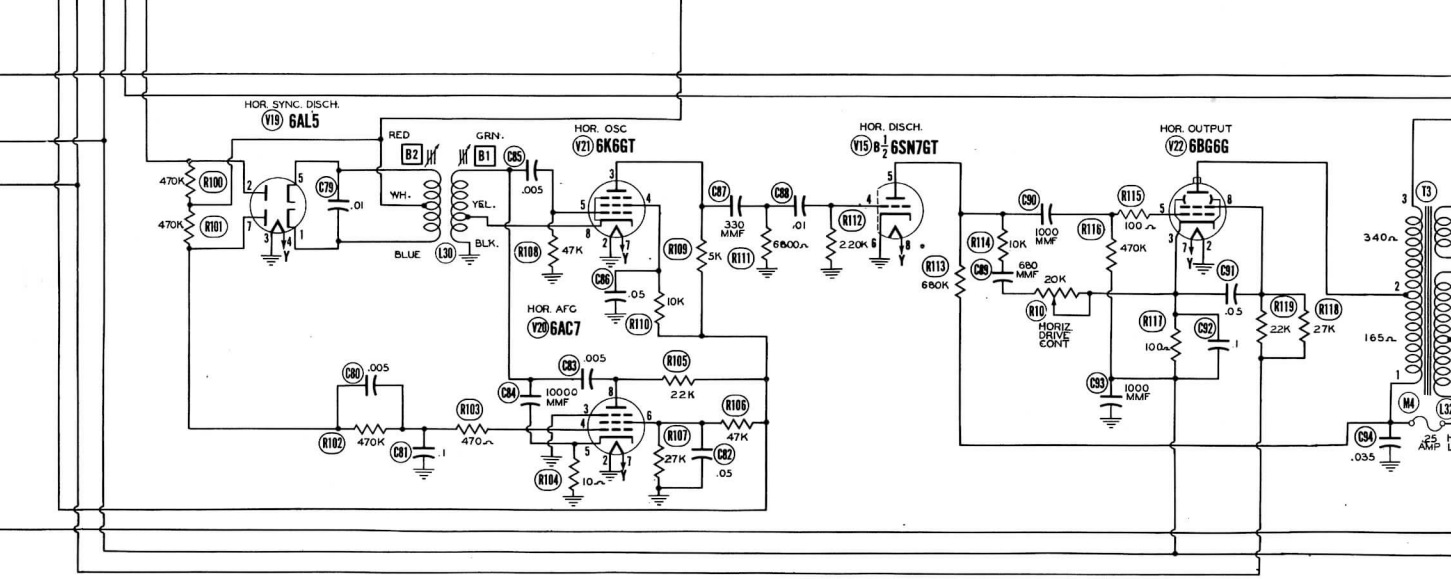
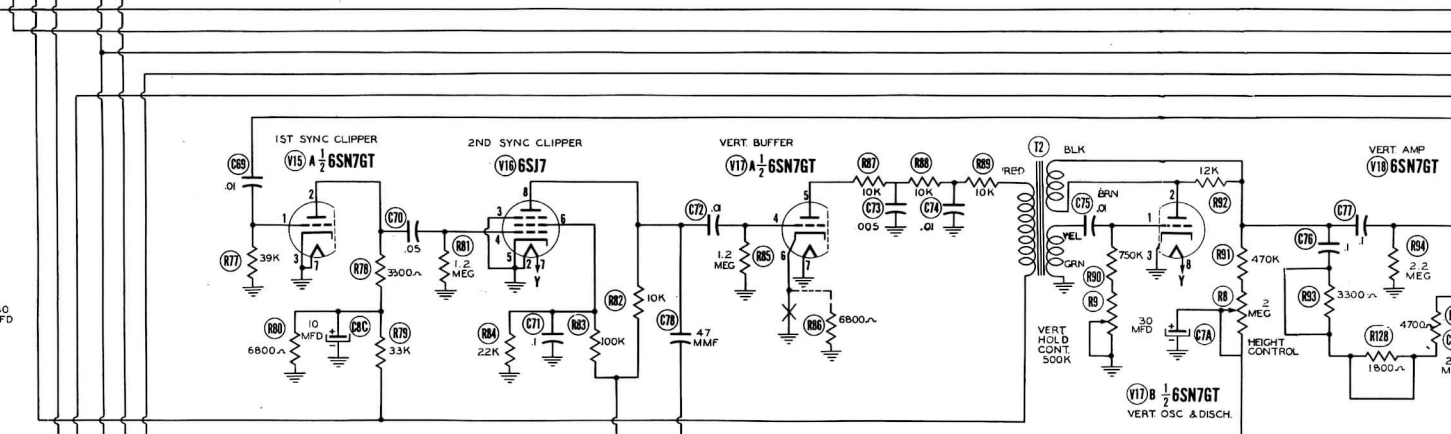
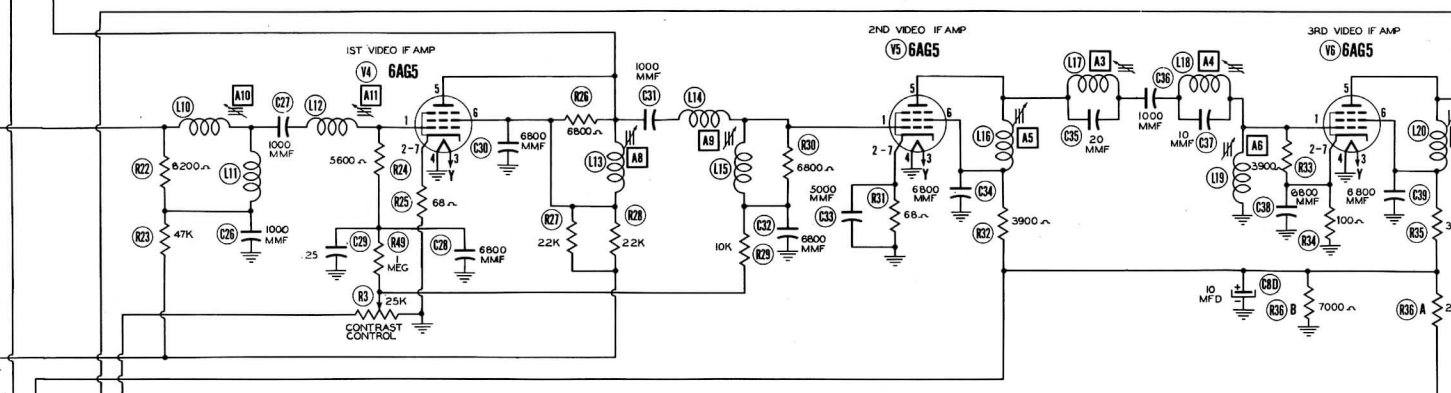
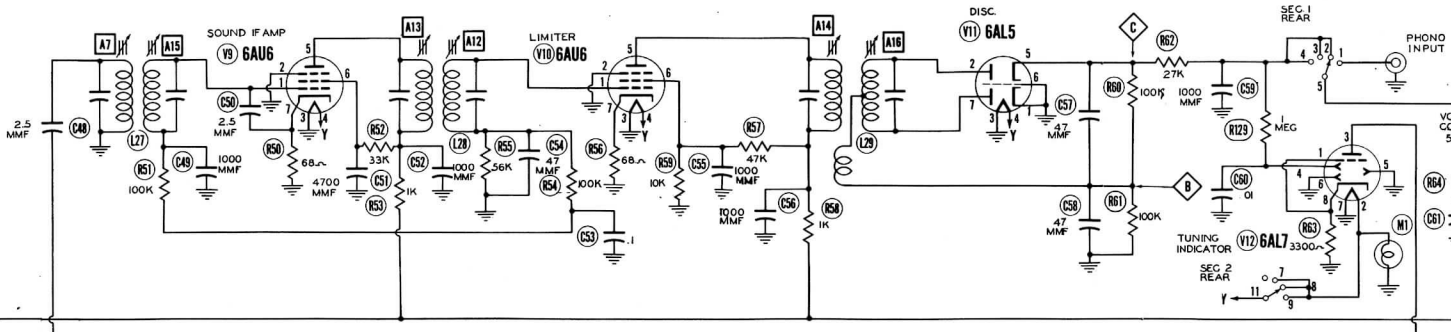
FOR SERVICE INFORMATION ON RECORD CHANGER UNIT, SEE WEBSTER MODEL 256 PHOTOFACT SET #88 FOLDER #13 OR RECORD CHANGER MANUAL CM-2.

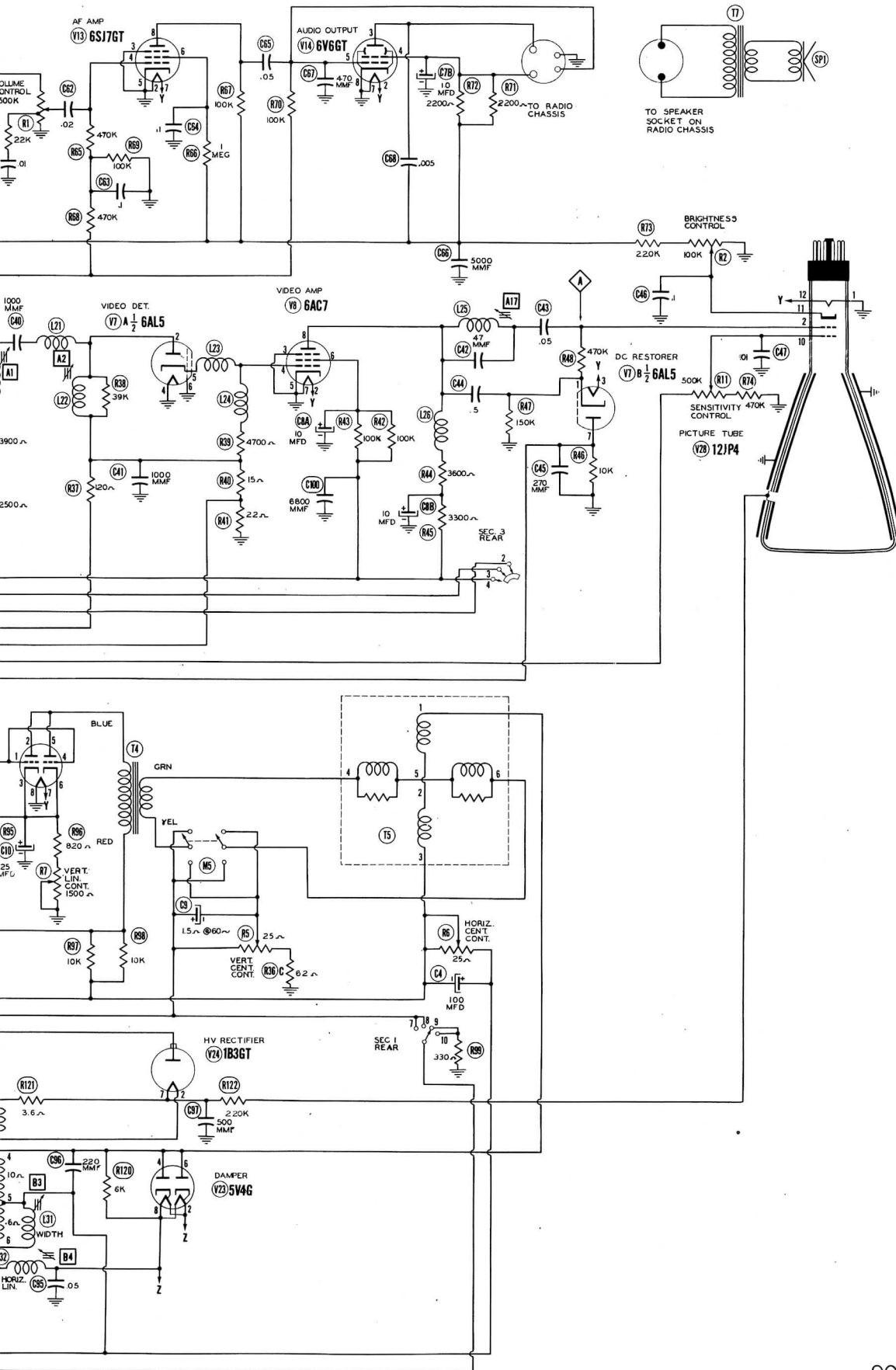
HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana

"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."
"Reproduction or use, without express permission, of editorial or pictorial con-

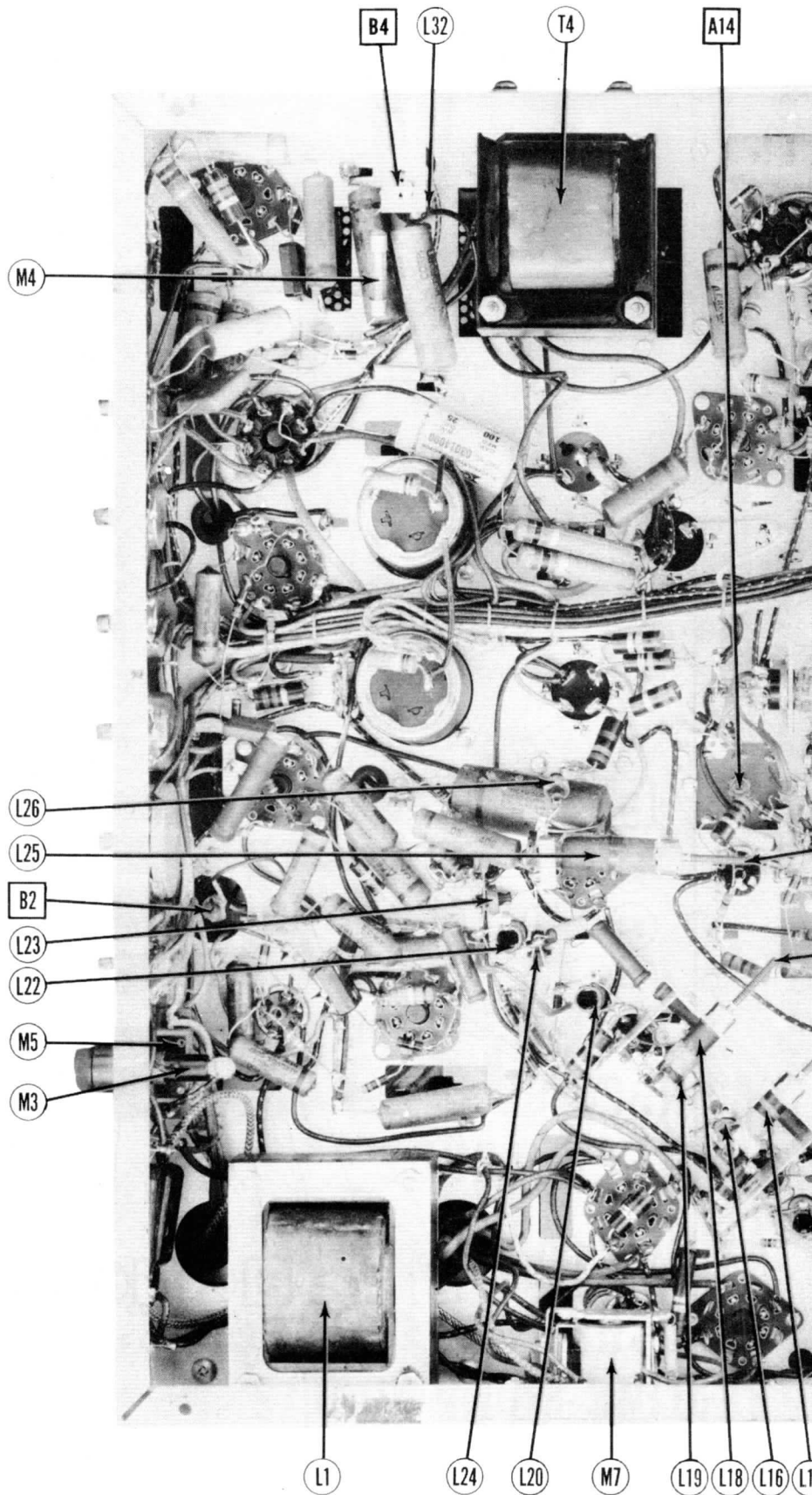
tent, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. Copyright 1950 by Howard W. Sams & Co., Inc., Indianapolis 1, Indiana, U. S. of America. Copyright under International Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc." Printed in U. S. of America

