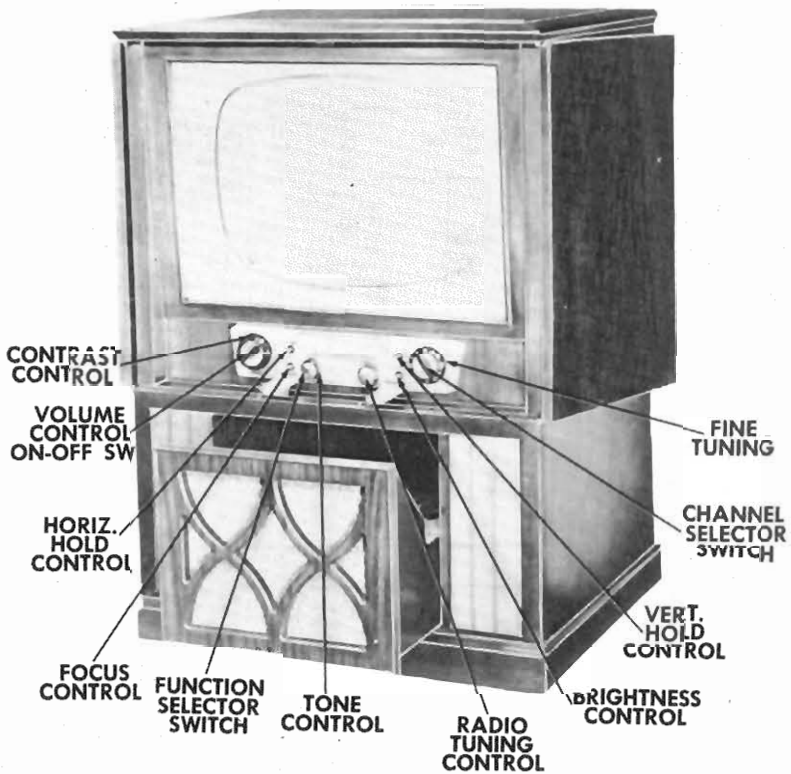




20 pg



ADMIRAL 321M26A				
TRADE NAME	Admiral	MODELS	CHASSIS	RECORD CHANGER
		21K15A, 121K16A, 121K17A, 121M10, 121M11A, 121M12A, 221K45A, 221K46A, 221K47A 22M1 321M25A, 321M26A, 321M27A 22Y1 421M15A, 421M16A, 421M35, 421M36, 421M37 22Y1 520M11, 520M12 22A2A 520M15, 520M16, 520M17 22A2 521M15A, 521M16A, 521M17A 22Y1		RC550A or RC550GA
MANUFACTURER	Admiral Corp. 3800 W. Cortland St., Chicago 47, Ill.			
TYPE SET	AM-TV-Phono Combination			
TUBES	Twenty-four			
POWER SUPPLY	110-120 Volts AC-60 Cycle		RATING	1.87 amp. @ 117 volts AC
TUNING RANGE	530-1620 KC (AM), Channels 2 thru 13 (TV)			

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Chassis-Bottom View (Radio)	18	Tube Placement Chart (Top View)	5

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

"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."
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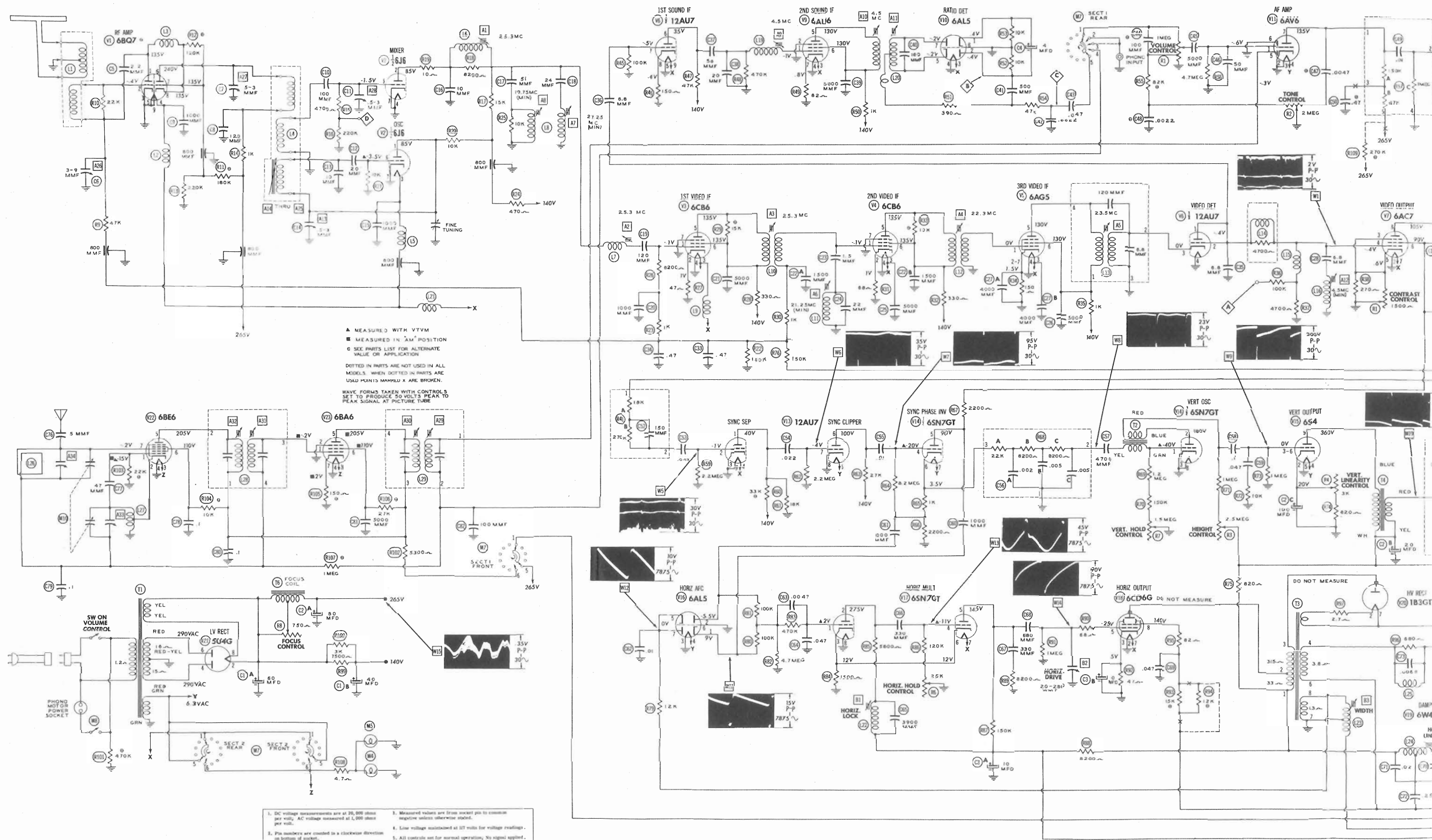
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DATE 9-52

