

CABINET—REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Set the horizontal hold control to the center of its range. Adjust the horizontal frequency slug (B1) until the picture falls into synchronization. Keep turning B1 in the same direction until the picture just falls out of sync. Remove the direction of rotation until the picture just holds sync. Rotate the horizontal hold control to both extremes of rotation. The picture should either stay in sync

at both positions or should fall out of sync by an equal number of bars at each end of the control. If either of these conditions fail to occur, repeat procedure. Adjust the width slug (B2) for a picture SLIGHTLY wider than necessary to fill the picture mask horizontally.

FOLDER 1

MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA, V24-04AA, V24-06AA (24 Series)

PHOTOFACT\* Folder



MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA, V24-04AA, V24-06AA (24 Series)

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove 8 push-on type knobs from the top.
2. Remove 6 wood screws from the rear cover. Remove the rear cover.
3. Remove 2 wood screws holding the metal braces to the cabinet.
4. Remove the speaker leads.
5. Remove 6 bolts holding the chassis mounting board.
6. Remove the mounting board and chassis.



MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA, V24-04AA, V24-06AA (24 Series)

TRADE NAME	Magnavox	CHASSIS
		U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA, V24-04AA, V24-06AA (24 Series)
MANUFACTURER	Magnavox Co., 2131 Bueter Road, Fort Wayne 4, Indiana	
TYPE SET	Television Receiver	
TUBES	Eighteen	
POWER SUPPLY	110-120 Volts AC, 60 Cycle	RATING 180 Watts, 1.6 Amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)	

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENTS

Touch-up adjustment of the VHF oscillator is possible by removing the rear cover and supplying power to the set. Set the fine tuning at the center of its range. The adjustments are accessible, one at a time, as the channel selector is rotated through a hole in the tuner rear cover.

PICTURE TUBE SAFETY GLASS CLEANING

Remove the 4 wood screws holding the trim strip at the top of the safety glass. Tilt the glass out at the top and lift up to remove.

FOCUS

The focus may be varied by the position of a strap on the base of the picture tube. The strap can be connected between pins 6 and 10 or 6 and 2. NOTE: Some versions may use an ion trap. If so equipped readjust ion trap for best focus consistent with maximum brightness.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENTS

For adjustment of the horizontal oscillator, it is necessary to remove the rear cover and supply power to set. Set the horizontal hold at the center of its range and adjust the horizontal frequency slug (B1) until the picture synchronizes horizontally. (For location, see tube placement chart).

FUSES

One fuse is used for LV power supply protection. (For location, see tube placement chart).

CENTERING

Centering is accomplished mechanically by adjusting two magnetic rings around the neck of the picture tube. Rotate the two rings around the neck of the tube until the picture is properly centered.

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

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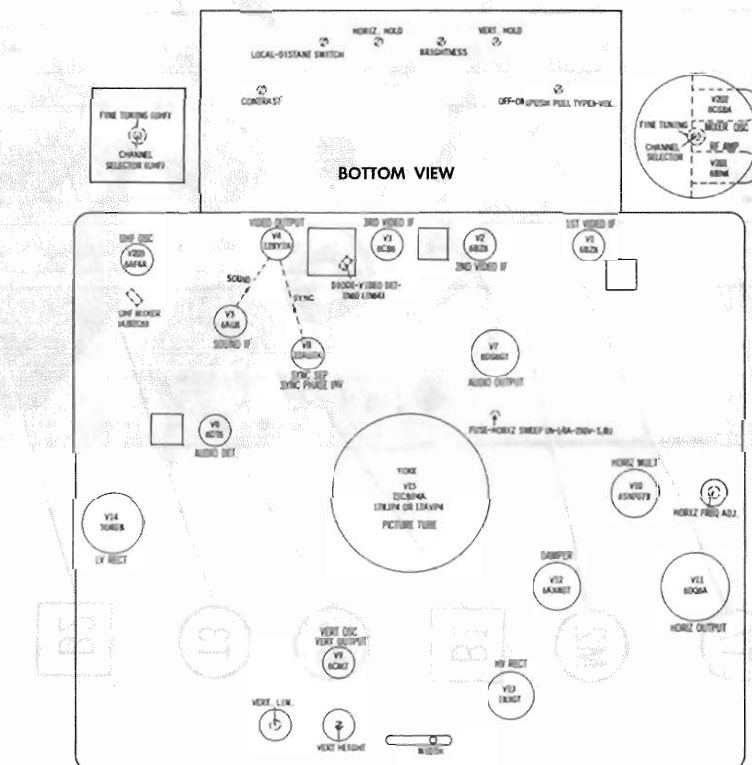
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## RESISTANCE MEASUREMENTS