DUMONT
MODEL RA103 (Ch. 7040A1, 7040A2)

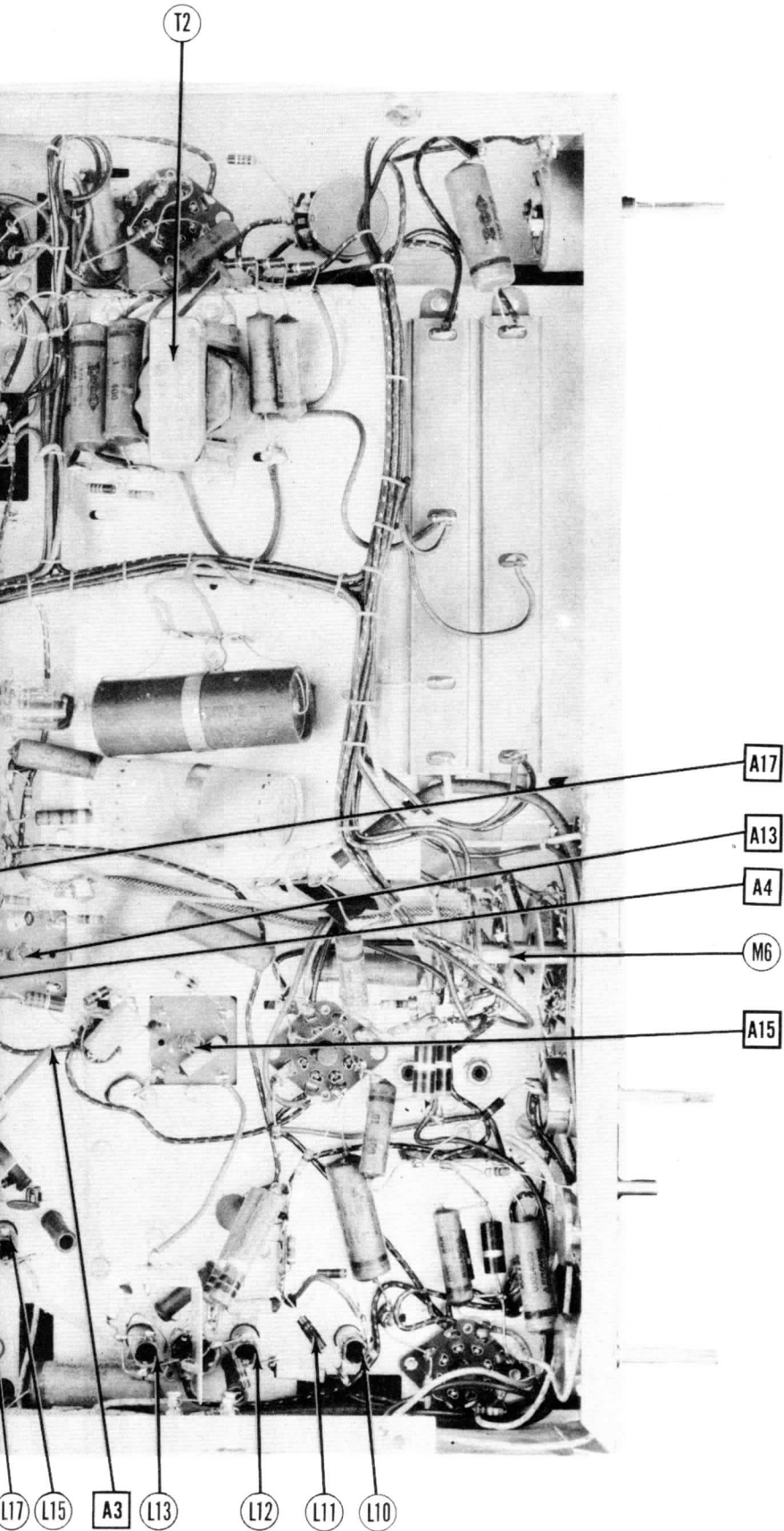




DUMONT
MODEL RA103 (Ch. 7040A1, 7040A2)



CHASSIS BOTTOM VIEW-TRANS., INDUCT

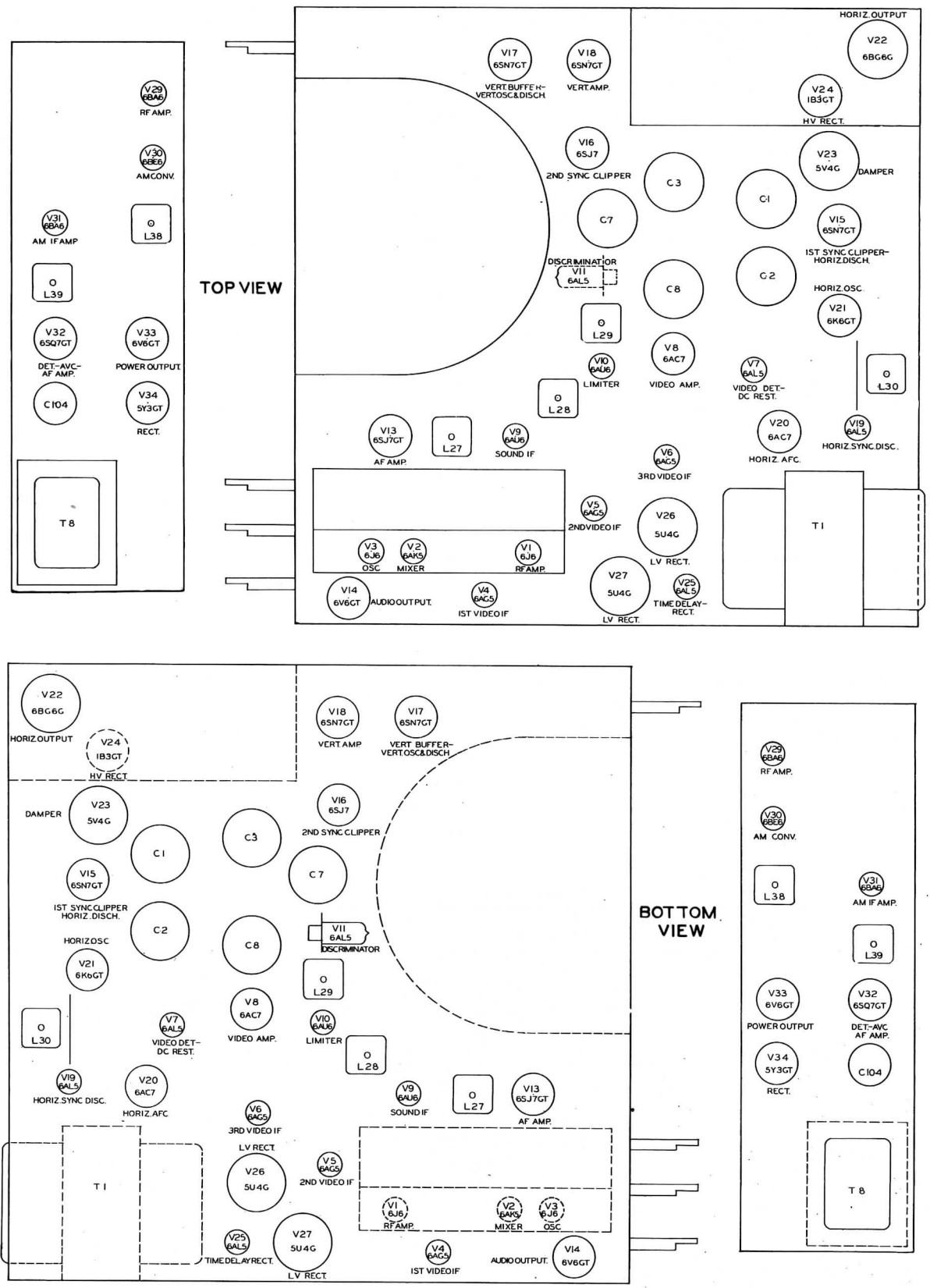


...TOR AND ALIGNMENT IDENTIFICATION

TOP VIEW

BOTTOM VIEW

TUBE PLACEMENT CHART



TV ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

If the receiver is to be aligned with the picture tube removed, remove the horizontal oscillator tube (V21) from its socket.

VIDEO IF ALIGNMENT

Set the contrast control to the mid-position of its range.

Keep the output of the sweep generator low as possible to prevent overloading of the circuits.

Remove the local oscillator tube (V3) from its socket to prevent erroneous indications.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. .01MFD	High side to pin 1 (Grid) of 6AG5 (V6). Low side to chassis.	24MC (10MC Sweep)	26.4MC (Unmod.)	Any	Vert. Amp. to Point Δ . Low side to chassis.	A1, A2	Adjust for response curve similar to Fig 2.
2. .01MFD	High side to pin 1 (Grid) of 6AG5 (V6). Low side to chassis.	Not used	21.9MC (400 % AM modulated)	"	"	A3	Adjust for MINIMUM 400 % indication on scope.
3. .01MFD	"	"	27.9MC (400 % AM modulated)	"	"	A4	"
4. .01MFD	"	24MC (10MC SWP)	26.4MC (Unmod.)	"	Vert. Amp. thru detector probe (Fig 1) to pin 5 (plate) of 6AG5 (V6). Low side to chassis.	A5, A6	Adjust for response curve similar to Fig 3. Repeat step 3.
5. .01MFD	"	"	"	"	Vert. Amp. to Point Δ . Low side to chassis.		Check for response curve similar to Fig 4. If necessary retouch A5 and A 6.
6. .01MFD	High side to pin 1 (Grid) of 6AG5 (V4). Low side to chassis.	Not used	21.9MC (400 % AM modulated)	"	"	A7	Adjust for minimum 400 % response on scope.
7. .01MFD	"	24MC (10MC SWP)	26.4MC (Unmod.)	"	Vert. Amp. thru detector probe to pin 5 (plate) of 6AG5 (V5). Low side to chassis.	A8, A9	Adjust for response curve similar to Fig 5.
8. .01MFD	"	"	"	"	Vert. Amp. to Point Δ . Low side to chassis.		Check for response curve similar to Fig 6. If necessary retouch A8 and A9.
9. Direct	High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	"	"	"	Vert. Amp. thru detector probe to pin 5 (plate) of 6AG5 (V4). Low side to chassis.	A10, A11	Adjust for response curve similar to Fig 7.
10. Direct	"	"	"	"	Vert. Amp. to Point Δ . Low side to chassis.		Check for response curve similar to Fig 8. If necessary retouch A1 thru A11 for proper response.

SOUND IF ALIGNMENT

Connect the synchronized sweep voltage from the signal 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
11. .01MFD	High side to pin 1 (Grid) of 6AU6 (V9). Low side to chassis.	21.9MC (1MC SWP)	21.9MC	Any	Vert. Amp. thru detector probe to pin 5 (plate) of 6AU6 (V10). Low side to chassis.	A12, A13	Adjust for maximum amplitude and symmetry as per Fig 9.
12. .01MFD	"	Not used	21.9MC (Unmod.)	"	Use VTVM. DC Probe to point \ominus . Common to chassis.	A14, A15	Adjust for maximum deflection.
13. .01MFD	"	"	"	"	DC Probe to Point \ominus . Common to chassis.	A16	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

4.5MC TRAP ADJUSTMENT

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
14. .01MFD	High side to pin 4 (Grid) of 6AC7 (V8). Low side to chassis.	Not used	4.5MC (400 % AM modulated)	Any channel not used locally	Vert. Amp. thru detector probe to point Δ . Low side to chassis.	A17	Adjust for minimum 400 % response on scope.

THE ADJUSTMENTS ON THE TUNER PORTION OF THIS RECEIVER ARE PRE-SET AT THE FACTORY AND SHOULD NOT REQUIRE ADJUSTMENT IN THE FIELD.

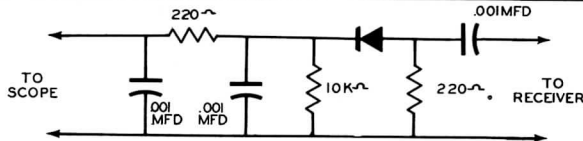


FIG. 1

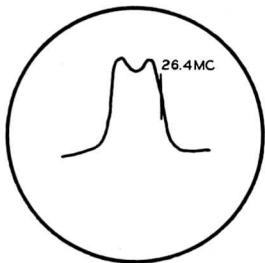


FIG. 2

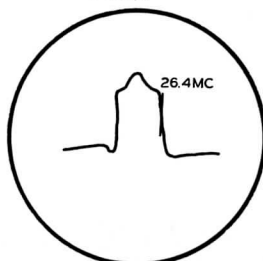


FIG. 3

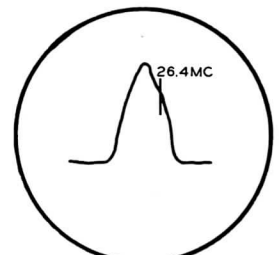


FIG. 4

RADIO ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT								
To set pointer turn tuning cap fully closed and set pointer to last reference mark at low frequency end of dial.								
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.								
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	FUNCTION SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS	
15.	.25MFD	High side to stator on center section of tuning gang. Low side to chassis.	455KC (400 % Mod.)	BC	Tuning gang fully open	Across voice coil	A18, A19, A20, A21	Adjust for maximum output.
16.	Loop		1500KC	"	1500KC	"	A22, A23, A24	Reinstall set in cabinet and connect loop antenna. Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