SET 180

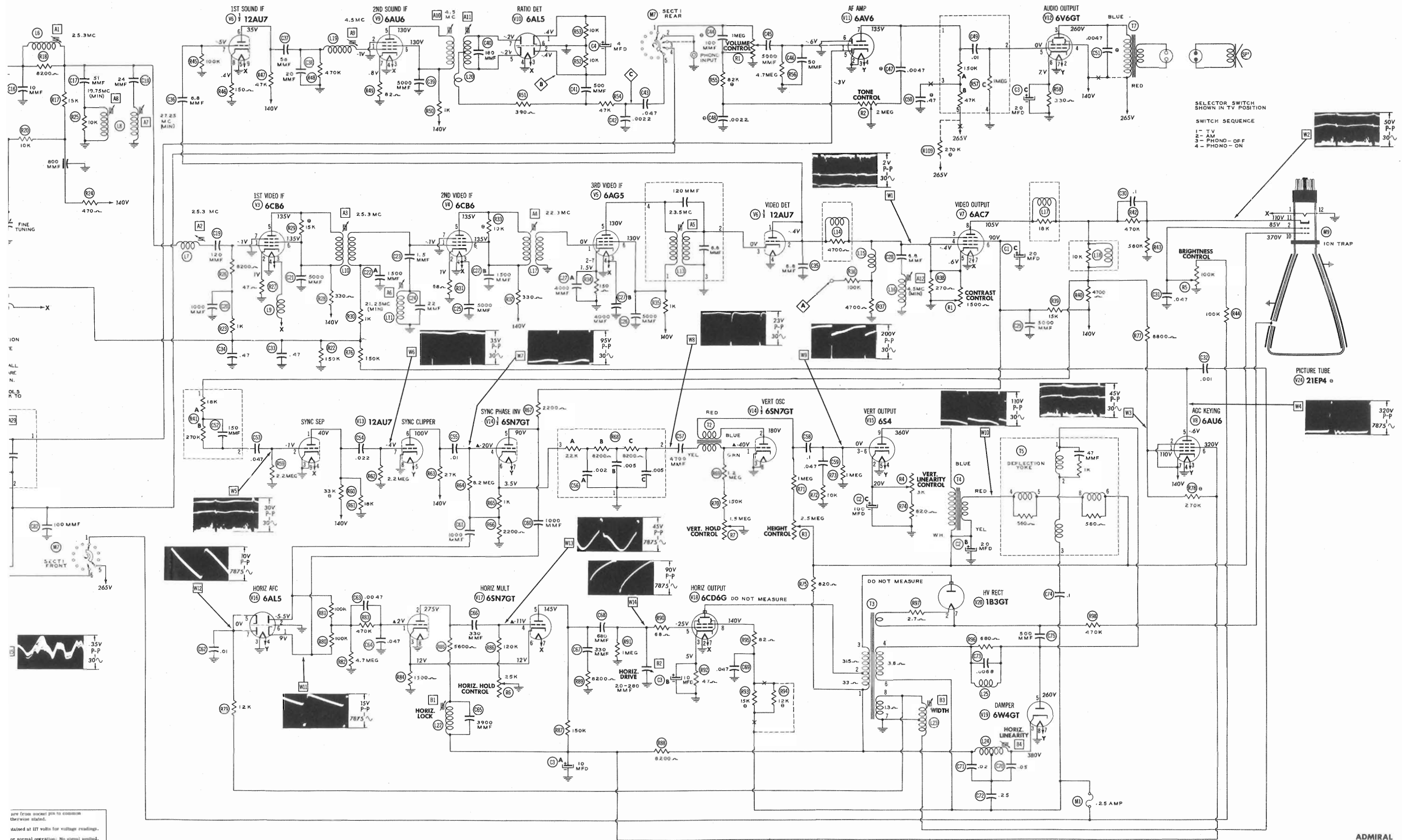
FOLDER 2

ADMIRAL
CHASSIS 22A2, A, 22M1, 22Y1

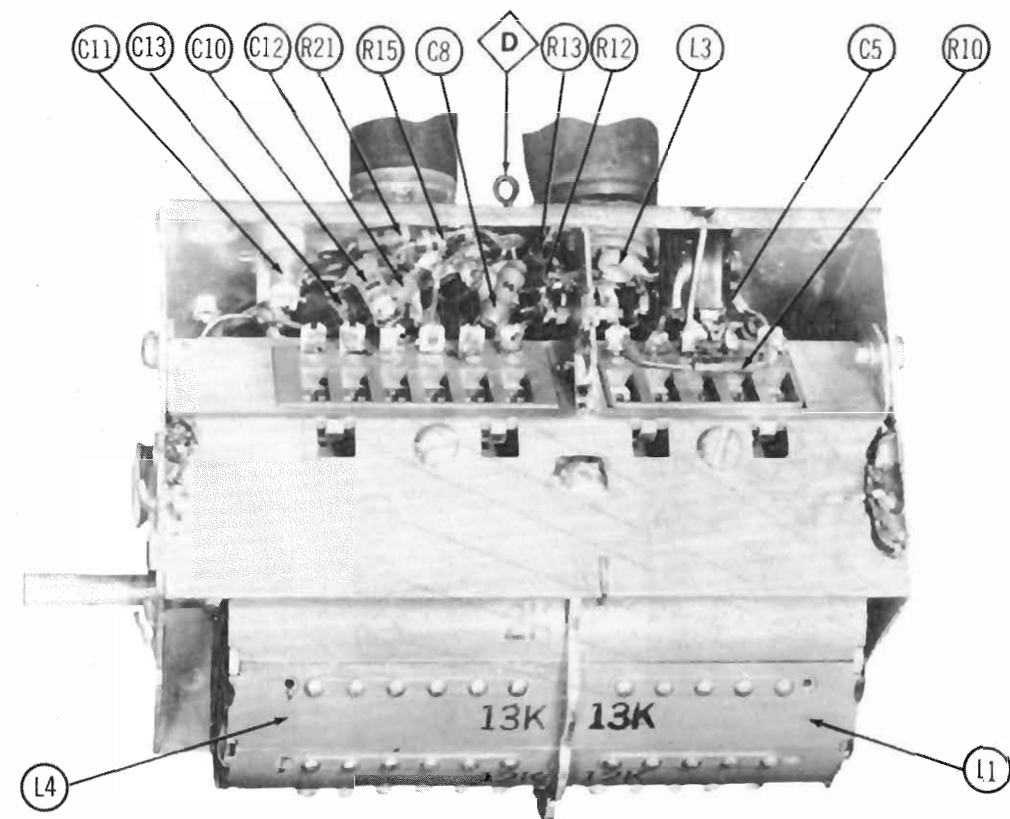


A PHOTOFAC STANDARD NOTATION SCHEMATIC
 ©Howard W. Sams & Co., Inc. 1952

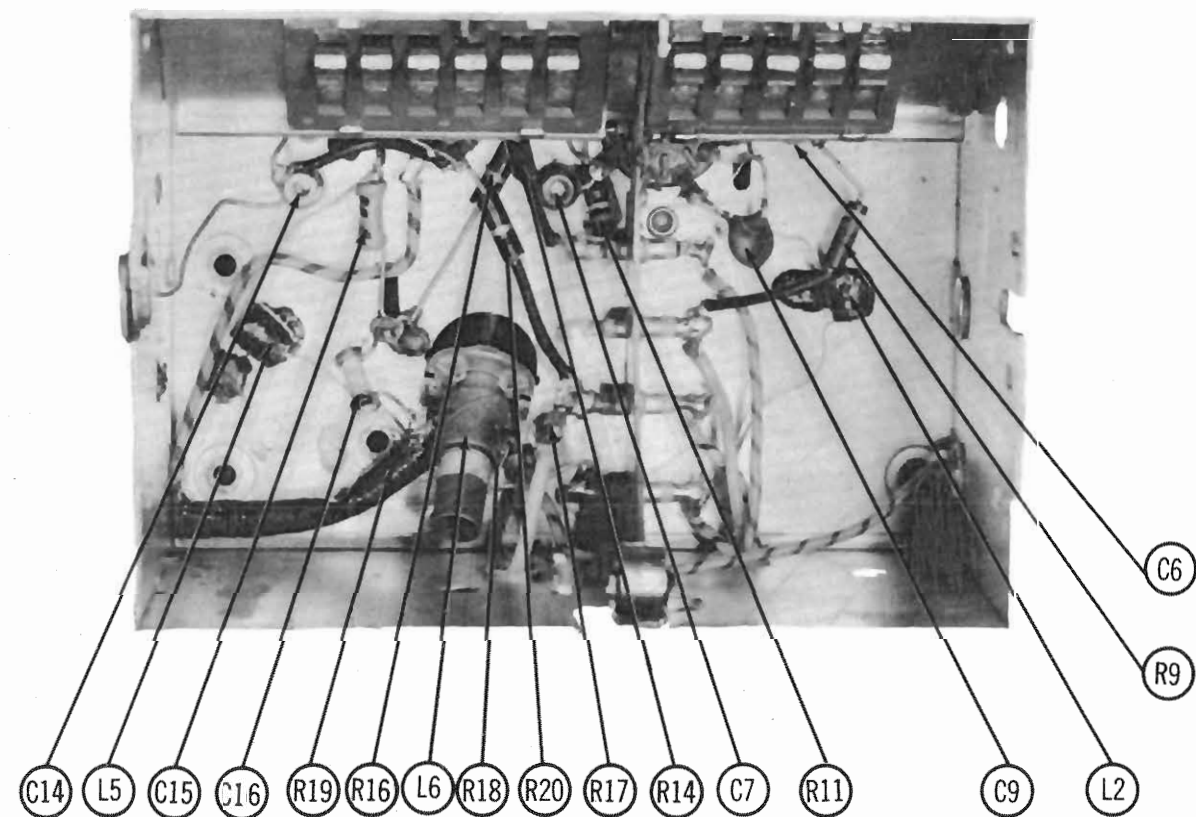
ADMIRAL CHASSIS 22A2, A, 22M1, 22Y1