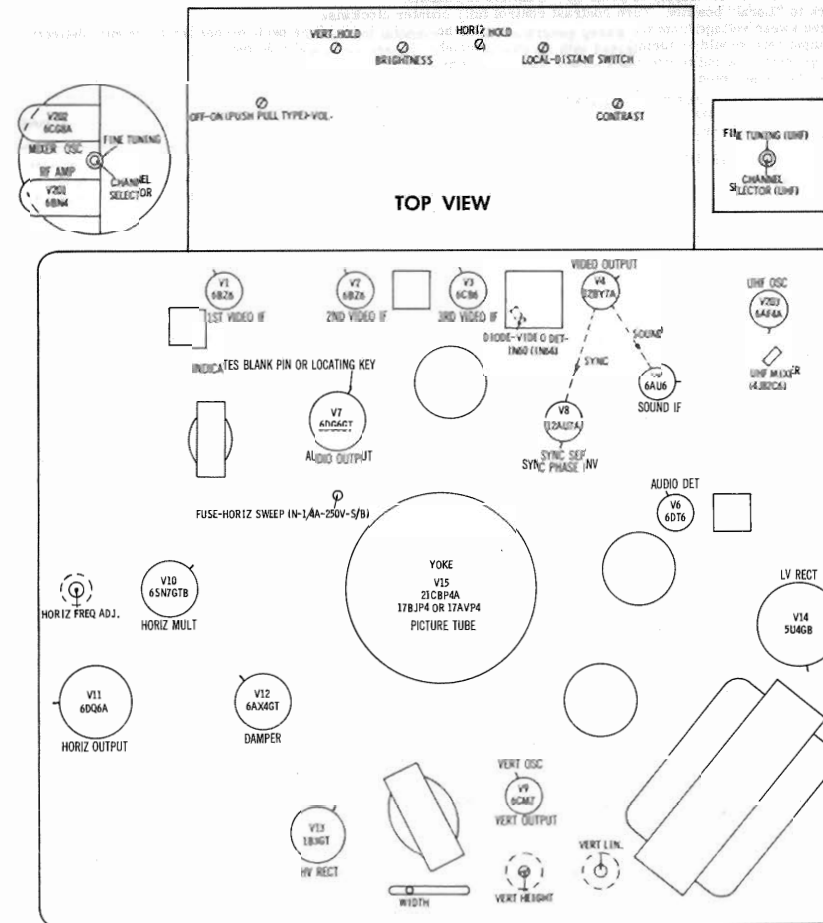
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	1meg	47 $\Omega$	.1 $\Omega$	0 $\Omega$	■ 1000 $\Omega$	■ 1000 $\Omega$	0 $\Omega$		
V2	6BZ6	1meg	47 $\Omega$	.1 $\Omega$	0 $\Omega$	■ 1000 $\Omega$	■ 1000 $\Omega$	0 $\Omega$		
V3	6CB6	.1 $\Omega$	120 $\Omega$	.1 $\Omega$	0 $\Omega$	■ 1000 $\Omega$	■ 1000 $\Omega$	0 $\Omega$		
V4	12BY7A	■ 80 $\Omega$	470K	0 $\Omega$	.1 $\Omega$	.1 $\Omega$	0 $\Omega$	† 4300 $\Omega$	■ 8200 $\Omega$	0 $\Omega$
V5	6AU6	1.3 $\Omega$	0 $\Omega$	.1 $\Omega$	0 $\Omega$	■ 12K	■ 12K	220 $\Omega$		
V6	6DT6	3.4 $\Omega$	680 $\Omega$	.1 $\Omega$	0 $\Omega$	† 270K	■ 6800 $\Omega$	560K		
V7	6DG6GT	TP	0 $\Omega$	■ 490 $\Omega$	■ 3600 $\Omega$	530K	TP	.1 $\Omega$	†	
V8	12AU7A	† 1meg	4.7meg	0 $\Omega$	0 $\Omega$	0 $\Omega$	† 3300 $\Omega$	22K	3300 $\Omega$	.1 $\Omega$
V9	6CM7	† 4800 $\Omega$	NC	0 $\Omega$	0 $\Omega$	.1 $\Omega$	† 1.6meg	■ 2.3meg	■ 1.2meg	■ 1400 $\Omega$
V10	6SN7GTB	470K	† 7500 $\Omega$	1300 $\Omega$	■ 120K	† 120K	1300 $\Omega$	0 $\Omega$	.1 $\Omega$	
V11	6DQ6A	NC	.1 $\Omega$	NC	† 8500 $\Omega$	470K	TP	0 $\Omega$	15 $\Omega$	TOP CAP † 26 $\Omega$
V12	6AX4GT	TP	NC	†	NC	† 0 $\Omega$	NC	0 $\Omega$	.1 $\Omega$	
V13	1B3GT	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP † 376 $\Omega$
V14	5U4GB	NC	†	NC	29 $\Omega$	NC	27 $\Omega$	NC	†	
V15	21CBP4A	0 $\Omega$	11K	PIN 6 † 3300 $\Omega$	PIN 10 † 3300 $\Omega$	PIN 11 ■ 300K	PIN 12 .1 $\Omega$			
V201	6BN4	0 $\Omega$	1meg	0 $\Omega$	.1 $\Omega$	■ 470 $\Omega$	0 $\Omega$	1meg		
V202	6CG8A	10K	■ 5600 $\Omega$	0 $\Omega$	0 $\Omega$	.1 $\Omega$	■ 1000 $\Omega$	■ 10K	0 $\Omega$	230K
V203	6AF4A	■ 820 $\Omega$	22K	.1 $\Omega$	.4 $\Omega$	1.2 $\Omega$	22K	■ 820 $\Omega$		

THIS READING CAN VARY GREATLY, (10K MINIMUM), DUE TO THE CONDITION OF THE ELECTROLYTIC CAPACITOR CONNECTED IN THE ASSOCIATED CIRCUIT.  
THIS READING WILL VARY, CONTROL SET FOR NORMAL OPERATION.  
MEASURED FROM 135V SOURCE.  
MEASURED FROM 290V SOURCE.  
MEASURED FROM PIN 3 OF V15.  
NO CONNECTION.  
TIE POINT.



## TUBE PLACEMENT CHART

## TUBE PLACEMENT CHART



## 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 - V14

### LOSS OF PICTURE OR SOUND

No pic, no sound, has raster - V1, V2, V3, Diode (M3), V4, V7  
No pic, no sound, has snow - V201, V202, V1, V7 (V203 UHF only)  
No pic, has sound, has raster - V4, V15, V7  
Has pic, no sound - V5, V6, V7

### SYNC FAILURE

No vert. sync - V8  
No horiz. sync - V8, Rectifier (M1)  
No vert. or horiz. sync - V8

### SWEEP FAILURE

No raster, has sound - Fuse (M2), M1, V10, V11, V12, V13, V15  
No vertical deflection - V9  
Poor vert. linearity or foldover - V9  
Poor horiz. linearity or foldover - V10, V11, V12  
Narrow picture - V10, V11, V12, V14  
Vert. off freq. - V9  
Horiz. off freq. - V10

MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA, U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA (24 Series)

FOLDER 1



ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

The high voltage lead should be securely taped and kept away from the chassis.  
Allow a 20 minute warm-up period for the receiver and test equipment.

VIDEO IF ALIGNMENT

Connect the negative lead of a 1.5 volt bias supply to point  $\diamond$ . Positive to chassis.  
Connect the negative lead of 3 volt bias supply to point  $\oplus$ . Positive to chassis.  
Set Local-Distant switch to "Local" position. Turn contrast control fully counter clockwise.  
Connect the synchronized sweep voltage from the sweep 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.  
Use only enough sweep generator output to provide a usable pattern on scope.  
Use 10MC sweep unless otherwise noted.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. .001mfd	High side to pin 1 (grid) of 6BZ6 (V1). Low side to chassis.	43.5MC	47.25MC	Any non-interfering channel	Vert. amp. thru 10K to point $\oplus$ . Low side to chassis. (Across video det. load).	A1	Adjust to place marker in trap notch. If two points are found to do this, use the one with slug farthest counter clockwise.
2. "	"	"	42.25MC 45.0MC 45.75MC	"	"	A2, A3, A4	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. Adjust A2 for maximum gain, A3 to place 45.75MC marker at 50% on curve and A4 to place 42.25MC marker at 50% on other side of curve. Recheck step 1.
3. "	High side to tuner test point $\oplus$ . Low side to chassis.	"	41.25MC	"	"	A5	Adjust to place marker in trap notch. If two points are found to do this, use the one with slug farthest counter clockwise.
4. "	"	"	42.25MC 45.0MC 45.75MC	"	"	A6, Mixer Plate Coil	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. Adjust Mixer Plate Coil for maximum gain with 45.75MC marker at 50%. Adjust A6 for maximum gain and proper tilt. Due to interaction it may be necessary to repeat adjustment.

SOUND IF ALIGNMENT

- Turn contrast control fully clockwise and A7 fully counter clockwise.
- Tune in a strong TV signal (preferably with a tone signal or music). Adjust A7 just past the point of maximum sound and MINIMUM distortion.
- Reduce the signal strength by disconnecting the antenna or connecting an adjustable attenuator between the antenna lead and the receiver antenna terminals so that with the volume control set at maximum the sound is at a low level. Tune the fine tuning thru undistorted sound. Set the fine tuning to the verge of distortion.
- Adjust A8, A9 and A10 for MINIMUM distortion.
- Readjust fine tuning during adjustments of A8, A9 and A10 to maintain conditions as indicated in step 3.

