

DUMONT
MODELS RA-160, RA-162

DUMONT RA-162 (WHITEHALL II)			
TRADE NAME	Dumont Models RA-160-A1 (Devon), RA-162-B1 (Wickford), RA-162-B4 (Banbury), RA-162-B5 (Flanders) RA-162-B6 (Wimbledon), RA-162-B7 (Whitehall II), RA-162-B21 Thru B26 (Banbury) *		
MANUFACTURER	Allen B Dumont Laboratories Inc., 2 Main St., Passaic, N.J.		
TYPE SET	Television Receiver		
TUBES	Twenty-six		
POWER SUPPLY	110-120 Volts AC-60Cycle	RATING	2.6 A.n.p @ 117 Volts AC
TUNING RANGE—	Channels 2 thru 13		
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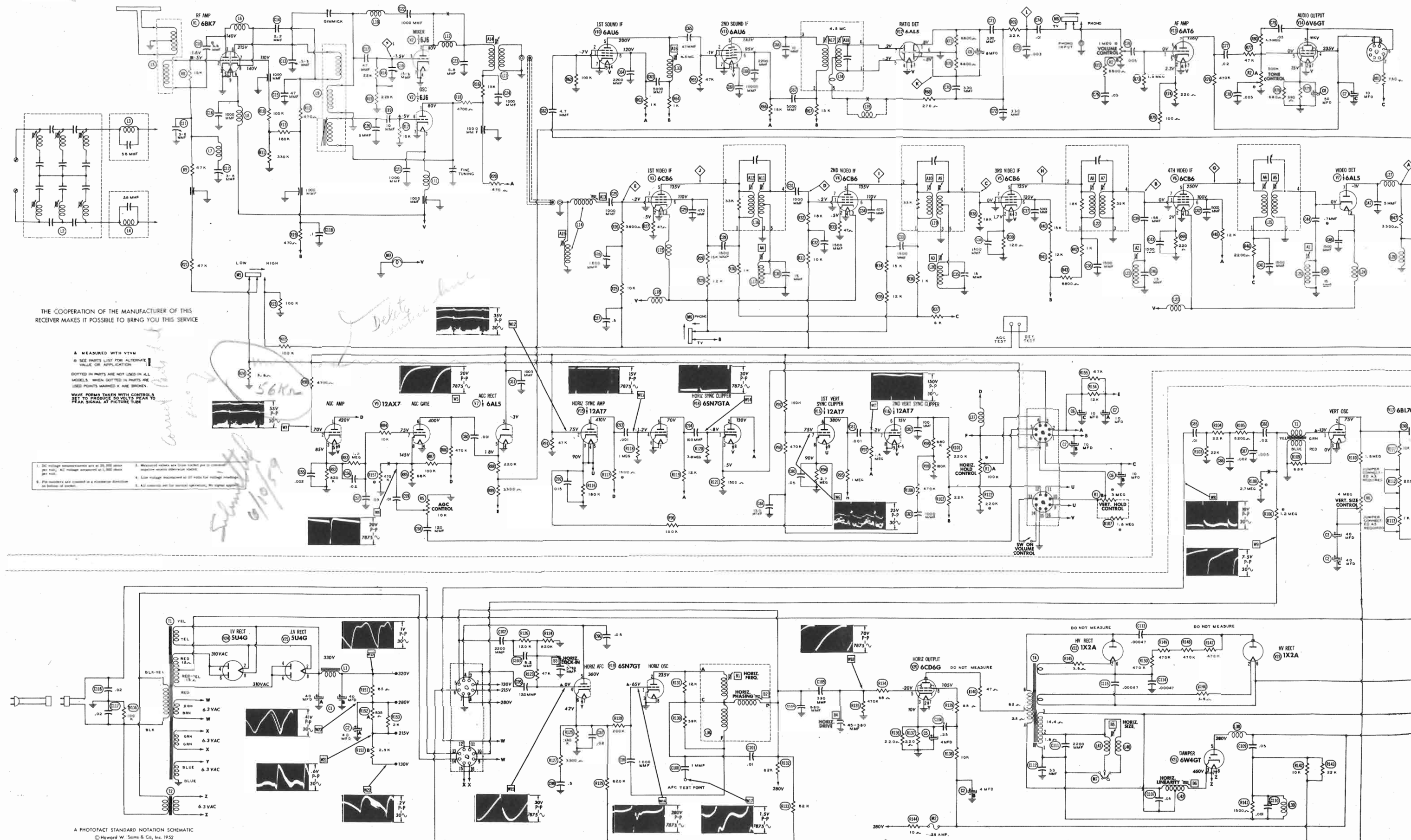
* Model number designated by color of door panels.

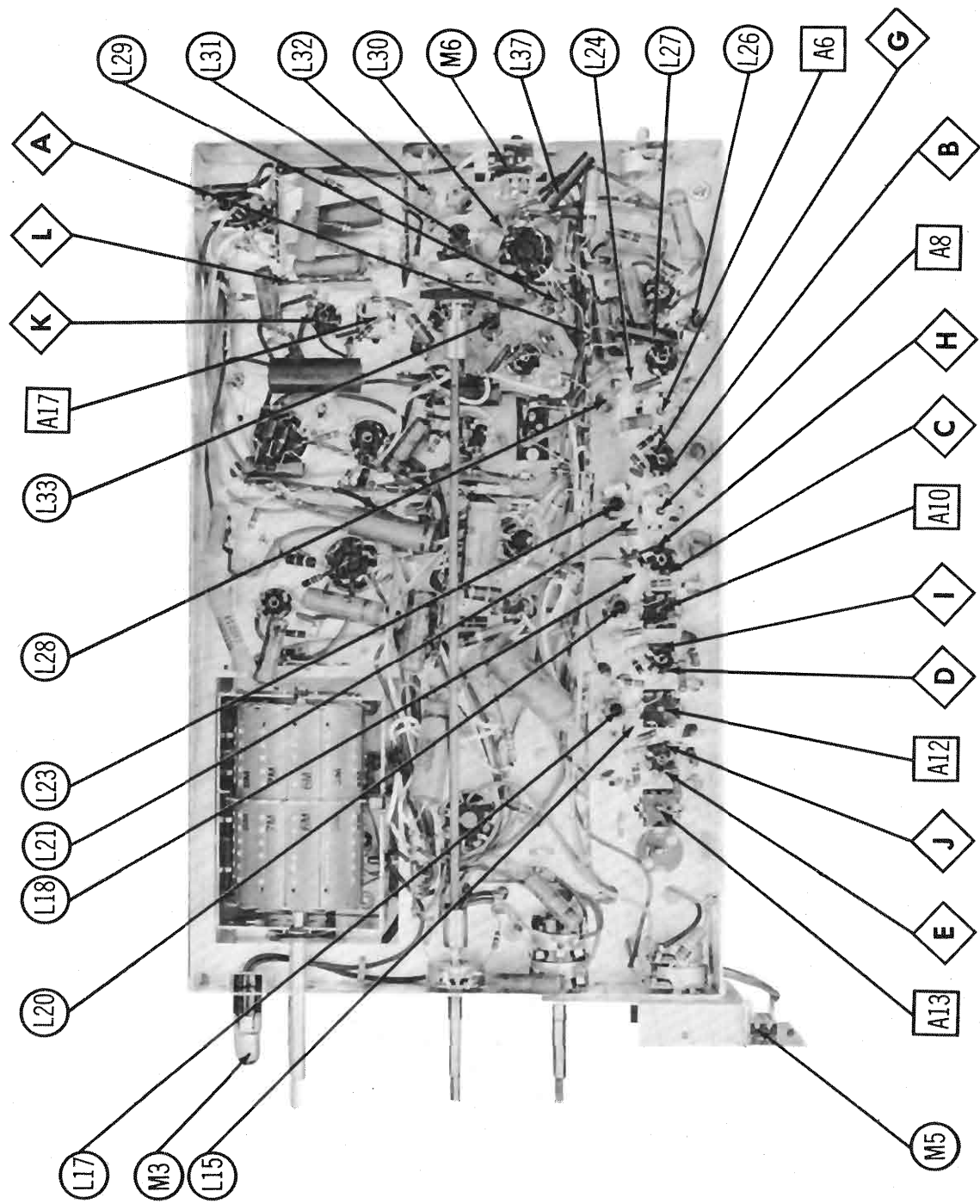
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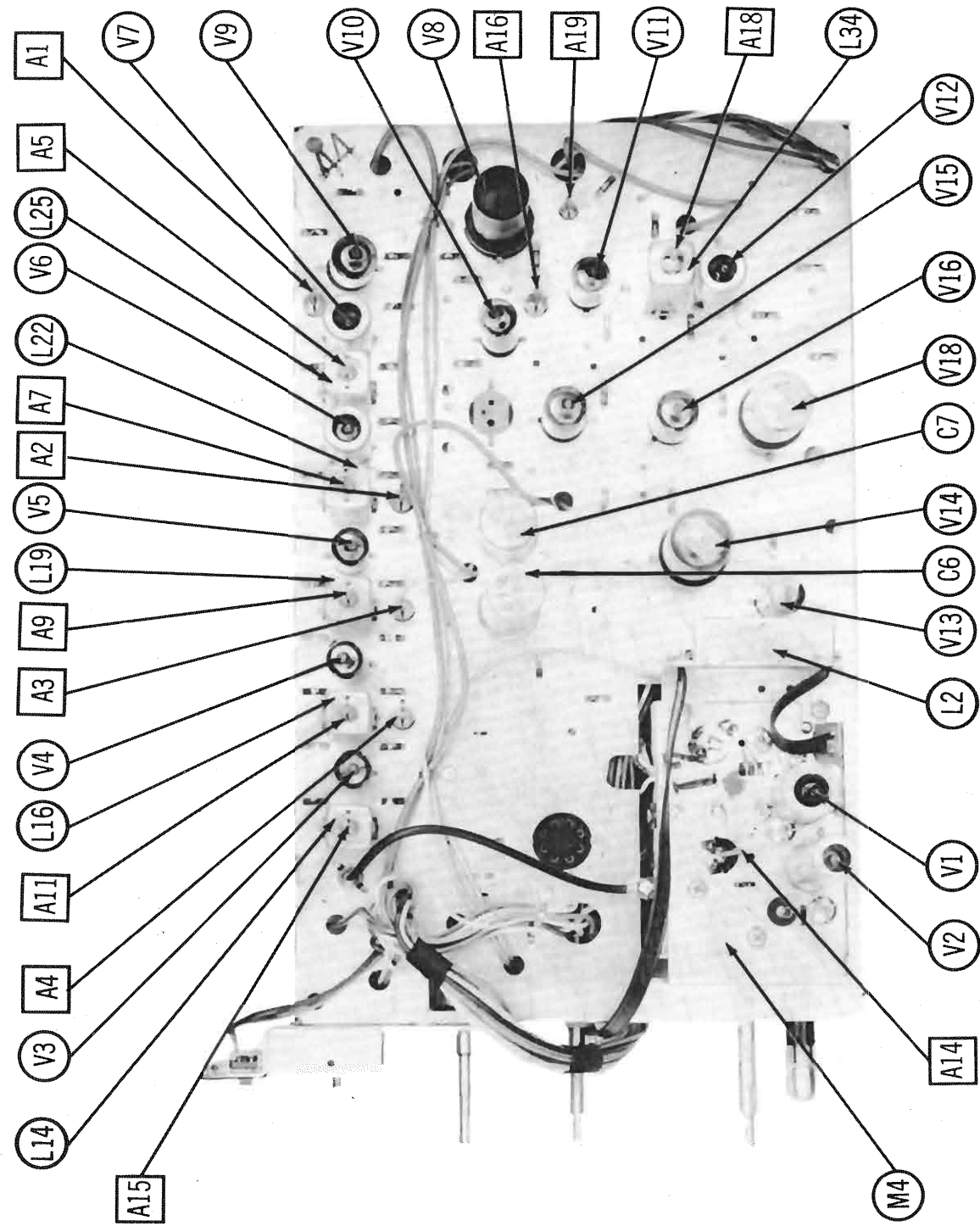
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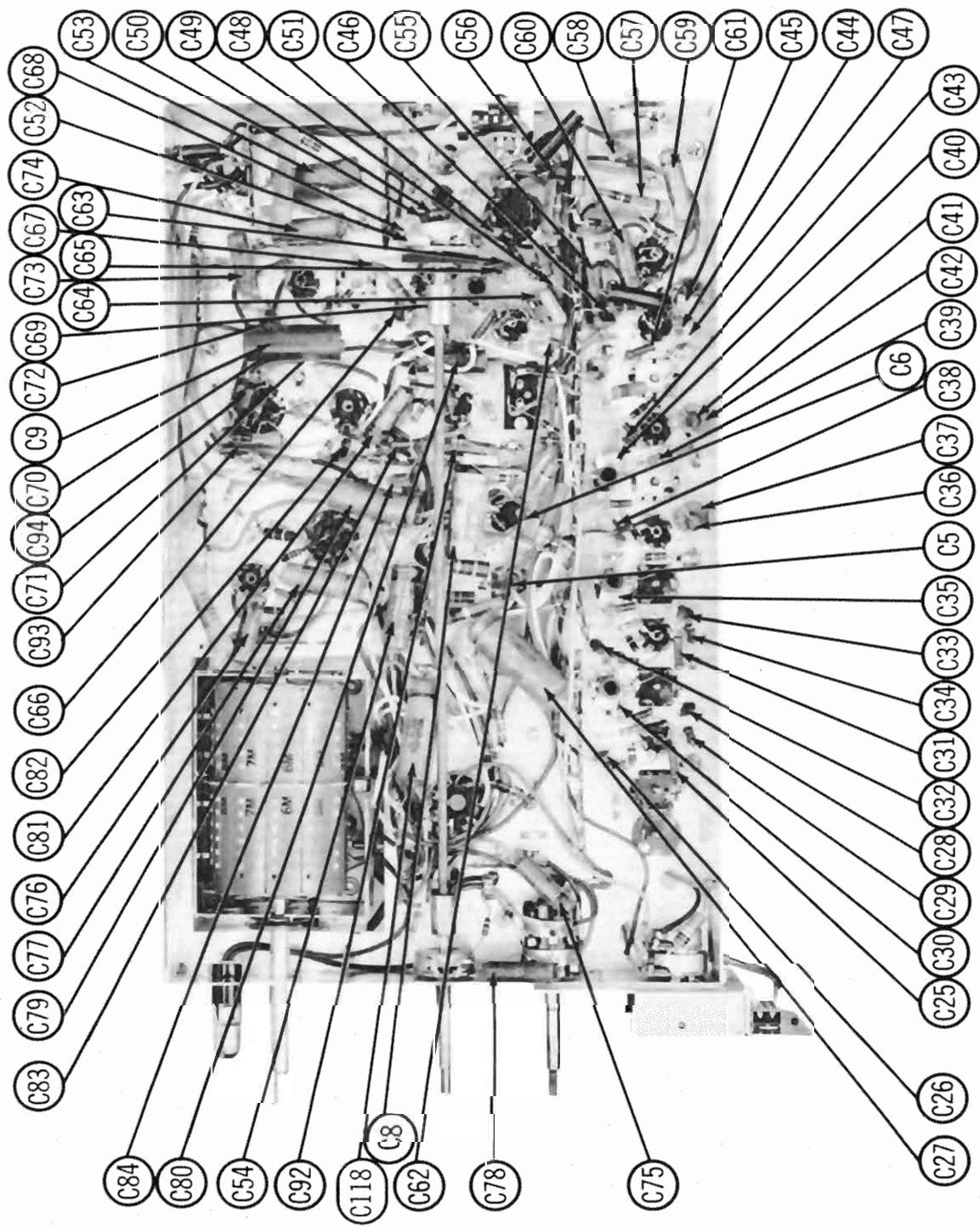