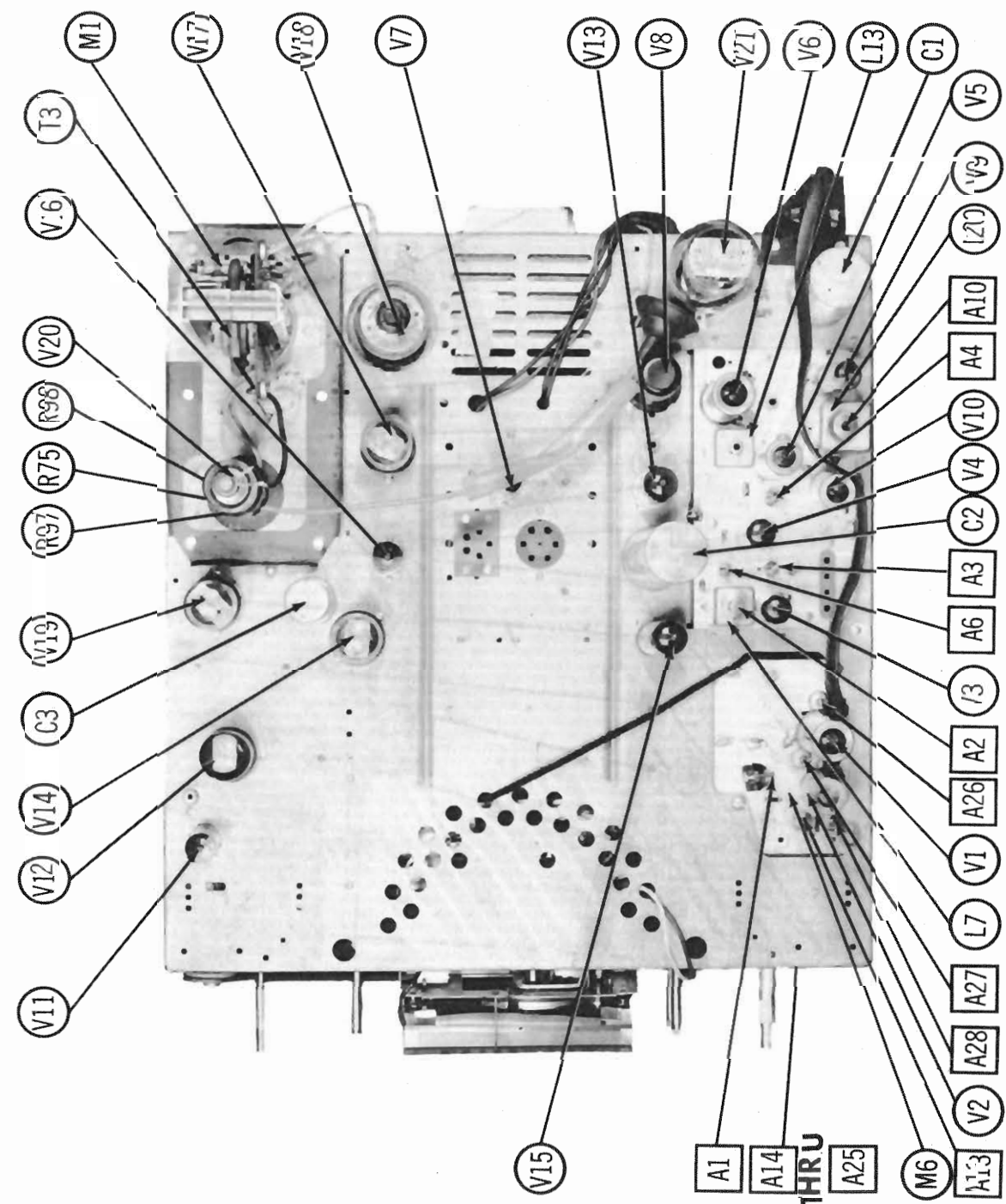
ADMIRAL
CHASSIS 22A2, A, 22M1, 22Y1



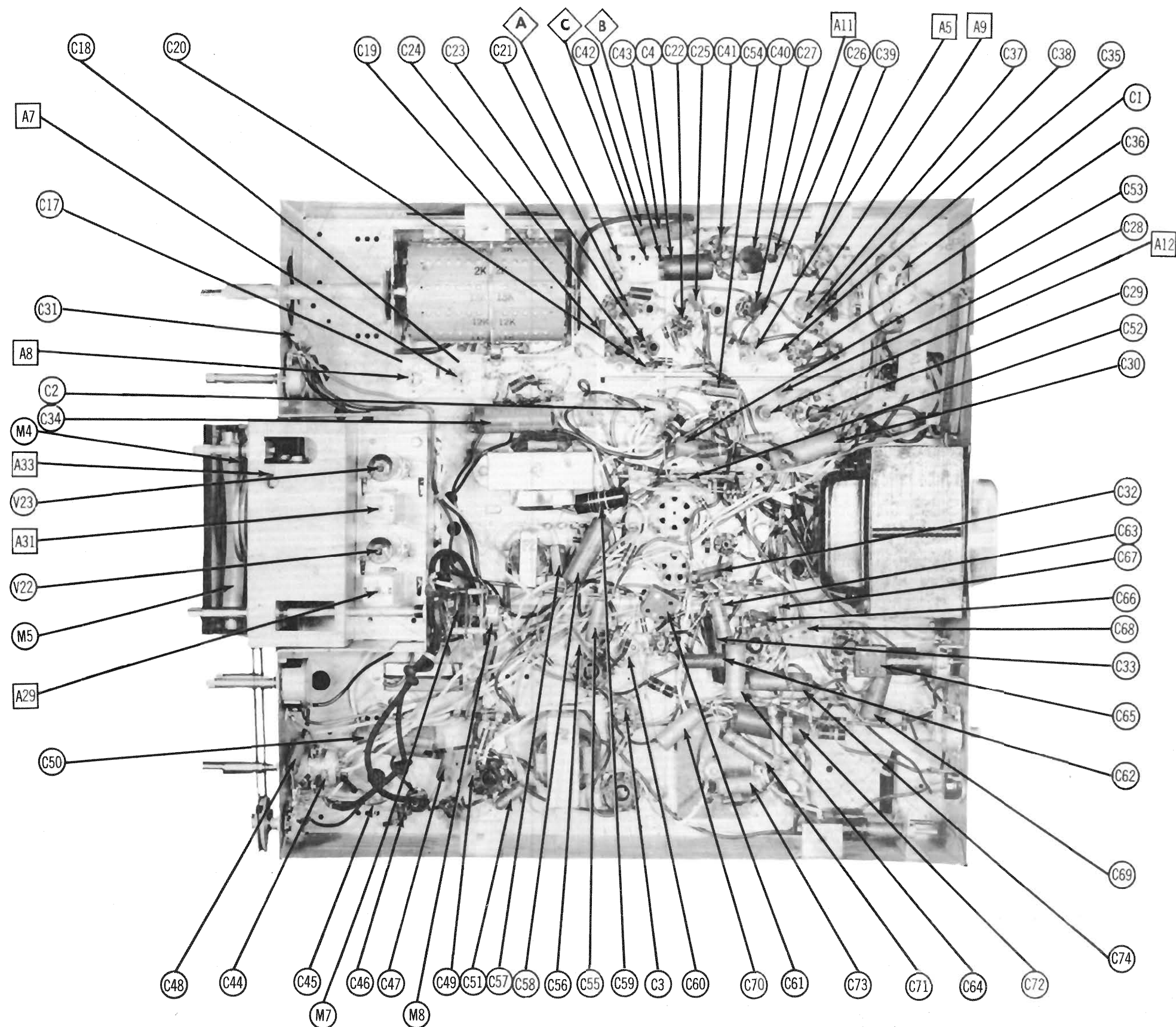
RF TUNER-RIGHT SIDE



RF TUNER-BOTTOM VIEW



ADMIRAL
CHASSIS 2.2A1, A, 22M1, 22Y1
MAIN PDI SSSVHC



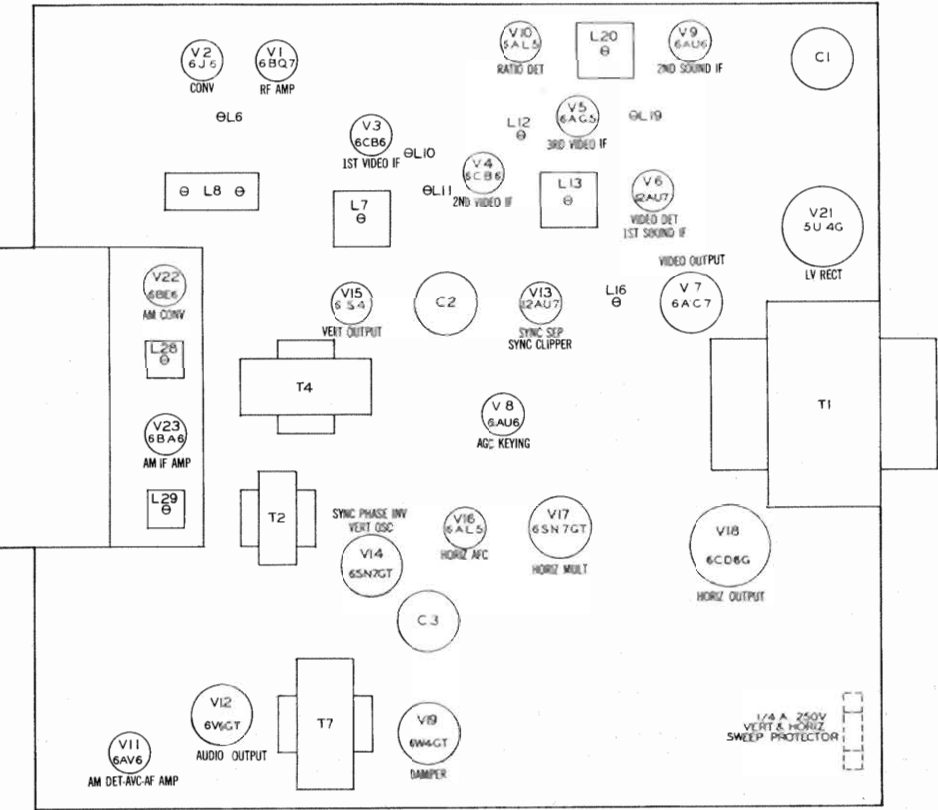
CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