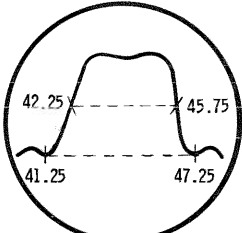
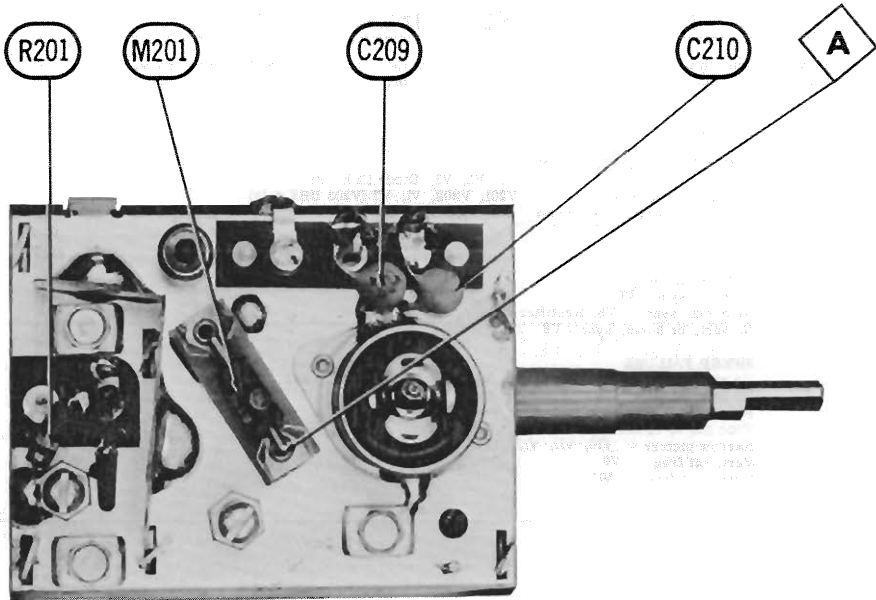
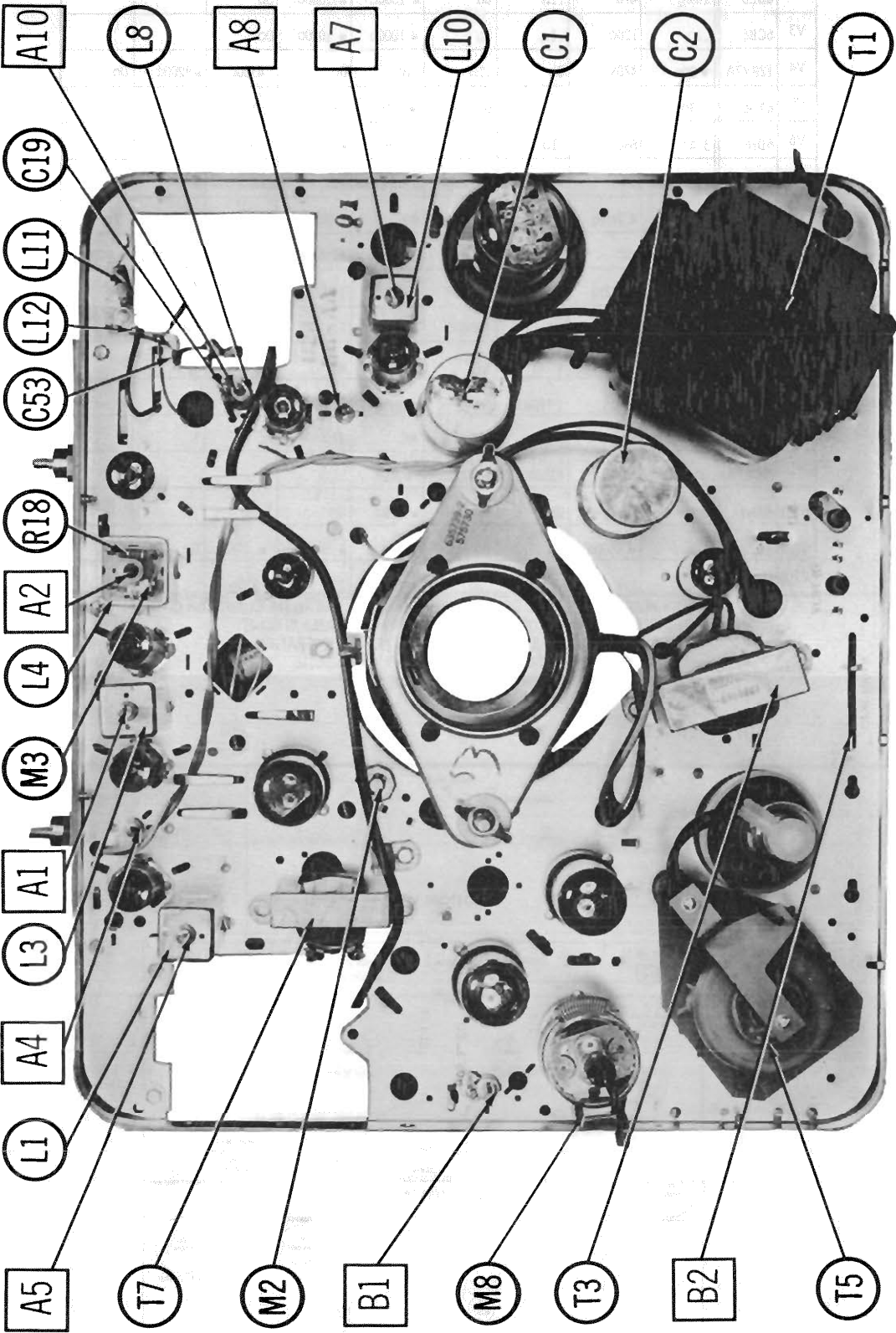