RF-IF CHASSIS- BOTTOM VIEW INDUCTOR AND ALIGNMENT IDENTIFICATION

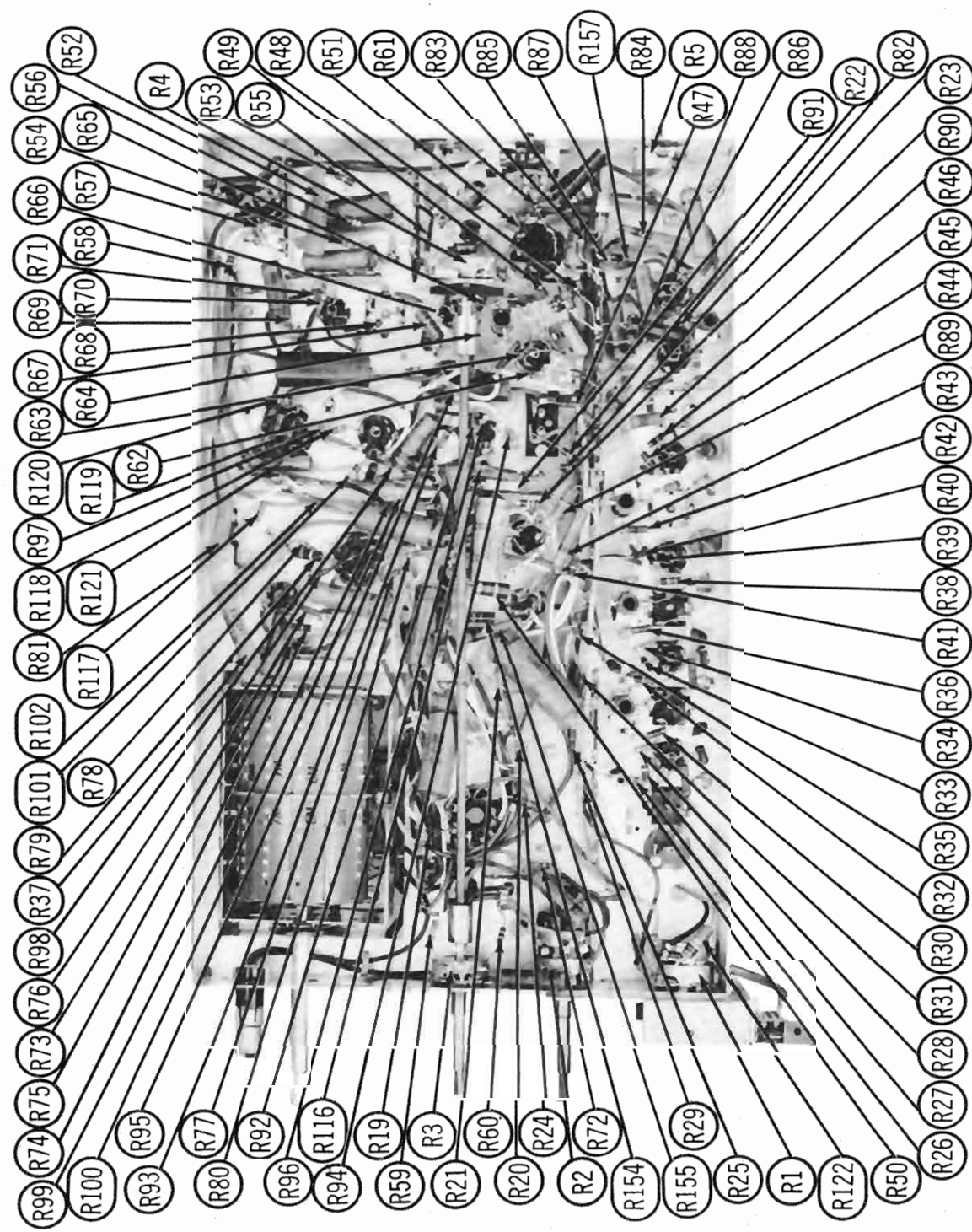


RF-IF CHASSIS-TOP VIEW

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RF-IF CHASSIS-BOTTOM VIEW-CAPACITOR IDENTIFICATION



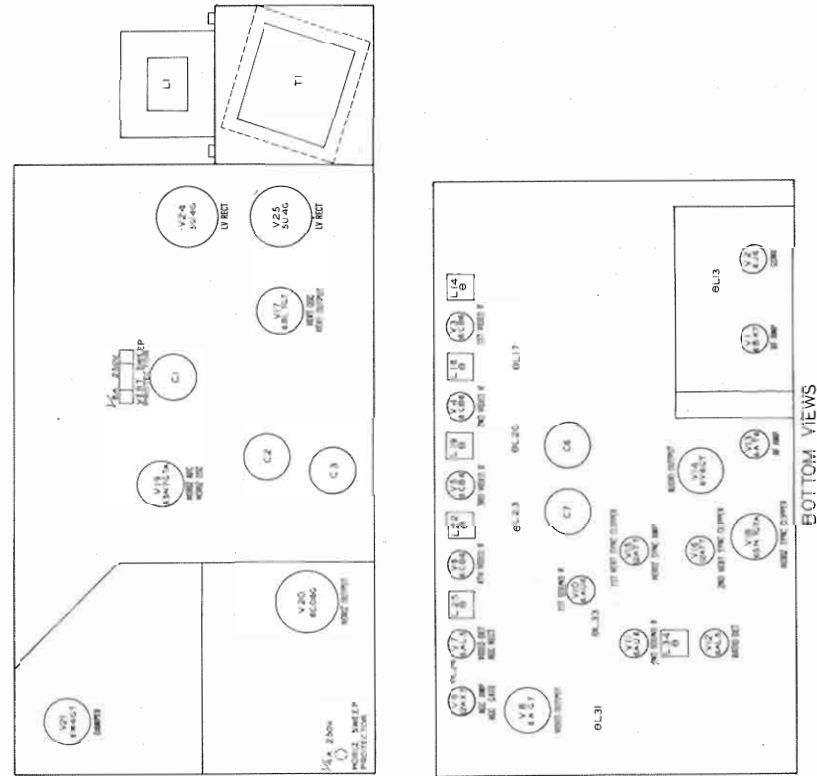
RF-IF CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATION

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RESISTANCE MEASUREMENTS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BK7	INF	200KΩ	0Ω	.1Ω	0Ω	†1.6KΩ	†200KΩ	INF	0Ω
V 2	6J6	†8.2KΩ	†19KΩ	.1Ω	0Ω	220KΩ	10KΩ	0Ω		
V 3	6CB6	214KΩ	47Ω	.3Ω	0Ω	†7.1KΩ	†27KΩ	0Ω		
V 4	6CB6	228KΩ	47Ω	.2Ω	0Ω	†7.1KΩ	†27KΩ	0Ω		
V 5	6CB6	.1Ω	120Ω	.1Ω	0Ω	†8.4KΩ	†27KΩ	0Ω		
V 6	6CB6	.2Ω	220Ω	.2Ω	0Ω	†2.3KΩ	†15KΩ	0Ω		
V 7	6AL5	.2Ω	200KΩ	.3Ω	0Ω	220KΩ	0Ω	3.3KΩ		
V 8	6AG7	0Ω	0Ω	0Ω	3.3KΩ	22Ω	†18KΩ	.1Ω	†5KΩ	
V 9	12AX7	#6.9KΩ	†20KΩ	820KΩ	0Ω	0Ω	#470KΩ	2Meg	50KΩ	.1Ω
V 10	6AU6	100KΩ	0Ω	0Ω	.1Ω	†1.6KΩ	†4.5KΩ	0Ω		
V 11	6AU6	47KΩ	0Ω	0Ω	.1Ω	†16KΩ	†21KΩ	0Ω		
V 12	6AL5	6.8KΩ	6.8KΩ	.1Ω	0Ω	INF	0Ω	INF		
V 13	6AT6	1.5Meg	220Ω	.1Ω	0Ω	INF	INF	†470KΩ		
V 14	6V6GT	0Ω	0Ω	†1.3KΩ	†890Ω	500KΩ	547KΩ	.1Ω	250Ω	
V 15	12AT7	#8.4KΩ	†15KΩ	180KΩ	†0Ω	†0Ω	#1Meg	150KΩ	270KΩ	†.2Ω
V 16	12AT7	INF	INF	INF	.1Ω	.1Ω	†190KΩ	†1.5Meg	0Ω	0Ω
V 17	6BL7GT	1.2Meg	#3.8Meg	164Ω	2.2Meg	†651Ω	1KΩ	.1Ω	0Ω	
V 18	6SN7GTA	3.9Meg	†3.5KΩ	1.5KΩ	1Meg	†15KΩ	0Ω	0Ω	.1Ω	
V 19	6SN7GTA	430KΩ	†60KΩ	0Ω	860KΩ	#50KΩ	220KΩ	.1Ω	0Ω	
V 20	6CD6G	INF	0Ω	110Ω	INF	470KΩ	†10KΩ	.1Ω	†10KΩ	TOP CAP #80Ω
V 21	6W4GT	INF	INF	70KΩ	INF	†150Ω	INF	#0Ω	#.3Ω	
V 22	1X2A	PINS 1 - 9 HAVE INF RESISTANCE								TOP CAP #98Ω
V 23	1 X 2A	PINS 1-9 HAVE INF RESISTANCE								TOP CAP #1NF
V 24	5U4G	INF	10KΩ	INF	14Ω	INF	14Ω	INF	10KΩ	
V 25	5U4G	INF	10KΩ	INF	14Ω	INF	14Ω	INF	10KΩ	
V 26	21KP4A	0Ω	550KΩ	Pin 10 #6.9KΩ	Pin 11 160KΩ	Pin 12 .1Ω				

ALL CONTROLS SET FOR NORMAL OPERATION. NO SIGNAL APPLIED
HI-LO SIGNAL SWITCH IN "HI" POSITION
SIZE SWITCH IN "CENTER" POSITION
† MEASURED FROM PIN 2 OF V24 & PIN 8 OF V25
MEASURED FROM PIN 3 OF V 21
† MEASURED FROM PINS 4 & 5 OF V 15



ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT							
Removal of damper tube V21 will eliminate the high voltage shock hazard and disable the AGC.							
VIDEO IF ALIGNMENT							
Remove the converter tube, V2, and replace with a 6J6 which has pin 1 removed. This will disable the local oscillator and reduce the possibility of erroneous indications. Provision is made whereby the band pass of each Video IF Transformer may be varied. This is accomplished by adjusting the position of the wire which enters the bottom of the can. Sliding the wire in or out varies the bandpass of the transformer. This adjustment should not be made until the transformer slugs have been set to bring the curve to approximately the correct frequency. After the bandpass adjustment a recheck of the slug setting should be made. 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
1. .001MFD	High side to point A. Low side to chassis.	Not Used	41.25MC (400% AM Mod.)	Any	Vert. amp. to point A. Low side to chassis.	A1, A2	Adjust for MINIMUM 400% response.
2. "	High side to point B. Low side to chassis.	"	47.25MC (400% AM Mod.)	"	"	A3, A4	"
3. "	High side to point C. Low side to chassis.	43.5MC (10MC Swp)	39.75MC 41.25MC 42.25MC 45.75MC 47.25MC	"	"	A5, A6	Adjust for response curve as per fig. 1. Make bandpass adjustment if necessary.
4. "	High side to point D. Low side to chassis.	"	39.75MC 41.25MC 42.5MC 45.75MC 47.25MC	"	Vert. amp. thru detector probe (fig. 6) to point D. Low side to chassis.	A7, A8	Adjust for response curve as per fig. 2. Make bandpass adjustment if necessary.
5. "	High side to point E. Low side to chassis.	"	39.75MC 41.25MC 42.5MC 43.5MC 45.75MC 47.25MC	"	Vert. amp. thru detector probe to point E. Low side to chassis.	A9, A10	Adjust for response curve as per fig. 3. Make bandpass adjustment if necessary.
6. "	High side to point F. Low side to chassis.	"	39.75MC 41.25MC 42.5MC 44.5MC 45.75MC 47.25MC	"	Vert. amp. thru detector probe to point F. Low side to chassis.	A11, A12	Adjust for response curve as per fig. 4. Make band pass adjustment if necessary.
7. "	High side to point G. Low side to chassis.	"	39.25MC 41.25MC 45.75MC 47.25MC	"	Vert. amp. thru detector probe to point G. Low side to chassis.	A13, A14 A15	Remove dummy converter tube, V2, wrap fine wire around pin 5, replace tube in socket and connect signal generator to wire. Adjust A13 and A14 for response as per fig. 5. Adjust A15 for bandpass if necessary.

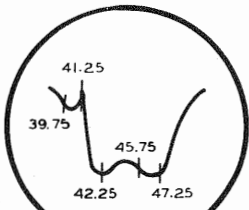


FIG. 1

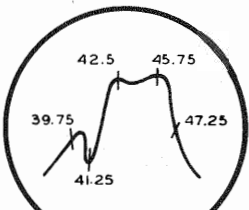


FIG. 2

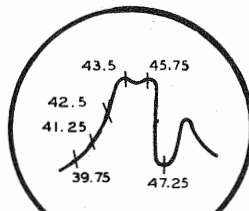


FIG. 3

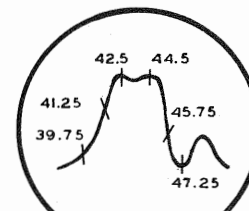


FIG. 4

ALIGNMENT INSTRUCTIONS (CONT.)

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
.001MFD	High side to point A . Low side to chassis.	4.5MC (Unmod.)	Any	DC probe to point K . Common to chassis.	A16, A17	Adjust for maximum deflection.
"	"	"	"	DC probe to point L . Common to chassis.	A18	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE							
Use frequency modulated signal with 60% modulation and 450 KC Sweep. Use 120% sawtooth voltage in scope for horizontal deflection.							
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
.001MFD	High side to point A . Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. amp. to point K . Low side to chassis.	A16, A17	Disconnect stabilizer capacitor C9. Adjust for curve of maximum amplitude and symmetry as per fig. 7. Keep generator output low.
"	"	"	"	"	Vert. amp. to point L . Low side to chassis.	A18	Reconnect capacitor C9. Adjust so that 4.5MC occurs at center of crossover lines as per fig. 8. SLIGHTLY retouch A17 for maximum amplitude and straightness of crossover lines.

4.5MC TRAP ALIGNMENT							
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
.001MFD	High side to point A . Low side to chassis.	Not used	4.5MC (400% Mod.)	Any	Vert. amp. thru detector probe to pin 11 of picture tube	A19	Adjust for MINIMUM 400% indication.

THE 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.