ADMIRAL
CHASSIS 22A2, A, 22M1, 22Y1

RESISTANCE MEASUREMENTS

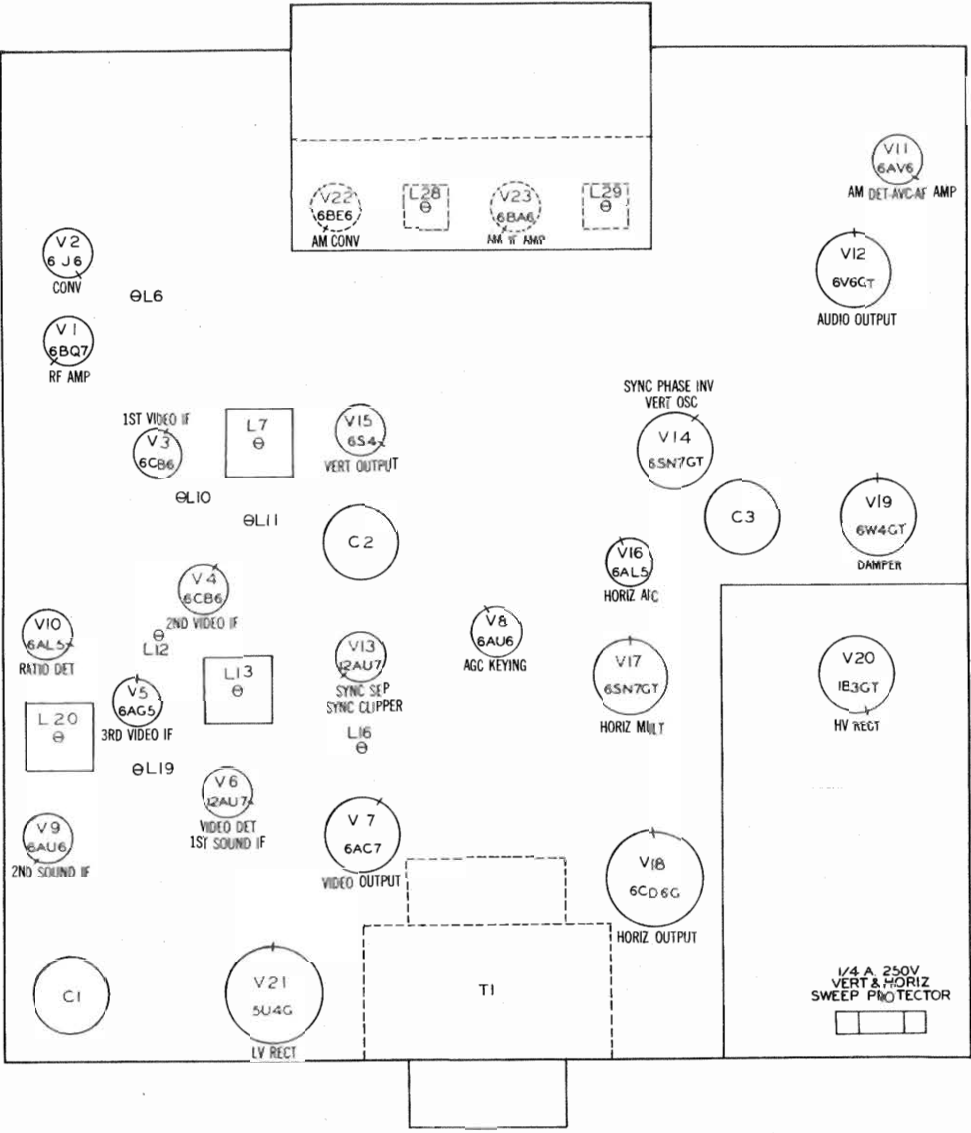
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BQ7	1250K	200K	0	.1	0	11.3K	1130K	1250K	0
V 2	6J6	113K	118K	.1	0	220K	10K	0	1250K	0
V 3	6CB6	160K	47	.1	0	12.4K	12.4K	0		
V 4	6CB6	150K	68	.1	0	12.4K	12.4K	0		
V 5	6AG5	.6	150	.1	0	13.1K	13.1K	150		
V 6	12AU7	4.7K	4.7K	.4	0	0	149K	100K	150	.1
V 7	6AC7	0	0	70	4.7K	70	117K	.1	16.8K	
V 8	6AU6	113K	12.1K	.1	0	300K	8.2K	12.1K		
V 9	6AU6	470K	0	.1	0	13.1K	13.1K	82		
V 10	6AL5	10K	10K	.1	0	INF	0	INF		
V 11	6AV6	4.7Meg	0	0	.1	1 Meg	0	1200K		
V 12	6V6GT	INF	.1	1525	12.1K	1 Meg	147K	0	330	
V 13	12AU7	13K	2.2Meg	0	.1	.1	129K	2.2Meg	0	0
V 14	6SN7GT	2Meg	1.5Meg	0	8.2Meg	119K	3.2K	.1	0	
V 15	6S4	INF	2.3K	1Meg	.1	0	1 Meg	INF	INF	1.9K
V 16	6AL5	4.8Meg	4.8Meg	0	.1	12K	0	12K		
V 17	6SN7GT	5.1Meg	14K	1.5K	130K	160K	1.5K	.1	0	Top Cap #45
V 18	6CD6G	1 Meg	0	47	INF	1 Meg	14K	.1	16.8K	
V 19	6W4GT	INF	INF	100K	INF	1250	INF	.1	0	Top Cap #360
V 20	1B3GT	PINS 1-8 HAVE INF RESISTANCE								
V 21	5U4G	INF	30K	INF	15	INF	16	INF	30K	
V 22	6BE6	22K	.1	.1	0	15.5K	15.5K	2Meg		
V 23	6BA6	2Meg	0	.1	0	15.5K	132K	150		
V 24	21EP4A	.1	60K	Pin 10 #820	Pin 11 275K	Pin 12 0				

ALL CONTROLS SET FOR NORMAL OPERATION, NO SIGNAL APPLIED.
ALL MEASUREMENTS TAKEN IN T.V. POSITION UNLESS NOTED.
† MEASURED FROM PIN 2 OF V21.
MEASURED FROM PIN 3 OF V19.
■ MEASURED IN AM RADIO POSITION.



BOTTOM VIEW
TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TOP VIEW
TUBE FAILURE CHECK CHART

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

- POWER SUPPLY FAILURE**
No raster, no sound-V21
- LOSS OF PICTURE OR SOUND**
No pic, no sound, has raster-V2, V3, V4, V5, V6
No pic, no sound, has snow-V1, V2, V3
No pic, has sound has raster-V7, V24
Has pic, no sound-V6, V9, V10, V11, V12
- SYNC FAILURE**
No vert. sync.-V14
No horiz. sync.-V14, V16, V17
No vert or horiz. sync.-V13, V14
- SWEEP FAILURE**
No raster, has sound-V17, V18, V19, V20, V24, Fuse (M1)
No vertical deflection -V15
Poor vert. linearity or foldover-V14, V15
Poor horiz. linearity or foldover -V17, V18, V19
Narrow picture-V17, V18, V19, V20, V21
Vert off freq.-V14
Horiz. off freq.-V14, V16, V17

ADMIRAL
CHASSIS 22A2, A, 22M1, 22Y1

TV ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage lead should be securely taped and kept away from the chassis. Do not remove the horizontal oscillator tube to disable the high voltage.

VIDEO IF ALIGNMENT

Remove the converter tube, V2, from its socket and replace with a 6J6 which has pin 1 removed. This will disable the local oscillator and reduce the possibility of erroneous indications.

Connect the negative lead of a 3 volt battery to the ungrounded side of C33. Connect the positive lead to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
Direct	High side to an ungrounded tube shield floating over dummy converter tube V2. Low side to chassis.	25.3MC (Unmod)	Any	DC probe to point Δ Common to chassis.	A1, A2, A3	Adjust for maximum deflection.
"	"	22.3MC	"	"	A4	"
"	"	23.5MC	"	"	A5	"
"	"	21.25MC	"	"	A6	Adjust for minimum deflection.
.001MFD	High side to point Δ Low side to chassis.	27.25MC	"	"	A7	Use 1½ volt bias battery. Adjust for minimum deflection.
"	"	19.75MC	"	"	A8	"
Direct	High side to an ungrounded tube shield floating over dummy converter tube, V2. Low side to chassis.	25.3MC	"	"	A1, A2	Adjust for maximum deflection.

OVERALL VIDEO IF RESPONSE CHECK

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
Direct	High side to an ungrounded tube shield floating over dummy converter tube V2. Low side to chassis.	24MC (10MC Swp)	21.25MC 22.3MC 24.3MC 25.75MC	Any	Vert. amp. to point Δ Low side to chassis.		Check for response curve as per fig. 4. If necessary readjust A1 thru A5 slightly for desired response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
.01MFD	High side to pin 2 (grid) of 12AU7 (V6). Low side to chassis.	4.5MC (Unmod)	Any	DC probe to point Δ Common to chassis.	A9, A10	Adjust for maximum deflection.
"	"	"	"	DC probe to point Δ Common to chassis.	All	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120V sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
.01MFD	High side to pin 2 (grid) of 12AU7 (V6). Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. amp. to point Δ Low side to chassis.	A9, A10	Disconnect stabilizer capacitor C4. Adjust for curve of maximum amplitude and symmetry as per fig. 2.
"	"	"	"	"	Vert. amp. to point Δ Low side to chassis.	All	Reconnect capacitor C4. Adjust so that 4.5MC occurs at center of crossover lines as per fig. 3. SLIGHTLY retouch A10 for maximum amplitude and straightness of crossover lines.

4.5MC TRAP ALIGNMENT

Connect a 10MMF capacitor from pin 8 of V6 to pin 8 of V6.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
.01MFD	High side to pin 2 (grid) of 12AU7 (V6). Low side to chassis.	4.5MC (Unmod)	Any	DC probe to point Δ Common to chassis.	A12	Adjust for MINIMUM deflection

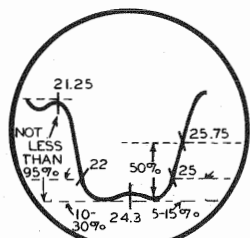


FIG. 1

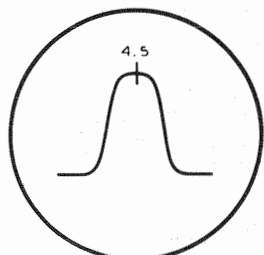


FIG. 2

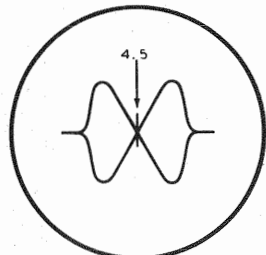


FIG. 3

TV ALIGNMENT INSTRUCTIONS (CONT.)

OSCILLATOR ALIGNMENT

Remove the dummy converter tube and replace the original 6J6 in its socket.

Complete oscillator alignment may not be necessary. If the oscillator seems to be off frequency approximately the same amount for the majority of the channels it may be possible to correct them in one step using A13.

It should be noted that this is an all channel oscillator circuit adjustment and should not be used to correct for any individual channel. If adjustment of A13 will not bring all channels well within the range of the fine tuning control it will be necessary to adjust the channel strip adjustment for each channel that is off frequency.

The channel adjustment screws are reached through a hole just to the right of the channel switch shaft. The correct adjustment screw is accessible through this hole as the channel switch is turned to each channel.