FIG. 1

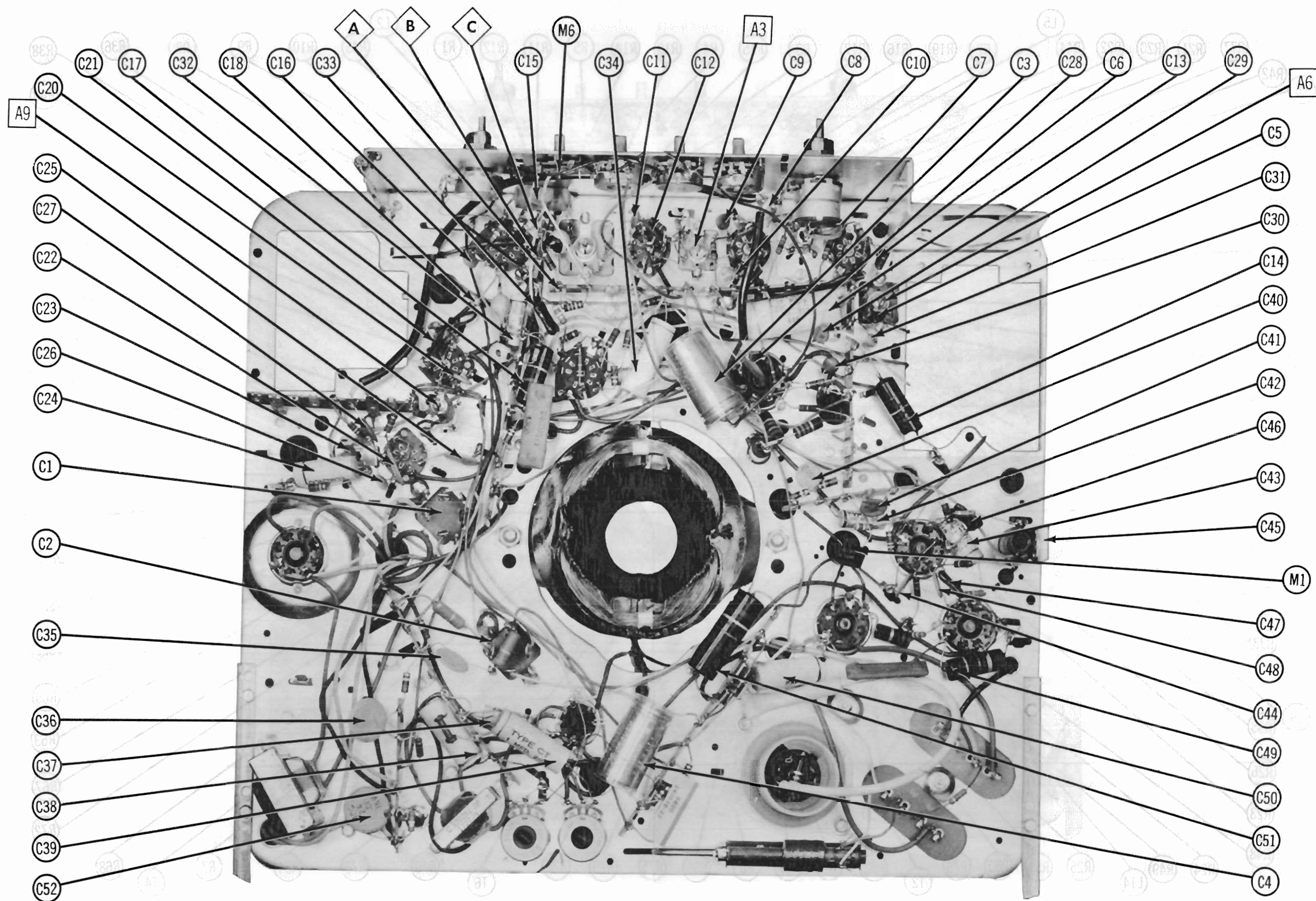


UHF TUNER TOP VIEW



CHASSIS TOP VIEW

MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA,  
V24-04AA, V24-06AA (24 Series)



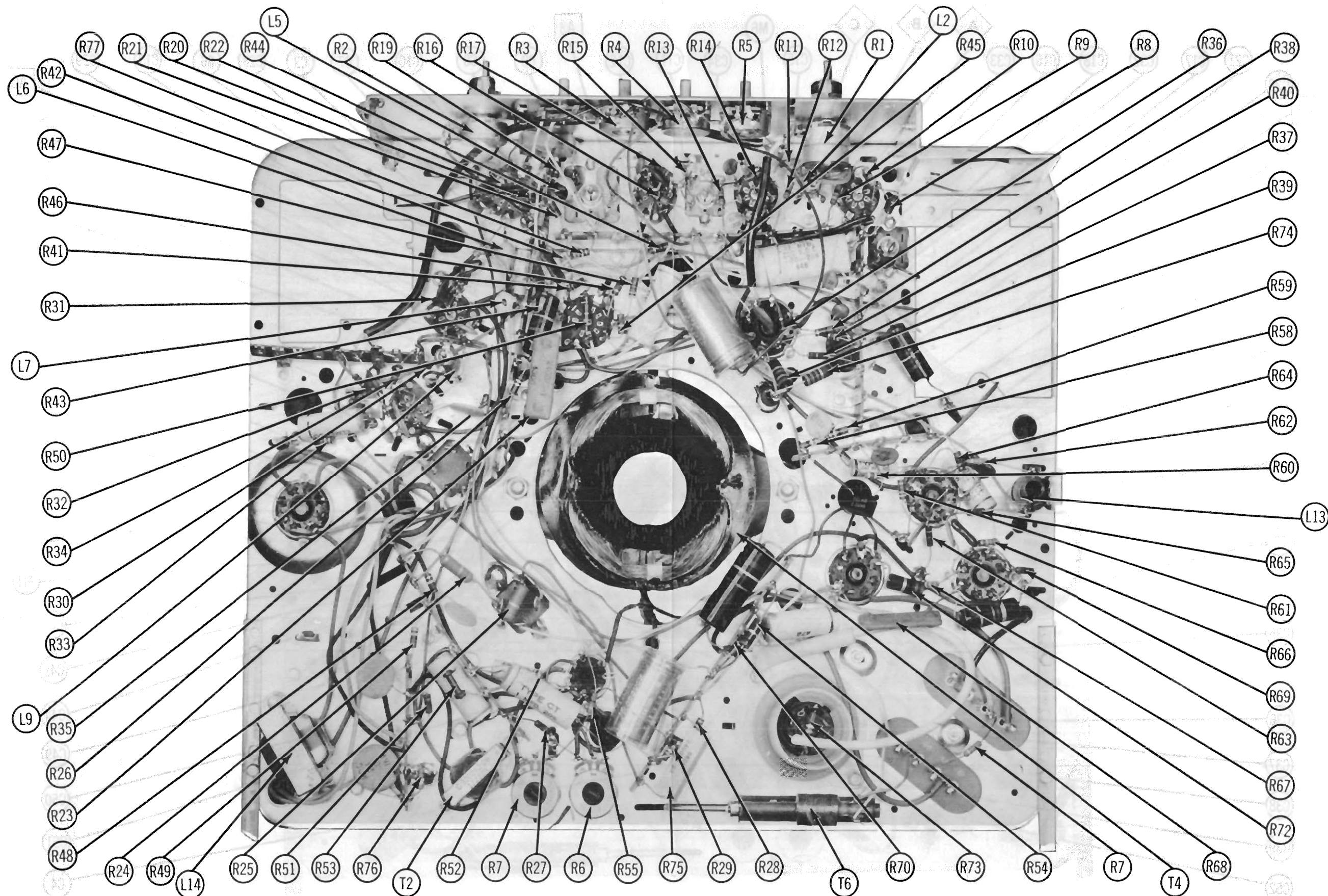
MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA,  
V24-04AA, V24-06AA (24 Series)

FOLDER 1

CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

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MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA,  
V24-04AA, V24-06AA (24 Series)