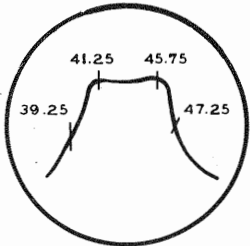


FIG. 5

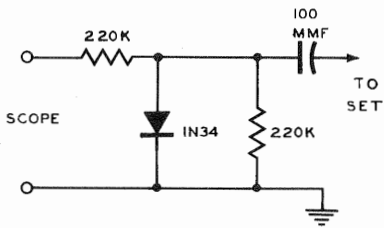


FIG. 6

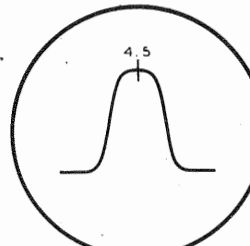


FIG. 7

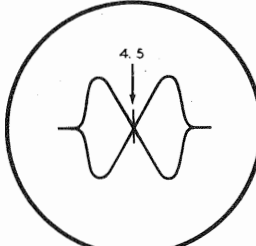
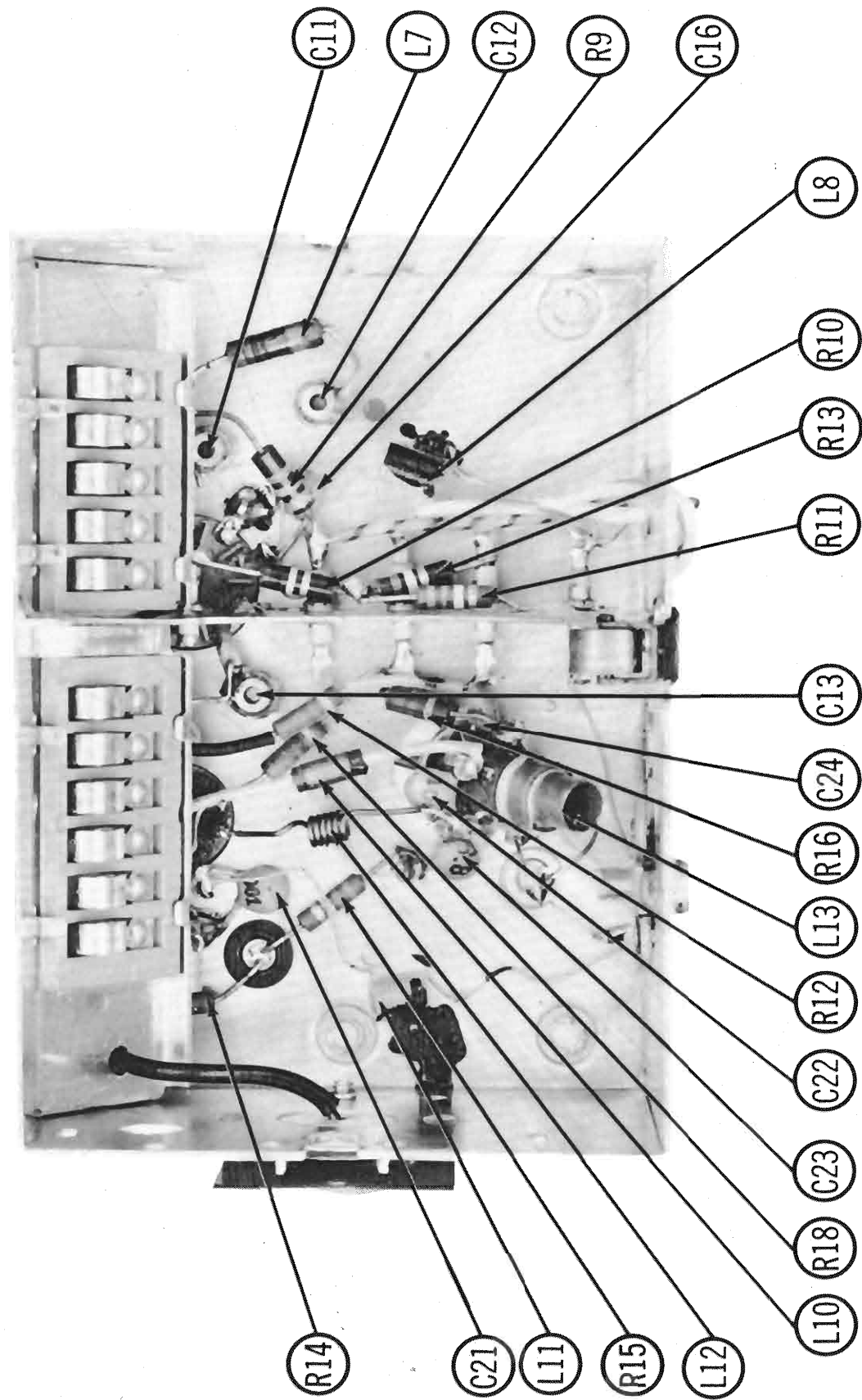
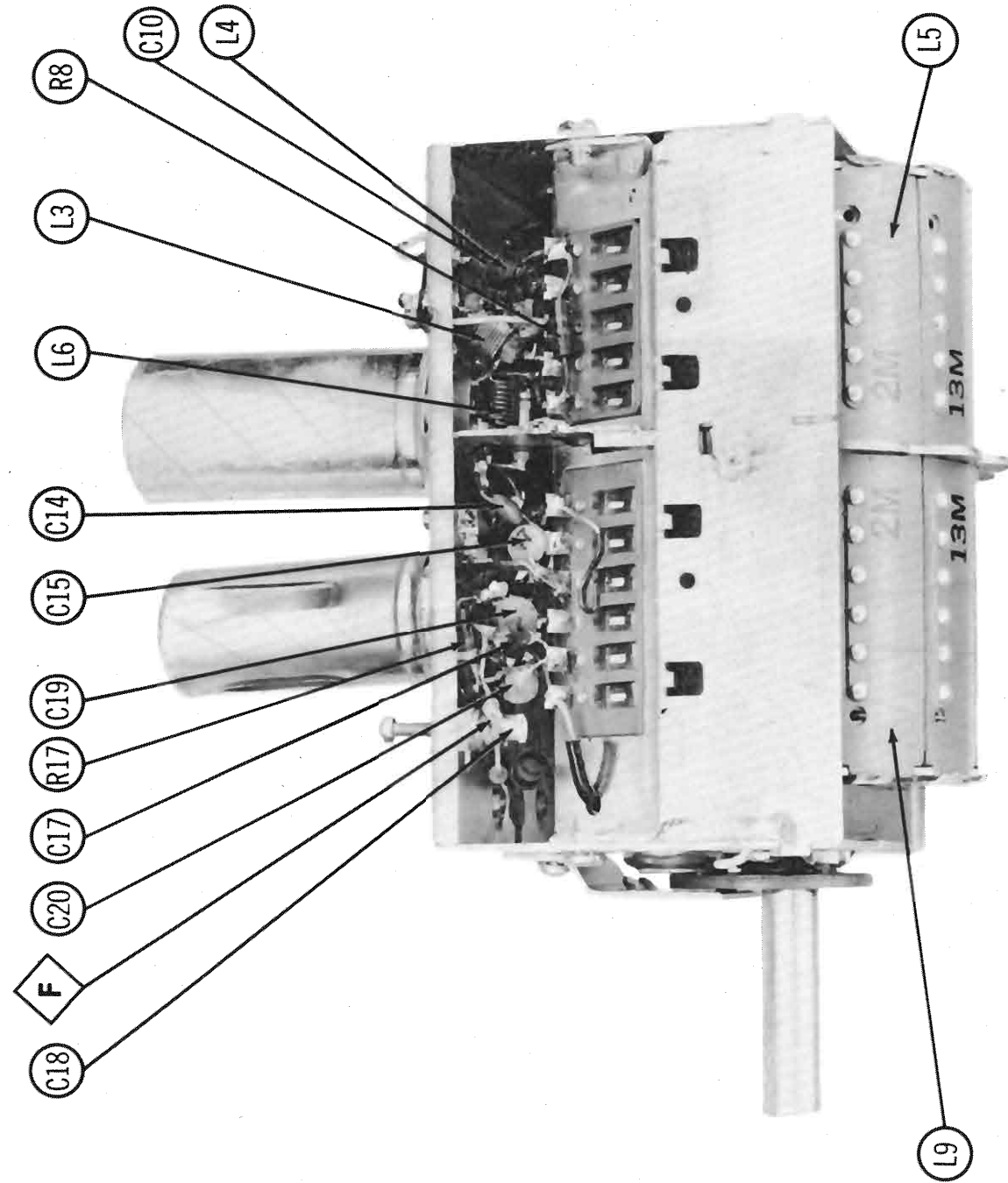