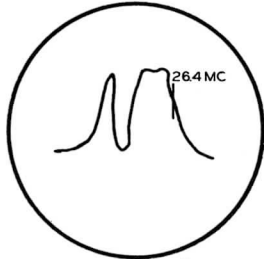


FIG. 5

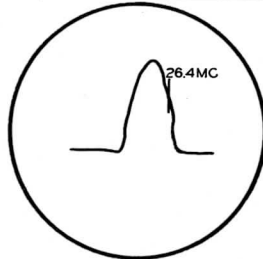


FIG. 6

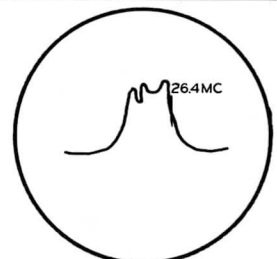


FIG. 7

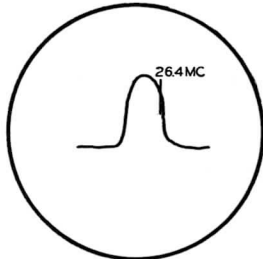


FIG. 8

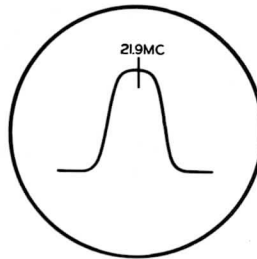
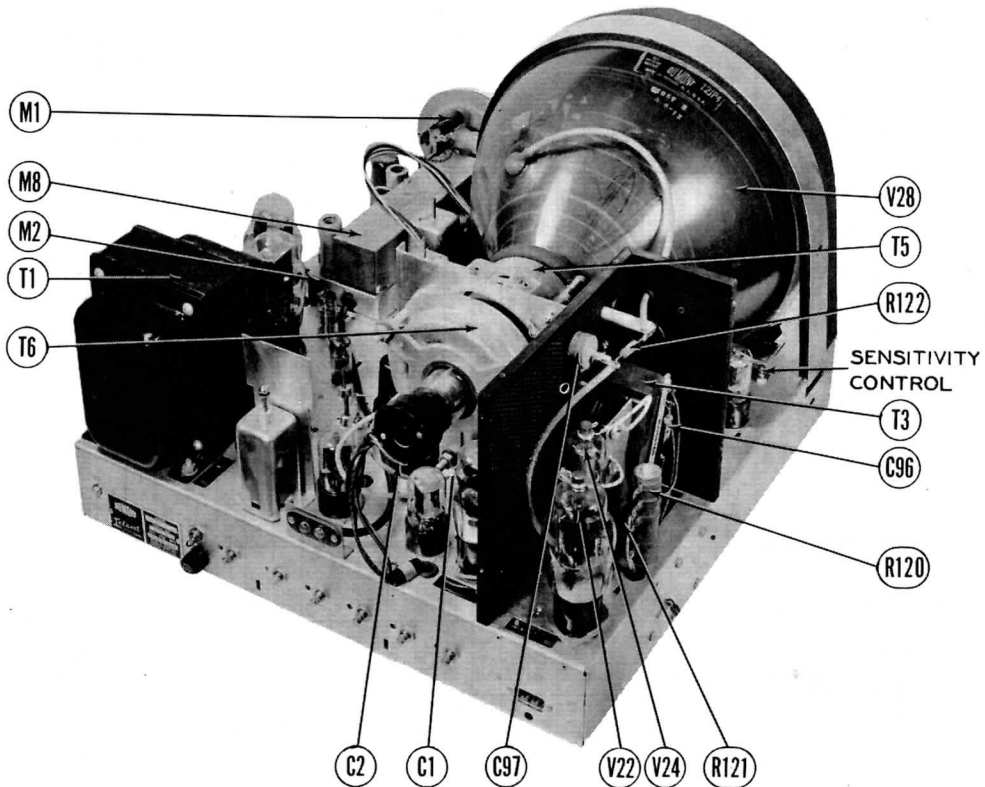


FIG. 9



CHASSIS-TOP VIEW

DUMONT
MODEL RA103 (Ch. 7040A1, 7040A2)

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

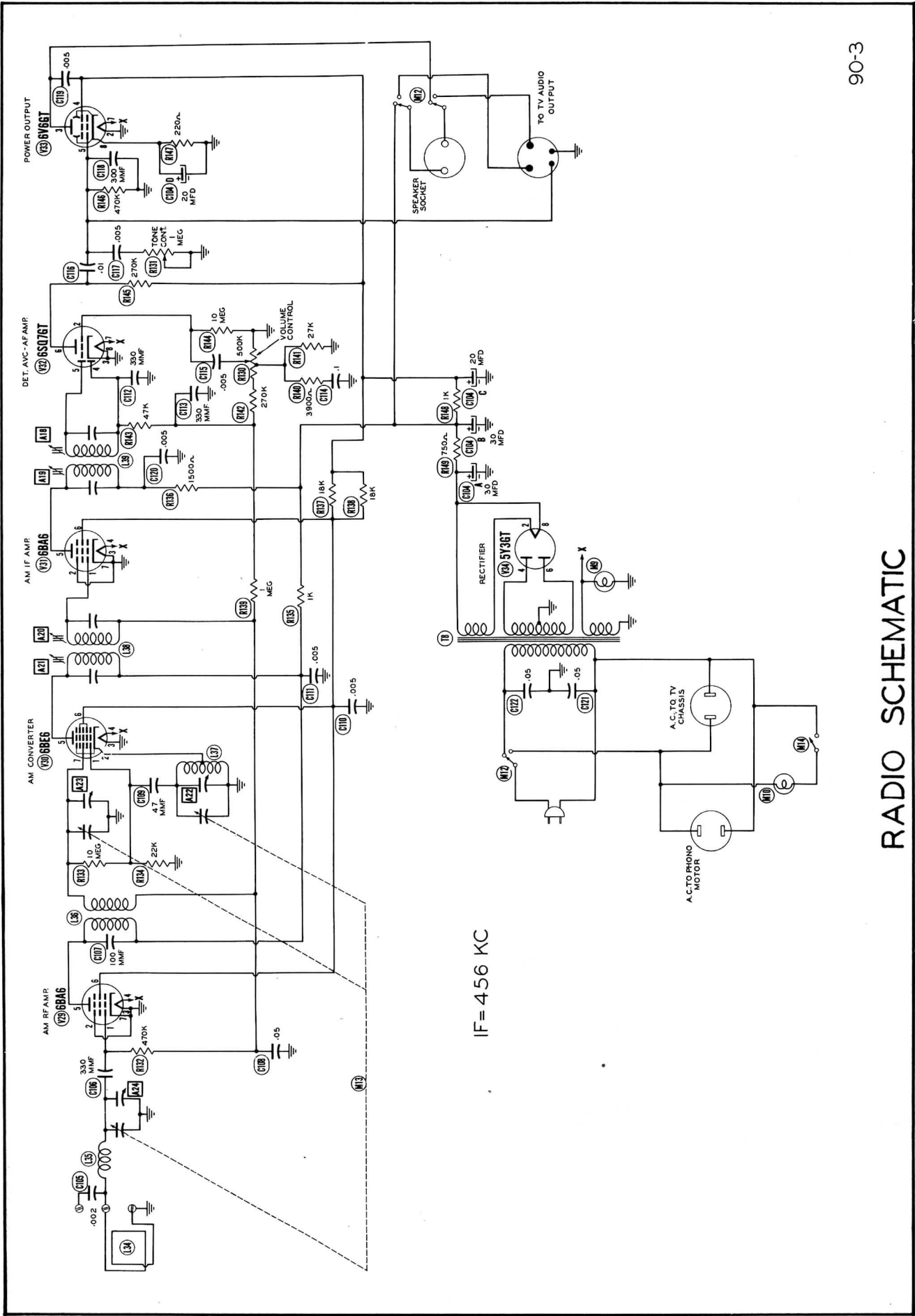
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	145VDC	145VDC	6.3VAC	0V.	0V.	2.1VDC			
V 2	6AK5	-1.6VDC	0V.	6.3VAC	150VDC	50VDC	0V.			
V 3	6J6	117VDC	0V.	0V.	6.3VAC	0V.	8-7.6VDC			
V 4	6AG5	-1.1VDC	-8VDC	6.3VAC	0V.	120VDC	120VDC	-8VDC		
V 5	6AG5	-1.1VDC	-6VDC	6.3VAC	0V.	105VDC	105VDC	-6VDC		
V 6	6AG5	0V.	.9VDC	6.3VAC	0V.	110VDC	110VDC	.9VDC		
V 7	6AL5	.4VDC	-2.3VDC	6.3VAC	0V.	-2VDC	0V.	-1VDC		
V 8	6AC7	0V.	6.3VAC	0V.	-2VDC	0V.	-150VDC	0V.	140VDC	
V 9	6AU6	-2.2VDC	0V.	6.3VAC	260VDC	150VDC	-8VDC			
V 10	6AU6	-4.1VDC	0V.	6.3VAC	260VDC	40VDC	-1VDC			
V 11	6AL5	0V.	-5VDC	0V.	6.3VAC	-1VDC	-4VDC			
V 12	6AL7GT	1.1VDC	6.3VAC	260VDC	0V.	0V.	0V.	1.1VDC		
V 13	6S17GT	0V.	0V.	-6VDC	0V.	50VDC	6.3VAC	180VDC		
V 14	6Y6GT	0V.	6.3VAC	200VDC	215VDC	-6.3VDC	-10VDC	0V.	0V.	
V 15	6SN7GT	-3.3VDC	17VDC	0V.	-25VDC	50VDC	0V.	0V.	6.3VAC	
V 16	6S17	0V.	0V.	0V.	-2.1VDC	0V.	50VDC	6.3VAC	250VDC	
V 17	6SN7GT	-3.5VDC	300VDC	10VDC	-3.3VDC	65VDC	0V.	0V.	6.3VAC	
V 18	6SN7GT	0V.	360VDC	17VDC	0V.	380VDC	10VDC	10VDC	6.3VAC	
V 19	6AL5	3.1VDC	-1.4VDC	0V.	6.3VAC	1.8VDC	0V.	-6VDC		
V 20	6AC7	0V.	0V.	0V.	-6VDC	0V.	76VDC	6.3VAC	225VDC	
V 21	6K6GT	0V.	0V.	180VDC	180VDC	-30VDC	280VDC	6.3VAC	.4VDC	
V 22	6B6GT	0V.	0V.	.8.4VDC	*-1.9VDC	*-1.9VDC	410VDC	6.3VAC	*280VDC	TOP CAP
V 23	5Y4G	85VDC	480VDC	210VDC	410VDC	410VDC	410VDC	370VDC	480VDC	
V 24	1B3GT									
* DO NOT MEASURE										
V 25	6AL5	40VDC	-12.5VDC	.2VAC	6.3VAC	40VDC	0V.	-12.5VDC		
V 26	5U4G	-2.3VDC	430VDC	0V.	400VAC	-12.5VDC	400VAC	410VDC	430VDC	
V 27	5U4G	0V.	430VDC	0V.	400VAC	0V.	400VAC	0V.	430VDC	
V 28	121P4	0V.	1.1VDC	PIN 10	PIN 11	PIN 12				
V 29	6BA6	-6VDC	0V.	0V.	6.3VAC	280VDC	89VDC	0V.		
V 30	6BE6	8-2.9VDC	0V.	0V.	6.3VAC	230VDC	83VDC	-7VDC		
V 31	6BA6	-7VDC	0V.	0V.	6.3VAC	225VDC	83VDC	0V.		
V 32	6S9GT	0V.	-7VDC	0V.	-6VDC	107VDC	6.3VAC	0V.		
V 33	6Y6GT	0V.	0V.	225VDC	220VDC	0V.	0V.	6.3VAC	9VDC	
V 34	5Y3GT	0V.	280VDC	55VAC	300VAC	55VAC	300VAC	0V.	280VDC	

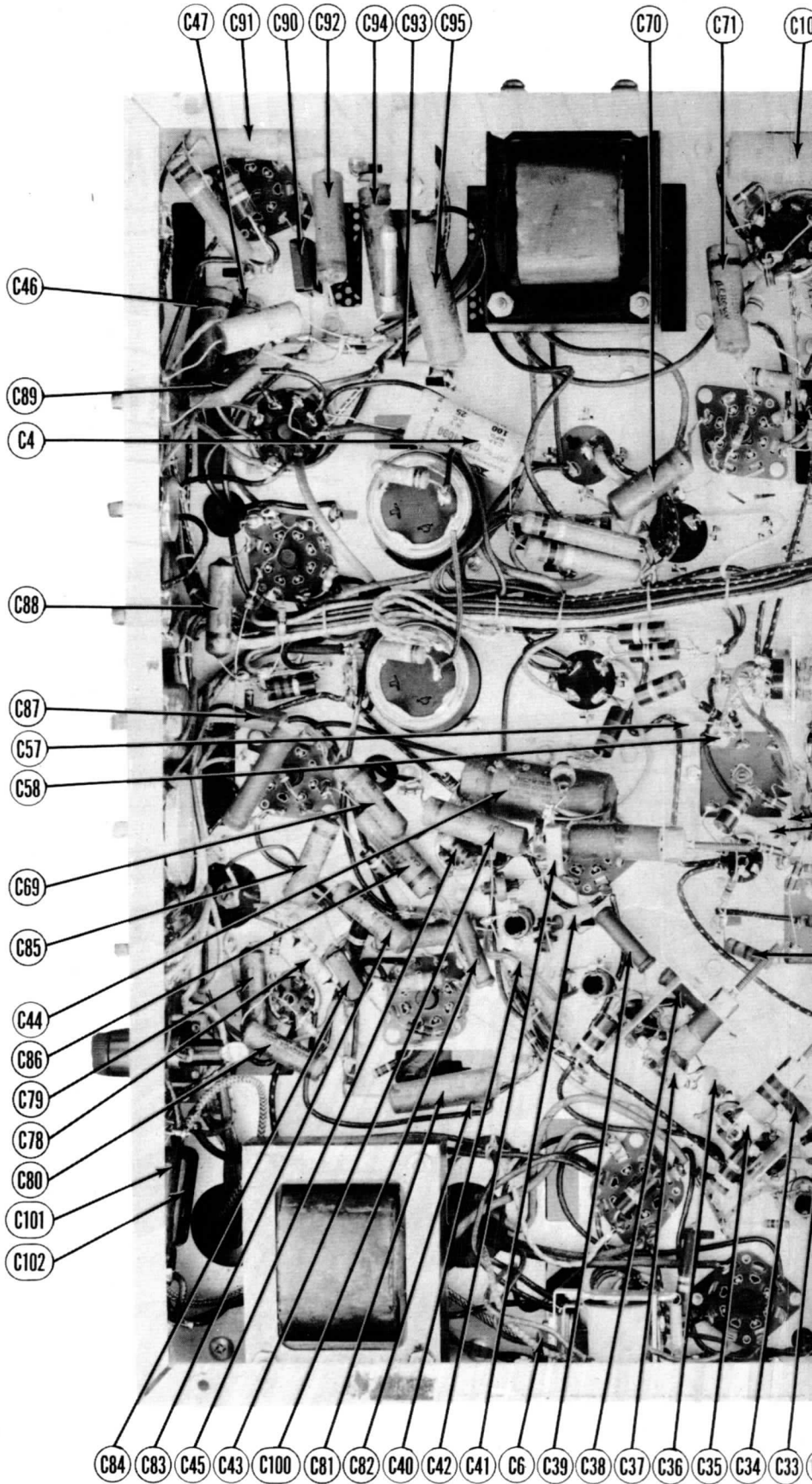
† TAKEN WITH VACUUM TUBE VOLTMETER.
 * DO NOT MEASURE.
 ‡ MEASURED FROM JUNCTION OF C5 & M7.
 ▲ TAKEN IN AM POSITION.
 NOTE: CONTRAST CONTROL SET AT MAXIMUM FOR THESE READINGS.

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
 2. Pin numbers are counted in a clockwise direction on bottom of socket.
 3. Measured values are from socket pin to common negative unless otherwise stated.
 4. Line voltage maintained at 117 volts for voltage readings.
 5. Front panels controls set at minimum.
 6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.