FOLDER 1

CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

# TUNER PARTS LIST AND DESCRIPTIONS

## TUBES ( GENERAL ELECTRIC, SYLVANIA )

ITEM No.	USE	TYPE	NOTES
V201	RF Amplifier	6BN4	
V202	Mixer-Osc.	6CG8A	
V203	UHF Osc.	6AF4A	

### FIXED CAPACITORS

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

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA						NOTES
		MAGNAVOX PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	
C201	1.2	250221-115	NPO-SI 1.0	TCZ-1		TCO-1		5TCCB-VI
C202	1.0	250188-10	NPO-SI 1.0	TCZ-1		TCO-1		5TCCB-VI
C203	47	250221-114						
C204	.62	250188-10						
C205	10	250175-21						
C206	10	250221-1001						
C207	2.3-4	250088-140						
C208	470	250220-2						
C209	470	250175-8	BPD-00047	DD-471	LI0T47	ED-470	UC-5347	5GA-T47
C210	1000	250175-8	BPD-00047	DD-471	LI0T47	ED-470	UC-5347	5GA-T47
C211	800	250272-1	BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-DI
C212	120	250266-1	BPD-00012	DD-121	LI0T12	ED-120	UC-5312	5GA-T12
C213	30	250263-1						
C214	15	250264-1	NPO-DI 15	DD-150	LI0Q15	ED-15		5TCC-Q15
C215	15	250265-1						
C216	5	250274-1						
C217	2-8	250145-1						
C218	47	250273-1						
C219	800	250266-1						
C220	800	250266-1						
C221	2-6	250144-1						
C222	1000	250272-1	BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-DI
C223	51	250267-1						
C224	2-6	250144-1						
C225	1.0	250266-1	NPO-SI 1.0	TCZ-1		TCO-1		5TCCB-VI
C226	1000	250271-1	BPD-001	DD-102	BYA6DI	ED-1000	DC521	5HK-DI
C227	30	250263-1						
C228	10	250270-1						
C229	10	250269-1						
C230	80	250266-1						
C231	800	250266-1						

### RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		MAGNAVOX PART No.	NOTES
	OHMS	WATT		
R201	100K		230104-86	
R202	22K		230104-78	
R203	820Ω	1	230145-61	
R204	4700Ω		230104-70	
R205	470Ω	1	230105-62	Note 1
R206	10K		230104-74	
R207	220K		230104-90	
R208	1000Ω		230104-62	
R209	10K		230104-74	
R210	10K		230104-74	
R211	5600Ω		230104-71	
R212	2200Ω		230104-66	

Note 1. VHF tuner #700624 uses 1000Ω 1W (Part #230105-62) in this application.

### COILS (RF-IF)

ITEM No.	USE	MAGNAVOX PART No.	NOTES
L201	RF Choke	360574-30	
L202	RF Choke	360574-30	
L203	Cathode Choke	360522-7	
L204	Fl. Choke	360574-8	
L205	Fl. Choke	360574-8	
L206	RF Choke	360574-8	
L207	RF Choke	360574-12	
L208	RF Choke	360574-50	
L209	VHF Ant. Trans.	360744-1	
L210	IF Trap	360740-1	
L211	IF Trap	360741-1	
L212	Osc. Coil	360742-1	
L213	Mixer Plate Coil	360743-1	

### CRYSTAL DIODES

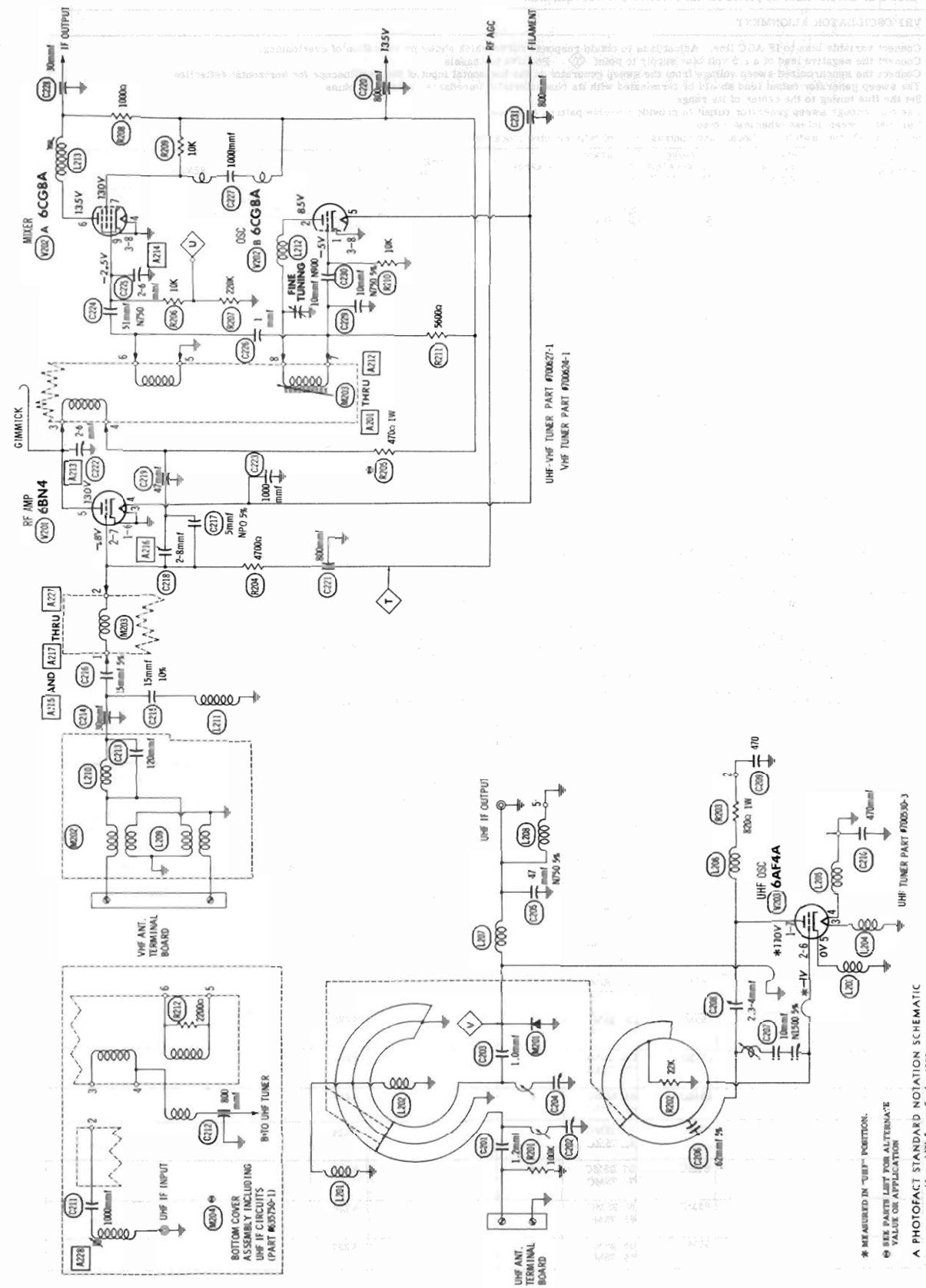
ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		MAGNAVOX PART No.	CBS PART No.	SYLVANIA PART No.	
M201		530036-1	1N82A	1N82A	UHF Mixer (Clp-in)