FIG. 8

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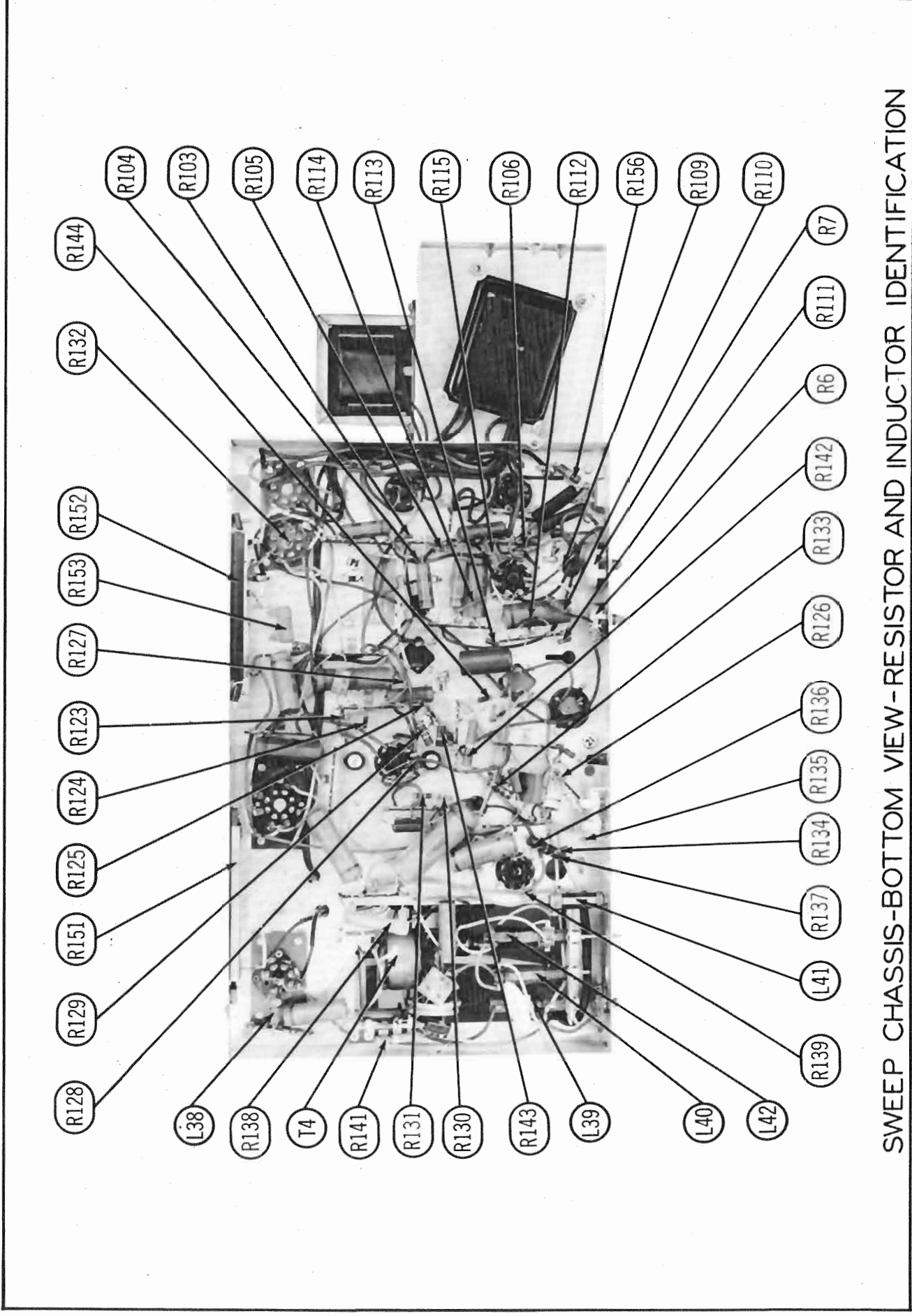
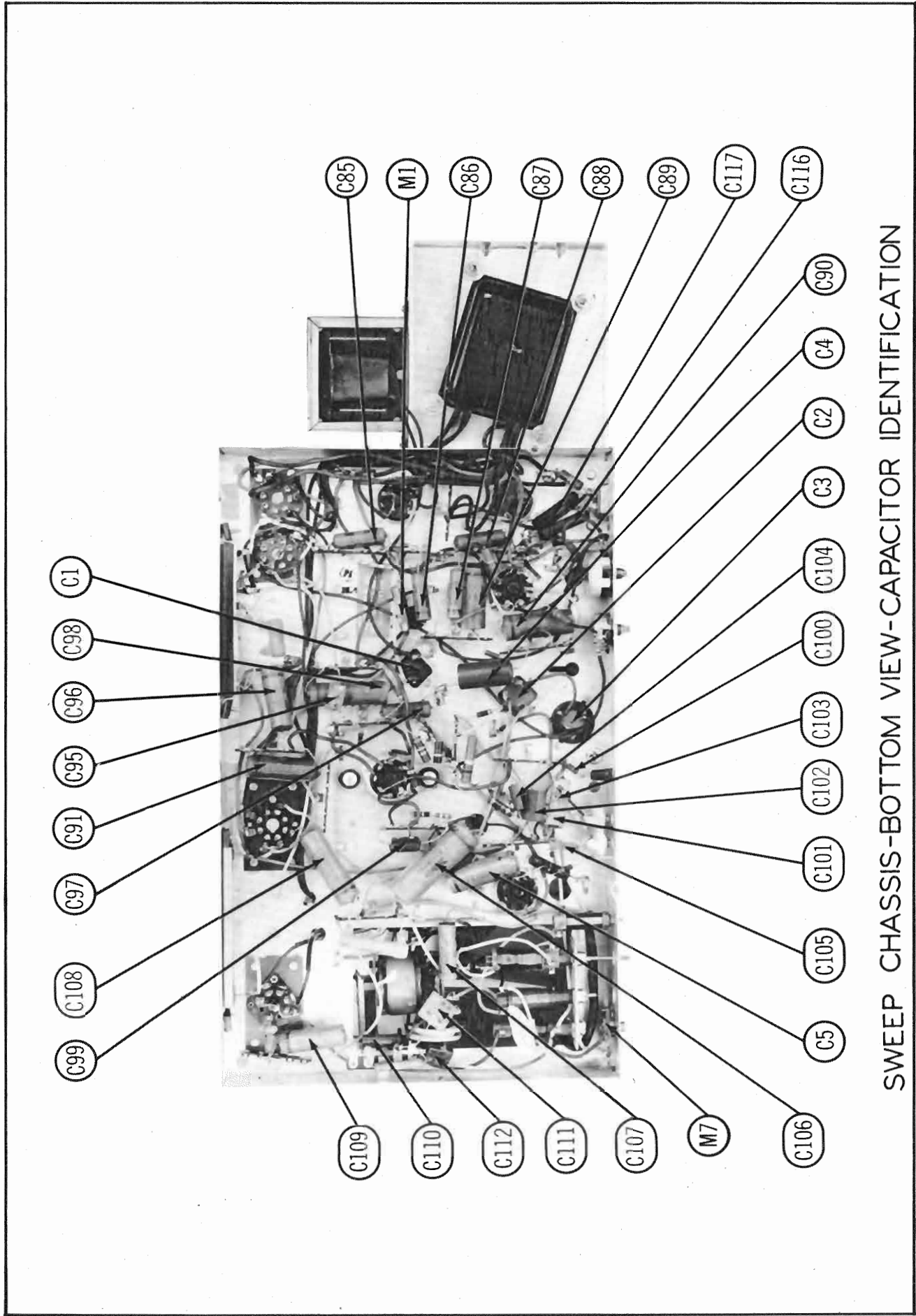


RF TUNER-BOTTOM VIEW



RF TUNER-RIGHT SIDE

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MODELS RA-160, RA-162



MODELS RA-160, RA-162

DUMONT

AGC ADJUSTMENT

SHOP ADJUSTMENT

- 1. Turn the receiver on and allow to warm up for a least 10 minutes.
- 2. Connect the DC probe of a VTVM to point A . Connect the common lead to chassis.
- 3. Set HIGH-LOW signal switch to high position .
- 4. Tune to all available channels and note meter reading for each.
- 5. Turn receiver to channel giving highest meter reading. Adjust the AGC control for -2 volts.
- 6. Check all available channels for increase in meter reading. If any increase is noted readjust the AGC control for 2 volts on channel giving highest reading.

FIELD ADJUSTMENT

- 1. Turn the receiver on and allow to warm up for a least 10 minutes.
- 2. Set HIGH-LOW signal switch in low position.
- 3. If all signals received are weak turn to strongest signal received. If both strong and weak signals are received tune to the strongest of the weak signals.
- 4. Turn AGC control clockwise until picture overloads, then counter clockwise until overloading disappears and picture is steady.

DISASSEMBLY INSTRUCTIONS

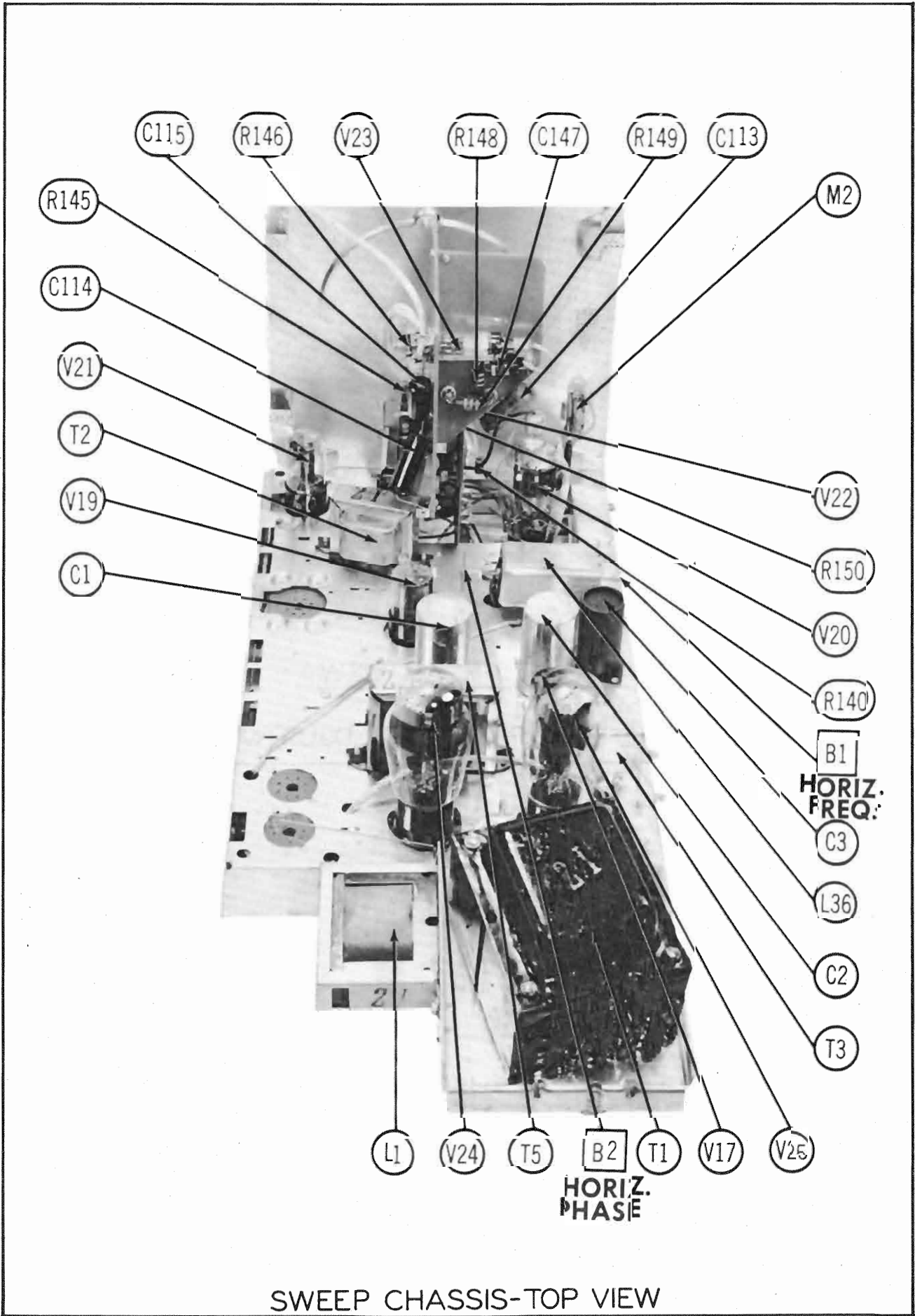
RF-IF CHASSIS

- 1. Remove 7 push on type control knobs from front panel.
- 2. Remove 9 wood screws. Remove rear cover.
- 3. Disconnect Crt. socket and speaker.
- 4. Remove 2 metal screws. Remove antenna bracket.
- 5. Disconnect inter-connecting cable from sweep chassis.
- 6. Remove 2 metal screws & clamps. Remove chassis. (Hold chassis while removing screws)
- 7. Remove 4 speaker nuts. Remove speaker.

