

**BENDIX MODELS**  
**235B1, 235M1 (Ch. CODE MA, MB, MC)**

**BENDIX MODEL 235M1**

<b>TRADE NAME</b>	Bendix, Models 235B1, 235M1 (Chassis Codes MA, MB, MC, MD)	
<b>MANUFACTURER</b>	Bendix Radio, Div., of Bendix Aviation Corp., Baltimore, Maryland	
<b>TYPE SET</b>	Television Receiver	
<b>TUBES</b>	Twenty Two (Chassis Codes MA and MB) Twenty Three (Chassis Codes MC and MD)	
<b>POWER SUPPLY</b>	110-120 Volts AC	
<b>TUNING RANGE</b>	Channels 2 through 13	<b>RATING:</b> 1.7 Amp @ 117 Volts AC

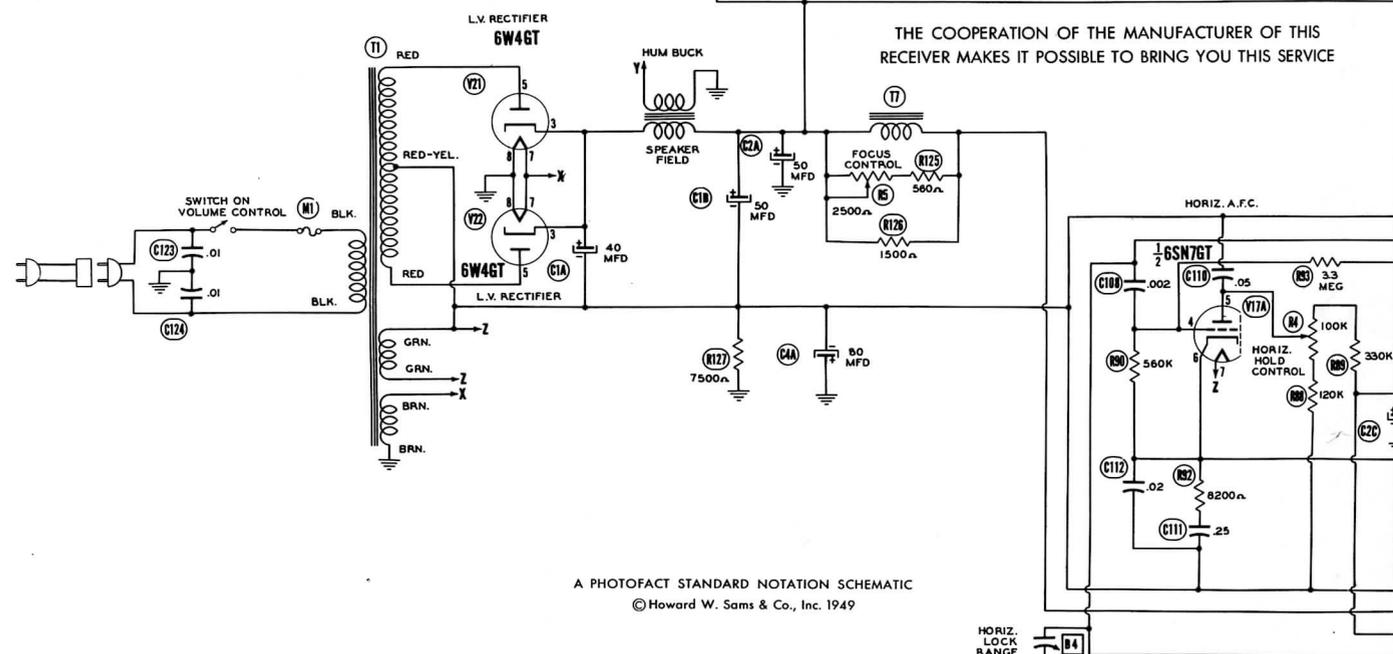
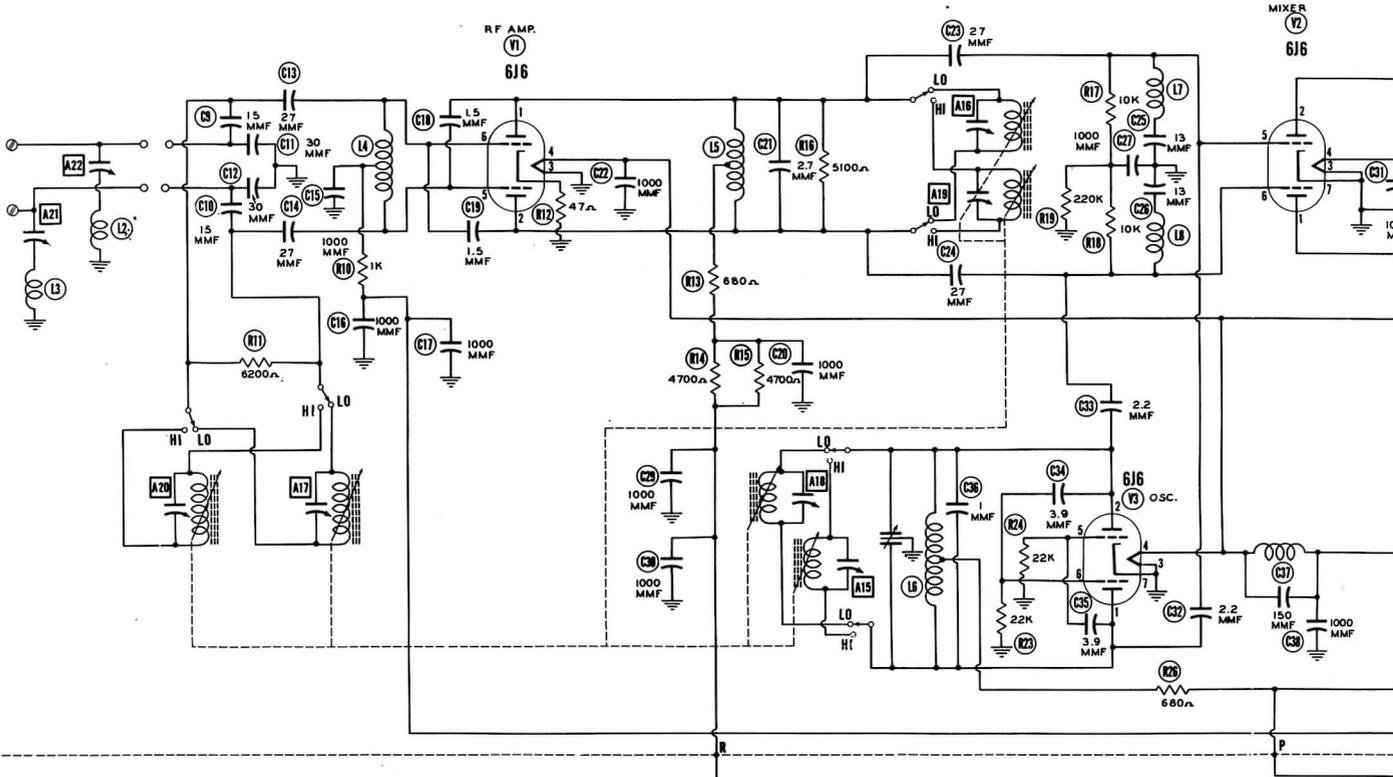
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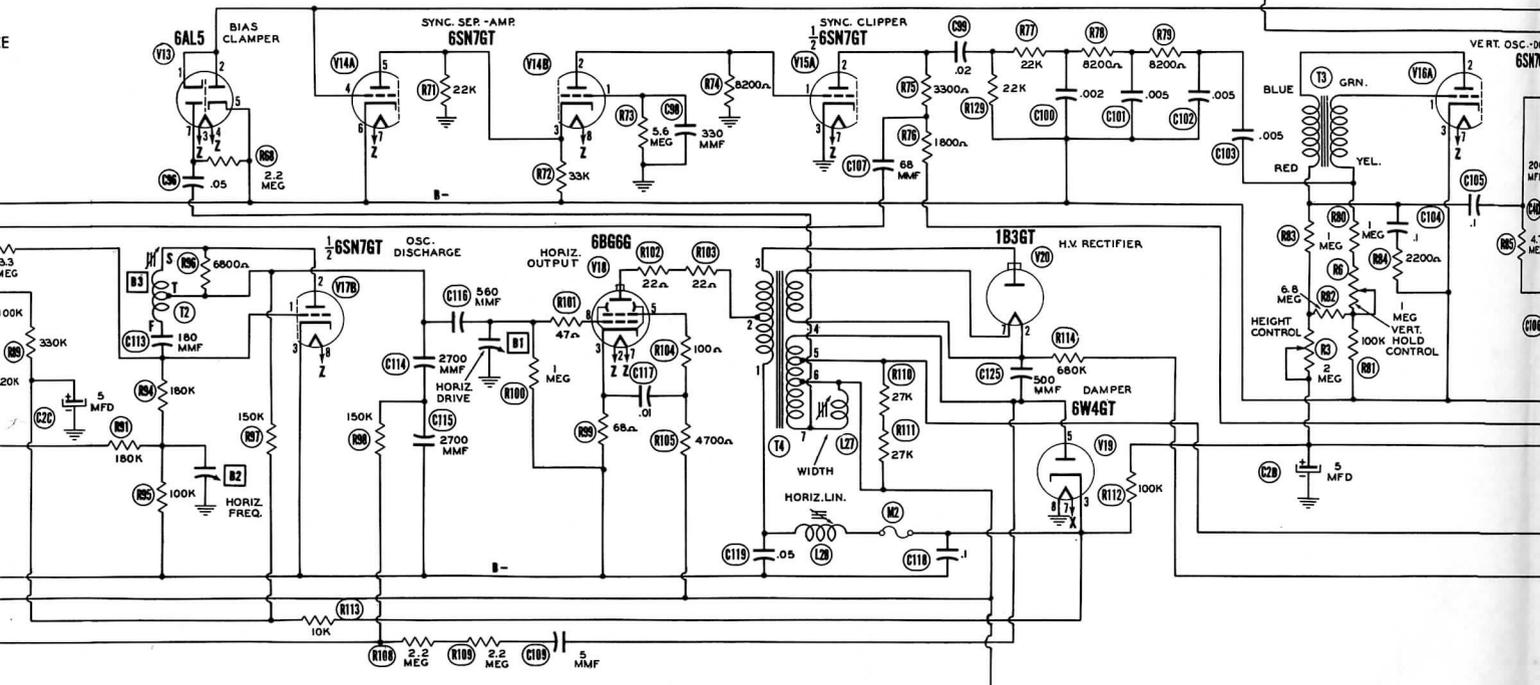
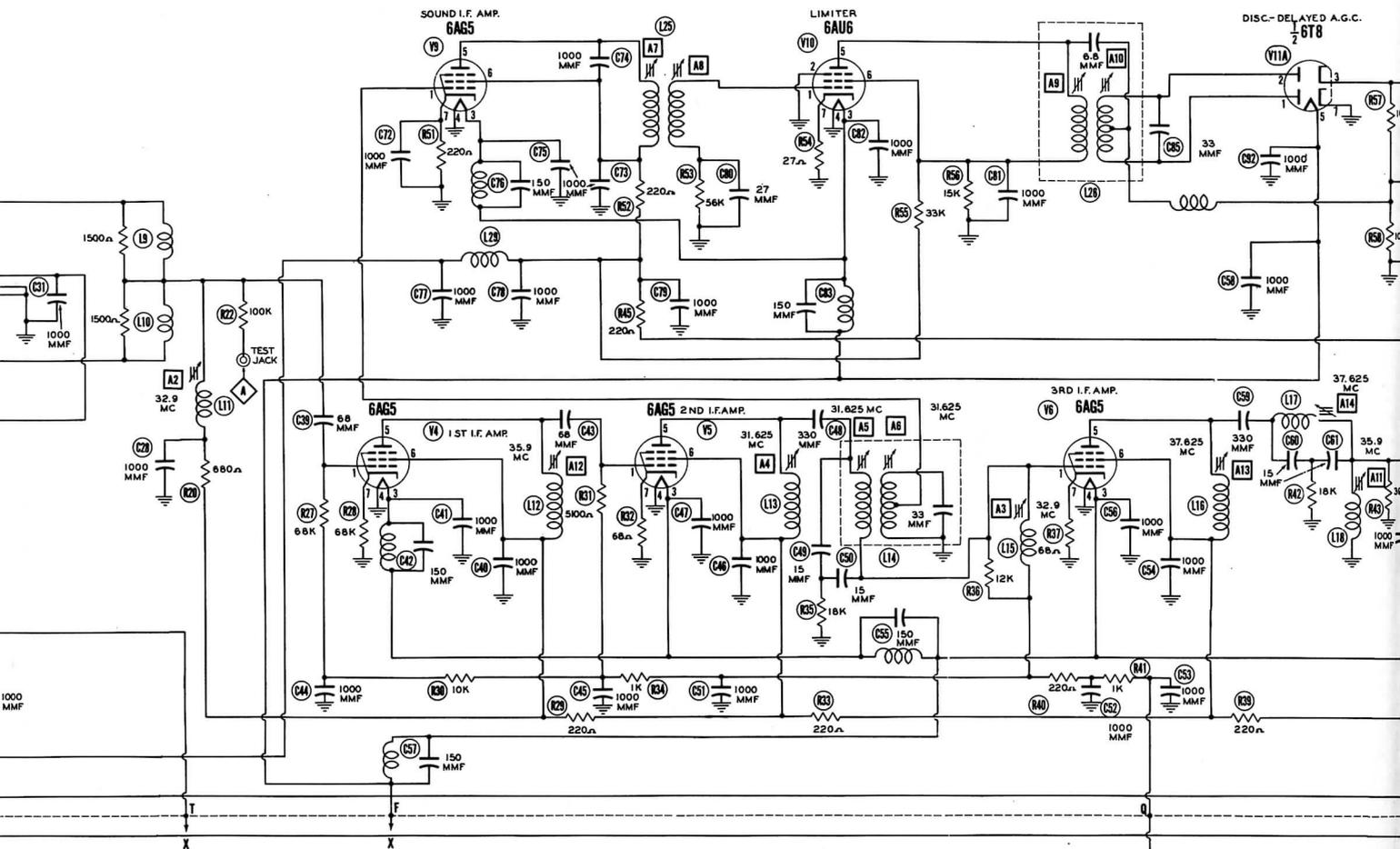
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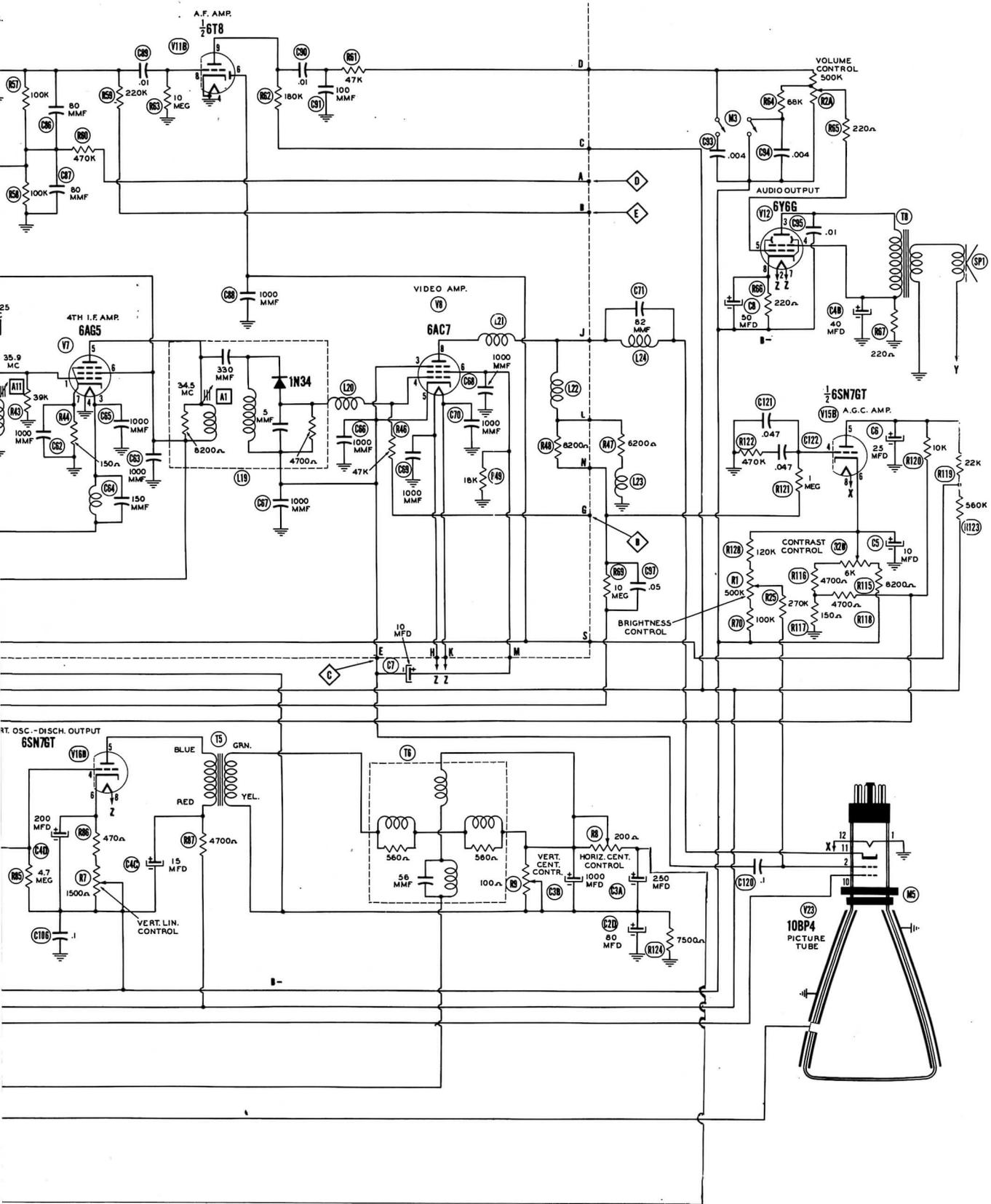
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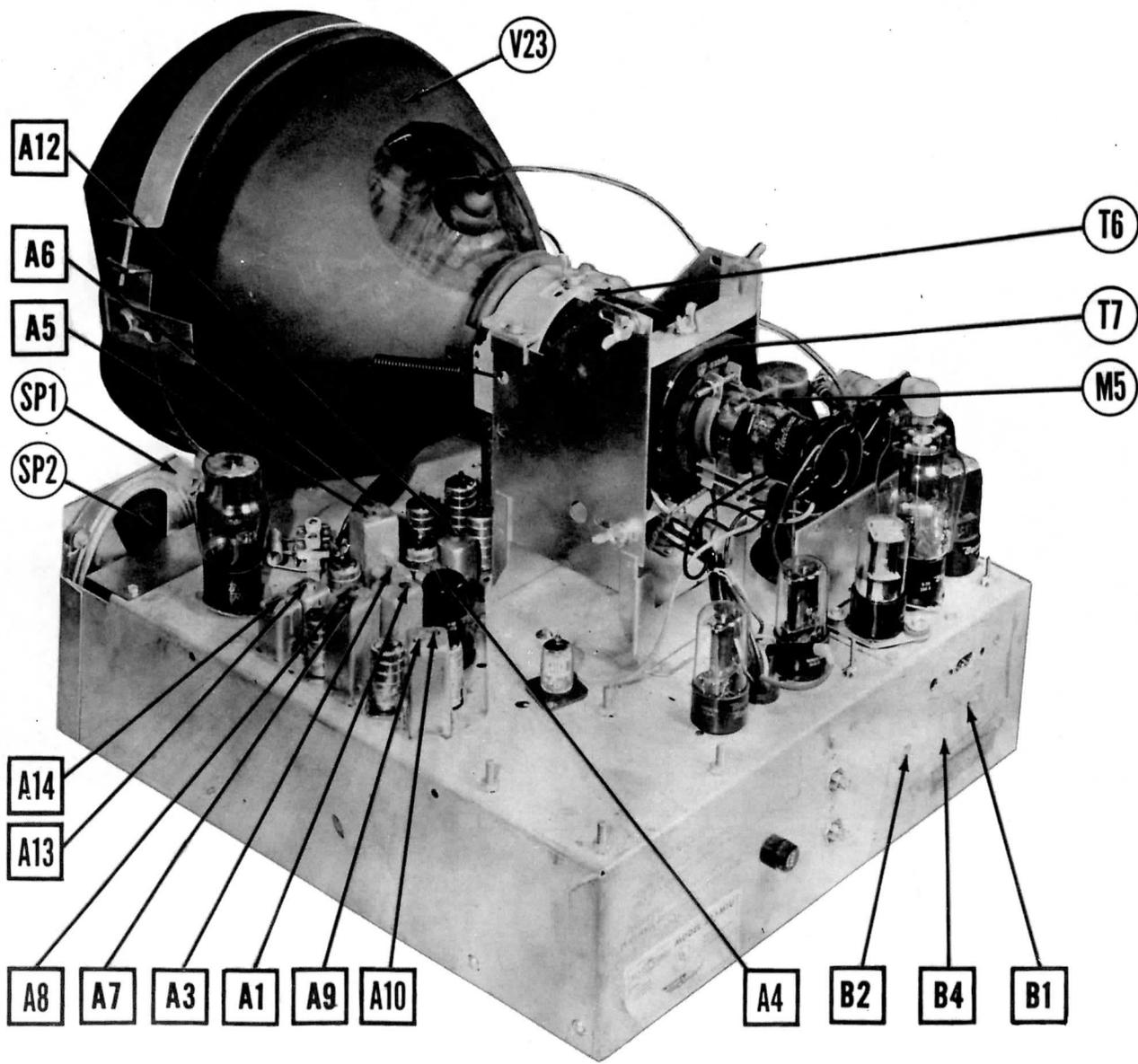
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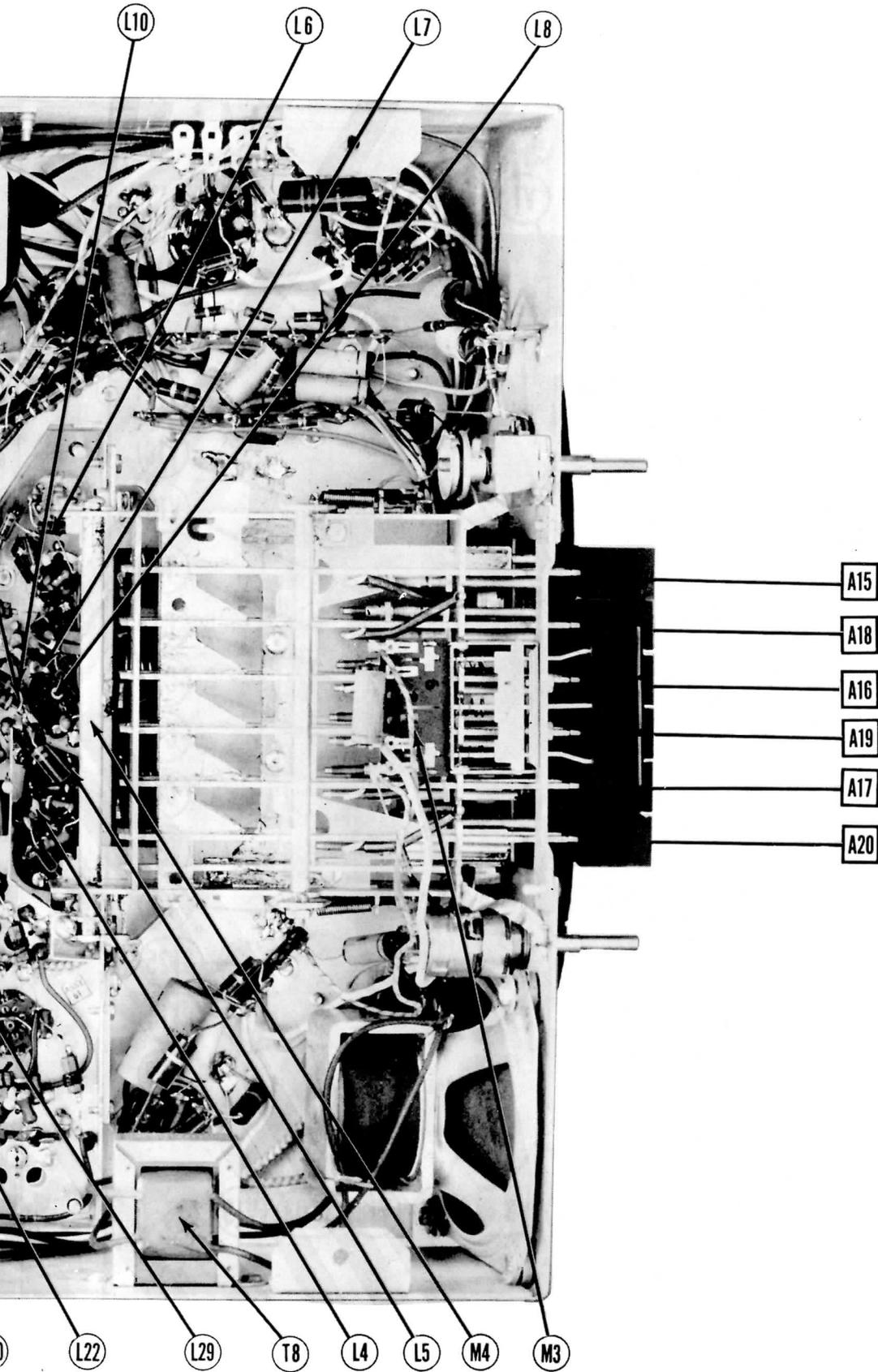