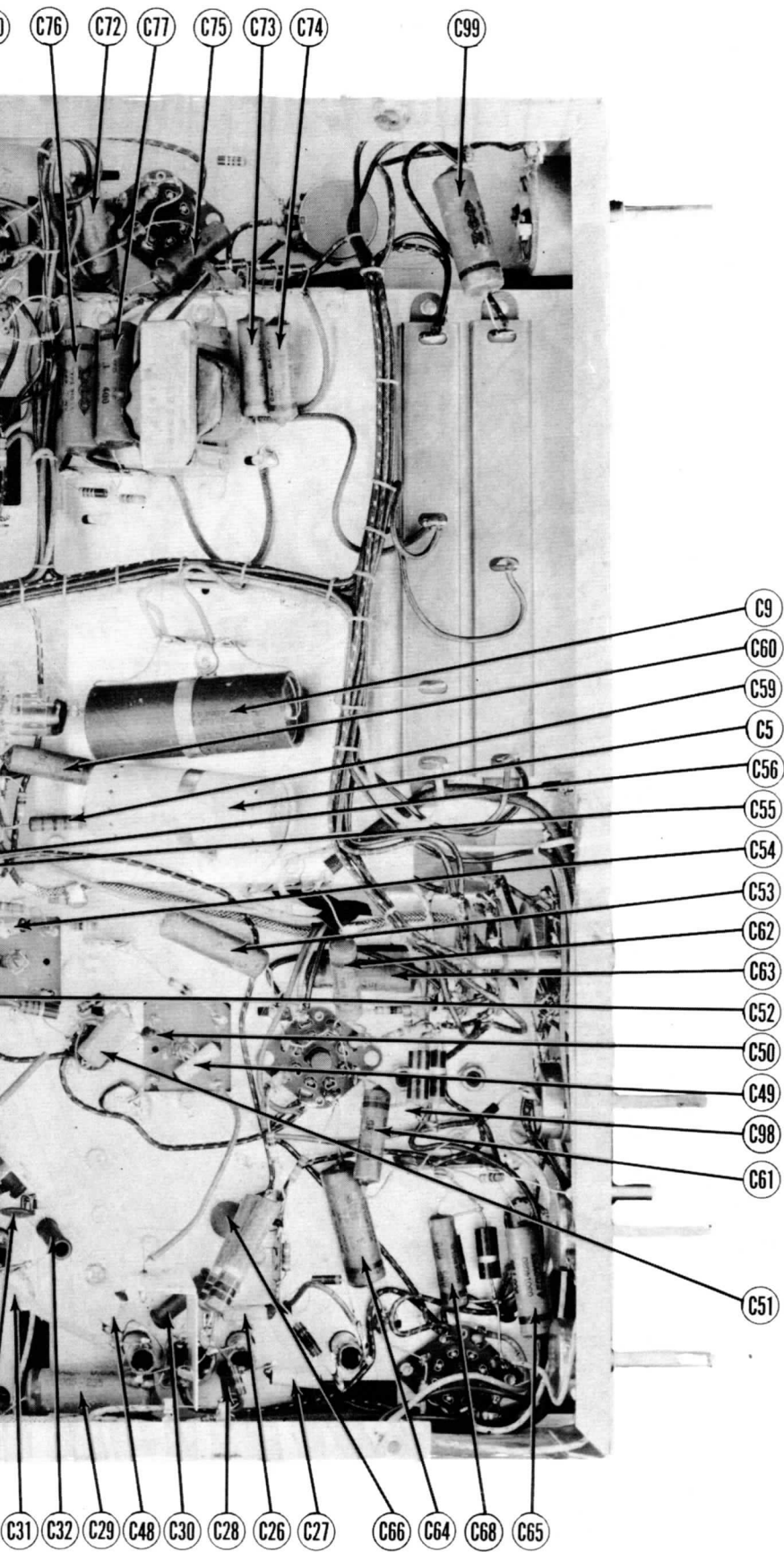
† TAKEN FROM PIN 8 OF V21.
 ‡ MEASURED FROM PIN 8 OF V34.
 ▲ TAKEN IN AM POSITION.
 NOTE: RELAY CONTACTS MUST BE CLOSED FOR B+ RESISTANCE MEASUREMENTS ON TV CHASSIS.