### MISCELLANEOUS

ITEM No.	PART NAME	MAGNAVOX PART No.	NOTES
M202	Ant. Network	460921-1	
M203	Rotor Assy.	160283-1	
M204	Rear Cover Assy.	635750-1	
	Rear Cover Assy.	635749-1	
	Extension Contact	635751-1	
	Osc. Slug	110375-1	
	Spring Contact	635748-1	

RF TUNER - TOP VIEW

## TUNER ALIGNMENT INSTRUCTIONS



MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, U24-07AA, U24-08AA, U24-09AA, U24-10AA, U24-11AA, U24-12AA, U24-13AA, U24-14AA, U24-15AA, U24-16AA, U24-17AA, U24-18AA, U24-19AA, U24-20AA, U24-21AA, U24-22AA, U24-23AA, U24-24AA, U24-25AA, U24-26AA, U24-27AA, U24-28AA, U24-29AA, U24-30AA, U24-31AA, U24-32AA, U24-33AA, U24-34AA, U24-35AA, U24-36AA, U24-37AA, U24-38AA, U24-39AA, U24-40AA, U24-41AA, U24-42AA, U24-43AA, U24-44AA, U24-45AA, U24-46AA, U24-47AA, U24-48AA, U24-49AA, U24-50AA, U24-51AA, U24-52AA, U24-53AA, U24-54AA, U24-55AA, U24-56AA, U24-57AA, U24-58AA, U24-59AA, U24-60AA, U24-61AA, U24-62AA, U24-63AA, U24-64AA, U24-65AA, U24-66AA, U24-67AA, U24-68AA, U24-69AA, U24-70AA, U24-71AA, U24-72AA, U24-73AA, U24-74AA, U24-75AA, U24-76AA, U24-77AA, U24-78AA, U24-79AA, U24-80AA, U24-81AA, U24-82AA, U24-83AA, U24-84AA, U24-85AA, U24-86AA, U24-87AA, U24-88AA, U24-89AA, U24-90AA, U24-91AA, U24-92AA, U24-93AA, U24-94AA, U24-95AA, U24-96AA, U24-97AA, U24-98AA, U24-99AA, U24-100AA

FOLDER 1

SET 392 FOLDER 1

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TUNER ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

Allow a 20 minute warm-up period for the receiver and test equipment.

VHF OSCILLATOR ALIGNMENT

Connect variable bias to IF AGC line. Adjust bias to obtain response curve which shows no indication of overloading. Connect the negative lead of a 1.5 volt bias supply to point  $\diamond$ . Positive to chassis. Connect the synchronized sweep voltage from the sweep 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 to the center of its range. Use only enough sweep generator output to provide a usable pattern on scope. Use 10MC sweep unless otherwise noted. Set Local-Distant switch to "Local" and contrast control fully counter clockwise.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Fig. 201	Across antenna terminals thru network (Fig. 201).	213MC	211. 25MC 215. 75MC	13	Vert. Amp. thru 10K across video detector load.	A201	Adjust to place sound marker in trap notch as in Fig. 202. Video marker should fall at 50%.
		207MC	205. 25MC 209. 75MC	12		A202	
		201MC	199. 25MC 203. 75MC	11		A203	
		195MC	193. 25MC 197. 75MC	10		A204	
		189MC	187. 25MC 191. 75MC	9		A205	
		183MC	181. 25MC 185. 75MC	8		A206	
		177MC	175. 25MC 179. 75MC	7		A207	
		85MC	83. 25MC 87. 75MC	6		A208	
		79MC	77. 25MC 81. 75MC	5		A209	
		69MC	67. 25MC 71. 75MC	4		A210	
		63MC	61. 25MC 65. 75MC	3		A211	
		57MC	55. 25MC 59. 75MC	2		A212	

VHF RF AND MIXER ALIGNMENT

Connect the negative lead of a 2.5 volt bias supply to point  $\diamond$ . Positive to chassis. Connect the synchronized sweep voltage from the sweep 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. Use only enough sweep generator output to provide a usable pattern on scope. Use 10MC sweep unless otherwise noted. Antenna coils (A215 and A217 thru A227) are adjusted thru a rectangular hole on the opposite side of the tuner from the oscillator slug adjustments.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
2. Fig. 201	Across VHF antenna terminals thru matching network (Fig. 201).	195MC	193. 25MC 197. 75MC	10	Vert. Amp. thru 10K to point U. Low side to chassis.	A213, A214, A215, A216	Connect a 22 $\Omega$ watt carbon resistor across the terminals of the channel 10 antenna coil (A215). Adjust A213 and A214 for a balanced response curve similar to Fig. 203. Remove 22 $\Omega$ resistor from A215. Adjust A215 by expanding or compressing coil turns for maximum gain between markers with balanced peaks. If the valley is not centered between the two balanced peaks, remove the B plus to the tuner and adjust A216 with a non-metallic alignment tool until the valley is centered between peaks as in Fig. 204. Reconnect B plus to the tuner. Replace tuner shield on tuner.
3. "	"	213MC	211. 25MC 215. 75MC	13	"	A217	Adjust for maximum gain and symmetry similar to Fig. 203.
4. "	"	207MC	205. 25MC 209. 75MC	12	"	A218	"
5. "	"	201MC	199. 25MC 203. 75MC	11	"	A219	"
6. "	"	189MC	187. 25MC 191. 75MC	9	"	A220	"
7. "	"	183MC	181. 25MC 185. 75MC	8	"	A221	"
8. "	"	177MC	175. 25MC 179. 75MC	7	"	A222	"
9. "	"	85MC	83. 25MC 87. 75MC	6	"	A223	"
10. "	"	79MC	77. 25MC 81. 75MC	5	"	A224	"
11. "	"	69MC	67. 25MC 71. 75MC	4	"	A225	"
12. "	"	63MC	61. 25MC 65. 75MC	3	"	A226	"
13. "	"	57MC	55. 25MC 59. 75MC	2	"	A227	"

TUNER ALIGNMENT INSTRUCTIONS (cont)

UHF IF ALIGNMENT

Connect bias as under "VHF Oscillator Alignment". Set the Local-Distant switch to "Local" position and contrast control fully counter clockwise. Connect the synchronized sweep voltage from the sweep 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 to the center of its range. Use only enough sweep generator output to provide a usable pattern on scope.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
14. 1000 $\Omega$ Carbon Resistor	High side to point $\diamond$ . Low side to tuner chassis.	43. 0MC (10MC Swp)	42. 25MC 45. 75MC	UHF	Vert. Amp. thru 10K across video detector load.	A228	Adjust for response curve similar to Fig. 205 with MINIMUM tilt.