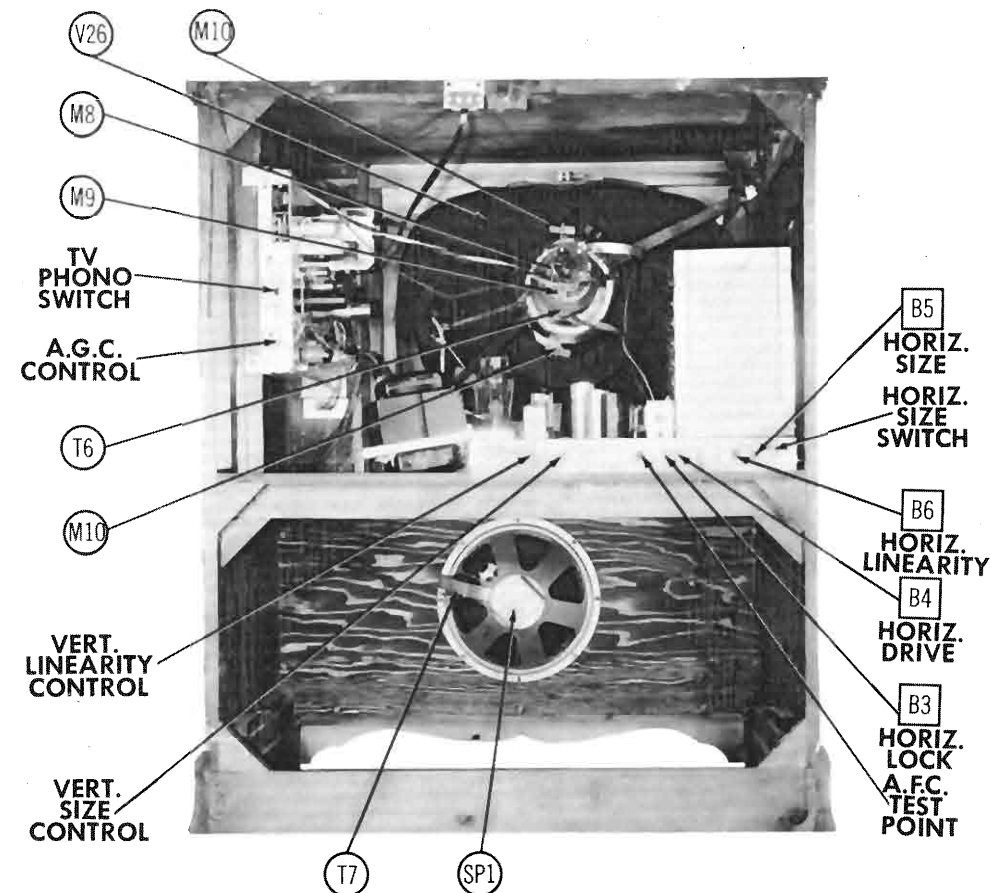
SWEEP CHASSIS

- 1. Disconnect deflection plug & HV lead.
- 2. Remove ground lead from Crt. Bracket.
- 3. Remove Crt ground from Crt. support.
- 4. Remove 5 chassis bolts. Remove chassis.

NOTE: FOR PICTURE TUBE REMOVAL IT IS NECESSARY TO REMOVE SWEEP CHASSIS AS OUTLINED ABOVE.



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CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Turn the horizontal hold control fully clockwise.

Turn the horizontal lock-in trimmer (B3) fully clockwise, then counter clockwise approximately $2\frac{1}{2}$ turns.

Turn the horizontal-phasing adjustment (B2) fully counter clockwise.

Adjust the horizontal frequency slug (B1) until the picture synchronizes horizontally.

Connect the vertical input of an oscilloscope between the AFC test jack and chassis.

Adjust B2 for a waveform as shown in fig. 9.

If necessary, keep the picture in sync by adjusting B1.

Adjust B1 so that the picture moves to the right of the raster, just to the point of losing sync.

Turn the horizontal hold control to the mid-position of its range.

Set the horizontal size switch to the position which gives the most nearly correct horizontal size.

Adjust the horizontal size slug (B5) for a picture slightly larger than enough to fill the picture mask horizontally.

If the picture is too wide and cannot be reduced enough by means of B5 and the horizontal size switch, adjust the horizontal drive trimmer (B4) slowly clockwise from the fully counter clockwise position until desired size is obtained.

Do not adjust to the point where marked vertical size increase occurs.

Adjust the horizontal linearity slug (B6) for a picture that is symmetrical from left to right.

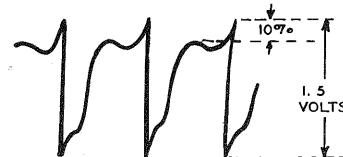


FIG.9

MISCELLANEOUS ADJUSTMENTS

ION TRAP MAGNET ADJUSTMENT

The Ion Trap magnet of this receiver is provided with two shunts for varying the strength of the magnet as an aid to securing better focus and maximum brightness.

Adjust as follows:

1. With receiver turned off place the magnet on the neck of the tube as in fig. 10.
2. Turn the set on and allow 30 seconds to warm up. Set contrast control at the mid-point of its range. Set the brightness for a raster that is just visible on the screen.
3. Slide magnet slowly back and forth on neck of tube and at the same time rotate it clockwise and counter clockwise until a position of maximum brightness is found. Then turn up the brightness control to normal viewing position and readjust magnet as before.
4. If magnet is not now in the position as shown in fig. 10, place one of the shunts on the magnet and repeat the above procedure.

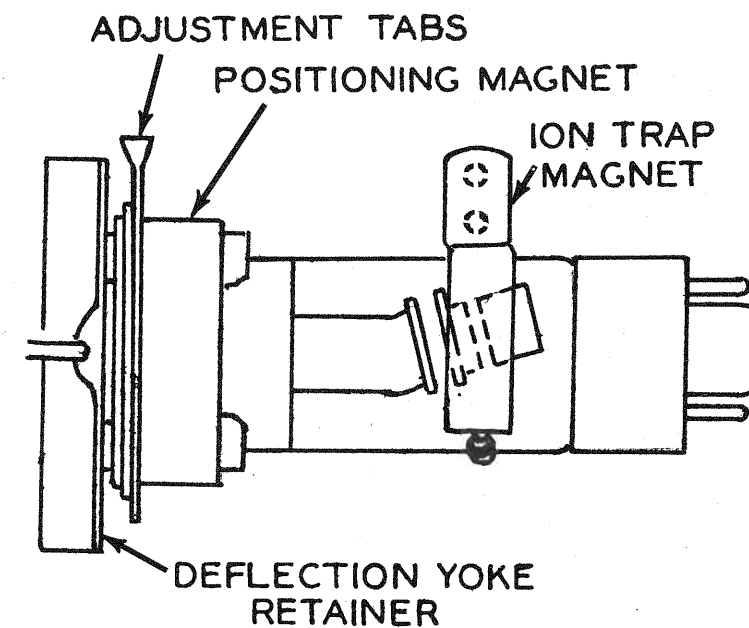


FIG.10

PINCUSHION MAGNET ADJUSTMENT

To eliminate any pincushion of the raster the following procedure should be used:

1. Reduce the vertical size until the top of the raster is seen.
2. Pull the upper correction magnet fully back toward the rear of the picture tube and note the point of maximum pin cushioning.
3. Tilt the upper correction magnet fully forward and slide the magnet assembly to right or left until the magnets upward pull is applied at the point of maximum pin cushioning as noted in Step.2.
4. Tilt the upper correction magnet away from the picture tube until top of raster straightens out.
5. Repeat above procedure with lower correction magnet.
6. Readjust vertical size control for proper height.

PARTS LIST AND DESCRIPTIONS (Continued)

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					DUMONT PART No.		
M3	Bayonet	7.5	.2	White	12901370		Type No. #51

MISCELLANEOUS

ITEM No.	PART NAME	DUMONT PART No.	NOTES
M4	RF Tuner	21009121	
M5	Switch	05004330	Hi-Lo Signal
M6	Switch	05005120	TV-Phono
M7	Switch	05003431	Horiz. Size
M8	Centering Magnet	29000651	
M9A	Ion. Trap	29000661	
B	Ion. Trap Shunt	28001381	"U" Shunt
C	Ion. Trap Shunt	28001391	"L" Shunt
M10	Magnets	35017217	Anti-Pin Cushion Correction (2) Required
B3, B4	Trimmer	03114440	Dual Horiz. Lock 5-10MMF, Horiz. Drive 45-380MMF
	Ant Coils	40011182	Channel #3
	Ant Coils	40011183	Channel #4
	Ant Coils	40011184	Channel #5
	Ant Coils	40011185	Channel #6
	Ant Coils	40011186	Channel #7
	Ant Coils	40011187	Channel #8
	Ant Coils	40011188	Channel #9
	Ant Coils	40011189	Channel #10
	Ant Coils	40011191	Channel #11
	Ant Coils	40011192	Channel #12
	Ant Coils	40011193	Channel #13
	RF, Mixer Grid & Osc. Coil	40011162	Channel #3
	RF, Mixer Grid & Osc. Coil	40011163	Channel #4
	RF, Mixer Grid & Osc. Coil	40011164	Channel #5
	RF, Mixer Grid & Osc. Coil	40011165	Channel #6
	RF, Mixer Grid & Osc. Coil	40011166	Channel #7
	RF, Mixer Grid & Osc. Coil	40011167	Channel #8
	RF, Mixer Grid & Osc. Coil	40011168	Channel #9
	RF, Mixer Grid & Osc. Coil	40011169	Channel #10
	RF, Mixer Grid & Osc. Coil	40011171	Channel #11
	RF, Mixer Grid & Osc. Coil	40011172	Channel #12
	RF, Mixer Grid & Osc. Coil	40011173	Channel #13
	Knob	45001901	Control (Mahogany)
	Knob	45001902	Control (Blonde)
	Knob	45001971	Control (Mahogany)
	Knob	45001972	Control (Blonde)
	Knob	45003651	Fine tuning
	Knob	45003661	Channel Selector (Mahogany)
	Knob	45003662	Channel Selector (Blonde)
	Knob	45003671	Horiz. Hold (Mahogany)
	Knob	45003672	Horiz. Hold (Blonde)
	Washer	62000603	Felt 2 Required
	Safety Glass	45003731	Model RA-160
	Safety Glass	45003741	Model RA-162
	Cover	31017701	Vert & Horiz. Hold & Hi-Lo Signal Cover
	Back Panel	32002431	Model RA-162
	Cup	30014011	Back Panel For Picture Tube (Model RA-162)
	Back Panel	32002471	Includes Picture Tube Cover (Model RA-160)
	Mask Assembly	64006403	Model RA-160
	Mask Assembly	64006404	Model RA-162
	Mask	64006411	17"
	Mask	64006421	21"
	Gasket	70000800	Rubber