CHASSIS-TOP VIEW

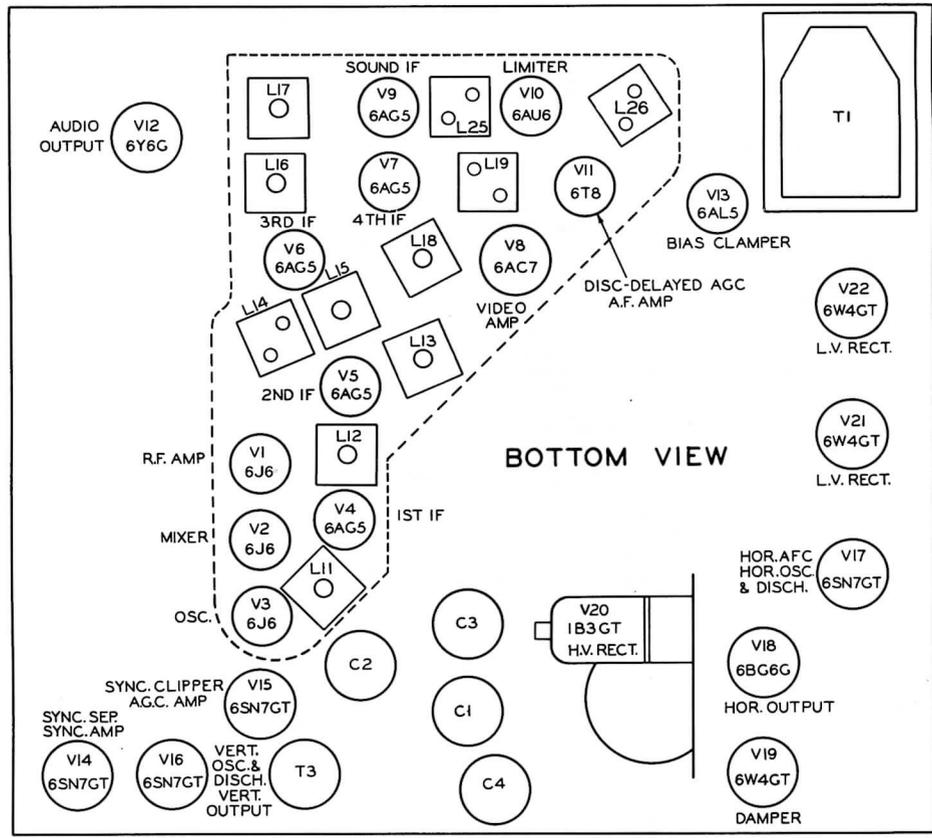
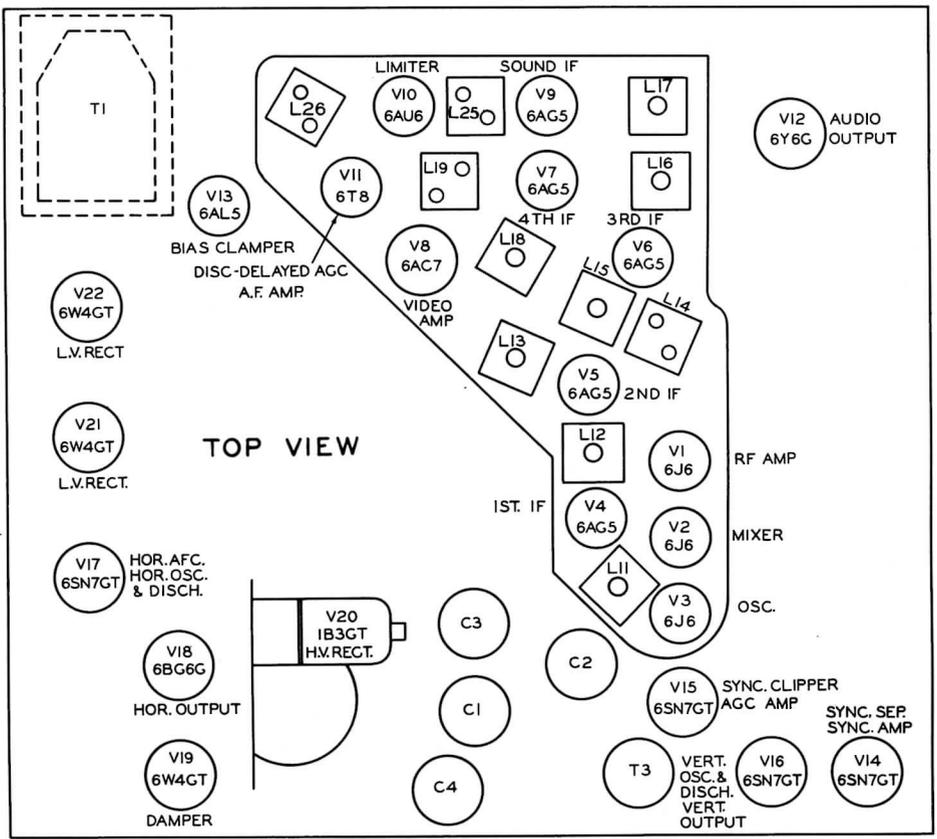
BENDIX MODELS  
235B1, 235M1 (Ch. CODE MA, MB, MC)



CHASSIS BOTTOM VIEW-TRANS., INDUCT



CTOR AND ALIGNMENT IDENTIFICATION



**TUBE PLACEMENT CHART**

# ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT						
Damage to this receiver may result if any of the following list of tubes are removed with receiver turned on: V3 6J6 RF Oscillator V15 6SN7GT AGC Amp. and Sync. Clipper V16 6SN7GT Vert. Osc. and Vert. Output V17 6SN7GT Horiz. Osc., AFC and Discharge V18 6BG6G Horiz. Output V21 6W4GT Low Volt Rectifier V22 6W4GT Low Volt Rectifier V23 10BP4 Picture Tube Extreme care should be taken not to make contact with the high voltage anode lead of the picture tube.						
IF ALIGNMENT						
Set the contrast control to measure -3.5 to -4 volts at terminal "Q" on the IF channel sub-chassis to chassis. Disable the AGC system by connecting a jumper from pin 4 (Grid) of 6SN7GT (V15B) to the junction of the contrast control R2B and the 8200Ω resistor R115.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. .05MFD	High side to Point A. Low side to chassis. (Adjust output to give 1 1/2 to 2 1/2 volt reading on VTVM)	34.5MC	Any	DC Probe to Point $\text{Ⓢ}$ (terminal "G" on IF sub-chassis) Common lead to Point $\text{Ⓢ}$ (terminal "E" on IF sub-chassis).	A1	Adjust for maximum deflection.
2. .05MFD	"	32.9MC	"	"	A2,A3	"
3. .05MFD	"	31.625MC	"	"	A4	"
4. .05MFD	"	31.625MC	"	"	A5	Adjust for minimum deflection.
5. .05MFD	High side to Point A. Low side to chassis.	31.625MC	"	DC Probe to Point $\text{Ⓢ}$ (terminal "A" on IF sub-chassis) Common to chassis.	A4,A5, A6,A7 A8,A9	Increase signal generator output to give a 4 volt reading on VTVM. Adjust A4 thru A9 for maximum deflection. Repeat step 5 several times to assure accurate alignment.
6. .05MFD	"	Turn sig. gen. off.	"	DC Probe to Point $\text{Ⓢ}$ (Terminal "B" on IF sub-chassis) Common to chassis.	"	Note reading on VTVM, being sure no extraneous noise of other interference is being introduced into receiver (short, antenna terminals). The reading obtained is the zero reference point for when the disc. transformer secondary is balanced.
7. .05MFD	"	31.625MC	"	"	A10	Adjust for zero balance reference point obtained in preceding step. A positive and negative reading will be obtained on either side of the correct setting.
8. .05MFD	"	35.9MC	"	DC Probe to Point $\text{Ⓢ}$ Common to Point $\text{Ⓢ}$	A11,A12	Adjust for maximum deflection.
9. .05MFD	"	37.625MC	"	"	A13,A14	Adjust A13 for maximum deflection. If a satisfactory reading cannot be obtained, very slightly detune A14 and adjust A13 for maximum. Then adjust A14 for minimum deflection.
10. Direct	Across antenna terminals.	32.9MC	"	"	A2,A3	Recheck for maximum deflection.
11. Direct	"	35.9MC	"	"	A11,A12	"
OVERALL VIDEO IF RESPONSE CHECK						
Connect the synchronized sweep voltage from the signal generator to the horizontal amplifier of the oscilloscope for horizontal deflection.						
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	REMARKS
12. Tube Shield	High side to ungrounded tube shield floating over mixer tube (V2).	35MC (10MC Sweep)	31.625MC 36.125MC 37.625MC	Any	Vert. Amp. to point $\text{Ⓢ}$ Low side to chassis.	Check to see that the response curve obtained is similar to Fig 1 with markers appearing at the proper points. If necessary, slightly retouch A1,2, 3,4,5,6,11, 12,13,14.
RF ALIGNMENT						
Alignment points A15 thru A20 are located behind the plate on the front panel of the chassis above the push-buttons. Leave contrast control set for -3.5 to -4 volts. The dummy antenna used consists of a 120Ω carbon resistor inserted in the high side of the generator leads and 150Ω carbon resistor in the low side of the signal generator. Connect another resistor of 50Ω directly across the signal generator output terminals.						
LOW BAND RF ALIGNMENT						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
13. Dummy antenna (See above)	Across antenna terminals.	54MC	Depress #2 button and then release by slightly depressing any other low band button.	DC Probe to Point $\text{Ⓢ}$ (terminal "B" on IF sub-chassis strip). Common to chassis.	A15	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
14. "	"	81.75MC	Remove #5 push-button knob and then depress #5.	"	Channel #5 push-button set screw.	"
15. "	"	79MC	"	DC Probe to Point $\text{Ⓢ}$ Common to Point $\text{Ⓢ}$	A16,A17	Adjust for maximum deflection. Attenuate signal generator to read approximately 1 volt during this adjustment.

# ALIGNMENT INSTRUCTIONS (CONT.)

## HIGH BAND RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
16. Dummy antenna (See above)	Across antenna terminals.	174MC	Depress #7 push-button and then release by slightly depressing any other high band push-button.	DC Probe to Point $\text{\textcircled{D}}$ Common to Chassis.	A18	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
17. "	"	218MC	Depress #13 with knob removed.	"	Channel #13 push button set screw.	"
18. "	"	185.75MC	Depress #8 with knob removed.	"	Channel #8 push button set screw.	"
19. "	"	183MC	"	DC Probe to Point $\text{\textcircled{D}}$ Common to Point $\text{\textcircled{D}}$	A19, A20	Adjust for maximum deflection. Attenuate signal generator to give VTVM reading of 1 volt during this adjustments.

### WAVETRAP ADJUSTMENTS

Wave traps A21 and A22 are used for specific types of interference and their alignment will depend upon the type encountered. With the receiver tuned to the channel having the interference, set the fine tuning control until the interference is maximum. Adjust A21 and A22 for minimum interference in the picture and sound keeping the trimmers at approximately the same position. Turn both trimmers fully clockwise. Adjust A21 1/4 turn counterclockwise and then A22. Repeat until the interference is at a minimum.

### PUSHBUTTON ADJUSTMENTS

After the receiver has been completely aligned, connect the VTVM at the discriminator output. Feed in the sound frequency of the various channels and turn the individual channel pushbutton adjustment screws until the VTVM reads zero with a positive and negative reading on either side of the zero setting.

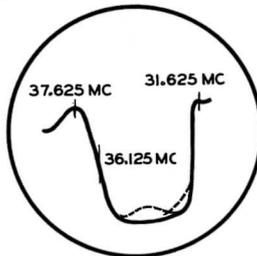
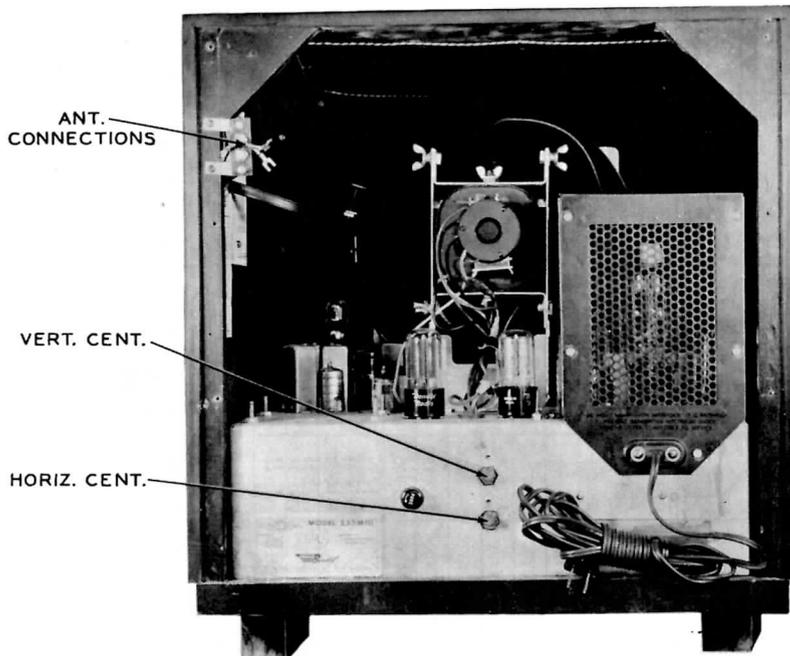


FIG. 1



CABINET-REAR VIEW

**BENDIX MODELS**  
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# VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	225VDC	225VDC	0V	6.3VAC	-20VDC	-20VDC	0V		
V 2	6J6	15VDC	15VDC	0V	6.3VAC	-3.6VDC	-3.6VDC	0V		
V 3	6J6	125VDC	125VDC	0V	6.3VAC	\$-5.2 VDC	\$-5.2 VDC	0V		
V 4	6AG5	-8.2VDC	0V	6.3VAC	0V	165VDC	165VDC	0V		
V 5	6AG5	-9.1VDC	0V	6.3VAC	0V	170VDC	170VDC	0V		
V 6	6AG5	-9.5VDC	0V	6.3VAC	0V	173VDC	173VDC	0V		
V 7	6AG5	0V	2VDC	6.3VAC	0V	175VDC	175VDC	2VDC		
V 8	6AC7	+150VDC	▲-150 VDC	+0V	0V	+0V	+75VDC	▲-150 VDC	+83VDC	
V 9	6AG5	0V	2VDC	6.3VAC	0V	180VDC	180VDC	2VDC		
V 10	6AU6	-.4VDC	0V	6.3VAC	0V	36VDC	36VDC	0V		
V 11	6T8	-.8VDC	-.8VDC	0V	0V	6.3VAC	-20VDC	0V	-.7VDC	90VDC
V 12	6Y6G	+0V	▲-150 VDC	†110VDC	†115VDC	0V	0V	▲-150 VDC	†48VDC	
V 13	6AL5	+-.5VDC	+-.5VDC	▲-150 VDC	▲-150 VDC	+0V	+0V	+45 VDC		
V 14	6SN7GT	+50VDC	+100VDC	+55VDC	+-.5VDC	+55VDC	+0V	▲-150 VDC	▲-150 VDC	
V 15	6SN7GT	-24VDC	225VDC	0V	-210VDC	-30VDC	-60VDC	6.3VAC	0V	
V 16	6SN7GT	+40VDC +60VDC	+50VDC +110VDC	+0V	+3VDC	+320VDC	+3VDC +11VDC	▲-150 VDC	▲-150 VDC	
V 17	6SN7GT	+25 VDC	+145VDC	+0V	+7VDC	+72VDC +135VDC	+3VDC	▲-150 VDC	▲-150 VDC	
V 18	6BG6G	+270VDC	▲-150 VDC	+7VDC	+340VDC	+3VDC	+0V	▲-150 VDC	+265VDC	*
V 19	6W4GT	11.5VDC 22VDC	0V	300VDC	280VDC	157VDC	50VDC	6.3VAC	0V	
V 20	1B3GT	* DO NOT MEASURE.								
V 21	6W4GT	0V	-100VDC	245VDC	180VDC	290VAC	-150VDC	6.3VAC	0V	
V 22	6W4GT	0V	260VDC	245VDC	0V	290VAC	300VDC	6.3VAC	0V	
V 23	10BP4	0V	-100VDC	PIN 10 255VDC	PIN 11 -40VDC	PIN 12 6.3VAC				