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

Set the fine tuning control to the mid-position of its range.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp)	211.25MC 215.75MC	13	Vert. amp. to point A. Low side to chassis.	A14	Adjust to place sound marker in notch as per fig. 4. Video marker should be at 50%.
		207MC (10MC Swp)	205.25MC 209.75MC	12		A15	
		201MC (10MC Swp)	199.25MC 203.75MC	11		A16	
		195MC (10MC Swp)	193.25MC 197.75MC	10		A17	
		189MC (10MC Swp)	187.25MC 191.75MC	9		A18	
		183MC (10MC Swp)	181.25MC 185.75MC	8		A19	
		177MC (10MC Swp)	175.25MC 179.75MC	7		A20	
		85MC (10MC Swp)	83.25MC 87.75MC	6		A21	
		79MC (10MC Swp)	77.25MC 81.75MC	5		A22	
		69MC (10MC Swp)	67.25MC 71.75MC	4		A23	
		63MC (10MC Swp)	61.25MC 65.75MC	3		A24	
		57MC (10MC Swp)	55.25MC 59.75MC	2		A25	

RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	207MC (10MC Swp)	205.25MC 209.75MC	12	Vert. amp. thru 10KΩ to point D. Common to chassis.	A26, A27 A28	Adjust for curve as shown in fig. 5 with markers above 90%.
"	"	213MC (10MC Swp)	211.25MC 215.75MC	13	"		Check for response curve as in fig. 5. If markers fall below 70% on any channel make compromise adjustments of A26, A27 and A28 with channel switch set for that channel. Recheck all other channels to see that they have not been seriously affected.
		201MC (10MC Swp)	199.25MC 203.75MC	11			
		195MC (10MC Swp)	193.25MC 197.75MC	10			
		189MC (10MC Swp)	187.25MC 191.75MC	9			
		183MC (10MC Swp)	181.25MC 185.75MC	8			
		177MC (10MC Swp)	175.25MC 179.75MC	7			
		85MC (10MC Swp)	83.25MC 87.75MC	6			
		79MC (10MC Swp)	77.25MC 81.75MC	5			
		69MC (10MC Swp)	67.25MC 71.75MC	4			
		63MC (10MC Swp)	61.25MC 65.75MC	3			
		57MC (10MC Swp)	55.25MC 59.75MC	2			

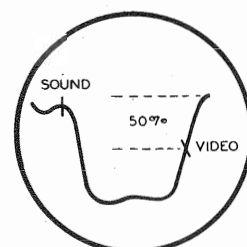


FIG. 4

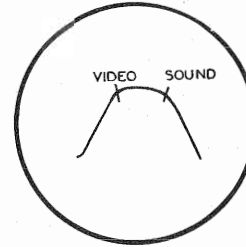


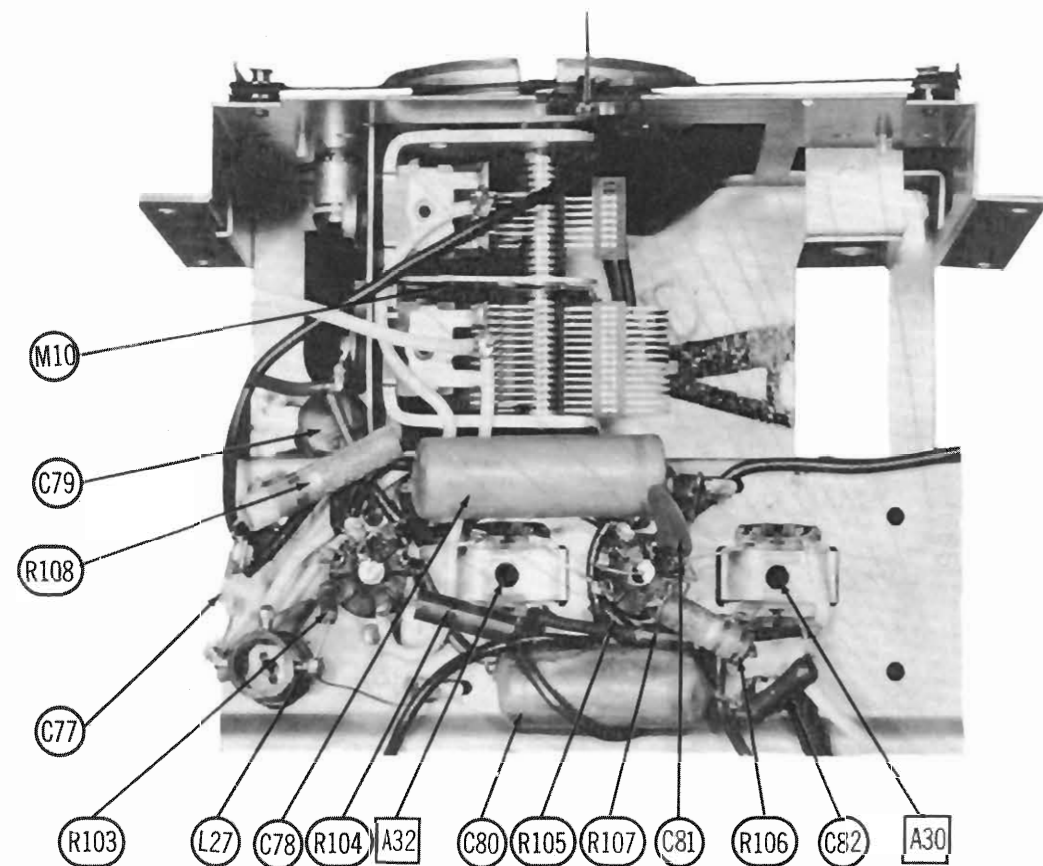
FIG. 5

RADIO ALIGNMENT INSTRUCTIONS

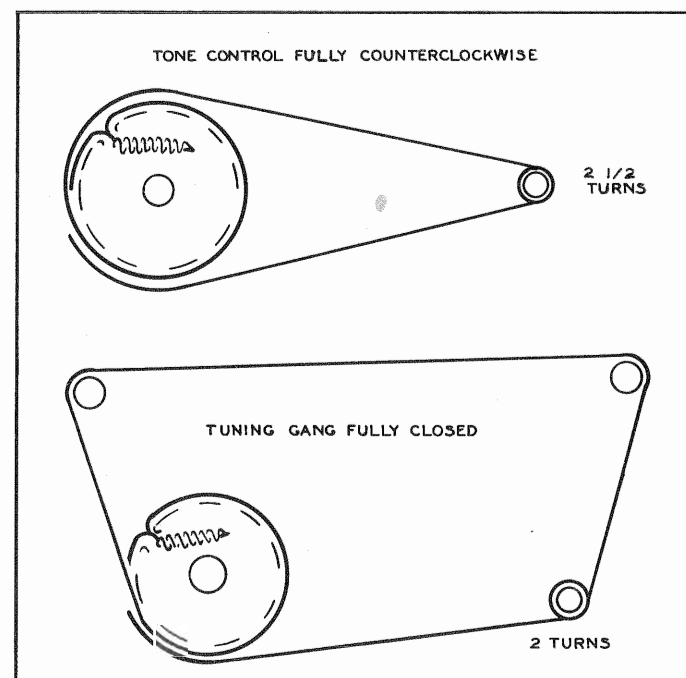
RADIO ALIGNMENT

Turn tone control fully clockwise.
 To set pointer, turn tuning capacitor fully closed and set pointer to last reference mark at low frequency end of dial.
 Loop should be maintained in same relative position to chassis as when receiver is in cabinet.
 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 screwdriver for adjusting.

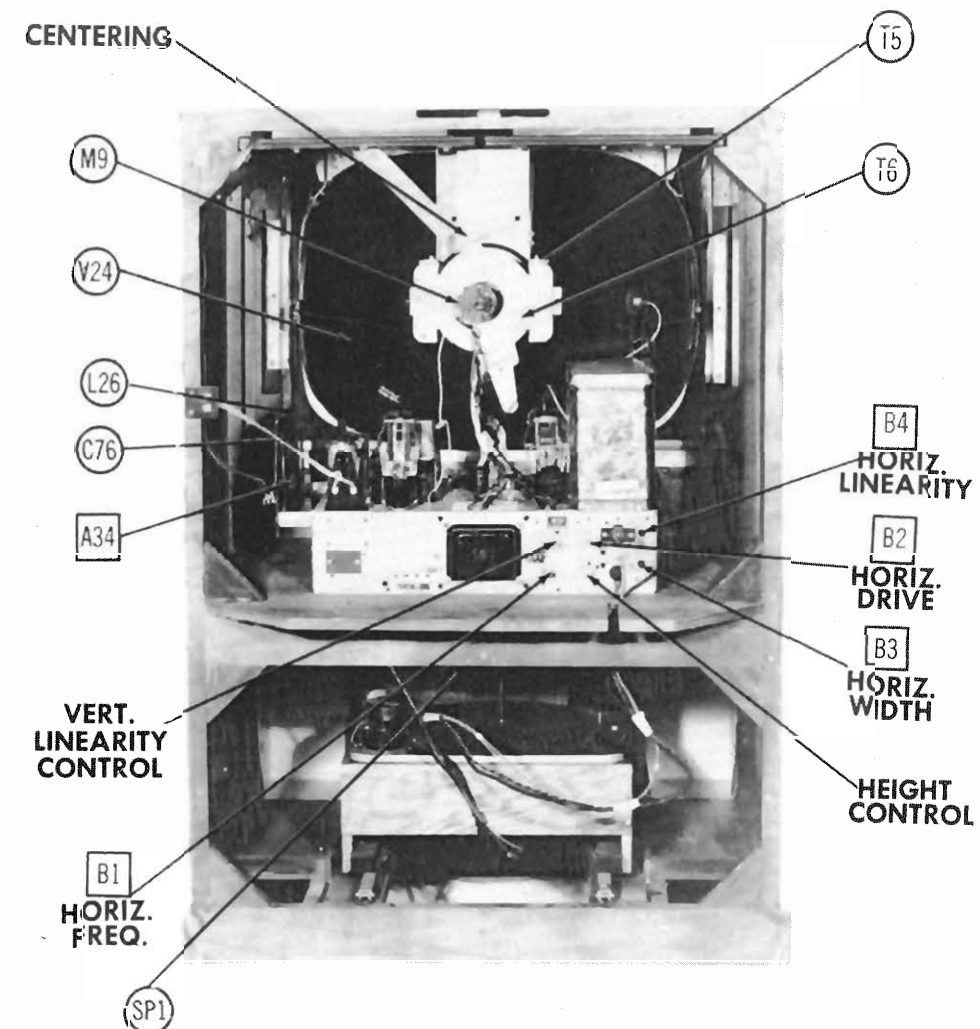
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
.1 MFD	High side to stator of antenna section of tuning gang. Low side to chassis.	455KC (400% Mod.)	Radio	Tuning gang fully open	Across voice coil	A29, A30 A31, A32	Adjust for maximum output.
"	"	1620KC	"	"	"	A33	"
	Loop	1400KC	"	Tune to 1400KC signal	"	A34	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.