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	6BK7	6BK7	9AJ	
V2	Converter	6J6	6J6	7BF	
V3	1st Video IF Ampl.	6CB6	6CB6	7CM	
V4	2nd Video IF Ampl.	6CB6	6CB6	7CM	
V5	3rd Video IF Ampl.	6CB6	6CB6	7CM	
V6	4th Video IF Ampl.	6CB6	6CB6	7CM	
V7	Video Detector	6AL5	6AL5	6BT	
V8	AGC Rectifier	6AG7	6AG7	8Y	
V9	AGC Amplifier	12AX7	12AX7	9A	
V10	AGC Gate	6AU6	6AU6	7BK	
V11	1st Sound IF Ampl.	6AU6	6AU6	7BK	
V12	2nd Sound IF Ampl.	6AL5	6AL5	6BT	
V13	Ratio Detector	6AT6	6AT6	7BT	
V14	AF Amplifier	6V6GT	6V6GT	7AC	
V15	Audio Output	12AT7	12AT7	9A	
V16	1st Vert. Sync. Clipper-Horiz. Sync. Amp.	12AT7	12AT7	9A	
V17	2nd Vert. Sync. Clipper	6BL7GT	6BL7GT	8BD	
V18	Vert. Oscillator	6SN7GTA	6SN7GTA	8BD	
V19	Horiz. Sync. Clipper	6SN7GTA	6SN7GTA	8BD	
V20	Horiz. AFC-Horiz. Oscillator	6CD6G	6CD6GT	8BT	
V21	Horiz. Output	6W4GT	6W4GT	8CG	
V22	Damper	1X2A	1X2A	8Y	
V23	HV Rectifier	1X2A	1X2A	8Y	
V24	LV Rectifier	5U4G	5U4G	8Y	
V25	LV Rectifier	5U4G	5U4G	8Y	

CATHODE-RAY TUBE

ITEM No.	DUMONT PART No.	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		SYLVANIA PART No.			
V26A	21KP4A			12C	
B	17KP4A			12C	

CAPACITORS

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

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DUMONT PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	.40	400	03115010	AFH2-72		UPT4445		FP238	TVL-2764	Note 1
B	.40	400								
C2A	.40	400	03116470	AFH3-43		UPT44145		FP376.8	TVL-3785	
B	.40	450								
C	.40	300								
C3	40	300	03116470	AFH3-35		UP4035		FP146	TVL-1621	
C4	25	50	03116750	PRS50/25		BR255A		TC36	TVA-1306	
C5	4	150	03013670	PRS150/4		BR415		TC40	TVA-1402	
C6A	.20	400	03115030	AFH3-35		UP21145		FP376.3	TVL-2750	
B	.10	400							TVA-1709	
C	10	350								
C7A	10	150	03115020	AFH3-30		UPI1145		FP375.8	TVL-3690	
B	.10	400								
C	.10	400								
C8	50	25	03000020	PRS25/50		BR502A		TC29	TVA-1206	
C9	8	100	03016750	PRS150/8		BR815		TC41	TVA-1405	
C10	3-3				829-1C		NP0K-3R6			
C11	3-3				829-1C					
C12	3-8				829-3					
C13	.5-3				TCZ-4.2			CT565A	STCCB-V22	
C14	2.2				D6-47	TM5Q5	NP0K-2R2	IC-5447	SGA-Q4	
C15	47			SI47	DD-10	TM5D1	GPIK-470	IC-521	SHK-D1	
C16	1000			SI47	D6-47	TM5Q5	801-001	IC-5447	SGA-Q4	
C17	47				829-3		GPIK-470	IC-5447	SGA-Q4	
C18	.5-3				TCZ-4.7			CT565A	STCC-Q	
C19	10			SI0NP0	TCZ-4.7		NP0K-100	IC-541	STCC-Q	
C20	5			SI5NP0	TCZ-4.7		NP0K-4R7	IC-555	STCCB-V47	
C21	1000			BPD-04	DD-10	TM5D1	801-001	IC-521	SHK-D1	
C22	1000			BPD-04	DD-10	TM5D1	801-001	IC-521	SHK-D1	
C23	6.8			SI6.8N50	TCZ-4.8		NP0K-6R8	IC-5568	STCCB-V68	
C24	1000			BPD-04	DD-10	TM5D1	801-001	IC-521	SHK-D1	
C25	1000		03015810	SI000	D6-10	TM5D1	801-001	IC-521	SHK-D1	
C26	1500		03017850	BPD-045	DD-15	TM5D15	801-0015	IC-5215	SHK-D15	
C27	.5	200	03002190	P288-5	DD-15	PJ2 P5		PT405	2TM-P5	
C28	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-5215	SHK-D15	
C29	470		03115040	SI470	D6-47	TM5T5	GP2K-471	UC-5347	SGA-T47	
C30	15		03014580		TCZ-15		NP0K-150	UC-521	STCC-Q15	
C31	1000		03015810	SI000	D6-10	TM5D1	801-0015	UC-521	SHK-D1	
C32	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-525	SHK-D15	
C33	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-525	SHK-D15	
C34	470		03115400	SI47	D6-471	TM5T5	GP2K-471	UC-5347	SGA-T47	
C35	15		03014580		TCZ-15		NP0K-150	UC-547	STCC-Q15	
C36	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-5215	SHK-D15	
C37	5000		03015810	BPD-005	DD-502	TM5D5	811-005	DC-525	SHK-D15	
C38	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-5215	SHK-D15	
C39	.68		03014520		TCZ-.68		NP0K-R68			
C40	15		03014580		TCZ-15		NP0K-150			
C41	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-5215	STCC-Q15	
C42	5000		03015810	BPD-005	DD-502	TM5D5	811-005	DC-525	SHK-D15	
C43	1500		03017850	BPD-0015	DD-15	TM5D15	801-0015	DC-5215	SHK-D15	
C44	.7									
C45	15		03014580		TCZ-15		NP0K-150			
C46	1500		03017850	IPD-0015	DD-15	TM5D15	801-0015	DC-5215	STCC-Q15	
C47	5		03014730	SI5NP0	TCZ-4.7		NP0K-050	DC-5215	SHK-D15	
								ZT-555	STCCB-V47	

DUMONT
MODELS RA-160, RA-162

PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (CONT.)									
ITEM No.	RATING CAP.	VOLT	REPLACEMENT DATA					NOTES	
			DUMONT PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.
C48	.02	200	03018470	P288-02	DF-203	PJ282		NP01-470	2TM-S2
C49	.47		03015760		TCZ-47			NP01-470	2TM-S2
C50	.47		03015760		TCZ-47			NP01-470	2TM-S2
C51	.15		03017310	S15	DF-150			GP1K-150	UC-5415
C52	.5		03017330	S15NP0	TCZ-4.7			NP0K-050	2T-555
C53	.1	400	03019260	P488-1	DF-104	PTE4P1		PT401	1TM-P1
C54	.1	400	03019260	P488-1	DF-104	PTE4P1		PT401	1TM-P1
C55	.002	600	03014670	P688-002	D6-202	PTE6D2		GP2-333-202	PT622
C56	.02	200	03018470	P288-02	DF-203	PJ282		NP01-470	2TM-S2
C57	.03	200	03012330	P488-03		PTE6S3		PT413	6TM-S3
C58	.120		03015350	S120	D6-121	TM5T12		GP2K-121	UC-5312
C59	.01	400	03001450	P488-01	D6-103	PTE4S1		GP2-333-103	PT621
C60	.001	600	03014720	P688-001	D6-102	PTE6D1		GP2L-102	UC-521
C61	1000		03015810	S1000	D6-102	TM5D1		NP0K-050	2T-555
C62	4.7		03014560	S15NP0	TCZ-4.7			NP0K-050	2T-555
C63	5000		03015610	BPD-005	D6-502	TM5D5		MCB460	5HK-D5
C64	2200	500	03029480	1464-0025	D6-222	IR5D25		GP2-333-222	MCB460
C65	.47		03015330	S147	D6-470	TM5Q5		GP1K-470	UC-5447
C66	.10		03013060	S100NP0	TCZ-10			NP0K-100	2T-541
C67	5000		03015610	BPD-005	D6-502	TM5D5		811-005	DC-525
C68	2200	500	03029480	1464-0025	D6-222	IR5D25		GP2-333-222	MCB460
C69	10000		03019650	BPD-01	DD-103	TM5S1		821-01	DC-511
C70	.330	500	03020490	1469-00035					
C71	.330	500	03020490	1469-00035					
C72	.330	500	03020490	1469-00035					
C73	.003	600	03015670	P688-003	D6-302	PTE6D3		GP2-333-302	PT623
C74	.01	400	03014900	P488-01	D6-103	PTE4S1		GP2-333-103	PT411
C75	.03	200	03012330	P488-03		PTE6S3		PT413	6TM-S3
C76	.005	600	03018620	P688-005	D6-502	PTE6D5		GP2-333-502	PT625
C77	.02	600	03015150	P688-02	DF-203	PTE6S2		GP2-333-502	PT612
C78	.005	600	03018620	P688-005	D6-502	PTE6D5		GP2-333-502	PT625
C79	.05	600	03015370	P688-05	DF-503	PTE6S5		PT615	6TM-S5
C80	.05	200	03000950	P288-05	DF-503	PJ285		PT415	2TM-S5
C81	.001	600	03014720	P688-001	D6-102	PTE6D1		GP2L-102	UC-521
C82	.100		03016700	S100	D6-101	TM5T1		GP1K-101	UC-531
C83	1000		03015810	S1000	D6-102	TM5D1		NP0K-050	2T-555
C84	.150	500	03014980	1469-00015	D6-180	5R5T15		GP2K-151	MCB236
C85	.01	600	03012560	P688-01	D6-103	PTE6S1		GP2-333-103	PT611
C86	.002	600	03014430	P688-002	D6-202	PTE6D2		GP2-333-202	PT622
C87	.005	600	03018640	P688-005	D6-502	PTE6D5		GP2-333-502	PT625
C88	.02	400	03010450	P488-02	DF-203	PTE4S2		GP2-333-502	PT612
C89	.047	600	03010510	P688-047		PTE6S47		PT617	4TM-S2
C90	.1	600	03014820	P688-1	DF-104	PTE6P1		PT601	6TM-P1
C91	.1	400	03019260	P488-1	DF-104	PTE4P1		PT401	1TM-P1
C92	.015	200	03017340	P288-015		PTE6S15		GP2L-102	PT621
C93	.001	600	03014720	P688-001	D6-102	PTE6D1		GP1K-101	UC-531
C94	.100		03016700	S100	D6-101	TM5T1		NP0K-050	2T-555
C95	.120	500	03020440	1469-00015	DF-503	5R5T15		GP2-333-502	PT615
C96	.05	600	03015370	P688-05	DF-203	PTE4S2		GP2-333-502	PT612
C97	.02	400	03010460	P488-02	DF-203	PJ2P5		MCB255	MS-21
C98	.5	200	03002190	P288-5		IR5D1		NP0K-010	GP2-333-103
C99	1000	500	03030580	1464-001	TCZ-1			GP2-333-103	PT611
C100	.1		03012150	1468-000001	D6-103	PTE6S1		MCB460	6TM-S1
C101	.01	600	03010540	P688-01		IR5D25			
C102	2200	500	03029640	1464-0025					
C103	8.2		03017280						
C104	.680	500	03025370	1479-0007		2R5T7		MS-37	
C105	.390	500	03020500	1469-0004		5R5T7		MS-34	
C106	.25	600	03020510	684-25		PTE6P25		6TM-P25	
C107	.05	200	03010030	P288-05		PJ285		2TM-S5	
C108	.1	600	03019250	P488-1	DF-104	PTE6P1		PT601	6TM-P1
C109	.05	600	03015370	P688-05	DF-503	PTE6S5		PT615	6TM-S5
C110	.001	600	03015320	P688-001	D6-102	PTE6D1		GP2L-105	PT621
C111	2200	500	03029480					GP1K-330	UC-5433
C112	.33	500	03020640	S133	D6-330			5GA-Q33	
C113	.00047	10000	03017450	10084-0005		PTE100T5		TVM-351	
C114	.00047	10000	03017450	10084-0005		PTE100T5		TVM-351	
C115	.00047	10000	03017450	10084-0005		PTE100T5		TVM-351	
C116	.02	600	03018570	6892CXY-02		F4682		6TM-S2	
C117	.02	600	03018570	6892CXY-02		F4682		6TM-S2	
C118	.1	600	03019250	P688-1	DF-104	PTE6P1		PT601	6TM-P1