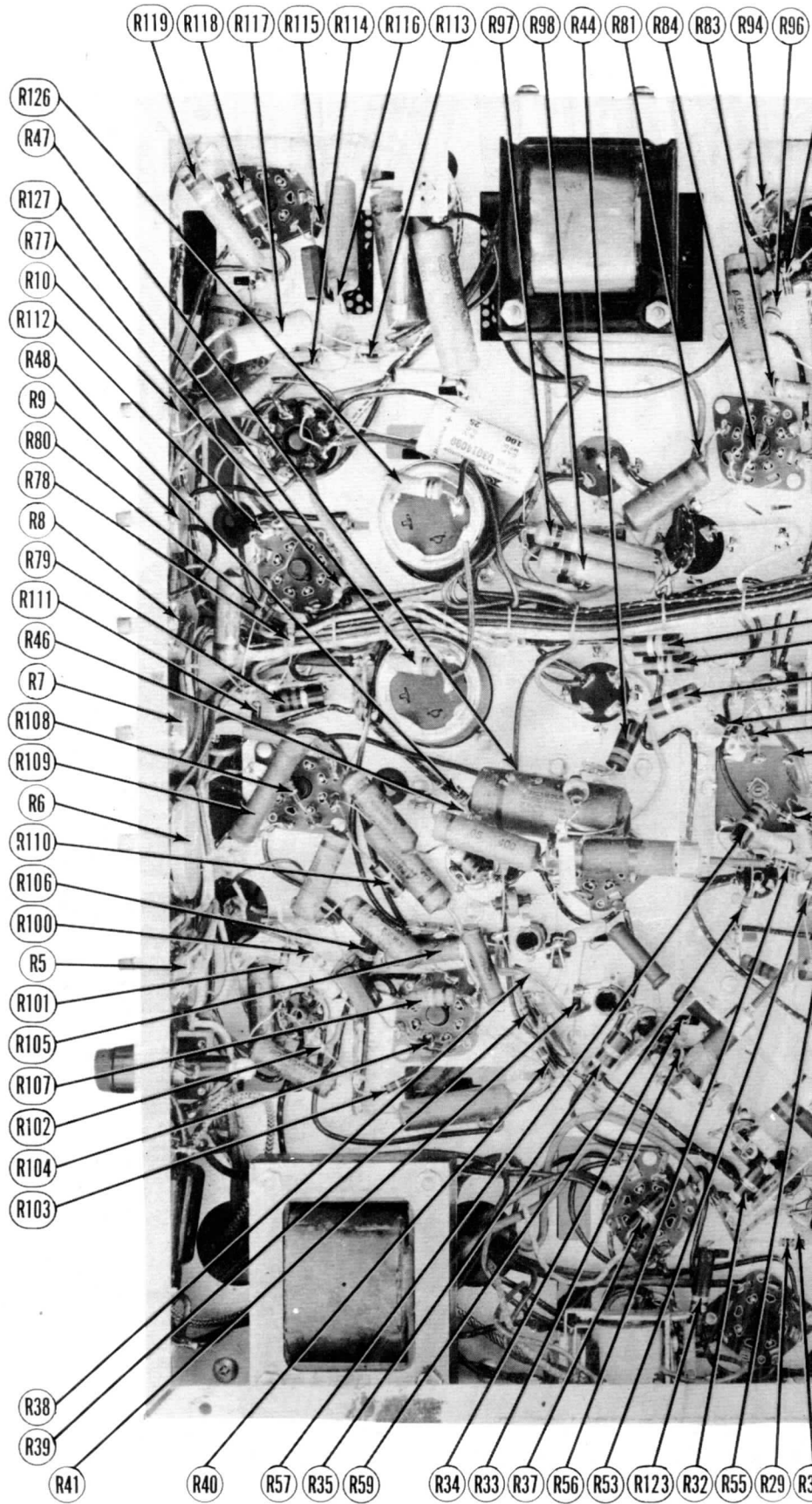
RADIO SCHEMATIC



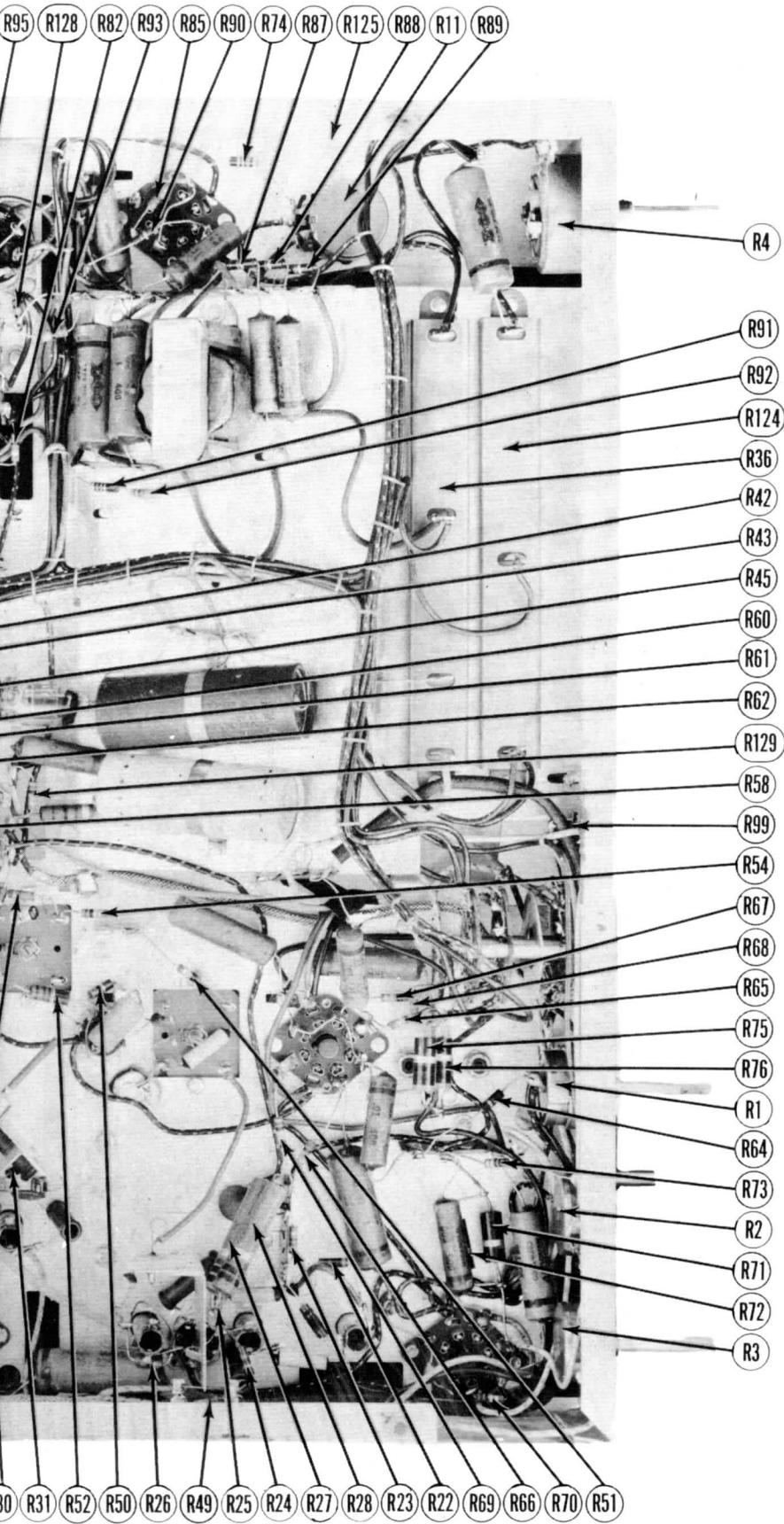
CHASSIS BOTTOM VIEW-CA



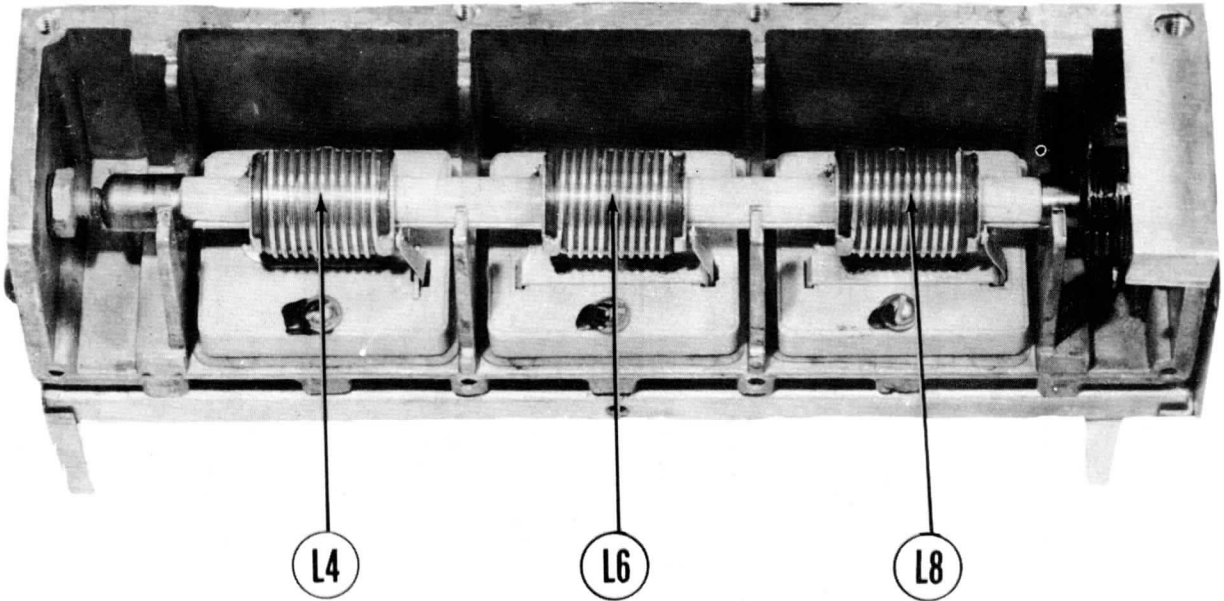
CAPACITOR IDENTIFICATION



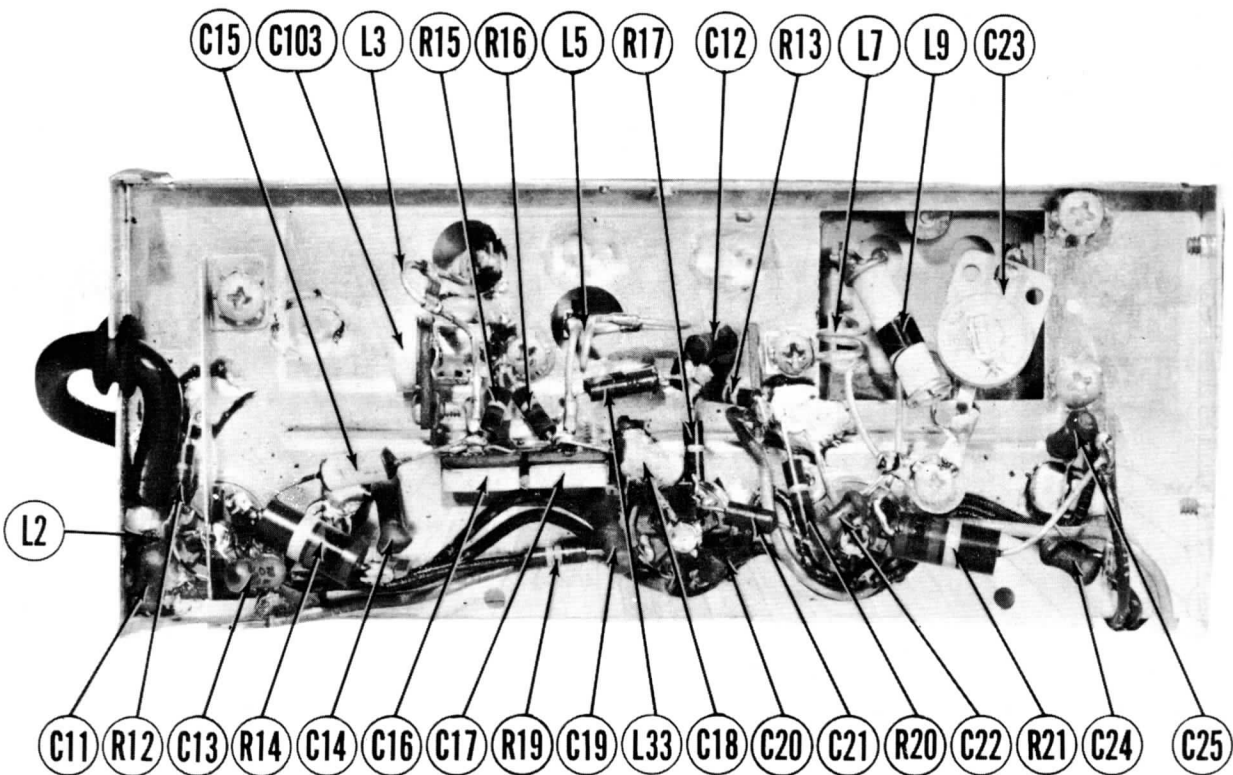
CHASSIS BOTTOM VIEW-RE



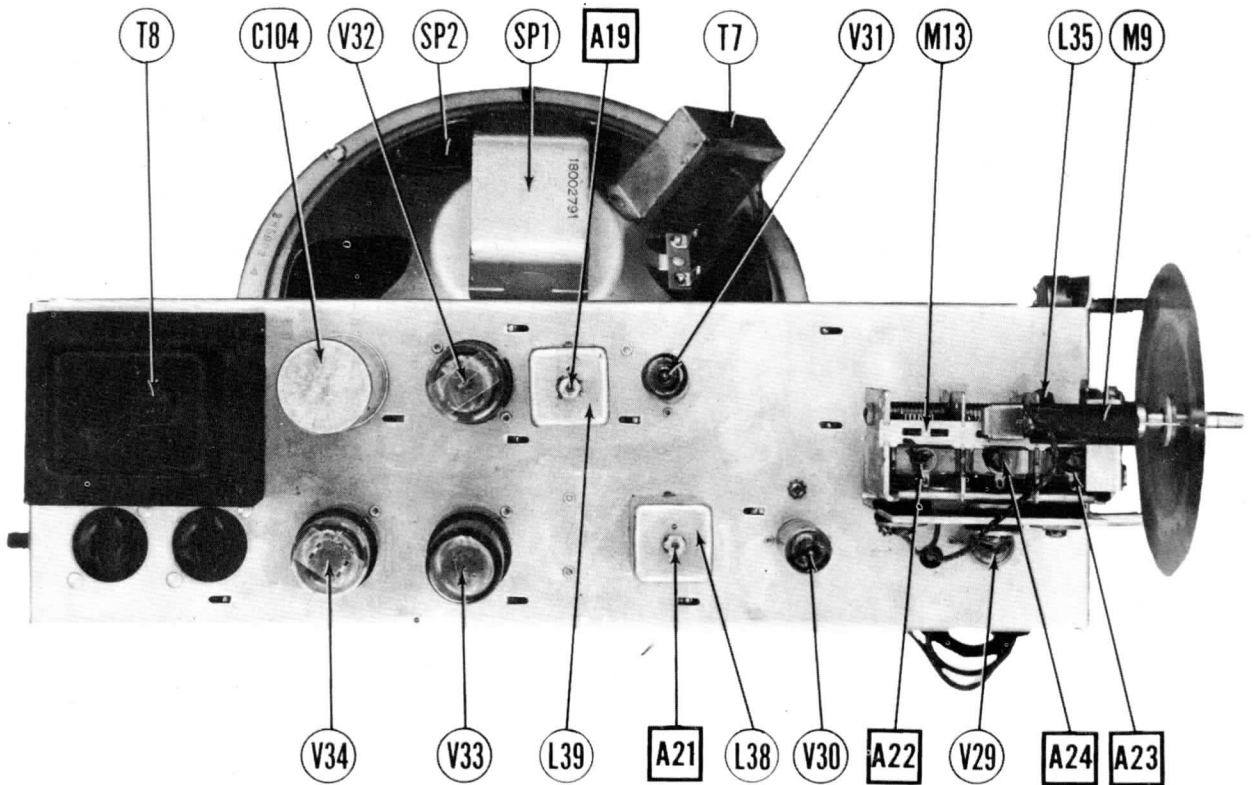
RESISTOR IDENTIFICATION



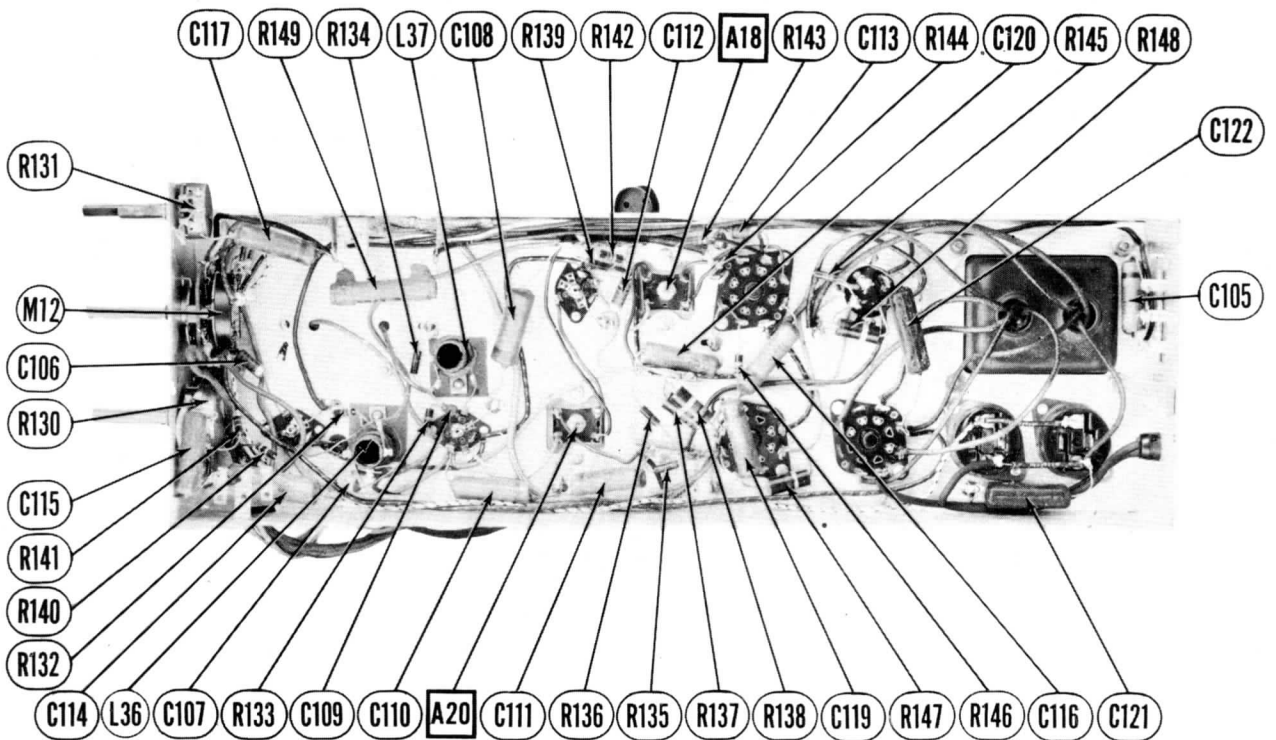
INDUCTUNER



RF TUNER - BOTTOM VIEW



RADIO CHASSIS-TOP VIEW



RADIO CHASSIS-BOTTOM VIEW

TV PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		DUMONT PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6J6	6J6	7BF	
V2	Mixer	6AK5	6AK5	7BD	
V3	Oscillator	6J6	6J6	7BF	
V4	1st Video IF	6AG5	6AG5	7BD	
V5	2nd Video IF	6AG5	6AG5	7BD	
V6	3rd Video IF	6AG5	6AG5	7BD	
V7	Video Det. - DC Restorer	6AL5	6AL5	6BT	
V8	Video Amp.	6AC7	6AC7	8N	
V9	Sound IF Amp.	6AU6	6AU6	7BK	
V10	Limiter	6AU6	6AU6	7BK	
V11	Disc.	6AL5	6AL5	6BT	
V12	Tuning Ind.	6AL7GT	6AL7GT	8CH	
V13A	AF Amp.	6SJ7GT	6SJ7GT	8N	
B	AF Amp.	6SJ7	6SJ7	8N	
V14	Audio Output	6V6GT	6V6GT	7AC	
V15	1st Sync. Clipper - Hor. Disch.	6SN7GT	6SN7GT	8BD	
V16A	2nd Sync. Clipper	6SJ7	6SJ7	8N	
B	2nd Sync. Clipper	6SJ7GT	6SJ7GT	8N	
V17	Vert. Buffer - Osc. - Disch.	6SN7GT	6SN7GT	8BD	
V18	Vert. Amp.	6SN7GT	6SN7GT	8BD	
V19	Hor. Sync. Disc.	6AL5	6AL5	6BT	
V20	Hor. AFC	6AC7	6AC7	8N	
V21	Hor. Osc.	6K6GT	6K6GT	7S	
V22	Hor. Output	6BG6G	6BG6G	5BT	
V23	Damper	5V4G	5V4G	5L	
V24	HV Rectifier	1B3GT	1B3GT	3C	
V25	Time Delay Rect.	6AL5	6AL5	6BT	
V26	LV Rectifier	5U4G	5U4G	5T	
V27	LV Rectifier	5U4G	5U4G	5T	
V28	Picture Tube	12JP4	12JP4	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.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C1	80	350	3-1408	AFH16H	UP8AJ242		TVL-5	Filter
C2	80	350	3-1408	AFH16H	UP8AJ242		TVL-5	Filter
C3A	40	450	3-1413	AF88J	UP4445		TVL-64	▲ Filter
B	40	450						▲ Filter
C4	100	25	3-1409	PRS50/100	BRH251A		TVA-8	Hor. Cent. Cont. Bypass
C5	500	25	3-1287	PRS25/500	BRH255A		TVA-10	Bias Filter
C6	4	150	3-1367	PRS150/4	BR415		UT-41	Filter
C7A	30	450	3-1411	AF66J	UP7B7912		TVL-69	▲ Decoupling
B	10	450						▲ Output Decoupling
C8A	10	350	3-1412	AF2222J	UP11145		TVL-34	▲ V. Amp. Screen Bypass
B	10	350						■ Low Pass Filter
C	10	300						▲ Sync. Clipper Decoupling
D	10	300						Decoupling
C9	1.5 Ω							
ⓐ	60V							
C10	25	4	3-1225	PRS6/1000	BRH620		TVA-2	Vert. Cent. Cont. Bypass
C11	470	50	3-1389	PRS50/25	BR255		TVA-15	Vert. Output Cath. Bypass
C12	470		CM20C471K	GP470M		GP2K-470		RF Coupling
C13	470		CM20C471K	GP470M		GP2K-470		Mixer Grid Filter
C14	470		CM20C471K	GP470M		GP2K-470		RF Filament Bypass
C15	15		3-1205	GP15K		GP2K-470		RF Bypass
C16	3-12		3-307			557-NPO-3-12		RF Coupling
C17	3-12		3-307			557-NPO-3-12		Fixed Trimmer
C18	15		3-1205	GP15K		GP1K-15		Fixed Trimmer
C19	470		CM20C471K	GP470M		GP1K-15		RF Coupling
C20	470		CM20C471K	GP470M		GP2K-470		Mixer Screen Bypass
C21	1		3-1215			GP2K-470		Mixer Filament Bypass
C22	5		3-1323	CI5CN030				Osc. Coupling
C23	2-12		3-307			N030K-5		Osc. Grid Cap.
						TS2A-N500-2-12		Fixed Trimmer
C24	470		CM20C471K	GP470M		GP2K-470		Osc. Filament Bypass
C25	470		CM20C471K	GP470M		GP2K-470		RF Bypass
C26	1000		3-1394	GP1000M		GP2L-001		Mixer Plate Decoupling
C27	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	IF Coupling
C28	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	Bias Filter
C29	.25	200	3-42	P288-25	GT2P25		TC-2	Bias Filter
C30	6800			GP6800M	PTE6D6	GP2-334-0068	TM-26	1st V. IF Decoupling
C31	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	IF Coupling *
C32	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	Bias Filter
C33	5000			BPD-5	ID5D5	811-005	29C1	2nd V. IF Cath. Bypass †
C34	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	2nd V. IF Decoupling
C35	20		3-1401	CI20JNPO	5R5Q2	NPOK-20	MS-42	Fixed Trimmer
C36	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	RF Coupling
C37	10		3-1308	CI10JNPO	5R5Q1	NPOK-10	MS-41	Fixed Trimmer
C38	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	3rd V. IF Cath. Bypass
C39	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	3rd V. IF Decoupling
C40	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	IF Coupling *
C41	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	Bias Filter
C42	47		3-1273	CN47JNPO	5R5Q5	NPOM-50	MS-45	Fixed Trimmer
C43	.05	400	3-1402	P488-05	PTE4S5		TM-15	Video Coupling
C44	.5	400	3-1426	484-5	GT4P5		TC-5	Video Coupling
C45	270		3-1427	GP270M	5W5T25	GP2K-270	1FM-325	DC Res. Plate Bypass
C46	.1	200	3-1391	P288-1	PTE4P1		TM-1	Pic. Tube Cath. Dec.
C47	.01	600	3-1256	P688-01	PTE6S1		TM-11	Acc. Anode Bypass
C48	2.5		3-1457	CN2.5CNPO				S. IF Coupling
C49	1000		3-1394	GP1000M	1W5D1	NPOK-2.5	1FM-21	AVC Filter
C50	2.5		3-1428	CN2.5CNPO		NPOK-2.5		Fixed Trimmer
C51	4700	500	3-1394	1467-005	ID5D5	811-005	1FM-25	1st S. IF Screen Bypass ‡
C52	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	1st S. IF Decoupling
C53	.1	200	3-1391	P288-1	PTE2P1		TM-1	AVC Filter
C54	47		3-1420	GP47M	5W5Q5	GP1K-47	1FM-45	Limiter Grid Filter
C55	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	Limiter Screen Bypass
C56	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	Limiter Decoupling

MODEL RA103 (Ch. 7040A1, 7040A2)

DUMONT

CAPACITORS (CONT.)

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C57	47		3-1420	GP47M	5W5Q5	GP1K-47	1FM-45	RF Bypass
C58	47		3-1420	GP47M	5W5Q5	GP1K-47	1FM-45	RF Bypass
C59	1000		3-1394	GP1000M	1W5D1	GP2L-001	1FM-21	De-emphasis
C60	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Tuning Ind. Filter
C61	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Tone Compensation
C62	.02	400	3-146	P488-02	PTE4S2		TM-12	Audio Coupling
C63	.1	200	3-1391	P288-1	PTE4P1		TM-1	Bias Filter
C64	.1	400	3-1404	P488-1	PTE4P1		TM-1	1st AF Screen Bypass
C65	.05	400	3-1402	P488-05	PTE4S5		TM-15	Audio Coupling
C66	5000			BPD-5	ID5D5	811-005	29C1	RF Bypass †
C67	470		3-1292	GP470M	5W5T5	GP2K-470	1FM-35	Output Grid Bypass † †
C68	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25	Output Plate Bypass
C69	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Sync. Coupling
C70	.05	200	3-95	P288-05	PTE4S5		TM-15	Sync. Coupling
C71	.1	200	3-1391	P288-1	PTE4P1		TM-1	2nd Sync. Clip. Screen Bypass
C72	.01	600	3-1256	P688-01	PTE6S1	821-01	TM-11	2nd Sync. Coupling
C73	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25	Integrator Net.
C74	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Integrator Net.
C75	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Vert. Osc. Grid Cap.
C76	.1	400	3-1404	P488-1	PTE4P1		TM-1	Vert. Discharge
C77	.1	400	3-1404	P488-1	PTE4P1		TM-1	Vert. Sweep Coupling
C78	47		3-1395	CN47NPO	5R5Q5	NPOM-50	MS-45	Hor. Sync. Coupling
C79	.01	400	3-341	P488-01	PTE4S1	821-01	TM-11	Fixed Trimmer
C80	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25	AFC Filter
C81	.1	200	3-1391	P288-1	PTE4P1		TM-1	AFC Filter
C82	.05	200	3-95	P288-05	PTE4S5		TM-15	Hor. AFC Screen Bypass
C83	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25	Hor. AFC Coupling
C84	100000	300	CM35A103K	I467-01	ID3S1	1FM-11	1FM-11	Phase Shifter
C85	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25	Hor. Osc. Grid Cap.
C86	.05	400	3-1402	P488-05	PTE4S5		TM-15	Hor. Osc. Screen Bypass
C87	330	500	CM20A331K	I468-00035	5W5T3	GP2K-330	1FM-335	Differentiator Net.
C88	.01	400	3-145	P488-01	PTE4S1	821-01	TM-11	Hor. Sweep Coupling
C89	680	500	CM30A681K	I467-001	IW5T7	GP2K-680	1FM-37	Hor. Discharge
C90	1000	500	CM30A102K	I467-001	IW5D1	GP2L-001	1FM-21	Hor. Sweep Coupling
C91	.05	400	3-1402	P488-05	PTE4S5		TM-15	Hor. Output Screen Bypass
C92	.1	200	3-1391	P288-1	PTE4P1		TM-1	Hor. Output Cath. Bypass
C93	1000		3-1394	GP1000M	IW5D1	GP2L-001	1FM-21	Bias Filter
C94	.035	1000	3-1406	P1088-033	PI088-05	GT16S5		Damper Filter
C95	.05	1000	3-1407	P1088-05	GT16S5		TR-15	Damper Filter
C96	220	1500	3-1474					Fixed Trimmer
C97	500	10000	3-1183			410-500		HV Filter
C98	1000		3-1394	GP1000M	IW5D1	GP2L-001	1FM-21	RF Bypass
C99	.1	400	3-1404	P488-1	PTE4P1		TM-1	RF Bypass
C100	6800		3-1392	GP6800M	PTE6D6	GP2-334-0068	TM-26	RF Bypass
C101	.05	600	3-1405	P688-05	PTE6S5		TM-15	Line Filter
C102	.05	600	3-1405	P688-05	PTE6S5		TM-15	Line Filter
C103	3-12		3-307			557-NPO-3-12		Fixed Trimmer