RADIO CHASSIS BOTTOM VIEW



DRIVE CORD STRINGING



CABINET-REAR VIEW HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Set the horizontal hold control at the mid-position of its range.

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

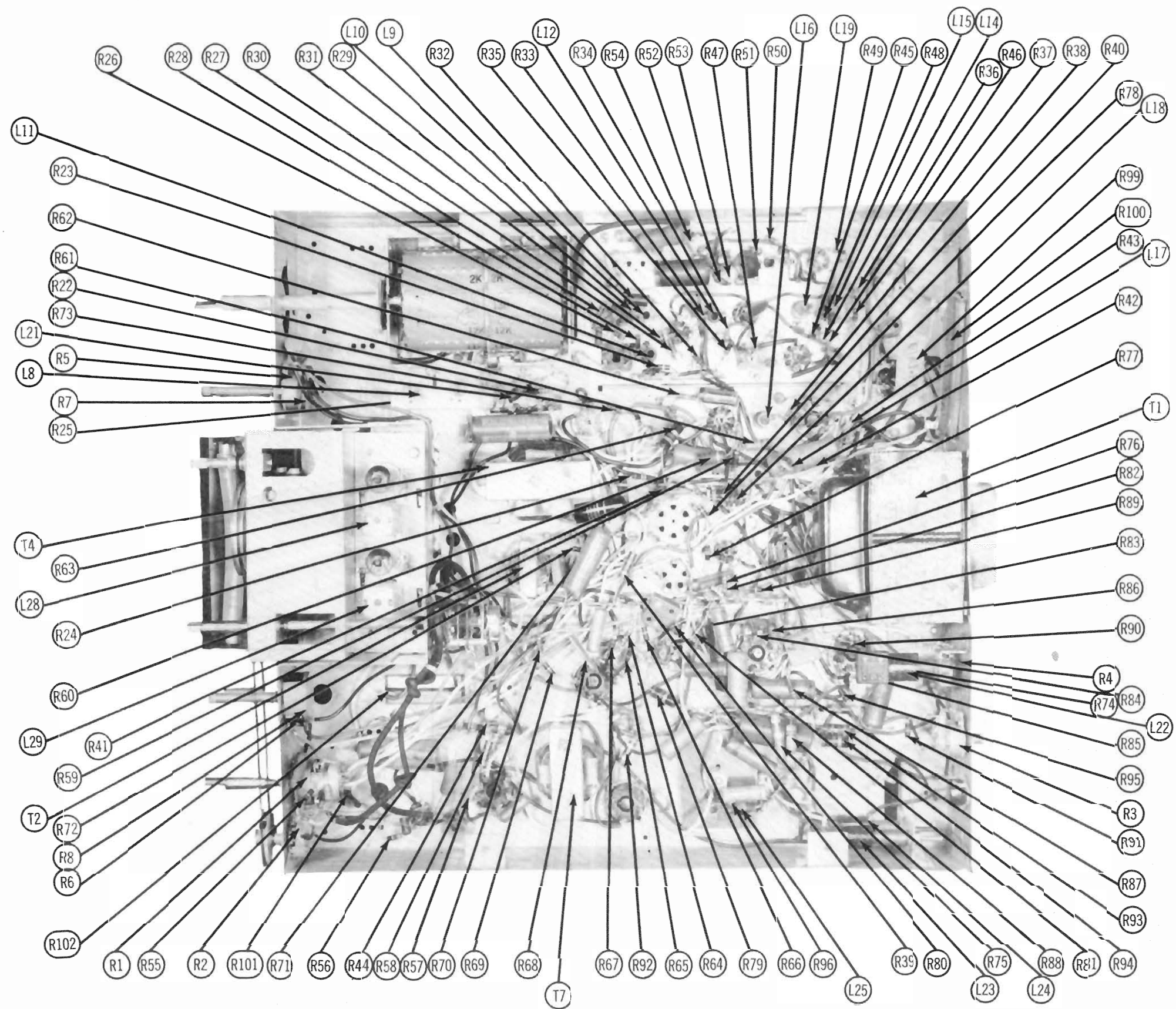
Adjust the horizontal drive trimmer (B2) to its maximum counter clock-wise position without a vertical white line or compression of the center of the picture.

Adjust the width control slug (B3) for a picture slightly wider than enough to fill the picture mask.

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

DISASSEMBLY INSTRUCTIONS

1. Remove 7 push on type control knobs from front panel.
 2. Remove 6 wood screws and 2 staples. Remove rear cover.
 3. Disconnect built-in antenna, antenna lead from bracket, speaker, phono motor, audio cable, HV lead, ground strap from H7 cage, focus plug, deflection plug and CRT socket.
 4. Remove 4 chassis bolts. Remove chassis.
 5. For speaker removal, remove 4 wood screws. Remove top panel in front of record changer. Remove 4 speed nuts. Remove speaker.
- NOTE: FOR PICTURE TUBE REMOVAL IT IS NECESSARY TO REMOVE CHASSIS AS OUTLINED ABOVE.



CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

ADMIRAL
CHASSIS 22A2, A, 22M1, 22Y1

PARTS LIST AND DESCRIPTIONS (Continued)

MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
A34	Trimmer	66B 8-5	AM Loop Ant. (2-20MMF)
	Ant. Coil	94C37-53	Channel #3
	Ant. Coil	94C37-54	Channel #4
	Ant. Coil	94C37-55	Channel #5
	Ant. Coil	94C37-56	Channel #6
	Ant. Coil	94C37-57	Channel #7
	Ant. Coil	94C37-58	Channel #8
	Ant. Coil	94C37-59	Channel #9
	Ant. Coil	94C37-60	Channel #10
	Ant. Coil	94C37-61	Channel #11
	Ant. Coil	94C37-62	Channel #12
	Ant. Coil	94C37-63	Channel #13
	RF, Mixer Grid & Osc. Coil	94C37-73	Channel #3
	RF, Mixer Grid & Osc. Coil	94C37-74	Channel #4
	RF, Mixer Grid & Osc. Coil	94C37-75	Channel #5
	RF, Mixer Grid & Osc. Coil	94C37-76	Channel #6
	RF, Mixer Grid & Osc. Coil	94C37-77	Channel #7
	RF, Mixer Grid & Osc. Coil	94C37-78	Channel #8
	RF, Mixer Grid & Osc. Coil	94C37-79	Channel #9
	RF, Mixer Grid & Osc. Coil	94C37-80	Channel #10
	RF, Mixer Grid & Osc. Coil	94C37-81	Channel #11
	RF, Mixer Grid & Osc. Coil	94C37-82	Channel #12
	RF, Mixer Grid & Osc. Coil	94C37-83	Channel #13
	Knob	33C53-9	Channel Selector (Maroon)
	Knob	33C53-5	Channel Selector Less Inserts (Maroon)
	Knob	33C53-10	Fine Tuning (Maroon)
	Knob	33C53-11	Off/On Volume (Maroon)
	Knob	33C53-7	Off/On Volume Less Inserts (Maroon)
	Knob	33C53-12	Contrast (Maroon)
	Knob	33C53-13	Channel Selector (Ebony)
	Knob	33C53-1	Channel Selector Less Inserts (Ebony)
	Knob	33C53-14	Fine Tuning (Ebony)
	Knob	33C53-15	Off/On Volume (Ebony)
	Knob	33C53-3	Off/On Volume Less Inserts (Ebony)
	Knob	33C53-16	Contrast (Ebony)
	Knob	33C83-1	Radio Tuning
	Knob	33D55-36	Tone
	Knob	33C83-2	TV, Radio, Phono
	Washers	5A4-14	Felt (2) used behind Channel Selector & Contrast IKnobs
	Washers	5A4-11	Felt (2) used behind Radio Tuning & Tone Knobs
	Back Cover	A3625	Complete (Models 321M25A, 321M26A, 321M27A)
	Back Cover	A3627	Complete (Models 421M15A, 421M16A)
	Back Cover	A3629	Complete (Models 521M15A, 521M16A, 521M17A)
	Back Cover	A3644	Complete (Models 121M10, 121M11A, 121M12A)
	Back Cover	A3526	Complete (Models 121K15A, 121K16A, 121K17A, 221K45A, 221K46A & 221K47A)
	Back Cover	A3628	Complete (Models 421M35, 421M36 & 421M37)
	Back Cover	A3661	Complete (Models 520M15, 520M16 & 520M17)
	Back Cover	A3662	Complete (Models 520M11 & 520M12)
	Safety Glass	21B49-16	Models 321M25A, 321M26A, 321M27A, 421M15A, 421M16A, 521M15A, 521M16A & 521M17A
	Safety Glass	21B49-21	Models 121M10, 121M11A, 121M12A, 520M11 & 520M12
	Safety Glass	21B49-10	Models 121K15A, 121K16A, 121K17A, 221K45A, 221K46A & 221K47A
	Safety Glass	21B62-6	Models 421M35, 421M36 & 421M37
	Safety Glass	21B62-2	Models 520M15, 520M16 & 520M17
	Mask	23D115	Models 321M25A, 321M26A, 321M27A, 421M15A, 421M16A, 521M15A, 521M16A, 521M17A, 421M35, 421M36 & 421M37
	Mask	23D10	Models 121M10, 121M11A, 121M12A, 520M11 & 520M12
	Mask	23D104	Models 121K15A, 121K16A, 121K17A, 221K45A, 221K46A & 221K47A
	Mask	23D120	Models 520M15, 520M16 & 520M17