Note 1. Some models use 5MMF in this application.
Note 2. Some models use 1MMF in this application (Part #03012150).

CONTROLS									
ITEM No.	RATING RESISTANCE	WATTS	REPLACEMENT DATA					INSTALLATION NOTES	
			DUMONT PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.		
R1A	100K Ω		01038343	QJ-334**				Horiz. Hold-Panel-Note 1	
R2A	3Meg		01044600	*	RTV-346			Vert Hold-Rear	
R3	200K Ω		01044411	QJ-339†				Volume-Tapped@ 100K Ω -Rear	
R4	15K Ω		01044700					Attach to R2B	
R5A	10K Ω		01029710	QJ-116	AG-27-S	AB-14	SU-20	Brightness	
R6	4Meg		01029800	QJ-140	FKS-1/4	AB-84	SU-59	Contrast-Tapped@ 5K Ω & 9K Ω	
R7A	3000 Ω	2	01024760	Not Req.	FKS-1/4	AB-1	Not Req.	AGC	
R8	Shaft		01024760	Not Req.	W-3000	VK-133	R3000L	Attach to R5A	
R9	Shaft		01024760	Not Req.	Not Req.	Not Req.	Not Req.	Vert Size	
R10	Shaft		01024760	Not Req.	Not Req.	Not Req.	Not Req.	Attach to R6A	
R11	Shaft		01024760	Not Req.	Not Req.	Not Req.	Not Req.	Vert. Linearity-Wire Wound	
R12	Shaft		01024760	Not Req.	Not Req.	Not Req.	Not Req.	Attach to R7A	

** Concentrik Equivalent-Kit K-2, Base Elements & Shafts B1-128 & P1-028 (Panel), B1-140 & R2-110 (Rear)
† Concentrik Equivalent-Kit K-2, Base Elements & Shafts B1-133 & P1-126 (Panel), B1-137X & R2-212 (Rear) & Switch 76-1.
NOTE 1. Some models use alternate control (Part No. 01038342).
NOTE 2. Some models use alternate control (Part No. 01038800).

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		NOTES	ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DUMONT PART No.	IRC PART No.			OHMS	WATT	DUMONT PART No.	IRC PART No.	
R8	15K		02031910			R83	1.2Meg		02032140	BTS-1.2Meg	
R9	47K		02032520			R84	10K		02031890	BTS-10K	
R10	100K		02032010			R85	68K	1	02034990	BTA-68K	
R11	330K		02032070	BTS-330K		R86	470K		02032580	BTS-470K	
R12	470		02032400	BTS-470		R87	100K	2	02036010	BTS-100K	
R13	180K		02032040			R88	220K		02032560	BTS-220K	
R14	22K		02032500	BTS-22K		R89	330K	1	02034830	BTA-3300	
R15	220K		02032560	BTS-220K		R90	4700		02031850	BTS-4700	
R16	15K		02031910			R91	47K		02031970	BTS-47K	
R17	10K		02032480			R92	150K 5%		02032090	BTS-150K 5%	
R18	4700		02032460	BTS-4700		R93	470K		02032090	BTS-470K	
R19	470		02032400	BTS-470		R94	2.7Meg		02032180	BTS-2.7Meg	
R20	470		02032400	BTS-470		R95	1Meg		02032130	BTS-1Meg	
R21	47K		02032520	BTS-47K		R96	100K		02032010	BTS-100K	
R22	100K		02032010	BTS-100K		R97	1.5Meg		02032150	BTS-1.5Meg	
R23	100K		02032010	BTS-100K		R98	680K		02032110	BTS-680K	
R24	5.6		02100830			R99	180K		02032040	BTS-180K	
R25	10K		02032480	BTS-10K		R100	470K		02032090	BTS-470K	
R26	3900		02031840	BTS-3900		R101	220K		02032050	BTS-220K	
R27	47		02031610			R102	22K		02031930	BTS-22K	
R28	15K		02031910	BTS-15K		R103	22K		02031930	BTS-22K	
R29	12K		02031900			R104	22K		02031930	BTS-22K	
R30	1000		02032420	BTS-1000		R105	8200		02031880	BTS-8200	
R31	10K		02032480	BTS-10K		R106	1.2Meg		02032110	BTS-1.2Meg	Note 1
R32	18K		02031920			R107	1.8Meg		02032160	BTS-1.8Meg	Note 2
R33	47		02031610			R108	2.7Meg			BTS-2.7Meg	Note 2
R34	15K		02031910	BTS-15K		R109	68K		02031990	BTS-68K	
R35	12K		02031900			R110	1.8Meg 5%	1	02034260	BTA-1.8Meg 5%	
R36	1000		02032420	BTS-1000		R111	10K		02030720	BTS-10K	
R37	6000	10	02113080	1 3/4A-6000		R112	2200		02032440	BTS-2200	
R38	18K		02031920			R113	1000		02032420	BTS-1000	
R39	120		02031660	BTS-120		R114	2.2Meg		02032620	BTS-2.2Meg	
R40	15K		02031910			R115	560		02034740	BTA-560	
R41	12K		02031900			R116	160K		02032040	BTS-160K	
R42	1000		02032420	BTS-1000		R117	1500		02031790	BTS-1500	Note 3
R43	6800	2	02034740	BTS-6800		R118	1Meg		02032600	BTS-1Meg	
R44	22K		02031920	BTS-22K		R119	12K		02031900	BTS-12K	
R45	12K		02031900			R120	3.9Meg		02032200	BTS-3.9Meg	
R46	2200		02032440	BTA-2200		R121	1500		02031790	BTS-1500	
R47	3300	5%	02030600	BTS-3300 5%		R122	220K	1		BTA-220K	Note 4
R48	10K		02031890	BTS-10K		R123	47K		02031970	BTS-47K	
R49	22		02031570			R124	820K		02032120	BTS-820K	
R50	18K	2	02037920	BTS-18K		R125	330K		02032070	BTS-330K	
R51	6200		02031880	BTS-6200		R126	120K		02032020	BTS-120K	
R52	6000	10	02107970	1 3/4A-6000		R127	3300		02031830	BTS-3300	
R53	18K		02031920	BTS-18K		R128	200K 5%	1	02034030	BTA-200K 5%	
R54	5600		02031860	BTS-5600		R129	620K 5%	1	02034150	BTA-620K 5%	
R55	33K		02031950	BTS-33K		R130	28K		02031960	BTS-28K	
R56	220K		02032050	BTS-220K		R131	12K		02031900	BTS-12K	
R57	470K		02032090	BTS-470K		R132	82K 5%		02030640	BTS-82K 5%	
R58	470K		02032580	BTS-470K		R133	82K 5%		02034940	BTA-82K 5%	
R59	100K		02032040	BTS-100K		R134	68		0.02250		
R60	39K		02031960	BTS-39K		R135	470K		02032580	BTS-470K	
R61	470K		02032580	BTS-470K		R136	220	2	02038380	BW-2.220	
R62	100K		02032420	BTS-100K		R137	220	2	02038380	BW-2.220	
R63	1000		02032420	BTS-1000		R138	10K	10	02131340	1 3/4A-10K	
R64	1000		02032420	BTS-1000		R139	68		02032350		
R65	47K		02032520	BTS-47K		R140	470	1		BW-1-47	
R66	18K		02031920	BTS-18K		R141	1500	2	02037780	BTD-1500	
R67	10K	1	02034910	BTA-15K		R142	10K	2	02027880	BTD-10K	
R68	270		02031700	BTS-270		R143	22K	1	02034930	BTA-22K	
R69	22K		02031930	BTS-22K		R144	100	1	02031530		
R70	6800		02031870	BTS-6800		R145	3.6		02100780		
R71	6800		02031870	BTS-6800		R146	3.6		02100780		
R72	6800		02031870	BTS-6800		R147	470K	2	02038580		
R73	1.3Meg		02032610	BTS-1.3Meg		R148	470K	2	02038580		
R74	220		02031690	BTS-220		R149	470K	2	02038580		
R75	1000		02031650	BTS-100		R150	470K	2	02038580		
R76	470K		02032580	BTS-470K		R151	85	15.7	02150001		
R77	47K		02032520	BTS-47K		R152A	635	8.7	02216591		
R78	680		02031750	BTS-680		R153	2000	5.8			
R79	390	1	02034720	BTA-390		R154	12K	2	02037900		
R80	3.3Meg		02032190	BTS-3.3Meg		R155	47K	1	02035520		
R81	750	4	02121610	1 3/4A-750		R156	100K	1	02035110		
R82	820K		02032120	BTS-820K		R157	470K	1	02032580		
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