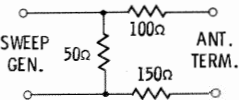


FIG 201

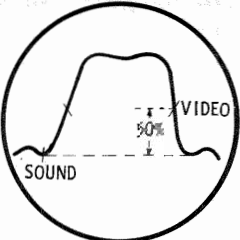


FIG. 202

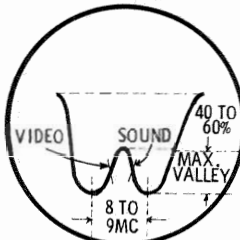


FIG. 203

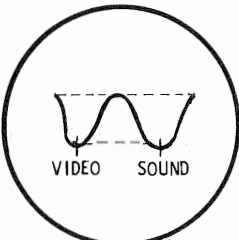


FIG. 204

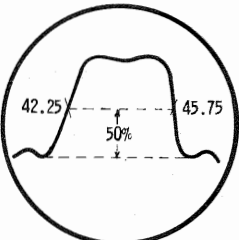
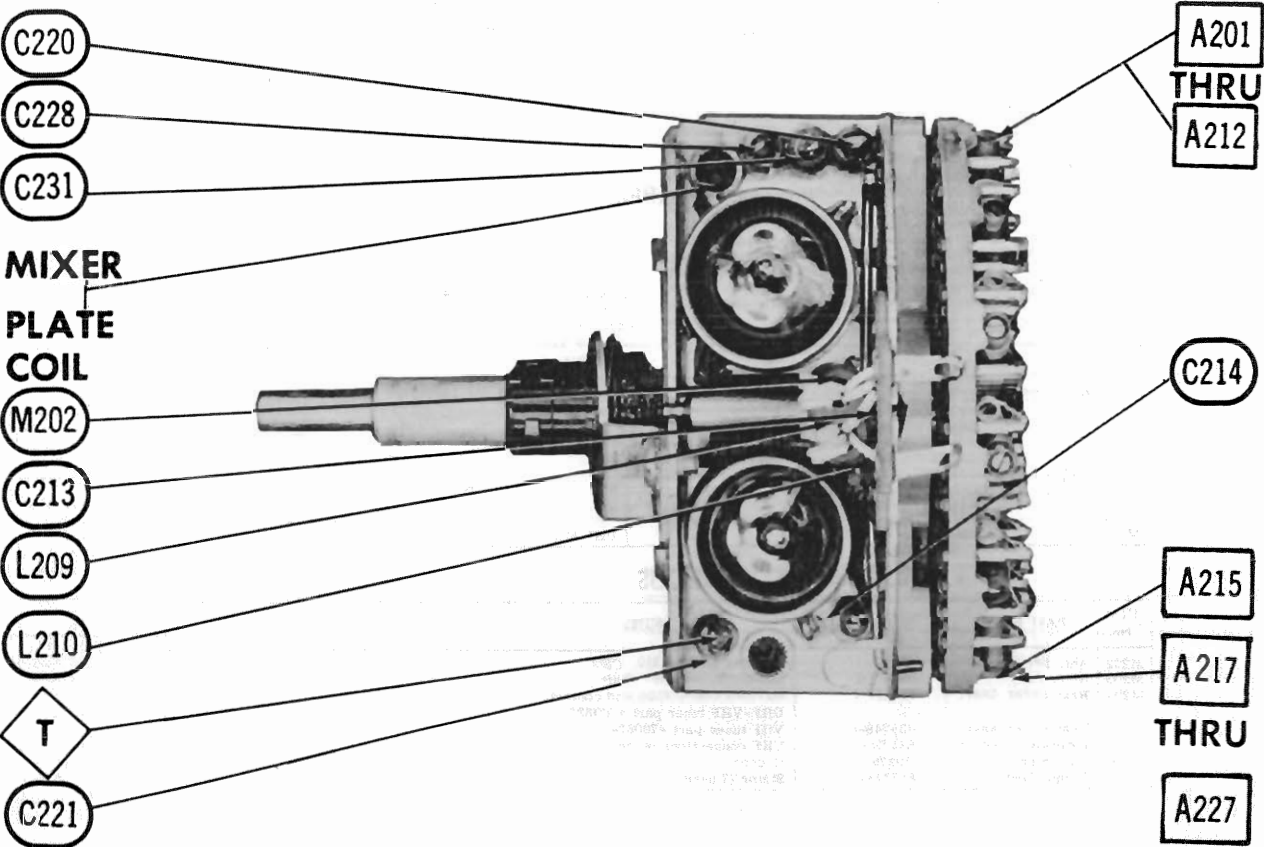