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		ADMIRAL PART No.	STANDARD REPLACEMENT		
V1A	RF Amplifier	6BQ7	6BQ7	9AJ	If tubes are interchanged tuner must be realigned.
B	RF Amplifier	6BK7	6BK7	9AJ	
V2	Converter	6J6	6J6	7BF	
V3	1st. Video IF Amp.	6CB6	6CB6	7CM	
V4	2nd. Video IF Amp.	6CB6	6CB6	7CM	
V5	3rd. Video IF Amp.	6AG5	6AG5	7BD	
V6	Video Detector - 1st. Sound IF Amp.	12AU7	12AU7	9A	
V7	Video Output	6AC7	6AC7	8N	
V8	AGC Keying	6AU6	6AU6	7BK	
V9	2nd. Sound IF Amp.	6AU6	6AU6	7BK	
V10	Ratio Detector	6AL5	6AL5	6BT	
V11	AM Det. -AVC	6AV6	6AV6	7BT	
V12	AF Amplifier	6V6GT	6V6GT	7AC	
V13	Audio Output	12AU7	12AU7	9A	
V14	Sync Separator - Sync Clipper	6SN7GT	6SN7GT	8BD	
V15	Vert. Oscillator	6S4	6S4	9AC	
V16	Vert. Output	6AL5	6AL5	8BT	
V17	Horiz. AFC	6SN7GT	6SN7GT	8BD	
V18	Horiz. Mult.	6CD6G	6CD6G	8BT	
V19	Horiz. Output	6W4GT	6W4GT	4CG	
V20	Damper	1B3GT	1B3GT	3C	
V21	HV Rectifier	5U4G	5U4G	5T	
V22	LV Rectifier	6BE6	6BE6	7CH	
V23	Converter	6BA6	6BA6	7BK	

CATHODE-RAY TUBE

ITEM No.	ADMIRAL PART No.	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		SYLVANIA PART No.			
V24A	21EP4A	21EP4A		12D	① Circuit changes necessary
		21EP4 ①		12D	
		21FP4 ①		12C	
		21FP4A ①		12C	
		20CP4		12D	
B	20CP4	20CP4		12D	
C	20DP4	20CP4		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							NOTES	
	CAP.	VOLT	ADMIRAL PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.		
C1A	.60	400	67C15-21	AFH3-46		UPT6245		FP378	TVL-2770		
B	.40	350					BR4035				TVA-1608
C	.20	350									
C2A	.80	350	67C15-18	AFH3-182		UPT317		FP235	TVL-3722		
B	.20	450						TC3501			
C	.100	50									
C3A	.10	450	67C15-19	AFH3-125		UP1145C		F P345.2	TVL-3719		
B	.10	25									
C	.20	25									
C4	.4	50		PRS150/4		BR550		TC30	TVA-1303		
C5	2.2			94C37-97	TCZ-2.2		NP0K-2R2		5TCCB-V22		
C6	3-9			98A45-96	829-10						
C7	.5-3			98A45-23	829-3						
C8	120			SI120	D6-121	TM5T12	GP2K-121	UC-5312	5GA-T12		
C9	1000			98A45-24	DD-102	TM5D1	801-001	DC-521	5HK-D1		
C10	100			98A45-26	D6-101	TM5T1	GP1K-101	UC-531	5GA-T1		
C11	.5-3			98A45-23	829-3			CT565A			
C12	20			98A45-27	TCZ-20		NP0K-200	ZT-542	5TCC-Q2		
C13	10			98A45-79	TCN-10		N750K-100	NT-541	5TCU-Q1		
C14	.5-3			98A45-23	829-3			CT565A			
C15	1000			65C6-41	D6-102	TM5D1	GP2L-102	UC-521	5HK-D1		
C16	10			98A45-64	TCZ-10		NP0K-100	ZT-541	5TCC-Q1		
C17	51			94D45-52							
C18	24			94D45-53							
C19	120			65B1-10	D6-121	TM5T12	GP2K-121	UC-5312	5GA-T12		
C20	1000			65C6-41	D6-102	TM5D1	GP2L-102	UC-521	5HK-D1		
C21	5000			65C10-1	DD-502	TM5D5	811-005	DC-525	5HK-D5		
C22A	1500		65A17-2	BPD-2K0015	DD-2-152	TM5DD15	812-0015	DCD-525	5HK-2D15		
B	1500										
C23	1.5				65C6-85	TCZ-1.5		NP0K-1R3	ZT-5515		5TCCB-V15
C24	22			65C6-47	TCZ-22		NP0K-220		5TCC-Q22		
C25	5000			65C10-1	DD-502	TM5D5	811-005	DC-525	5HK-D5		
C26	5000			65C6-10	DD-502	TM5D5	811-005	DC-525	5HK-D5		
C27A	4000		65A17-1	BPD-2K004	D6-402	TM5DD4		DCD-524	5HK-2D4		
B	4000					D6-402					
C28	6.8				65C6-71						
C29	5000			65C10-1	DD-502	TM5D5	811-005	DC-525	5HK-D5		
C30	.1	400		64B5-20	DF-104	PTE4P1		PT401	4TM-P1		
C31	.047	400		64B9-28	DF-503	PTE4S47		PT4147	4TM-S47		
C32	.001	600		64B9-19	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1		
C33	.47	200		64A10-1		PJ2P5		PT405	2TM-P47		
C34	.47	200		64A10-1		PJ2P5		PT405	2TM-P47		
C35	6.8			65C6-71							
C36	6.8			65C6-71							
C37	50			65C6-34	TCN-56		NP0K-200	ZT-542	5TCC-Q2		
C38	20			65C6-51	TCZ-20		NP0K-200	DC-525	5HK-D5		
C39	5000			65C10-1	DD-502	TM5D5	811-005				
C40	180			65C6-59	TCN-180		N750L-181				
C41	500			65C6-6	D6-501	TM5T5	GP2K-501	UC-535	5GA-T5		
C42	.0022	400		64B9-17	D6-222	PTE6D22	GP2-333-222	PT6222	6TM-D22		
C43	.047	400		64B9-41	DF-503	PTE4S47		PT4147	4TM-S47		
C44	100			65C6-3	SI100	TM5T1	GP1K-101	UC-531	5GA-T1	Note 1	
C45	5000			65C10-1	BPD-005	TM5D5	811-005	DC-525	5HK-D5		

ADMIRAL CHASSIS 22A2, A, 22M1, 22Y1

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

CAPACITORS (CONT.)											
ITEM No.	RATING		REPLACEMENT DATA								NOTES
	CAP.	VOLT	ADMIRAL PART No.	AEROVOX PART No.	CENTRALA PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.		
C46	50		65C6-4	S150	D6-500	TM5C5	GPIK-500	UC-545	5GA-Q5		
C47	.0047	600	64B9-12	P688-0047	D6-472	PT6247	GP2-333-472	PT6247	6TM-D47	Note 1	
C48	.0022	600	64B9-14	P688-0022	D6-222	PT6222	GP2-333-222	PT6222	6TM-D22	Note 1	
C49	.01		163B6-3	P688-01	1PC-177	PT6261	GP2-333-103	PT6101	6TM-S1		
C50	.47	400		464-5		PT405		PT405	4TM-P5	Note 1	
C51	.0047	600	64B5-12	P688-0047	D6-472	PT6247	GP2-333-472	PT6247	6TM-D47	Note 2	
C52	.150		1 63B6-4	S150	1PC-178	TM5T15	UC-5315	5GA-T15			
C53	.047	600	64B9-28	P688-047	DF-503	PT6247	GP2K-151	PT6147	6TM-S47		
C54	.022	400	64B5-24	P488-022	DF-203	PT6247		PT4122	4TM-S22		
C55	.01	400	64B5-25	P488-01	D6-103	PT6247		PT4101	4TM-S1		
C56A	.002		63B6-2	P688-002	}PC-100	P TE6D2	}1405-01		}101C1		
B	.005			P688-005		PT62D5		PT6225			
C	.005			P688-005		PT62D5		PT6225			
C57	4700	500	65B21-472	1464-005	1DR5D5			MCB465	MS-25		
C58	.1	600	64B5-5	P688-1	DF-104	PT6247		PT601	6TM-P1		
C59	.047	600	64B8-9	P688-047	DF-503	PT6247		PT6147	6TM-S47		
C60	1000	500	65B21-102	1468-001	D6-102	1W5D1	GP2L-102	MC255	1FM-21		
C61	1000	500	65B21-102	1468-001	D6-102	1W5D1	GP2L-102	MC255	1FM-21		
C62	.01	400	64B5-25	P488-01	D6-103	PT6247	GP2-333-103	PT4101	4TM-S1		
C63	.0047	600	64B5-12	P688-0047	D6-472	PT6247	GP2-333-472	PT6147	6TM-D47		
C64	.047	400	64B9-28	P488-047	DF-503	PT6247		PT4147	4TM-S47		
C65	3900	500	65B1-62	1464-004		1DR5D4		MCB463	MS-24		
C66	330	500	65B21-331	1469-00035							
C67	330	500	65B21-331	1469-00035							
C68	680	500	65B21-681	1479-0007		2R3T7			MS-37		
C69	.047	600	64B8-9	P688-047	DF-503	PT6247		PT6147	6TM-S47		
C70	.05	200	64A2-8	P288-05		PJ2S5		PT415	2TM-S5		
C71	.02	400	64A2-9	P488-02		PT6247		PT412	4TM-S2		
C72	.25	600	64B5-3	684-25		PT6247		PT6025	6TM-P25		
C73	.0068	600	64A2-15	P688-0068	DF-682	PT6247	GP2-333-682		6TM-D68		
C74	.1	800	64A2-10	P688-1	DF-104	PT6247		PT601	6TM-P1		
C75	500	20000	65B18-5	HY20C	TV3-502	MM-C20T5	413-501		20DK-T5		
C76	.5	500	65B1-62	1468-000005	TCZ-4.7	5WV35	GPIK-050	MC205	MS-55		
C77	.47		65C6-4	S147	D6-470	TM5C5	GPIK-470	UC-5447	5GA-Q47		
C78	.1	400	64B5-20	P488-1	DF-104	PT6247		PT401	4TM-P1		
C79	.1	200	64B5-30	P288-1	DF-104	PJ2P1		PT401	2TM-P1		
C80	.1	400	64B5-20	P488-1	DF-104	PT6247		PT401	4TM-P1		
C81	5000		65C10-1	BPD-005	DD-502	TM5D5	811-005	DC-525	5HK-D5		
C82	100		65C6-3	S100	D6-101	TM5T1	GPIK-101	UC-531	5GA-T1		

Note 1: Not used in Chassis 22M1.