* Some models use transmission line in this application.
 † Not used in all models.
 ‡ Chassis type 7040-A1 uses .002MFD, 600 volt in this application.
 § Some models use 1000MMF in this application.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	CLAROSTAT PART No.	
R1A	500KΩ	1/2	1-691 or	Q13-133X	T-78	Volume control, tapped at 150KΩ
B	Switch		1-692	76-1	SW-A	Attach to R1A per instructions
R2	100KΩ	1/2	1-553 or	Q11-128	M-49-S	Brightness control
			1-498			
R3	25KΩ	1/2	1-696 or	Q11-120	M-40-S	Contrast control
			1-700			
R4	1000Ω	25	1-668 or	PR-25-1000	PW-25-1000	Focus control-Wire Wound
			1-689			
R5	25Ω	2	1-663	W-25	43-25	Vert. centering control-Wire Wound
R6	25Ω	4	1-666			Horiz. centering control-Wire Wound
R7	1500Ω	2	1-681 or	W-2000	43-1500	Vert. linearity control -Wire Wound
			1-664 or			
			1-682			
R8	2 Meg.	1/2	1-662 or	Q11-139	M-83-S	Height control
			1-672			
R9	500KΩ	1/2	1-661 or	Q11-133	M-58-S	Vert. hold control
			1-671			
R10	20KΩ	1/2	1-665 or	Q11-119	M-36-S	Horiz. drive control
			1-670			
R11	500KΩ	1/2	1-660 or	Q11-133	M-58-S	Sensitivity control
			1-671			

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R12	200Ω 5%	1/2	2-957		RF Cathode
R13	100KΩ	1/2			Mixer Grid
R14	10KΩ	1/2	2-943		RF Plate
R15	12KΩ	1/2	2-956		RF Plate Coil Shunt
R16	12KΩ	1/2	2-958		Mixer Grid Coil Shunt
R17	1 Meg.	1/2	2-1208		Mixer Grid
R18	47Ω	1/2	RC20BF470K		Mixer Cathode-See Note 2
R19	330KΩ	1/2	2-1202		Mixer Screen
R20	12KΩ	1/2	2-956		Osc. Grid
R21	10KΩ	1/2	2-943		Osc. Plate
R22	8200Ω 5%	1/2	RC20BF822J		Mixer Plate Transformer Shunt
R23	47KΩ	1/2	RC20BF473K	BTS-47K	Mixer Plate Decoupling
R24	5600Ω 5%	1/2	RC20BF562J		1st Video IF Grid
R25	68Ω	1/2	RC20BF680K		1st Video IF Cathode
R26	6800Ω 5%	1/2	RC20BF682J	BTS-6800-5%	1st Video IF Plate Coil Shunt-See Note 1
R27	22KΩ	1/2	RC40BF223K	BT-2-22K	1st Video IF Decoupling
R28	22KΩ	1/2	RC40BF223K	BT-2-22K	1st Video IF Decoupling
R29	10KΩ	1/2	RC20BF223K	BTS-10K	Bias Network
R30	6800Ω 5%	1/2	RC20BF682J	BTS-6800-5%	2nd Video IF Grid Coil Shunt
R31	68Ω	1/2	RC20BF680K		2nd Video IF Cathode
R32	3900Ω	1/2	RC40BF392K	BT-2-3900	2nd Video IF Decoupling

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES AND INSTALLATION NOTES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R33	3900Ω 5%	1/2	RC20BF392J		
R34	100Ω	1/2	RC20BF101K		
R35	3900Ω	1/2	RC40BF392K	BT-2-3900	
R36A	2500Ω	10			
B	7000Ω	7			
C	68Ω	1/2			
R37	120Ω	1/2	RC40BF121K	BW-1-120	
R38	39KΩ 5%	1/2	RC20BF393K	BTS-39K	
R39	4700Ω	1/2	RC20BF472K	BTS-4700	
R40	15Ω	1/2	RC20BF150K	BW-1-15	
R41	22Ω	1/2	RC20BF220K	BW-1-22	
R42	100KΩ	1/2	RC40BF104K	BT-2-100K	
R43	100KΩ	1/2	RC40BF104K	BT-2-100K	
R44	3600Ω 5%	1/2	RC40BF362J		
R45	3300Ω	1/2	RC40BF332K	BT-2-330	
R46	10KΩ	1/2	RC20BF103K	BTS-10K	
R47	150KΩ	1/2	RC20BF154K	BTS-150K	
R48	470KΩ	1/2	RC40BF474K	BTS-470K	
R49	1 Meg. 20%	1/2	RC20BF105M	BTS-1 Meg	
R50	68Ω	1/2	RC20BF680K		
R51	100KΩ	1/2	RC20BF104K	BTS-100K	
R52	33KΩ	1/2	RC30BF333K		
R53	1000Ω	1/2	RC20BF102K	BTS-1000	
R54	100KΩ	1/2	RC20BF104K	BTS-100K	
R55	56KΩ	1/2	RC20BF563K	BTS-56K	
R56	68Ω	1/2	RC20BF680K		
R57	47KΩ	1/2	RC40BF473K		
R58	1000Ω	1/2	RC20BF102K	BTS-1000	
R59	10KΩ	1/2	RC20BF103K	BTS-10K	
R60	100KΩ	1/2	RC20BF104K	BTS-100K	
R61	100KΩ	1/2	RC20BF104K	BTS-100K	
R62	27KΩ	1/2	RC20BF273K	BTS-27K	
R63	3300Ω	1/2	RC20BF332K	BTS-3300	
R64	22KΩ	1/2	RC20BF223K	BTS-22K	
R65	470KΩ	1/2	RC20BF474K	BTS-470K	
R66	1 Meg.	1/2	RC20BF105K	BTS-1 Meg	
R67	100KΩ	1/2	RC20BF104K	BTS-100K	
R68	470KΩ	1/2	RC20BF474K	BTS-470K	
R69	100KΩ	1/2	RC20BF104K	BTS-100K	
R70	100KΩ	1/2	RC20BF104K	BTS-100K	
R71	2200Ω	1/2	RC40BF222K	BT-2-22K	
R72	2200Ω	1/2	RC40BF222K	BT-2-22K	
R73	220KΩ	1/2	RC20BF224K	BTS-220K	
R74	470KΩ	1/2	RC20BF474K	BTS-470K	
R75	8200Ω	1/2	RC40BF822K	BT-2-82K	
R76	8200Ω	1/2	RC40BF822K	BT-2-82K	
R77	39KΩ	1/2	RC20BF393K	BTS-39K	
R78	3300Ω	1/2	RC20BF332K	BTS-3300	
R79	33KΩ	1/2	RC40BF333K	BT-2-33K	
R80	6800Ω	1/2	RC20BF682K	BTS-6800	
R81	1.2 Meg.	1/2	RC20BF125K	BTS-1.2	
R82	10KΩ	1/2	RC20BF103K	BTS-10K	
R83	100KΩ	1/2	RC30BF104K	BTA-100K	
R84	22KΩ	1/2	RC20BF223K	BTS-22K	
R85	1.2 Meg.	1/2	RC20BF125K	BTS-1.2	
R86	6800Ω	1/2	RC20BF682K	BTS-6800	
R87	10KΩ	1/2	RC20BF103K	BTS-10K	
R88	10KΩ	1/2	RC20BF103K	BTS-10K	
R89	10KΩ	1/2	RC20BF103K	BTS-10K	
R90	750KΩ 5%	1/2			
R91	470KΩ	1/2	RC20BF474K	BTS-470K	
R92	12KΩ	1/2	RC20BF123K	BTS-12K	
R93	3300Ω	1/2	RC20BF332K	BTS-3300	
R94	2.2 Meg.	1/2	RC20BF225K	BTS-2.2	
R95	4700Ω	1/2	RC20BF472K	BTS-4700	
R96	820Ω	1/2	RC30BF821K	BTA-820	
R97	10KΩ	1/2	RC40BF103K	BT-2-10K	
R98	10KΩ	1/2	RC40BF103K	BT-2-10K	
R99	330Ω	1/2	RC30BF331K	BTA-330	
R100	470KΩ	1/2	RC20BF474K	BTS-470K	
R101	470KΩ	1/2	RC20BF474K	BTS-470K	
R102	470KΩ	1/2	RC20BF474K	BTS-470K	
R103	470Ω	1/2	RC20BF471K	BTS-470	
R104	10Ω	1/2	RC20BF100K		
R105	22KΩ	1/2	RC40BF223K	BT-2-22K	
R106	47KΩ	1/2	RC40BF473K	BT-2-47K	
R107	27KΩ	1/2	RC30BF273K	BTA-27K	
R108	47KΩ	1/2	RC20BF473K	BTS-47K	
R109	5000Ω 5%	10	2-192 or 2-932		
R110	10KΩ	1/2	RC30BF103K	BTA-10K	
R111	6800Ω	1/2	RC20BF682K	BTS-6800	
R112	220KΩ	1/2	RC20BF224K	BTS-220K	
R113	680KΩ	1/2	RC20BF684K	BTS-680K	
R114	10KΩ	1/2	RC20BF103K	BTS-10K	
R115	100Ω	1/2	RC20BF101K		
R116	470KΩ	1/2	RC20BF474K	BTS-470K	
R117	100Ω	1/2	2-944 or 2-962	AB-500	
R118	27KΩ	1/2	RC40BF273K	BT-2-27K	
R119	22KΩ	1/2	RC40BF223K	BT-2-22K	
R120	6000Ω 5%	25	2-1777		
R121	3.6Ω	1/2			
R122	220K				

TV PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

ITEM No.	IDENTIFICATION CODES AND INSTALLATION NOTES
R33	RF Bypass
R34	RF Bypass
R35	De-emphasis
R36A	Tuning Ind. Filter
B	Tone Compensation
C	Audio Coupling
R37	Bias Filter
R38	1st AF Screen Bypass
R39	Audio Coupling
R40	RF Bypass †
R41	Output Grid Bypass ††
R42	Output Plate Bypass
R43	Sync. Coupling
R44	Sync. Coupling
R45	2nd Sync. Clip. Screen Bypass
R46	Vert. Sync. Coupling
R47	Integrator Net.
R48	Integrator Net.
R49	Vert. Osc. Grid Cap.
R50	Vert. Discharge
R51	Vert. Sweep Coupling
R52	Hor. Sync. Coupling
R53	Fixed Trimmer
R54	AFC Filter
R55	AFC Filter
R56	Hor. AFC Screen Bypass
R57	Hor. AFC Coupling
R58	Phase Shifter
R59	Hor. Osc. Grid Cap.
R60	Hor. Osc. Screen Bypass
R61	Differentiator Net.
R62	Hor. Sweep Coupling
R63	Hor. Discharge
R64	Hor. Sweep Coupling
R65	Hor. Output Screen Bypass
R66	Hor. Output Cath. Bypass
R67	Bias Filter
R68	Damper Filter
R69	Damper Filter
R70	Fixed Trimmer
R71	HV Filter
R72	RF Bypass
R73	RF Bypass
R74	RF Bypass
R75	Line Filter
R76	Line Filter
R77	Fixed Trimmer

ITEM No.	IDENTIFICATION CODES AND INSTALLATION NOTES
R78	3300Ω
R79	33KΩ
R80	6800Ω
R81	1.2 Meg.
R82	10KΩ
R83	100KΩ
R84	22KΩ
R85	1.2 Meg.
R86	6800Ω
R87	10KΩ
R88	10KΩ
R89	10KΩ
R90	750KΩ 5%
R91	470KΩ
R92	12KΩ
R93	3300Ω
R94	2.2 Meg.
R95	4700Ω
R96	820Ω
R97	10KΩ
R98	10KΩ
R99	330Ω
R100	470KΩ
R101	470KΩ
R102	470KΩ
R103	470Ω
R104	10Ω
R105	22KΩ
R106	47KΩ
R107	27KΩ
R108	47KΩ
R109	5000Ω 5%
R110	10KΩ
R111	6800Ω
R112	220KΩ
R113	680KΩ
R114	10KΩ
R115	100Ω
R116	470KΩ
R117	100Ω
R118	27KΩ
R119	22KΩ
R120	6000Ω 5%
R121	3.6Ω
R122	220KΩ
R123	2.2Ω
R124A	200Ω
B	250Ω
R125	1280Ω
R126	100KΩ
R127	100KΩ
R128	1800Ω
R129	1 Meg.

ITEM No.	IDENTIFICATION CODES AND INSTALLATION NOTES
R124B	200Ω
R125	1280Ω
R126	100KΩ
R127	100KΩ
R128	1800Ω
R129	1 Meg.