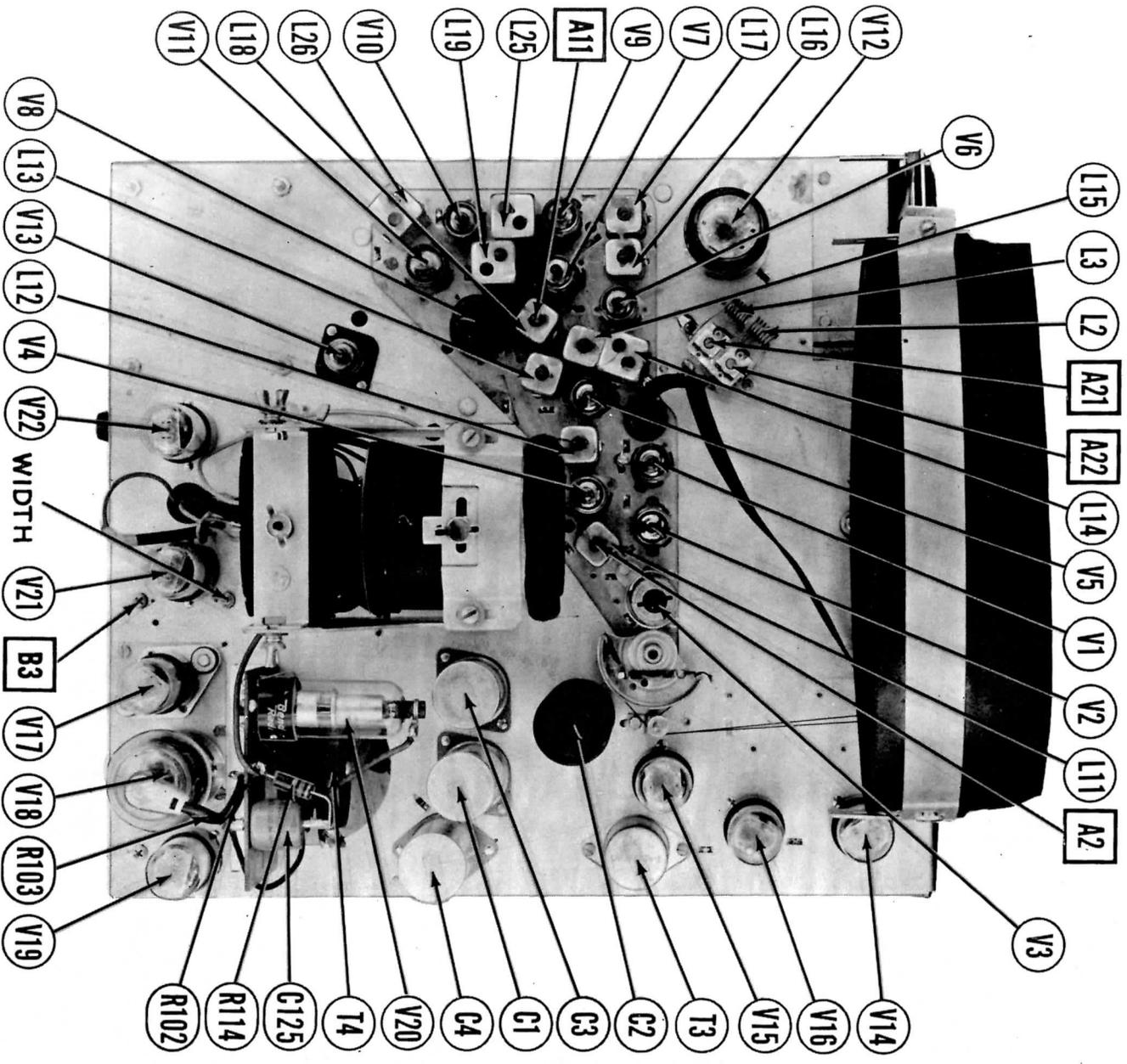
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	†3KΩ	†3KΩ	0Ω	.1Ω	36KΩ	36KΩ	470Ω		
V 2	6J6	†2KΩ	†2KΩ	0Ω	.1Ω	230KΩ	230KΩ	0Ω		
V 3	6J6	†1000Ω	†1000Ω	0Ω	.1Ω	22KΩ	22KΩ	0Ω		
V 4	6AG5	85KΩ	68Ω	.1Ω	0Ω	†1000Ω	†1000Ω	68Ω		
V 5	6AG5	12KΩ	68Ω	.1Ω	0Ω	†1000Ω	†1000Ω	68Ω		
V 6	6AG5	5.8KΩ	68Ω	.1Ω	0Ω	†700Ω	†700Ω	68Ω		
V 7	6AG5	0Ω	150Ω	.1Ω	0Ω	†500Ω	†500Ω	150Ω		
V 8	6AC7	0Ω	+0Ω	+0Ω	+4.5KΩ	+0Ω	18KΩ	+0Ω	6KΩ	
V 9	6AG5	0Ω	220Ω	.1Ω	0Ω	†530Ω	†530Ω	220Ω		
V 10	6AU6	56KΩ	+0Ω	.1Ω	0Ω	†14KΩ	†14KΩ	27Ω		
V 11	6T8	100KΩ	100KΩ	200KΩ	0Ω	.1Ω	35KΩ	0Ω	10 Meg.	180KΩ
V 12	6Y6G	Inf.	+0Ω	360Ω	220Ω	+220Ω	+7Ω	+1Ω	+220Ω	
V 13	6AL5	10 Meg.	10 Meg.	+0Ω	+0Ω	+0Ω	+0Ω	+2.2 Meg.		
V 14	6SN7GT	5.6 Meg.	8KΩ	+16KΩ	10 Meg.	22KΩ	+0Ω	+1Ω	+0Ω	
V 15	6SN7GT	8KΩ	†5KΩ	0Ω	1 Meg.	†22KΩ	6KΩ	.1Ω	0Ω	
V 16	6SN7GT	+2 Megs +1.2 Meg	+2.5 Meg +1.4 Meg	+0Ω	+4.7 Meg	†5KΩ	+1.9KΩ +44Ω	+1Ω	+0Ω	
V 17	6SN7GT	+270KΩ	+160KΩ	+0Ω	+760KΩ	+200KΩ +100KΩ	+270KΩ	+1Ω	+0Ω	
V 18	6BG6G	†4.7KΩ	+1Ω	+68Ω	†1.8KΩ	+1 Meg	Inf.	+0Ω	†4.8KΩ	+220Ω
V 19	6W4GT	220KΩ	Inf.	320KΩ	320KΩ	6KΩ	520KΩ	.1Ω	0Ω	
V 20	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	+750Ω
V 21	6W4GT	Inf.	330KΩ	7KΩ	6KΩ	5KΩ	5KΩ	.1Ω	0Ω	
V 22	6W4GT	Inf.	160KΩ	7KΩ	Inf.	5KΩ	290KΩ	.1Ω	0Ω	
V 23	10BP4	0Ω	330KΩ	PIN 10 360KΩ	PIN 11 6KΩ	PIN 12 .1Ω				

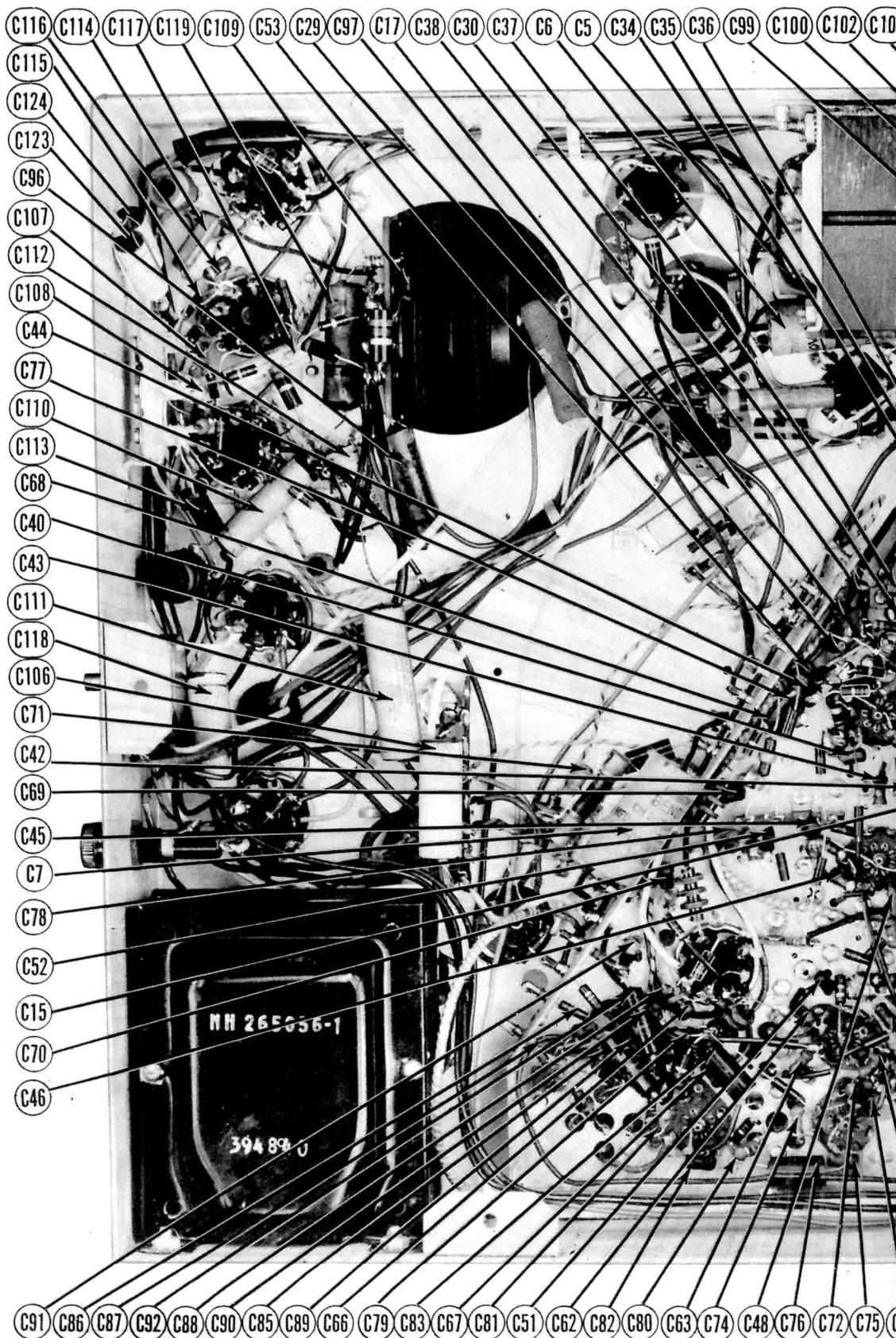
† Measured From Pin 3 Of V21.  
# Measured From Pin 3 Of V19.  
‡ Measured From Pin 3 Of V16.

\* Do Not Measure.  
† Measured From Pin 3 Of V16.  
▲ 6.3 VAC Measured Across Filament.

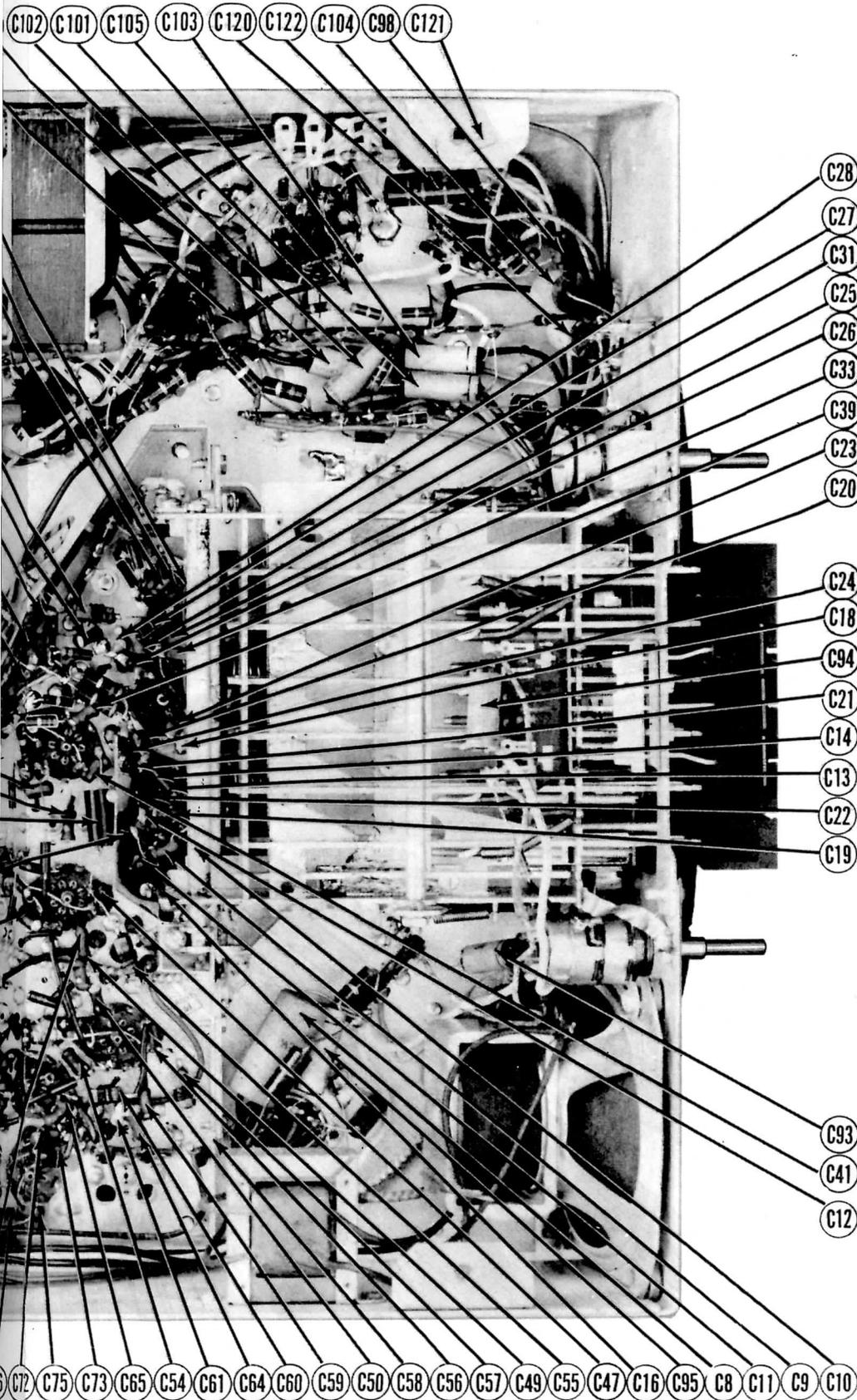
- DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
- Pin numbers are counted in a clockwise direction on bottom of socket.
- Measured values are from socket pin to common negative unless otherwise stated.
- Line voltage maintained at 117 volts for voltage readings.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