Note 2: Chassis 22M1 uses .01MFD

† Items C49, R57A, R57B, R57C are combined in one unit. Chassis 22M1 may use part #63B6-5

† Items C52, R41A, R41B are combined in one unit.

• Items C56A, C56B, C56C, R68A, R68B, R68C are combined in one unit

CONTROLS

ITEM No.	RATING RESISTANCE	WATTS	REPLACEMENT DATA					INSTALLATION NOTES
			ADMIRAL PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.	
RIA	1500Ω		75B11-20	QJ-330 *	RTV-327	SBBT-709-S	UPI52R	Contrast Panel
B	1 Meg						UR1E-T35	Volume-Tapped 330KΩ-Rear
C	Switch						U-56	Attach to R1B
R2A	2 Meg		75B1-50	PQH-139	AG-83-S	AB-75	U-56	Not Req.
B	Shaft		Not Req.	QJ1-239	AG-84-S	AK-8	U-56	Not Req.
R3A	2.5Meg		75B13-3	Not Req.	FES-1/4	AK-53	SD-565	Not Req.
B	Shaft		Not Req.	Not Req.	AG-15-S	AK-1	U-14	Not Req.
R4A	3000Ω		75B13-7	Not Req.	FKS-1/4	AK-8	U-14	Not Req.
B	Shaft		Not Req.	Not Req.	AG-49-S	AK-1	U-41	Not Req.
R5A	100KΩ		75B13-12	Not Req.	AG-40-S	AK-40	U-29	Not Req.
B	Shaft		Not Req.	Not Req.	KSS-3	AK-1	U-29	Not Req.
R6A	25KΩ		75B13-13	Not Req.	AG-40-S	AK-26	U-29	Not Req.
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	U-54	Not Req.
R7A	1.5Meg		75B13-14	Not Req.	AG-61-S	AK-59	U-54	Not Req.
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	U-54	Not Req.
R8A	750Ω		75B13-16	Not Req.	A43-750	AK-4	U-54	Not Req.
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	U-54	Not Req.

CONCENTRIKIT EQUIVALENT-KIT X-2, BASE ELEMENTS & SHAFTS B17-110 & R1-126 (panel)

B10-137X & R2-212 (rear) & SWITCH 76-1.

RESISTORS

ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA		NOTES	ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA		NOTES
			ADMIRAL PART No.	IRC PART No.					ADMIRAL PART No.	IRC PART No.	
R9	47KΩ		98A45-17	BTS-47K		R38	270Ω		60B8-271	BTS-270	
R10	22KΩ		94C37-85	BTS-22K		R39	15KΩ		60B14-153	BTA-15K	
R11	180KΩ-5%					R40	4700Ω		60B20-472	BTS-4700	
R12	120KΩ					R41A	18KΩ		60B8-18K	BTS-18K	
R13	220KΩ		98A45-21			B	270KΩ		60B8-270K	BTS-270K	
R14	1000Ω		94C37-86	BTS-1000		R42	470KΩ		60B8-474	BTS-470K	
R15	4700Ω		98A45-20	BTS-4700		R43	560KΩ		60B8-564	BTS-560K	
R16	220KΩ		98A45-21			R44	100KΩ		60B8-104	BTS-100K	
R17	15KΩ		98A45-67	BTS-15K		R45	100KΩ		60B8-104	BTS-100K	
R18	8200Ω		60B8-822	BTS-8200		R46	150Ω		60B8-151	BTS-150	
R19	10Ω		94C37-88			R47	47KΩ		60B8-473	BTS-47K	
R20	10KΩ		98A45-18			R48	470KΩ		60B8-474	BTS-470K	
R21	10KΩ		98A45-18	BTS-10K		R49	82Ω		60B28-31	BTS-82	
R22	150KΩ		60B8-154	BTS-150K		R50	1000Ω		60B8-102	BTS-1000	
R23	1000Ω		60B8-102	BTS-1000		R51	390Ω		60B8-391	BTS-390	
R24	470Ω		60B8-471	BTS-470		R52	10KΩ		60B8-103	BTS-10K	
R25	10KΩ		60B8-103			R53	10KΩ		60B8-103	BTS-10K	
R26	8200Ω-5%		60B7-822			R54	47KΩ		60B8-473	BTS-47K	
R27	47Ω		60B28-45			R55	82KΩ		60B8-823	BTS-82K	
R28	330Ω		60B8-331	BTS-330		R56	4.7Meg		60B8-475	BTS-4.7Meg	
R29	15KΩ-5%		60B8-153			R57A	150KΩ		60B8-150K	BTS-150K	
R30	1000Ω		60B8-102	BTS-1000		B	47KΩ		60B8-473	BTS-47K	
R31	68Ω		60B28-44			C	1 Meg		60B14-331	BTA-330	
R32	330Ω		60B8-331	BTS-330		R58	330Ω		60B8-330	BTS-330	
R33	10KΩ-5%		60B7-103			R59	2.2Meg		60B8-225	BTS-2.2Meg	
R34	150Ω		60B8-151	BTS-150		R60	33KΩ		60B20-333	BTS-33K	
R35	1000Ω		60B8-102	BTS-1000		R61	18KΩ		60B14-183	BTA-18K	
R36	100KΩ		60B8-104	BTS-100K		R62	2.2Meg		60B8-225	BTS-2.2Meg	
R37	4700Ω-5%		60B7-472	BTS-4700-5%		R63	27KΩ		60B20-273	BTS-27K	

ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA		NOTES	ITEM No.	RATING OHMS	WATT	REPLACEMENT DATA		NOTES
			ADMIRAL PART No.	IRC PART No.					ADMIRAL PART No.	IRC PART No.	
R64	8.2Meg		60B8-825	BTS-8.2Meg		R66	120KΩ		60B8-124	BTS-120K	
R65	1000Ω		60B8-102	BTS-1000		R67	150KΩ		60B8-154	BTS-150K	
R66	2200Ω		60B8-222	BTS-2200		R68	8200Ω		60B14-822	BTA-8200	
R67	2200Ω		60B8-222	BTS-2200		R69	8200Ω		60B8-822	BTS-8200	
R68A	22KΩ		60B8-222	BTS-22K		R90	68Ω		60B28-44	BTS-68Ω	
B	8200Ω		60B8-222	BTS-8200		R91	1 Meg		60B8-105	BTS-1Meg	
R69	8200Ω		60B8-825	BTS-8200		R92	47Ω		60B14-470		
R70	150KΩ		60B8-154	BTS-150K		R93	15KΩ		60B8-15K	BTS-15K	
R71	1Meg		60B8-105	BTS-1Meg		R94	12KΩ		60B28-31	BTS-12K	
R72	10KΩ-5%		60B8-103	BTS-10K-5%		R95	82Ω		60B20-681	BTS-82Ω	
R73	1Meg		60B8-105	BTS-1Meg		R96	680Ω		60B28-47	BTS-680	
R74	820Ω		60B8-821	BTS-820		R97	2.7Ω		60B28-43		
R75	820Ω		60B20-821	BTS-820		R98	470KΩ		60B28-43		
R76	150KΩ		60B8-154	BTS-150K		R99	7500Ω		61A1-18	1 3/4A-7500	
R77	6800Ω		60B8-682	BTS-6800		R100	3000Ω		61A3-14	2D-3000	
R78	270KΩ		60B8-273	BTS-270K		R101	470KΩ		60B28-47	BTS-470K	
R79	12KΩ		60B20-124	BTS-12K		R102	5300Ω		61A3-18		
R80	100KΩ-5%		60B7-104	BTS-100K-5%		R103	22KΩ		60B8-223	BTS-22K	
R81	100KΩ-5%		60B7-104	BTS-100K-5%		R104	10KΩ		60B14-103	BTA-10K	
R82	4.7Meg		60B8-475	BTS-4.7Meg		R105	150Ω		60B8-151	BTS-150	
R83	470KΩ		60B8-474	BTS-470K		R106	27KΩ		60B14-273	BTA-27K	
R84	1500Ω		60B8-152	BTS-1500		R107	1Meg		60B8-105	BTS-1Meg	
R85	5600Ω		60B8-562	BTS-5600		R108	4.7Ω				
						R109	270KΩ		BTS-270K		

Note 1: Some models may use a 220KΩ resistor in this application.

Note 2: Some models may use a 100KΩ resistor in this application.

Note 3: Chassis 22M1 uses a 18KΩ resistor in this application.

Note 4: Chassis 22M1 uses a 22KΩ resistor in this application.

Note 5: Not used in chassis 22M1.

Note 6: Chassis which have no run no. stamp use a 39KΩ resistor in this application.

Note 7: Chassis which have no run no. stamp use a 220KΩ resistor in this application.

Note 8: Some models may use two 330Ω resistors in series.

Note 9: Some models may use 270KΩ resistor in this application.

Note 10: Used only in chassis 22M1.

† Items C52, R41A & R41B are combined in one unit.