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R33	3900Ω 5%	1/2	RC20BF392J		3rd Video IF Grid
R34	100Ω	1/2	RC20BF101K		3rd Video IF Cathode
R35	3900Ω	2	RC40BF392K	BT-2-3900	3rd Video IF Decoupling
R36A	2500Ω	10			Voltage Dropping-Wire Wound
B	7000Ω	7	2-1759		Bleeder-Wire Wound
C	62Ω	2			Voltage Divider-Wire Wound
R37	120Ω	2	RC40BF121K	BW-1-120	Voltage Divider
R38	39KΩ 5%	1/2	RC20BF393K	BTS-39K-5%	Video Det. Coil Shunt
R39	4700Ω	1/2	RC20BF472K	BTS-4700	Video Det. Diode Load
R40	15Ω	1/2	RC20BF150K	BW-1-15	Voltage Divider
R41	22Ω	1/2	RC20BF220K	BW-1-22	Voltage Divider
R42	100KΩ	2	RC40BF104K	BT-2-100K	Video Amp. Screen
R43	100KΩ	2	RC40BF104K	BT-2-100K	Video Amp. Screen
R44	3600Ω 5%	2	RC40BF362J		Video Amp. Plate
R45	3300Ω	2	RC40BF332K	BT-2-3300	Low Pass Filter
R46	10KΩ	1/2	RC20BF102K	BTS-10K	DC Rest. Diode Load
R47	150KΩ	1/2	RC20BF154K	BTS-150K	Voltage Divider
R48	470KΩ	1/2	RC20BF474K	BTS-470K	Picture Tube Grid
R49	1 Meg. 20%	1/2	RC20BF105M	BTS-1 Meg.	Bias Network
R50	68Ω	1/2	RC20BF680K		Sound IF Cathode
R51	100KΩ	1/2	RC20BF104K	BTS-100K	Sound IF Grid
R52	33KΩ	1	RC30BF333K		Sound IF Screen
R53	1000Ω	1/2	RC20BF102K	BTS-1000	Sound IF Decoupling
R54	100KΩ	1/2	RC20BF104K	BTS-100K	Sound IF Grid Filter
R55	56KΩ	1/2	RC20BF563K	BTS-56K	Limiter Grid
R56	68Ω	1/2	RC20BF680K		Limiter Cathode
R57	47KΩ	2	RC40BF473		Limiter Screen
R58	1000Ω	1/2	RC20BF102K	BTS-1000	Limiter Decoupling
R59	10KΩ	1/2	RC20BF103K	BTS-10K	Voltage Divider
R60	100KΩ	1/2	RC20BF104K	BTS-100K	Disc. Diode Load
R61	100KΩ	1/2	RC20BF104K	BTS-100K	Disc. Diode Load
R62	27KΩ	1/2	RC20BF273K	BTS-27K	De-emphasis
R63	3300Ω	1/2	RC20BF332K	BTS-3300	Tuning Indicator Grid
R64	22KΩ	1/2	RC20BF223K	BTS-22K	Tone Compensation
R65	470KΩ	1/2	RC20BF474K	BTS-470K	AF Grid
R66	1 Meg.	1/2	RC20BF105K	BTS-1 Meg.	AF Screen
R67	100KΩ	1/2	RC20BF104K	BTS-100K	AF Plate
R68	470KΩ	1/2	RC20BF474K	BTS-470K	Bias Network
R69	100KΩ	1/2	RC20BF104K	BTS-100K	Voltage Divider
R70	100KΩ	1/2	RC20BF104K	BTS-100K	Output Grid
R71	2200Ω	2	RC40BF222K	BT-2-2200	Decoupling
R72	2200Ω	2	RC40BF222K	BT-2-2200	Decoupling
R73	220KΩ	1/2	RC20BF224K	BTS-220K	Voltage Divider
R74	470KΩ	1/2	RC20BF474K	BTS-470K	Voltage Divider
R75	8200Ω	2	RC40BF822K	BT-2-8200	Voltage Dropping
R76	8200Ω	2	RC40BF822K	BT-2-8200	Voltage Dropping
R77	39KΩ	1/2	RC20BF393K	BTS-39K	1st Sync. Clipper Grid
R78	3300Ω	1/2	RC20BF332K	BTS-3300	1st Sync. Clipper Plate
R79	33KΩ	2	RC40BF333K	BT-2-33K	1st Sync. Clipper Plate Decoupling
R80	6800Ω	1/2	RC20BF682K	BTS-6800	Voltage Divider
R81	1.2 Meg.	1/2	RC20BF125K	BTS-1.2 Meg.	2nd Sync. Clipper Grid
R82	10KΩ	1/2	RC20BF103K	BTS-10K	2nd Sync. Clipper Plate
R83	100KΩ	1	RC30BF104K	BTA-100K	2nd Sync. Clipper Screen
R84	22KΩ	1/2	RC20BF223K	BTS-22K	Voltage Divider
R85	1.2 Meg.	1/2	RC20BF125K	BTS-1.2 Meg.	Vert. Buffer Grid
R86	6800Ω	1/2	RC20BF682K	BTS-6800	Vert. Buffer Cathode-See Note 2
R87	10KΩ	1/2	RC20BF103K	BTS-10K	Integrator
R88	10KΩ	1/2	RC20BF103K	BTS-10K	Integrator
R89	10KΩ	1/2	RC20BF103K	BTS-10K	Integrator
R90	750KΩ 5%	1/2			Vert. Osc. Grid-See Note 3
R91	470KΩ	1/2	RC20BF474K	BTS-470K	Vert. Osc. Plate
R92	12KΩ	1/2	RC20BF123K	BTS-12K	Vert. Osc. Transformer Shunt
R93	3300Ω	1/2	RC20BF332K	BTS-3300	Vert. Peaking-See Notes 4 and 7
R94	2.2 Meg.	1/2	RC20BF225K	BTS-2.2 Meg.	Vert. Amp. Grid
R95	4700Ω	1/2	RC20BF472K	BTS-4700	Vert. Peaking-See Note 2
R96	820Ω	1	RC30BF821K	BTA-820	Vert. Amp. Cathode
R97	10KΩ	2	RC40BF103K	BT-2-10K	Decoupling
R98	10KΩ	2	RC40BF103K	BT-2-10K	Decoupling
R99	330Ω	1	RC30BF331K	BTA-330	Voltage Divider
R100	470KΩ	1/2	RC20BF474K	BTS-470K	Horiz. Sync. Disc. Load
R101	470KΩ	1/2	RC20BF474K	BTS-470K	Horiz. Sync. Disc. Load
R102	470KΩ	1/2	RC20BF474K	BTS-470K	Horiz. AFC Filter Network
R103	470Ω	1/2	RC20BF471K	BTS-470	Horiz. AFC Grid
R104	10Ω	1/2	RC20BF100K		Horiz. AFC Cathode
R105	22KΩ	2	RC40BF223K	BT-2-22K	Horiz. AFC Plate
R106	47KΩ	2	RC40BF473K	BT-2-47K	Horiz. AFC Screen
R107	27KΩ	1	RC30BF273K	BTA-27K	Voltage Divider
R108	47KΩ	1/2	RC20BF473K	BTS-47K	Horiz. Osc. Grid
R109	5000Ω 5%	10	2-192 or 2-932		Horiz. Osc. Plate-Wire Wound
R110	10KΩ	1	RC30BF103K	BTA-10K	Horiz. Osc. Screen
R111	6800Ω	1/2	RC20BF682K	BTS-6800	Differentiator
R112	220KΩ	1/2	RC20BF224K	BTS-220K	Horiz. Discharge Grid
R113	680KΩ	1/2	RC20BF684K	BTS-680K	Horiz. Discharge Plate
R114	10KΩ	1/2	RC20BF103K	BTS-10K	Horiz. Peaking
R115	100Ω	1/2	RC20BF101K		Parasitic Supp.
R116	470KΩ	1/2	RC20BF474K	BTS-470K	Horiz. Output Grid
R117	100Ω	5	2-944 or 2-962	AB-500	Horiz. Output Cathode-Wire Wound
R118	27KΩ	2	RC40BF273K	BT-2-27K	Horiz. Output Screen
R119	22KΩ	2	RC40BF223K	BT-2-22K	Horiz. Output Screen
R120	6000Ω 5%	25	2-1777		Damper Filter-Wire Wound, Tapped at 5000Ω and 4000Ω
R121	3.6Ω	1			HV Rect. Filament-Wire Wound, See Note 5
R122	220KΩ	1			HV Filter-See Note 6
R123	2.2Ω	1	2-1754	BW-1-2.2	Time Delay Rect. Filament-Wire Wound
R124A	200Ω	11.5	2-1760	DG-200	Voltage Divider-Wire Wound
B	250Ω	7.7		AB-250	Focus Coil Shunt-Wire Wound
R125	1280Ω	24.1	2-1761		Filter-Wire Wound
R126	100KΩ	1	RC30BF104K	BTA-100K	Bleeder
R127	100KΩ	1	RC30BF104K	BTA-100K	Bleeder
R128	1800Ω	1	RC20BF182K	BTS-1800	Vert. Peaking-See Note 2 and 7
R129	1 Meg.	1/2	RC20BF105K	BTS-1 Meg.	Tuning Ind. Network

- Note 1. Some models use 10KΩ resistor in this application.
- Note 2. Not used in all models.
- Note 3. Some models use 470KΩ resistor in this application.
- Note 4. Some models use 3900Ω resistor in this application.
- Note 5. Some models use 5.6Ω resistor in this application.
- Note 6. Some models use 680KΩ, 1 watt resistor in this application.
- Note 7. May be shorted out at factory or left out of set.

ITEM No.	RATINGS		
	FIELD RES.	V. C. IMP.	
SP1A	PM	3.6Ω	
B			
SP2A	CONE DIA.	V. C. DIA.	
	9 1/2"	3/4"	

ITEM No.	RATING		
	PRI.	SEC. 1	SEC. 2
T1	117VAC at 2.7A	780VCT & Tap at 50VAC at .009 ADC	5VAC at 6A
			SEC. 4 at 6.3VAC at 9.7A

ITEM No.	RATING		DUMONT PART No.
	DC RESISTANCE		
T2	280Ω	SEC. 1 560Ω	20D
		SEC. 2 700Ω	
T3	405Ω Tap at 165Ω	SEC. 1 10.6Ω Tap @ .6Ω	20-3
		SEC. 2 0Ω	
T4	660Ω	8.3Ω	20-3
T5A	14Ω		21-3
B	63Ω		
T6	550Ω		21C

ITEM No.	RATING			
	IMPEDANCE		DC RES.	
T7	4.7KΩ	3.6Ω	420Ω	.4Ω

ITEM No.	RATINGS		
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	IN (Ω)
L1	.320ADC	70Ω	5

ITEM No.	USE	DC RES.	
		PRI.	SEC.
L2	Ant. Coil	0Ω	
L3	RF End Inductor	0Ω	
L4	RF Plate	0Ω	
L5	Mixer End Inductor	0Ω	
L6	Mixer Grid	0Ω	
L7	Osc. End Inductor	0Ω	
L8	Osc. Coil	0Ω	
L9	Osc. Shunt	0Ω	
L10	1st Video IF	.7Ω	
L11	RF Choke	.1Ω	
L12	1st Video IF Coupling	.1Ω	
L13	2nd Video IF	.7Ω	
L14	2nd Video IF Coupling	.1Ω	
L15	2nd Video IF	.1Ω	
L16	3rd Video IF	.7Ω	
L17	21.9MC Sound Trap	0Ω	
L18	Adjacent Channel Sound Trap	0Ω	
L19	3rd Video IF	.7Ω	
L20	4th Video IF	.7Ω	
L21	4th Video IF Coupling	.1Ω	
L22	4th Video IF	.7Ω	
L23	Peaking	10Ω	
L24	Peaking	7Ω	
L25	4.5MC Trap	1.1Ω	
L26	Peaking	6.2Ω	
L27	1st Sound IF	.1Ω	.1Ω
L28	2nd Sound IF	.1Ω	.1Ω
L29	Disc. Trans.	.5Ω	.1Ω
L30	Hor. Osc. Trans.	65Ω	67Ω
L31	Width Cont.		
L32	Horiz. Linearity		
L33	Band Pass Coil	0Ω	

DESCRIPTIONS (Continued)

S (CONT.)

IDENTIFICATION CODES	
3rd Video IF Grid	
3rd Video IF Cathode	
3rd Video IF Decoupling	
Voltage Dropping-Wire Wound	
Bleeder-Wire Wound	
Voltage Divider-Wire Wound	
Voltage Divider	
Video Det. Coil Shunt	
Video Det. Diode Load	
Voltage Divider	
Voltage Divider	
Video Amp. Screen	
Video Amp. Screen	
Video Amp. Plate	
Low Pass Filter	
DC Rest. Diode Load	
Voltage Divider	
Picture Tube Grid	
Bias Network	
Sound IF Cathode	
Sound IF Grid	
Sound IF Screen	
Sound IF Decoupling	
Sound IF Grid Filter	
Limiter Grid	
Limiter Cathode	
Limiter Screen	
Limiter Decoupling	
Voltage Divider	
Disc. Diode Load	
Disc. Diode Load	
De-emphasis	
Tuning Indicator Grid	
Tone Compensation	
AF Grid	
AF Screen	
AF Plate	
Bias Network	
Voltage Divider	
Output Grid	
Decoupling	
Decoupling	
Voltage Divider	
Voltage Divider	
Voltage Dropping	
Voltage Dropping	
1st Sync. Clipper Grid	
1st Sync. Clipper Plate	
1st Sync. Clipper Plate Decoupling	
Voltage Divider	
2nd Sync. Clipper Grid	
2nd Sync. Clipper Plate	
2nd Sync. Clipper Screen	
Voltage Divider	
Vert. Buffer Grid	
Vert. Buffer Cathode-See Note 2	
Integrator	
Integrator	
Vert. Osc. Grid -See Note 3	
Vert. Osc. Plate	
Vert. Osc. Transformer Shunt	
Vert. Peaking-See Notes 4 and 7	
Vert. Amp. Grid	
Vert. Peaking-See Note 2	
Vert. Amp. Cathode	
Decoupling	
Decoupling	
Voltage Divider	
Horiz. Sync. Disc. Load	
Horiz. Sync. Disc. Load	
Horiz. AFC Filter Network	
Horiz. AFC Grid	
Horiz. AFC Cathode	
Horiz. AFC Plate	
Horiz. AFC Screen	
Voltage Divider	
Horiz. Osc. Grid	
Horiz. Osc. Plate-Wire Wound	
Horiz. Osc. Screen	
Differentiator	
Horiz. Discharge Grid	
Horiz. Discharge Plate	
Horiz. Peaking	
Parasitic Supp.	
Horiz. Output Grid	
Horiz. Output Cathode-Wire Wound	
Horiz. Output Screen	
Horiz. Output Screen	
Damper Filter-Wire Wound, Tapped at 5000Ω and 4000Ω	
HV Rect. Filament-Wire Wound, See Note 5	
HV Filter-See Note 6	
Time Delay Rect. Filament-Wire Wound	
Voltage Divider-Wire Wound	
Focus Coil Shunt-Wire Wound	
Filter-Wire Wound	
Bleeder	
Bleeder	
Vert. Peaking-See Note 2 and 7	
Tuning Ind. Network	

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	DUMONT PART No.	JENSEN PART No.	QUAM PART No.	
SP1A	PM	3. 6Ω	53D-12982-101 ⑤	ST-119 ③ MOD. P10-T	10A31	③ Replace output transformer to match 6-8Ω voice coil. ⑤ Used in console models. ⑥ Used in table models.
B	CONE DIA.	V. C. DIA.	53D-12540-101 ⑥			
SP2A	9 1/2"	3/4"				

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 at 2.7A	780VCT .320ADC & Tap. at 50VAC ADC	5VAC at 6A	5VAC at 2A	20D-12404 or 20D-12856			
		SEC. 4 at 6.3VAC at 9.7A						

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.					
T2	280Ω	SEC. 1 560Ω SEC. 2 700Ω	20D-4901-2				Vert. Block Osc. Trans.
T3	405Ω Tap at 165Ω	SEC. 1 10. 6Ω Tap @ . 6Ω SEC. 2 0Ω	20-375	A-8128	HVO-3	TFB-3	Hor. Output Trans.
T4	660Ω	8. 3Ω	20-380	A-8115	A-3035	TSO-1	Vert. Output Trans. Hor. Deflection Coil Vert. Deflection Coil Focus Coil
T5A	14Ω		21-388	DY-1	MD-1		
B	63Ω						
T6	550Ω		21C-12586-101				

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.					
T7	4.7KΩ	3. 6Ω	420Ω	.4Ω	Part of 53D-12982-101	A-3825	A-3019	RO-9	

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	.320ADC	70Ω	5 Henries	21C-12432	C-2326 ④	C-2996 ④	TR-3300 ④	④ Drill new mounting holes.