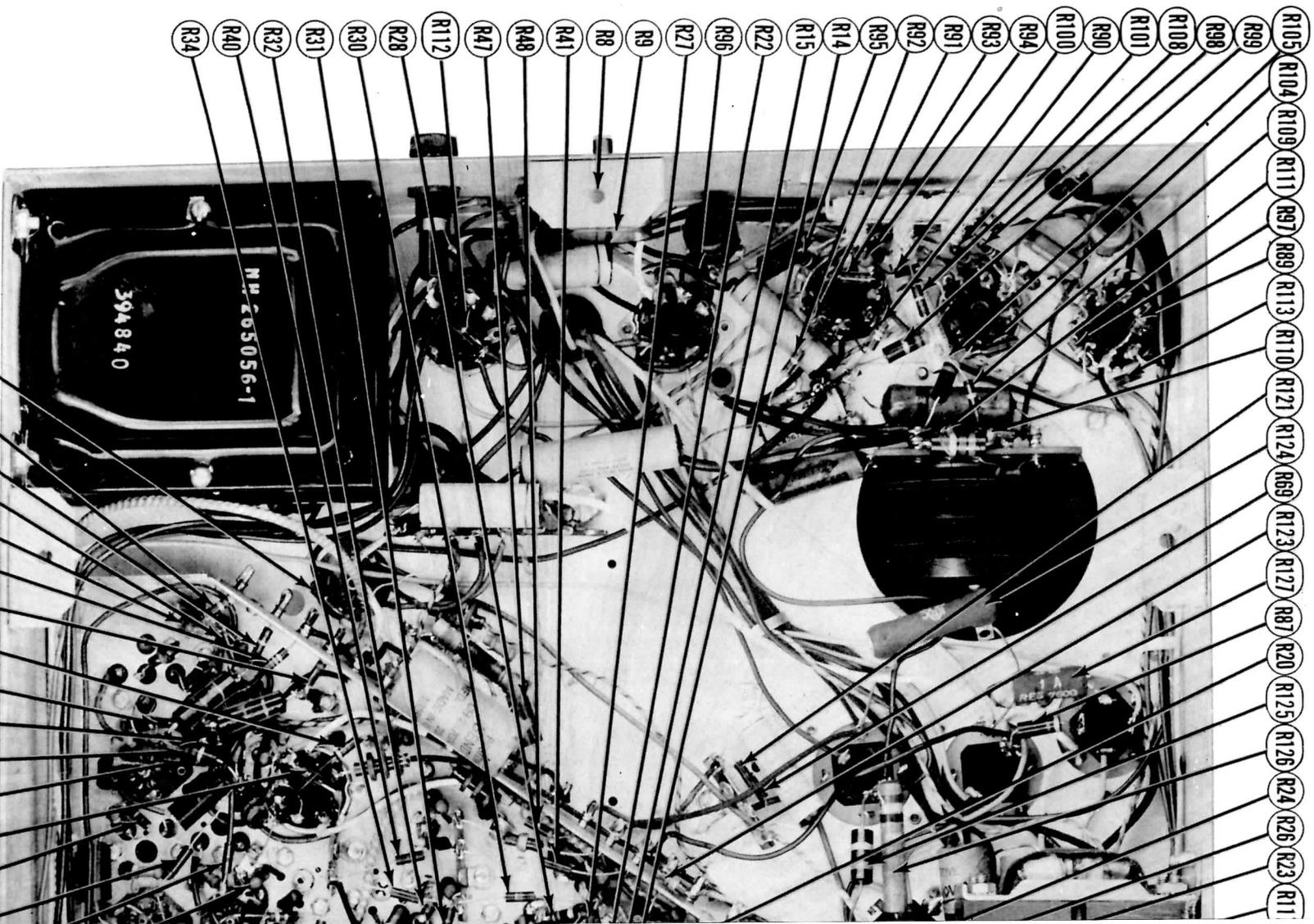
CHASSIS TOP VIEW



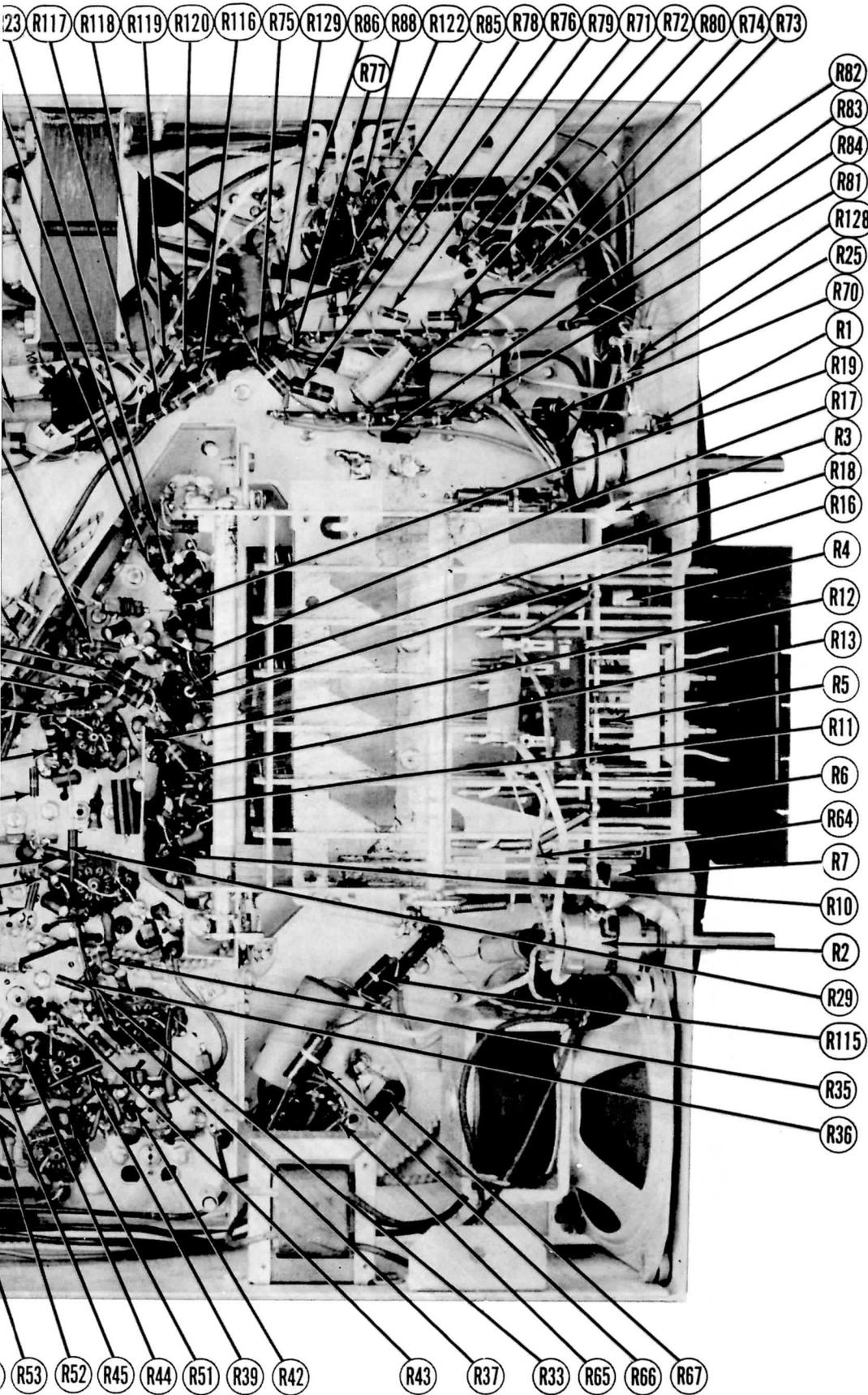
CHASSIS BOTTOM VIEW-CAPA



-CAPACITOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RES



RESISTOR IDENTIFICATION

# CHASSIS CODE VARIATIONS

MA, MB, MC, AND MD CHASSIS CODES

The following chart provides the chassis differences between the four chassis codes MA, MB, MC and MD. Refer to the Schematic Diagram, which is based on the code MD chassis. Both RF and main chassis are coded by a large block letter within a square stamped in ink on each chassis. The IF-RF chassis code is usually found near V8, and on the main chassis the code letter is stamped on the rear apron. The component revisions effected by the various changes are listed in the second left hand column. Under the right hand columns headed MA, MB, MC, and MD are listed the revisions as applied to each chassis code.

CHASSIS	DESCRIPTION	MAIN CHASSIS & IF-RF CHASSIS CODES			
		MA	MB	MC	MD
Main	Chassis includes additional Resistor, 1.8K 1W, connected in plate circuit of V15A.	Yes	No	No	No
Main	Value of Resistor R75, $\pm 10\%$ 1W, in plate circuit of V15A.	1.8K	3.3K	3.3K	3.3K
Main	Chassis includes Capacitor C99, .02 mfd 400V, connected in plate circuit of V15A.	No	Yes	Yes	Yes
Main	Chassis includes Resistor R129, $22K \pm 10\%$ 1/2W, connected in plate circuit of V15A.	No	Yes	Yes	Yes
IF-RF	Chassis includes Coil L14B connected in plate circuit of V5.	Yes	Yes	No	No
IF-RF	Chassis includes Coil L13 connected to pins #5 and #6 of tube	V6	V6	V5	V5
IF-RF	Chassis includes Coil L16 connected to pins #5 and #6 of tube	V9	V9	V6	V6
IF-RF	Chassis includes Resistor R50, 100 ohms 1/2W, connected to terminal 2 of Transformer L25 and pin #1 of V9.	Yes	Yes	No	No
IF-RF	Chassis includes transformer L25 connected to plate circuit of tube: a. Grid circuit of V7. b. Plate circuit of V9.	a	a	b	b
IF-RF	Chassis includes Capacitor a. (C84) - 10 mmf 500V, connected to pin #5 of V9. b. (C80) - 27 mmf $\pm 10\%$ 500V, connected to terminal 1 of L25 and ground. c. not used.	a	a	b	c
IF-RF	Chassis includes Resistor R53, $56K \pm 10\%$ 1/2W a. Connected to pin #1 of V10 and ground. b. Connected to terminal 1 of L25 and ground.	a	a	b	b
IF-RF	Chassis includes Capacitor C74, 2.7 mmf connected between pins #5 and #6 of V9.	No	No	Yes	Yes
IF-RF	Chassis includes Coil L17 connected in grid circuit of tube	V6	V6	V7	V7
IF-RF	Chassis includes sound take-off Transformer L14 in grid circuit of V6.	No	No	Yes	Yes
IF-RF	Chassis includes 1000 ohms 1/2W resistor connected to pin #6 of V7.	Yes	Yes	No	No
IF-RF	Value of Resistor R34 connected in IF circuit (ohms 1/2W).	220	220	1000	1000
IF-RF	Chassis includes Resistor R39, 220 ohms 1/2W, connected to: a. Junction of R33 and R38. b. Between pin #6 of V6 and pin #6 of V7.	a	a	b	b
IF-RF	Value of Capacitor C63, in 4th Video IF Screen Circuit.	2700	2700	1000	1000
IF-RF	Chassis includes Resistor R33, 220 ohms 1/2W, connected to: a. Pin #6 of V5. b. Pin #6 of V7 and junction of R52 and B+.	a	a	b	b
IF-RF	Chassis includes Resistor R38, 220 ohms 1/2W, connected to: a. Pin #6 of V6 and junction of R33 and R39. b. Pin #6 of V5 and pin #6 of V6.	a	a	b	b
IF-RF	Chassis includes Resistor R29, 220 ohms 1/2W, connected: a. To pin #6 of V4 and R33. b. To pin #6 of V4 and pin #6 of V5.	a	a	b	b
IF-RF	Value of Resistor R30 connected in IF bias circuit (ohms 1/2W).	220	220	10K	10K
IF-RF	Value of Resistor R36 connected in grid circuit of V7 (ohms 1/2W).	39K	39K	12K	12K
IF-RF	Chassis includes $8.2K \pm 10\%$ 1/2W resistor connected to pins #5 and #6 of V7.	No	No	Yes	Yes
IF-RF	Value of Resistor R43 connected to pin #1 of V7 (ohms 1/2W).	12K	12K	39K	39K
IF-RF	Alignment frequency of Coils L12 and L18 (megacycles).	35.7	35.7	35.9	35.9
IF-RF	Value of Resistor R31 connected to pin #1 of V5 (ohms $\pm 5\%$ 1/2W).	8.2K	8.2K	5.1K	5.1K
IF-RF	Chassis includes IF test point and accompanying Resistor R22, 100K 1/2W, connected to plate circuit of V2.	No	No	Yes	Yes
IF-RF	Value of Resistor R46 connected to pin #4 of V8 (ohms 1/2W).	220K	220K	47K	47K
Main	Chassis includes socket and tube V13 (6AL5) with the accompanying components: Resistor R68, 2.2 meg $\pm 10\%$ 1/2W, and Capacitor C96, .05 mfd 600V.	No	No	Yes	Yes
Main	Value of Capacitor C97 connected to terminal "N".	680 mmf	680 mmf	.05 mfd	.05 mfd
Main	Chassis includes Capacitor C96, .05 mfd 600V connected between terminal 6 of Transformer T4 and pin #7 of tube V13 (6AL5).	No	No	Yes	Yes
Main	Value of Resistor R119 (ohms 1/2W)	12K	12K	22K	22K
IF-RF	Chassis includes Resistor R21, 100 ohms 1/2W, connected to terminal "R".	Yes	Yes	Yes	No
IF-RF	Chassis includes Resistor R19: a. 33K 1/2W, connected to pin #5 of V3. b. 220K 1/2W, connected to ground and junction of R17 and R18.	a	a	a	b
IF-RF	Chassis includes Resistor R11, $6.2K \pm 5\%$ 1/2W, connected: a. In parallel with alignment point A17. b. Between the junction of C9 and C16 and the junction of C10 and C14.	a	a	a	b
IF-RF	Chassis includes Resistor R12, 47 ohms 1/2W, connected between pin #7 of V1 and ground.	No	No	No	Yes

**BENDIX MODELS  
235B1, 235M1 (Ch. CODE MA, MB, MC)**

# PARTS LIST ANI

## TUBES (SYLVANIA or Equivalent)

## CAPACITORS

ITEM No.	USE	REPLACEMENT DATA			RMA BASE TYPE	NOTES
		BENDIX PART No.	STANDARD REPLACEMENT			
V1	RF Amp.	6J6	6J6	7BF		
V2	Mixer	6J6	6J6	7BF		
V3	Oscillator	6J6	6J6	7BF		
V4	1st IF Amp.	6AG5	6AG5	7BD		
V5	2nd IF Amp.	6AG5	6AG5	7BD		
V6	3rd IF Amp.	6AG5	6AG5	7BD		
V7	4th IF Amp.	6AG5	6AG5	7BD		
V8	Video Amp.	6AC7	6AC7	8N		
V9	Sound IF Amp.	6AG5	6AG5	7BD		
V10	Limiter	6AU6	6AU6	7BK		
V11	Disc.-Delayed AGC-AF Amp.	6T8	6T8	9E		
V12	Audio Output	6Y6G	6Y6G	7AC		
V13	Bias Clamper	6AL5	6AL5	6BT		
V14	Sync. Sep.-Amp.	6SN7GT	6SN7GT	8BD	Used in chassis models MC and MD	
V15	Sync. Clipper-AGC Amp.	6SN7GT	6SN7GT	8BD		
V16	Vert. Osc.-Disch. Output	6SN7GT	6SN7GT	8BD		
V17	Hor. Osc.-AFC-Disch.	6SN7GT	6SN7GT	8BD		
V18	Hor. Output	6BG6G	6BG6G	5BT		
V19	Damper	6W4GT	6W4GT	4CG		
V20	HV Rectifier	1B3GT	1B3GT	3C		
V21	LW Rectifier	6W4GT	6W4GT	4CG		
V22	LW Rectifier	6W4GT	6W4GT	4CG		
V23	Picture Tube	10BP4	10BP4			

## 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	BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.		SPRAGUE PART No.
C1A	40	450	CE2A03	AF8BJ	UP9CJ			TVL-64	▲ Filter
B	50	450			897#				▲ Filter
C2A	50	300	CE4A02	AF11110G16F	UP9DJ				▲ Filter
B	5	400			1076				■ Decoupling
C	5	400							▲ Decoupling
D	80	250							Decoupling
C3A	250	10	CE2A04	PRS12/250	UF7BJ			TVL-66	Hor. Cent. Cont. Bypass
B	1000	6		PRS6/1000	808				Vert. Cent. Cont. Byp.
C4A	80	200	CE4A01	AFH3H16BE	UP9DJ				▲ Filter
B	40	200		40A	1077				▲ Output Plate Dec.
C	15	350							▲ Vert. Output Plate Dec.
D	200	25							Vert. Output Cath. Byp.
C5	10	200	CE1T08	PRS250/12	BR1225			UT-122	Contrast Cont. Bypass
C6	25	150	CE1T09	PRS150/24	BR3015			TVA-18	AGC Amp. Plate Bypass
C7	10	200	CE1T08	PRS250/12	BR1225			UT-122	Video Amp. Screen Byp.
C8	50	25	CE1T07	PRS25/50	BR502			TVA-15	Output Cath. Bypass
C9	15		CC6B24						Fixed Trimmer
C10	15		CC6B24						" "
C11	30		CC6B04						" "
C12	30		CC6B04						" "
C13	27		CC6B27			GP1K-25			RF Coupling
C14	27		CC6B27			GP1K-25			" "
C15	1000		CC9M50			GP2L-001			AGC Filter
C16	1000		CC9M50			GP2L-001			AGC Filter
C17	1000		CC9M50			GP2L-001			AGC Filter
C18	1.5		CC9B12						Neutralizing
C19	1.5		CC9B12						" "
C20	1000		CC9M50			GP2L-001			RF Plate Decoupling
C21	2.7		CC6B15						Fixed Trimmer
C22	1000		CC9M50			GP2L-001			RF Fil. Bypass
C23	27		CC6B27			GP1K-25			RF Coupling
C24	27		CC6B27			GP1K-25			" "
C25	13		CC6C02						Fixed Trimmer
C26	13		CC6C02						" "
C27	1000		CC9M50			GP2L-001			Mixer Grid Filter
C28	1000		CC9M50			GP2L-001			Mixer Plate Dec.
C29	1000		CC9M50			GP2L-001			Decoupling
C30	1000		CC9M50			GP2L-001			Decoupling
C31	1000		CC9M50			GP2L-001			Mixer Fil. Bypass
C32	2.2		CC9B14						Osc. Coupling
C33	2.2		CC9B14						" "
C34	3.9		CC8C17						Neutralizing
C35	3.9		CC8C17						" "
C36	1		CC8A10						Fixed Trimmer
C37	150	500							" "
C38	1000		CC9M50			GP2L-001			Filament Bypass
C39	68		CC6A32	1468-000075	5W5Q7	GP1K-75	MOS.5-47	1FM-475	IF Coupling
C40	1000		CC9M50	1468-001		GP2L-001	MO.3-21		AGC Filter
C41	1000		CC9M50	1468-001		GP2L-001	MO.3-21		" "
C42	150	500	CC9M50	1468-001		GP2L-001	MO.3-21		2nd IF Decoupling
C43	68		CC6A32	1468-0003	5W5T3	GP2K-300	MO.5-33	1FM-335	2nd IF Fil. Bypass
C44	1000		CC9M50	1468-001		GP1K-15			IF Coupling
C45	1000		CC9M50	1468-001		GP1K-15			Fixed Trimmer
C46	1000		CC9M50	1468-001		GP2L-001	MO.3-21		AGC Filter
C47	1000		CC9M50	1468-001		GP2L-001	MO.3-21		" "
C48	330		CC9A40	1468-0003	5W5T3	GP2K-300	MO.5-33	1FM-335	3rd IF Decoupling
C49	15		CC6B24			GP2L-001	MO.3-21		Fixed Trimmer
C50	15		CC6B24			GP1K-15			" "
C51	1000		CC9M50	1468-001		GP2L-001	MO.3-21		AGC Filter
C52	1000		CC9M50	1468-001		GP2L-001	MO.3-21		" "
C53	1000		CC9M50	1468-001		GP2L-001	MO.3-21		" "
C54	1000		CC9M50	1468-001		GP2L-001	MO.3-21		3rd IF Decoupling
C55	150	500				GP2L-001	MO.3-21		Fixed Trimmer
C56	150	500				GP2L-001	MO.3-21		3rd IF Fil. Bypass
C57	150	500				GP2L-001	MO.3-21		Fixed Trimmer
C58	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Filament Bypass
C59	330		CC9A40	1468-0003	5W5T3	GP2K-300	MO.5-33	1FM-335	IF Coupling

ITEM No.	RATING		REPLACEMENT DATA		
	CAP.	VOLT	BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.
C60	15		CC6B24		
C61	15		CC6B24		
C62	1000		CC9M50	1468-001	
C53	1000		CC9M50	1468-001	
C64	150	500	*		
C65	1000		CC9M50	1468-001	
C66	1000		CC9M50	1468-001	
C67	1000		CC9M50	1468-001	
C68	1000		CC9M50	1468-001	
C69	1000		CC9M50	1468-001	
C70	1000		CC9M50	1468-001	
C71	82		↑		
C72	1000		CC9M50	1468-001	
C73	1000		CC9M50	1468-001	
C74	2.7		CC6B15		
C75	1000		CC9M50	1468-001	
C76	150	500	*		
C77	1000		CC9M50	1468-001	
C78	1000		CC9M50	1468-001	
C79	1000		CC9M50	1468-001	
C80	27		CC6B27	1468-000025	5W5Q25
C81	1000		CC9M50	1468-001	
C82	1000		CC9M50	1468-001	
C83	150	500	*		
C84	10		CC6A22	1468-00001	
C85	33		CC0C28		
C86	80		CC9A34	1468-0001	5W5T1
C87	80		CC9A34	1468-0001	5W5T1
C88	1000		CC9M50	1468-001	
C89	.01	400	CP3S31	P488-01	GT4S1
C90	.01	400	CP3S31	P488-01	GT4S1
C91	100		CC9A34	1468-0001	5W5T1
C92	1000		CC9M50	1468-001	
C93	.004	400	CP2S16	P688-004	GT6D4
C94	.004	400	CP2S16	P688-004	GT6D4
C95	.01	400	CP3S31	P488-01	GT4S1
C96	.05	600	CP9S40	P688-05	GT6S5
C97	.05	400	CP3S40	P488-05	GT4S5
C98	330		CC9A40	1468-0003	5W5T3
C99	.02	400	CP3S34	P488-02	GT4S2
C100	.002	400	CP3S12	P688-002	GT6D2
C101	.005	400	CP3S18	P488-005	GT6D5
C102	.005	400	CP2S18	P488-005	GT6D5
C103	.005	400	CP2S18	P488-005	GT6D5
C104	.1	400	CP2S51	P488-1	GT4P1
C105	.1	400	CP3S51	P488-1	GT4P1
C106	.1	400	CP3S51	P488-1	GT4P1
C107	68		CC6A32		
C108	.002	400	CP3S12	P688-002	GT6D2
C109	5		CC6A00	1468-000005	5W5V5
C110	.05	400	CP3S40	P488-05	GT4S5
C111	.25	400	CP2S60	P488-25	GT4P25
C112	.02	400	CP3S34	P488-02	GT4S2
C113	180	500	CM6E40		
C114	2700	500	CM6E67		
C115	2700	500	CM6E67		
C116	560		CC9M43		
C117	.01	400	CP3S31	P488-01	GT4S1
C118	.1	400	CP3S51	P488-1	GT4P1
C119	.05	600	CP7S37	P688-05	GT6S5
C120	.1	400	CP3S51	P488-1	GT4P1
C121	.047	400	CP3S39	P488-047	GT4S5
C122	.047	400	CP3S39	P488-047	GT4S5
C123	.01	400	CP6S31	P488-01	GT4S1
C124	.01	400	CP6S31	P488-01	GT4S1
C125	500	20000	CC9N45		

\* Filament RF Choke assembly obtainable under  
 † Item C71 and I24 are combined into one unit  
 ‡ Parallel sections to obtain desired capacity

## CON

ITEM No.	RATING		REPLACEMENT DATA		
	RESISTANCE	WATTS	BENDIX PART No.	IRC PART No.	CLAROX PART No.
R1	250KΩ	½	RV0C11		
R2A	500KΩ	½	RV0D00		
B	600Ω	½			
R3	2 Meg.	½	RV4C05		M-83-S
R4	100KΩ	½	RV0C10		15/16-
R5	2500Ω	½	RV0C07		10-2500
R6	1 Meg.	½	RV4C04		15/16-
R7	1500Ω	½	RV0C08		43-1500
R8	200Ω	½	RV0C06	W-200	58-200
R9	100Ω	½	RV0C05	W-100	58-100

## RESIS

ITEM No.	RATING		REPLACEMENT DATA		
	RESISTANCE	WATTS	BENDIX PART No.	IRC PART No.	A
R10	1000Ω	½	RC2T19		
R11	6200Ω	½	RC2R81	BTS-1000	
R12	47Ω	½	RC2T15		
R13	680Ω	½	RC2T17		
R14	4700Ω	½	RC3S26		
R15	4700Ω	½	RC3S26		
R16	5100Ω	½	RC2R80		
R17	10KΩ	½	RC2R30		
R18	10KΩ	½	RC2R30		
R19	220KΩ	½	RC2S46		
R20	680Ω	½	RC2T17		
R21	100Ω	½	RC2T07		