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	DUMONT PART No.	MEISSNER PART No.	
L2	Ant. Coil	0Ω		21A-12453		
L3	RF End Inductor	0Ω		21A-12080		
L4	RF Plate	0Ω				Part of inductuner 21-357.
L5	Mixer End Inductor	0Ω		21A-12081		
L6	Mixer Grid	0Ω				Part of inductuner 21-357
L7	Osc. End Inductor	0Ω		21A-12082		
L8	Osc. Coil	0Ω				Part of inductuner 21-357.
L9	Osc. Shunt	0Ω		21A-11281		
L10	1st Video IF	.7Ω		21A-13089-101		
L11	RF Choke	.1Ω		21B-12411		
L12	1st Video IF Coupling	.1Ω		21A-13089-102		
L13	2nd Video IF	.7Ω		21A-13090-101		
L14	2nd Video IF Coupling	.1Ω		21B-12412		Not used in all models.
L15	2nd Video IF	.1Ω		21A-13089-103		
L16	3rd Video IF	.7Ω		21A-13090-102		
L17	21.9MC Sound Trap	0Ω		21A-13087-102		
L18	Adjacent Channel Sound Trap	0Ω		21A-13087-101		
L19	3rd Video IF	.7Ω		21A-13088-101		
L20	4th Video IF	.7Ω		21A-13090-103		
L21	4th Video IF Coupling	.1Ω		21B-12410		Not used in all models.
L22	4th Video IF	.7Ω		21A-13090-104		
L23	Peaking	10Ω		21B-12413-3		
L24	Peaking	7Ω		21B-12413-2		
L25	4.5MC Trap	1.1Ω		21A-13098-101		
L26	Peaking	6.2Ω		21B-12413-1		
L27	1st Sound IF	.1Ω	.1Ω	20C-12478		
L28	2nd Sound IF	.1Ω	.1Ω	20C-12478		
L29	Disc. Trans.	.5Ω	.1Ω	20C-12477		
L30	Hor. Osc. Trans.	65Ω	67Ω	20C-12572-1		
L31	Width Cont.			21A-13230-101		
L32	Horiz. Linearity			21A-13307		
L33	Band Pass Coil	0Ω				

MODEL R103 (Ch. 7040A1, 7040A2)

DUMONT

TV PARTS LIST AND DESCRIPTIONS (Continued)

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					DUMONT PART No.		
M1	Bayonet	6-8	.25	Blue	39-4		Type #44 (TV Dial)

MISCELLANEOUS

ITEM No.	PART NAME	DUMONT		NOTES
			PART No.	
M2	RF Tuner		7033-A2	
M3	Fuse		11-11	4 A., 250V
M4	Fuse		11001100	.25A, 250V
M5	Switch		5-12	Vert. Positioning
M6	Band switch		5B-12449	
M7	Relay		5-241	Armature, SPST
M8	Inductuner		21-357	
	Cabinet		31W-12898	Chatham
	Cabinet		31W-12707	Stratford
	Cabinet		31W-13288	Savoy
	Safety Glass		15B-12900-1	
	Dial Assembly		15B-1256A-101	Main
	Dial Assembly		15B-12565-101	Vernier

RADIO PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			RMA BASE TYPE	NOTES
		DUMONT PART No.	STANDARD REPLACEMENT			
V29	AM RF Amp.	6BA6	6BA6	7BK	} 'Savoy' model only.	
V30	AM Converter	6BE6	6BE6	7CH		
V31	AM IF Amp.	6BA6	6BA6	7BK		
V32	DET.-AVC-AF	6SQ7GT	6SQ7GT	8Q		
V33	Power Output	6V6GT	6V6GT	7AC		
V34	Rectifier	5Y3GT	5Y3GT	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				IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	
C104A	30	450	3-1440	AF862J4A	UP9DJ989		EL-424 ♦
B	30	450					UT-10
C	20	450					▲ Filter
D	20	25					Output Cath. Bypass
C105	.002	600	3-1443	P688-002	PTE6D2	GP2M-002	TM-22
C106	330		3-1439	GP330M	5W5T3	GP2K-330	IFM-335
C107	100		3-1438	GP100K	5R5T1	GPIK-100	MS-31
C108	.05	200	3-95	P288-05	PTE4S5		TM-15
C109	.47		3-1273	GP47K	5W5Q5	GPIK-47	IFM-45
C110	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C111	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C112	330		3-1439	GP330M	5W5T3	GP2K-330	IFM-335
C113	330		3-1439	GP330M	5W5T3	GP2K-330	IFM-335
C114	.1	200	3-1391	P288-1	PTE4P1		TM-1
C115	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C116	.01	600	3-1256	P688-01	PTE8S1	821-01	TM-11
C117	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C118	300		3-1439	GP300M	5W5T3	GP2K-300	IFM-33
C119	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C120	.005	600	3-157	P688-005	PTE6D5	811-005	TM-25
C121	.05	600	3-1405	P688-05	PTE6S5		TM-15
C122	.05	600	3-1405	P688-05	PTE6S5		TM-15

♦ Not used in all models.
 ♦ Parallel sections to obtain desired capacity.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	CLAROSTAT PART No.	
R130	500KΩ	1/2	1-675	Q19-133X	T-90	Volume control, tapped at 250KΩ
R131	1 Meg.	1/2	1-707	Q13-137	M-63-Z	Tone control

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	DUMONT PART No.	IRC PART No.	
R132	470KΩ	1/2	RC20BF474M	BTS-470K	AM RF Grid
R133	10 Meg.	1/2	RC20BF106M	BTS-10 Meg.	AM Conv. Grid
R134	22KΩ	1/2	RC20BF223M	BTS-22K	AM Osc. Grid
R135	1000Ω	1/2	RC20BF102M	BTS-1000	Decoupling
R136	1500Ω	1/2	RC20BF152M	BTS-1500	Decoupling
R137	18KΩ	2	RC40BF183K	BT-2-18K	Screen Dropping
R138	18KΩ	2	RC40BF183K	BT-2-18K	Screen Dr opping
R139	1 Meg.	2	RC20BF105M	BTS-1 Meg.	AVC Network
R140	3900Ω	2	RC20BF392K	BTS-3900	Tone Compensation
R141	27KΩ	2	RC20BF273K	BTS-27K	Tone Compensation
R142	270KΩ	2	RC20BF274K	BTS-270K	AVC Network
R143	47KΩ	2	RC20BF473M	BTS-47K	Diode Filter
R144	10 Meg.	2	RC20BF106M	BTS-10 Meg.	AF Grid
R145	270KΩ	2	RC20BF274K	BTS-270K	AF Plate
R146	470KΩ	2	RC20BF474K	BTS-470K	Output Grid
R147	220Ω	2	RC40BF221K	BW-2-220	Output Cathode
R148	1000Ω	2	RC40BF102K	BW-2-1000	Filter
R149	750Ω	10	2-1732	AB-750	Filter-Wire Wound

RADIO PARTS LIST AND DESCRIPTIONS (Continued)

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.
T8	117VAC at .62A	630VCT .080ADC	5VAC at 2A	6.3VAC at 1.9A	20D-12926	P-6012 ②	P-2952 ②	PH-70

② Add series resistor to reduce plate voltage.

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	DUMONT PART No.	MEISSNER PART No.	
L34	Loop Ant.	1Ω		32B-13006-101		4 turns of wire in cabinet.
L35	Ant. Coil	9.5Ω		21A-12919		
L36	RF Coil	46Ω	10.5Ω	21B-12921	14-1072	
L37	Osc. Coil	6Ω		21A-12920	14-1073	
L38	1st IF Trans.	16Ω	16Ω	20C-12922-1		
L39	2nd IF Trans.	16Ω	16Ω	20C-12922-2	16-6667	

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					DUMONT PART No.		
M9	Bayonet	6-8	.25	Blue	39-4		Type #44 (AM Dial) 120V., 6W (Phono Compartment)
M10	Bayonet	120					

PHONO CARTRIDGE and NEEDLE

ITEM No.	DUMONT PART No.	REPLACEMENT DATA				REMARKS
		ASTATIC PART No.		SHURE PART No.		
		CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	
M11	V-45					

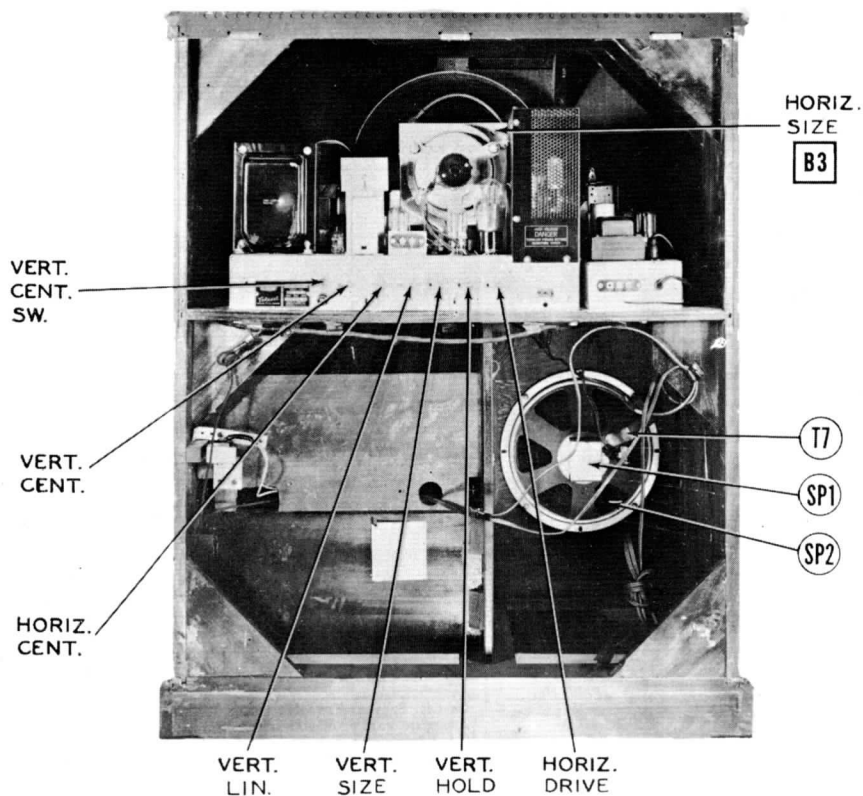
MISCELLANEOUS

ITEM No.	PART NAME	DUMONT PART No.	NOTES
M12	Switch		On-Off, Speaker Transfer Alternate Part # 3C-12987 (21-387MMF) (21-387MMF) (34-212MMF)
M13	Tuning Cap.	3C-12714	
M14	Switch Dial Assembly	15B-12984-101	Phono Compartment Light

DISASSEMBLY INSTRUCTIONS

1. Loosen screw holding TV tuning knob. Remove knob.
2. Remove four push-on type control knobs.
3. Remove seven screws holding rear cover. Open cover.
4. Disconnect speaker lead plug connecting TV chassis with AM chassis.
5. Remove tuning indicator from clamp.
6. Remove four 7/16" hex head bolts holding TV chassis. Remove chassis.
7. Loosen screw holding AM tuning knob. Remove knob.
8. Remove three push-on type AM control knobs.
9. Remove phono power plug from AM chassis.
10. Disconnect speaker plug.
11. Loosen two screws holding loop antenna leads. Remove leads.
12. Remove two 7/16" hex head bolts holding AM chassis. Remove chassis.
13. Remove four 11/32" hex nuts holding speaker. Remove speaker.

DUMONT
MODEL RAI03 (Ch. 7040A1, 7040A2)



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Adjust the horizontal frequency slug (B1) to the mid-position between the two points where the picture falls into synchronism, not out of synchronism.

Turn the horizontal position control until the right side of the raster is visible.

Turn up the brightness, and reduce the contrast until the normally blanked edge of the raster is visible.

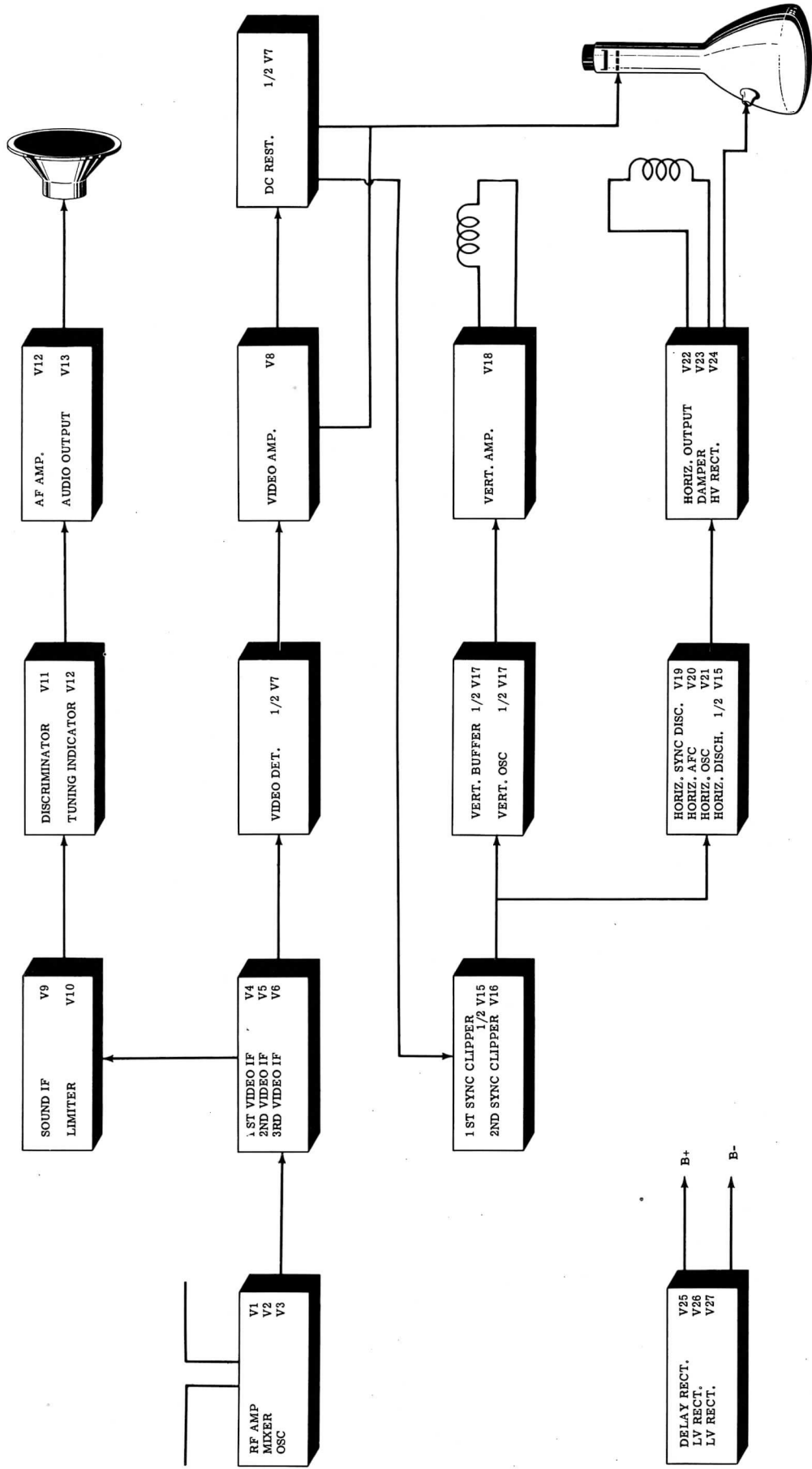
There should be a vertical gray strip about 1/4 inch wide at the right edge of the raster adjacent to the picture. Still further to the right there may be a darker strip. If the darker strip is visible, and is over 3/16 inch wide, or if the lighter strip is not present, the phasing control (B2) is not properly adjusted. B2 should be adjusted so the left edge of the darker strip is at the extreme right edge of the raster, (almost to the point of disappearing).

HORIZONTAL LINEARITY ADJUSTMENTS

The horizontal drive control has the effect of spreading or compressing the right side of the picture. This control is pre-set at the factory and normally will not require adjustment in the field.

Adjust the horizontal size slug (B3) until the picture fills the mask horizontally.

Adjust the horizontal linearity slug (B4) until the picture is symmetrical from left to right.



BLOCK DIAGRAM