# PARTS LIST AND DESCRIPTIONS

## CAPACITORS (CONT.)

ITEM No.	RATING CAP.	VOLT	BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C60	15		CC6B24			GPLK-15			Fixed Trimmer
C61	15		CC6B24			GPLK-15			"
C62	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Cath. Bypass
C63	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Decoupling
C64	150	500	*						Fixed Trimmer
C65	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Fil. Bypass
C66	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Cath. Bypass
C67	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Cath. Byp.
C68	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Screen Byp.
C69	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Fil. Byp.
C70	1000		CC9M50	1468-001		GP2L-001	MO.3-21		"
C71	82		†						Fixed Trimmer
C72	1000		CC9M50	1468-001		GP2L-001	MO.3-21		S. IF Cath. Bypass
C73	1000		CC9M50	1468-001		GP2L-001	MO.3-21		S. IF Decoupling
C74	2.7		CC6B15						Fixed Trimmer
C75	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Fixed Trimmer
C76	150	500	*						Fixed Trimmer
C77	1000		CC9M50	1468-001		GP2L-001	MO.3-21		RF Bypass
C78	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Decoupling
C79	1000		CC9M50	1468-001		GP2L-001	MO.3-21		"
C80	27		CC6B27	1468-000025	5W5Q25	GPLK-25	MO.5-425	MS-425	Limiter Grid Filter
C81	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Limiter Decoupling
C82	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Limiter Fil. Bypass
C83	150	500	*						Fixed Trimmer
C84	10		CC6A22	1468-00001		GPLK-10	MO.5-41		S. IF Coupling
C85	33		CCOC28			NPOK-33			Fixed Trimmer
C86	80		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	RF Bypass
C87	80		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	"
C88	1000		CC9M50	1468-001		GP2L-001	MO.3-21		AGC Filter
C89	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling
C90	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	"
C91	100		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	RF Bypass
C92	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Disc.-AF Fil. Bypass
C93	.004	400	CP2S16	P688-004	GT6D4	ST-6-005	TM-24		Tone Compensation
C94	.004	400	CP2S16	P688-004	GT6D4	ST-6-005	TM-24		"
C95	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Output Plate Bypass
C96	.05	600	CP3S40	P688-05	GT6S5	ST-6-05	TM-15		Hor. Sweep Coupling
C97	.05	400	CP3S40	P488-05	GT4S5	ST-4-05	TM-15		Sync. Coupling
C98	330		CC9A40	1468-0003	5W5T3	GP2K-300	MO.5-33	1FM-335	Sync. Amp. Grid Filter
C99	.02	400	CP3S34	P488-02	GT4S2	GP2M-002	ST-4-02	TM-22	Sync. Coupling
C100	.002	400	CP3S12	P488-005	GT6D2	GP2M-005	ST-6-005	TM-25	Integrator Net.
C101	.005	400	CP3S13	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C102	.005	400	CP3S18	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C103	.005	400	CP3S18	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C104	.1	400	CP2S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Osc. Grid Cap.
C105	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Discharge
C106	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Coupling
C107	68		CC6A32						RF Bypass
C108	.002	400	CP3S12	P688-002	GT6D2	GP2M-002	ST-6-002	TM-22	Sync. Coupling
C109	5		CC6A00	1468-000005	5W5V5	NPOK-5	MO.5-55	MS-55	AFC Feedback
C110	.05	400	CP3S40	P488-05	GT4S5	GP2M-005	ST-4-05	TM-15	AFC Plate Bypass
C111	.25	400	CP2S60	P488-25	GT4P25	ST-4-25	TC-2		AFC Filter
C112	.02	400	CP3S24	P488-02	GT4S2	ST-4-02	TM-12		"
C113	180	500	CM6S40						Hor. Osc. Grid Cap.
C114	2700	500	CM6E67						Voltage Divider
C115	2700	500	CM6E67						"
C116	560		CC9M43						Hor. Coupling
C117	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Hor. Output Screen Byp.
C118	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Damper Filter
C119	.05	600	CP7S37	P688-05	GT6S5	ST-6-05	TM-15		"
C120	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Brightness Cont. Byp.
C121	.047	400	CP3S39	P488-047	GT4S5	ST-4-05	TM-15		AGC Amp. Grid Filter
C122	.047	400	CP3S39	P488-047	GT4S5	ST-4-05	TM-15		"
C123	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Line Filter
C124	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	"
C125	500	20000	CC9N45			410-500			HV Filter

Electrolytic Capacitors.

ITEM No.	IDENTIFICATION CODES AND INSTALLATION NOTES
64	▲ Filter ▲ Filter ▲ Filter ■ Decoupling ■ Decoupling Decoupling
66	Hor. Cent. Cont. Bypass Vert. Cent. Cont. Byp. ▲ Filter ▲ Output Plate Dec. ▲ Vert. Output Plate Dec.
22	Vert. Output Cath. Byp.
13	Contrast Cont. Bypass
16	AGC Amp. Plate Bypass
22	Video Amp. Screen Byp.
15	Output Cath. Bypass Fixed Trimmer " " " "
	RF Coupling " " " " AGC Filter AGC Filter AGC Filter Neutralizing " " RF Plate Decoupling Fixed Trimmer RF Fil. Bypass RF Coupling " "
	Fixed Trimmer " "
	Mixer Grid Filter Mixer Plate Dec. Decoupling Decoupling Mixer Fil. Bypass Osc. Coupling " "
	Neutralizing " "
	Fixed Trimmer " " " " Filament Bypass IF Coupling 1st IF Decoupling 1st IF Fil. Bypass Fixed Trimmer IF Coupling AGC Filter " "
	2nd IF Decoupling 2nd IF Fil. Bypass IF Coupling Fixed Trimmer " "
	AGC Filter " " " " 3rd IF Decoupling Fixed Trimmer 3rd IF Fil. Bypass Fixed Trimmer Filament Bypass IF Coupling

ITEM No.	RATING CAP.	VOLT	REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES	
			BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SOLAR PART No.		SPRAGUE PART No.
C60	15		CC6B24			GPLK-15			Fixed Trimmer
C61	15		CC6B24			GPLK-15			"
C62	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Cath. Bypass
C63	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Decoupling
C64	150	500	*						Fixed Trimmer
C65	1000		CC9M50	1468-001		GP2L-001	MO.3-21		4th IF Fil. Bypass
C66	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Cath. Bypass
C67	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Cath. Byp.
C68	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Screen Byp.
C69	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Video Amp. Fil. Byp.
C70	1000		CC9M50	1468-001		GP2L-001	MO.3-21		"
C71	82		†						Fixed Trimmer
C72	1000		CC9M50	1468-001		GP2L-001	MO.3-21		S. IF Cath. Bypass
C73	1000		CC9M50	1468-001		GP2L-001	MO.3-21		S. IF Decoupling
C74	2.7		CC6B15						Fixed Trimmer
C75	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Fixed Trimmer
C76	150	500	*						Fixed Trimmer
C77	1000		CC9M50	1468-001		GP2L-001	MO.3-21		RF Bypass
C78	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Decoupling
C79	1000		CC9M50	1468-001		GP2L-001	MO.3-21		"
C80	27		CC6B27	1468-000025	5W5Q25	GPLK-25	MO.5-425	MS-425	Limiter Grid Filter
C81	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Limiter Decoupling
C82	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Limiter Fil. Bypass
C83	150	500	*						Fixed Trimmer
C84	10		CC6A22	1468-00001		GPLK-10	MO.5-41		S. IF Coupling
C85	33		CCOC28			NPOK-33			Fixed Trimmer
C86	80		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	RF Bypass
C87	80		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	"
C88	1000		CC9M50	1468-001		GP2L-001	MO.3-21		AGC Filter
C89	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Audio Coupling
C90	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	"
C91	100		CC9A34	1468-0001	5W5T1	GPLK-100	MO.5-31	1FM-31	RF Bypass
C92	1000		CC9M50	1468-001		GP2L-001	MO.3-21		Disc.-AF Fil. Bypass
C93	.004	400	CP2S16	P688-004	GT6D4	ST-6-005	TM-24		Tone Compensation
C94	.004	400	CP2S16	P688-004	GT6D4	ST-6-005	TM-24		"
C95	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Output Plate Bypass
C96	.05	600	CP3S40	P688-05	GT6S5	ST-6-05	TM-15		Hor. Sweep Coupling
C97	.05	400	CP3S40	P488-05	GT4S5	ST-4-05	TM-15		Sync. Coupling
C98	330		CC9A40	1468-0003	5W5T3	GP2K-300	MO.5-33	1FM-335	Sync. Amp. Grid Filter
C99	.02	400	CP3S34	P488-02	GT4S2	GP2M-002	ST-4-02	TM-22	Sync. Coupling
C100	.002	400	CP3S12	P488-005	GT6D2	GP2M-005	ST-6-005	TM-25	Integrator Net.
C101	.005	400	CP3S13	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C102	.005	400	CP3S18	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C103	.005	400	CP3S18	P488-005	GT6D5	GP2M-005	ST-6-005	TM-25	"
C104	.1	400	CP2S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Osc. Grid Cap.
C105	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Discharge
C106	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Vert. Coupling
C107	68		CC6A32						RF Bypass
C108	.002	400	CP3S12	P688-002	GT6D2	GP2M-002	ST-6-002	TM-22	Sync. Coupling
C109	5		CC6A00	1468-000005	5W5V5	NPOK-5	MO.5-55	MS-55	AFC Feedback
C110	.05	400	CP3S40	P488-05	GT4S5	GP2M-005	ST-4-05	TM-15	AFC Plate Bypass
C111	.25	400	CP2S60	P488-25	GT4P25	ST-4-25	TC-2		AFC Filter
C112	.02	400	CP3S24	P488-02	GT4S2	ST-4-02	TM-12		"
C113	180	500	CM6S40						Hor. Osc. Grid Cap.
C114	2700	500	CM6E67						Voltage Divider
C115	2700	500	CM6E67						"
C116	560		CC9M43						Hor. Coupling
C117	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Hor. Output Screen Byp.
C118	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Damper Filter
C119	.05	600	CP7S37	P688-05	GT6S5	ST-6-05	TM-15		"
C120	.1	400	CP3S51	P488-1	GT4P1	ST-4-1	TM-1		Brightness Cont. Byp.
C121	.047	400	CP3S39	P488-047	GT4S5	ST-4-05	TM-15		AGC Amp. Grid Filter
C122	.047	400	CP3S39	P488-047	GT4S5	ST-4-05	TM-15		"
C123	.01	400	CP3S31	P488-01	GT4S1	GP2-335-01	ST-4-01	TM-11	Line Filter
C124	.								

# DESCRIPTIONS

(CONT.)

# RESISTORS (CONT.)

ITEM No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
				RESISTANCE	WATTS	BENDIX		
						PART No.	IRC PART No.	
R22			Fixed Trimmer	100KΩ	1/2	RC2T42	BTS-100K	Series Test Jack
R23			"	22KΩ	1/2	RC2T34		Osc. Grid
R24	MO.3-21		4th IF Cath. Bypass	22KΩ	1/2	RC2T34		"
R25	MO.3-21		4th IF Decoupling	270KΩ	1/2	RC2S47	BTS-270K	Picture Tube Grid
R26			Fixed Trimmer	680Ω	1/2	RC2T17		Osc. Plate 10%
R27	MO.3-21		4th IF Fil. Bypass	68KΩ	1/2			1st Video IF Grid 10%
R28	MO.3-21		Video Amp. Cath. Bypass	68Ω	1/2			1st Video IF Cathode 10%
R29	MO.3-21		Video Amp. Cath. Byp.	220Ω	1/2	RC2T11		1st Video IF Decoupling
R30	MO.3-21		Video Amp. Screen Byp.	10KΩ	1/2	RC2R30		AGC Network 5%
R31	MO.3-21		Video Amp. Fil. Byp.	5100Ω	1/2	RC2R80		2nd Video IF Grid 5%
R32			"	68Ω	1/2			2nd Video IF Cathode 10%
R33			Fixed Trimmer	220Ω	1/2	RC2T11		2nd Video IF Decoupling
R34	MO.3-21		S. IF Cath. Bypass	1000Ω	1/2	RC2T19	BTS-1000	AGC Network
R35	MO.3-21		S. IF Decoupling	18KΩ	1/2	RC2S33		Filter Network
R36			Fixed Trimmer	12KΩ	1/2	RC2R31		3rd Video IF Grid Coil Shunt
R37	MO.3-21		S. IF Fil. Bypass	68Ω	1/2			3rd Video IF Cathode 5%
R38			Fixed Trimmer	220Ω	1/2	RC2T11		3rd Video IF Decoupling
R39	MO.3-21		RF Bypass	220Ω	1/2	RC2T11		"
R40	MO.3-21		Decoupling	220Ω	1/2	RC2T11		AGC Network
R41			"	1000Ω	1/2	RC2T19	BTS-1000	"
R42	MO.5-425	MS-425	Limiting Grid Filter	18KΩ	1/2	RC2S33		Filter Network 10%
R43	MO.3-21		Limiting Decoupling	330KΩ	1/2	RC2S37		4th Video IF Grid 10%
R44	MO.3-21		Limiting Fil. Bypass	150Ω	1/2	RC2S09		4th Video IF Cathode
R45			Fixed Trimmer	220Ω	1/2	RC2T11		4th Video IF Decoupling
R46	MO.5-41		S. IF Coupling	47KΩ	1/2	RC2T38	BTS-47K	Series Test Jack
R47			Fixed Trimmer	6200Ω	2	RC4R67	BTA-6800-5%	Video Amp. Plate 5%
R48	MO.5-31	LFM-31	RF Bypass	8200Ω	2	RC2S29	BTS-8200	Phase Correction 10%
R49	MO.5-31	LFM-31	"	18KΩ	1/2	RC2S33	BTS-18K	Voltage Divider 10%
R50	MO.3-21		AGC Filter	100Ω	1/2	RC2T07		Sound IF Grid
R51	ST-4-01	TM-11	Audio Coupling	220Ω	1/2	RC2T11		Sound IF Cathode 10%
R52	ST-4-01	TM-11	"	220Ω	1/2	RC2T11		Sound IF Decoupling
R53	MO.5-31	LFM-31	RF Bypass	56KΩ	1/2	RC2S39		Limiting Grid 10%
R54	MO.3-21		Disc. -AF Fil. Bypass	27Ω	1/2	RC2S80		Limiting Cathode 10%
R55	ST-6-005	TM-24	Tone Compensation	33KΩ	1	RC3S36		Limiting Decoupling 10%
R56	ST-6-005	TM-24	"	15KΩ	1	RC2S32	BTS-15K	Voltage Divider 10%
R57	ST-4-01	TM-11	Output Plate Bypass	100KΩ	1	RC2T42	BTS-100K	Disc. Load
R58	ST-6-05	TM-15	Hor. Sweep Coupling	100KΩ	1	RC2T42	BTS-100K	"
R59	ST-4-05	TM-15	Sync. Coupling	220KΩ	1	RC2T46	BTS-220K	Series Test Jack
R60	MO.5-33	LFM-335	Sync. Amp. Grid Filter	470KΩ	1	RC2T50	BTS-470K	"
R61	ST-4-02	TM-12	Sync. Coupling	47KΩ	1	RC2T38	BTS-47K	Tone Compensation
R62	ST-6-002	TM-22	Integrator Net.	180KΩ	1	RC2S45	BTS-180K	1st AF Plate 10%
R63	ST-6-005	TM-25	"	10 Meg.	1	RC2T66	BTS-10 Meg.	1st AF Grid
R64	ST-6-005	TM-25	"	68KΩ	1	RC2T52	BTS-68K	Tone Compensation
R65	ST-6-005	TM-25	Vert. Osc. Grid Cap.	220Ω	1	RC2T11		Output Grid
R66	ST-4-1	TM-1	Vert. Discharge	220Ω	1	RC4S11		Output Cathode
R67	ST-4-1	TM-1	Vert. Coupling	220Ω	1	RC4S11	BW-2-220	Filter
R68	ST-4-1	TM-1	RF Bypass	2.2 Meg.	1	RC2S58	BTS-2.2 Meg.	Bias Clamper Load
R69	ST-4-1	TM-1	Sync. Coupling	10 Meg.	1	RC2T66	BTS-10 Meg.	Sync. Coupling Network
R70	ST-6-002	TM-22	"	100KΩ	1	RC2S42	BTS-100K	Voltage Divider 10%
R71	MO.5-55	MS-55	AFC Feedback	22KΩ	1	RC2S34	BTS-22K	Sync. Sep. Plate 10%
R72	ST-4-05	TM-15	AFC Plate Bypass	33KΩ	1	RC3S36	BTS-33K	Sync. Amp. Cathode 10%
R73	ST-4-25	TC-2	AFC Filter	5.6 Meg.	1	RC2S63	BTS-5.6 Meg.	Sync. Amp. Grid 10%
R74	ST-4-02	TM-12	"	8200Ω	1	RC3S29	BTS-8200	Sync. Clipper Grid 10%
R75			Hor. Osc. Grid Cap.	3300Ω	1	RC3S24	BTA-3300	Sync. Clipper Plate 10%
R76			Voltage Divider	1800Ω	1	RC3S21	BTA-1800	" 10%
R77			"	22KΩ	1	RC2T34	BTS-22K	Integrator 10%
R78			Hor. Coupling	8200Ω	1	RC2S29	BTS-8200	" 10%
R79	ST-4-01	TM-11	Hor. Output Screen Byp.	8200Ω	1	RC2S29	BTS-8200	" 10%
R80	ST-4-1	TM-1	Damper Filter	1 Meg.	1	RC2T54	BTS-1 Meg.	Vert. Osc. Grid 10%
R81	ST-6-05	TM-15	"	100KΩ	1	RC2S42	BTS-100K	Voltage Divider 10%
R82	ST-4-1	TM-11	Brightness Cont. Byp.	6.8 Meg.	1	RC2S64	BTS-6.8 Meg.	" 10%
R83	ST-4-05	TM-15	AGC Amp. Grid Filter	1 Meg.	1	RC2S54	BTS-1 Meg.	Vert. Osc. Plate 10%
R84	ST-4-05	TM-15	"	2200Ω	1	RC2S22	BTS-2200	Vert. Peaking 10%
R85	ST-4-01	TM-11	Line Filter	4.7 Meg.	1	RC2T62	BTS-4.7 Meg.	Vert. Output Grid 10%
R86	ST-4-05	TM-15	"	470Ω	1	RC2T15	BTS-470	Vert. Output Cathode 10%
R87	ST-4-01	TM-11	HV Filter	470Ω	1	RC3T26	BW-1-4700	Filter
R88			"	120KΩ	1	RC2S43	BTS-120K	Voltage Divider 10%
R89			"	330KΩ	1	RC2S49	BTS-330K	Horiz. AFC Plate 10%
R90			"	560KΩ	1	RC2S51	BTS-560K	Horiz. AFC Grid 10%
R91			"	180KΩ	1	RC2S45	BTS-180K	Horiz. AFC Cathode 10%
R92			"	8200Ω	1	RC2S29	BTS-8200	AFC Filter 10%
R93			"	3.3 Meg.	1	RC2T60	BTS-3.3 Meg.	Voltage Divider
R94			"	180KΩ	1	RC3R45	BTA-180K-5%	Horiz. Osc. Grid 5%
R95			"	100KΩ	1	RC3S42	BTA-100K	Horiz. AFC Cathode 10%
R96			"	6800Ω	1	RC2S28	BTS-6800	Horiz. Osc. Transformer Shunt 10%
R97			"	150KΩ	1	RC2S44	BTS-150K	Horiz. Osc. Plate 10%
R98			"	150KΩ	1	RC2S44	BTS-150K	Feedback 10%
R99			"	68Ω	1	RC3S05	BW-1-68	Horiz. Output Cathode 10%
R100			"	1 Meg.	1	RC2T54	BTS-1 Meg.	Horiz. Output Grid
R101			"	47Ω	1	RC2T04		Parasitic Supp.
R102			"	22Ω	1	RC2T02		"
R103			"	22Ω	1	RC2T02		"
R104			"	100Ω	1	RC2T07		"
R105			"	4700Ω	1	RC3S26	BTA-4700	Horiz. Output Screen
R106			"	100Ω	1	RC2T07		Parasitic Supp.
R107			"	47Ω	1	RC2T04		"
R108			"	2.2 Meg.	1	RC2S58	BTS-2.2 Meg.	Feedback 10%
R109			"	2.2 Meg.	1	RC2S58	BTS-2.2 Meg.	" 10%
R110			"	27KΩ	2	RC4S35	BT-2-27K	Horiz. Coil Shunt
R111			"	27KΩ	2	RC4S35	BT-2-27K	"
R112			"	100KΩ	2	RC2T42	BTS-100K	Filter
R113			"	10KΩ	2	RC2T30	BTS-10K	"
R114			"	680KΩ	2	RC4T52		HV Filter
R115			"	8200Ω	1	RC3S29	BTA-8200	Voltage Divider 10%
R116			"	4700Ω	1	RC3S26	BTA-4700	" 10%
R117			"	150Ω	1	RC2S09	BW-1-150	" 10%
R118			"	4700Ω	1	RC3S26	BTS-4700	" 10%
R119			"	22KΩ	1	RC2T34	BTS-22K	" 10%
R120			"	10KΩ	1	RC2S30	BTS-10K	AGC Amp. Plate
R121			"	1 Meg.	1	RC2T54	BTS-1 Meg.	AGC Amp. Grid
R122			"	470KΩ	1	RC2S50	BTS-470K	AGC Filter Net.
R123			"	560KΩ	1	RC2S51	BTS-560K	AGC Amp. Plate
R124			"	7500Ω	10	AR-7500		Filter

**BENDIX MODELS**  
**235B1, 235M1 (Ch. CODE MA, MB, MC)**

# PARTS LIST AND DESCRIPTIONS (Continued)

## RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	BENDIX	IRC	
			PART No.	PART No.	
R125	560Ω	2	RC4S16	BT-2-560	Series Focus Coil
R126	1500Ω	2		BT-2-1500	Focus Coil Shunt
R127	7500Ω	5		AB-7500	Filter
R128	120KΩ	$\frac{1}{4}$	RC2S43	BTS-120K	Voltage Divider
R129	22KΩ	$\frac{1}{4}$	RC2T34	BTS-22K	Integrator

## TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	BENDIX	STANCOR	CHICAGO	MERIT
					PART No.	PART No.	PART No.	PART No.
T1	117VAC @ 1.7A	600VCT @ .215 ADC	6.3VAC @ 4.7A	6.3VAC @ 8.3A	TPOY00			

## TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		BENDIX PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.					
T2	87Ω Tap @ 63Ω		TA0S00				Hor. Syncro-Guide Transformer. Vert. Osc. Transformer Hor. Output Trans.
T3	144Ω	1240Ω	TO0V00	A-8121	TB0-1	A-3000	
T4	580Ω Tap @ 130Ω	SEC. 1 19.3Ω Tap @ 13.2Ω & .9Ω	TS0H01				
T5	570Ω	7Ω	TSOV00	A-8115	TS0-1	A-3035	
T6A	14Ω		LCOD00	DY-1			Vert. Output Trans. Hor. Deflection Yoke Vert. Deflection Yoke Focus Coil
T6B	61Ω						
T7	247Ω		LCOF00	FC-10			

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		BENDIX PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.	PRI.	SEC.					
T8	1900Ω	3.1Ω	140Ω	.35Ω	TA0018	A-3876	RO-304	A-2928	

## SPEAKER

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	BENDIX PART No.	JENSEN PART No.	QUAM PART No.	
SP1	98Ω	3.1Ω	SE4000		§	§ Supplied on request.
SP2	4" x 6"	9/16"				

## COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	BENDIX PART No.	MEISSNER PART No.	
L2	Wave Trap	0Ω		TIOW01		Wound on 1.5KΩ resistor Wound on 1.5KΩ resistor
L3	Wave Trap	0Ω		TIOW01		
L4	RF Choke	.1Ω		LIOT09		
L5	RF Choke	.1Ω		LIOT10		
L6	RF Choke	0Ω		LIOT13		
L7	RF Choke	.1Ω		LIOT12		
L8	RF Choke	.1Ω		LIOT12		
L9	RF Choke	0Ω		LFOR00		
L10	RF Choke	0Ω		LFOR00		
L11	1st Video IF	0Ω		LIOT00		
L12	2nd Video IF	0Ω		LIOT02		
L13	3rd Video IF	0Ω		LIOT07		
L14A	Sound Take- Off	0Ω	0Ω	TI0I03		Chassis Codes MC and MD only.
L14B	3rd Video IF	0Ω		LIOT03		Chassis Codes MA and MB only.

PARTS LIST CONT. ON PAGE 19

# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF) CONT.

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	BENDIX PART No.	MEISSNER PART No.	
L15	4th Video IF	0Ω		LIOT05		
L16	Adjacent Sound IF	0Ω		LIOT01		
L17	Adjacent Sound IF Trap	0Ω		LIOT04		
L18	5th Video IF	0Ω		LIOT06		
L19A	6th Video IF	0Ω		LIOT08		Includes coupling cap., Video Det. 1N34 and Det. load.
	B RF Choke	5Ω		LFOA06		
L20	Peaking	11Ω		LCOV00		
L21	Peaking	9Ω		LCOV02		
L22	Peaking	22Ω		LCOV01		
L23	Peaking	4Ω		LCOV03		
L24	4.5MC Trap	1Ω		TVOPO0		Includes C71
L25	Sound IF Trans.	0Ω	0Ω	TIOIO2		
L26	Disc. Trans.	0Ω	0Ω	TIOD22		
L27	Width Cont.	.3Ω		LCOW00		
L28	Hor. Linearity	35Ω		LCOL00		
L29	RF Choke	0Ω		LFOA06		
L30	RF Choke	0Ω		LFOA06		

## MISCELLANEOUS

ITEM No.	PART NAME	BENDIX PART No.	NOTES
M1	Fuse	FCOM00	4A Type 3AG
M2	Fuse	FCOM01	.25A Type 3AG
M3	Switch	SS3PC0	Tone Control
M4	RF Tuner	AROT00	Complete
M5	Ion Trap	TIOPO0	PM
	Cabinet	ZWOT00	Model 235M1
	Cabinet	ZWOT01	Model 235B1
	Safety Glass	GZOS00	
	Button	BPOB04	Tone Control
	Button	BPOB05	Channel Push Buttons
	Crystal	1N34	Video Det.

## HORIZONTAL SWEEP ADJUSTMENTS

- Set the horizontal hold control to its mid position.
- Adjust the horizontal drive trimmer (B1) for maximum voltage. The trimmer position occurs at approximately one or two turns out from maximum capacity. The high voltage produced is 9.2 to 10.2KV at the picture tube high voltage anode.
- Set the horizontal frequency trimmer (B2) to its mid range which is approximately one turn back from the maximum clockwise position.
- Turn the horizontal oscillator coil slug (B3) until picture "syncs".
- Turn the horizontal hold control fully counterclockwise. If picture fails to drop out of synchronization, momentarily interrupt the signal. (This may be done by switching to another channel and then back to the original channel.)
- Slowly advance the horizontal hold control in the clockwise direction and note the least number of diagonal bars present on the raster just before the picture drops into synchronization.
- If more than 6 1/2 bars were present just before the picture "syncs" adjust the horizontal lock-range (B4) slightly clockwise. If less than 4 bars were present just before synchronization, turn B4 slightly counterclockwise.
- Advance the contrast control clockwise and momentarily remove the signal. When the signal is restored note the number of bars present. Repeat the adjust of B4 until 4 to 6 1/2 bars are present at the point of synchronization.
- Check the range of the horizontal hold control starting from the fully counterclockwise position. Interrupt the signal momentarily. Normally the picture will fall out of sync. Turn the horizontal hold clockwise slowly until 4 to 6 1/2 bars appear on the raster. A slight advancement in the clockwise direction should cause full synchronization. This should occur at 90° of the rotation from the full CCW position and should hold for approximately 120° more before it drops out again. If these conditions cannot be met, repeat the procedure.

**BENDIX MODELS**  
**235B1, 235M1 (Ch. CODE MA, MB, MC)**