FIG. 205

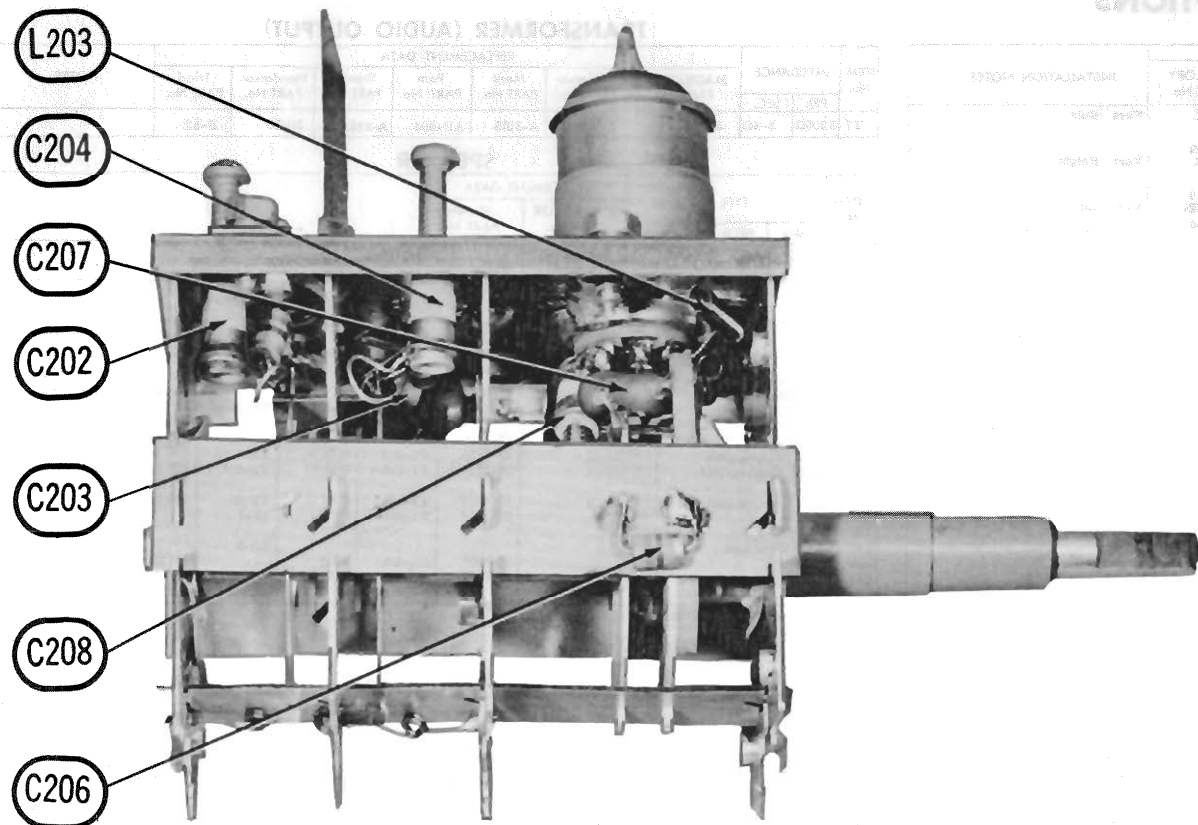


RF TUNER—TOP VIEW

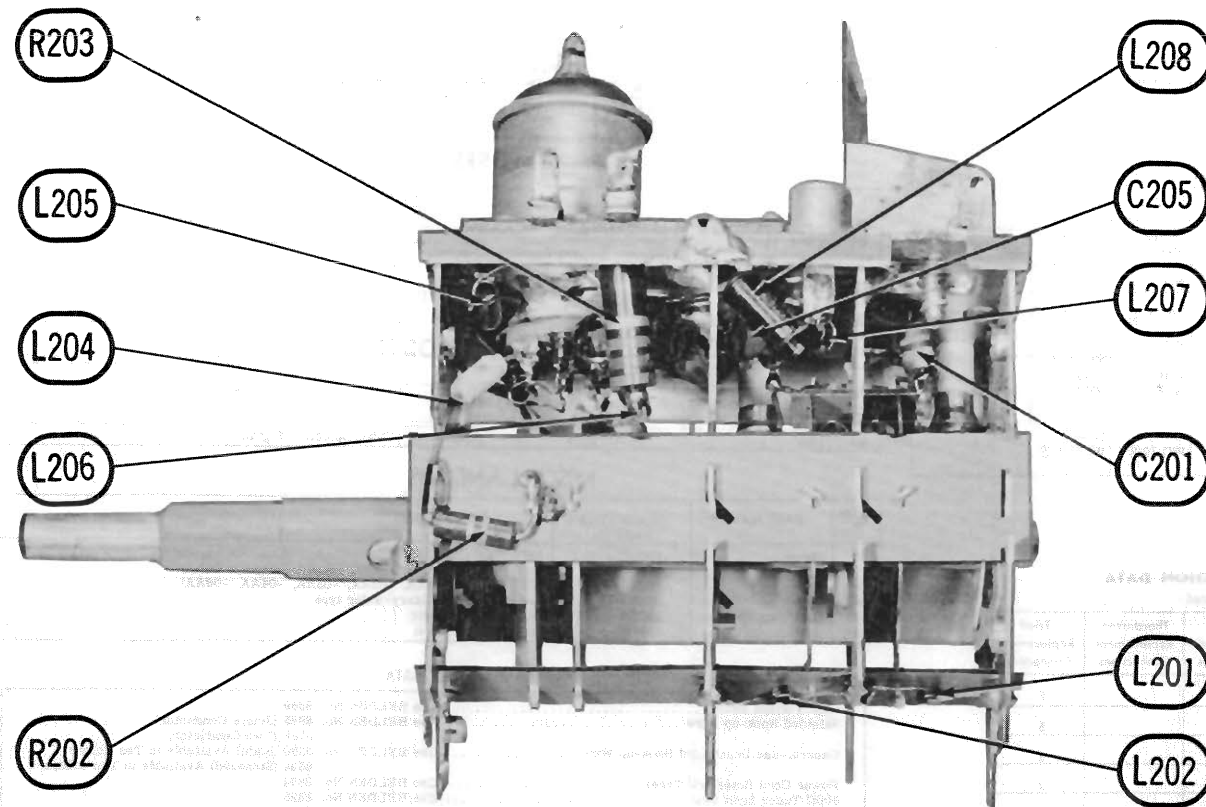
MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA, U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA, V24-04AA, V24-06AA (24 Series)

FOLDER 1

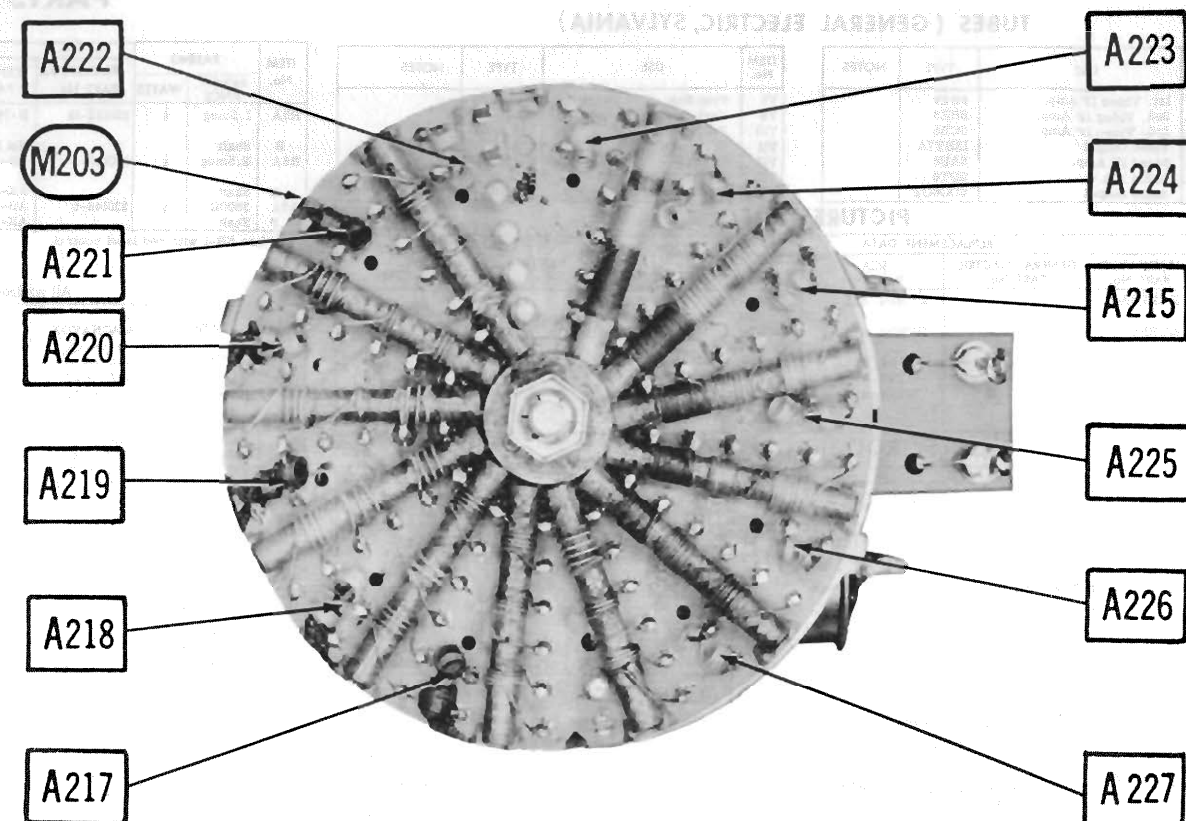




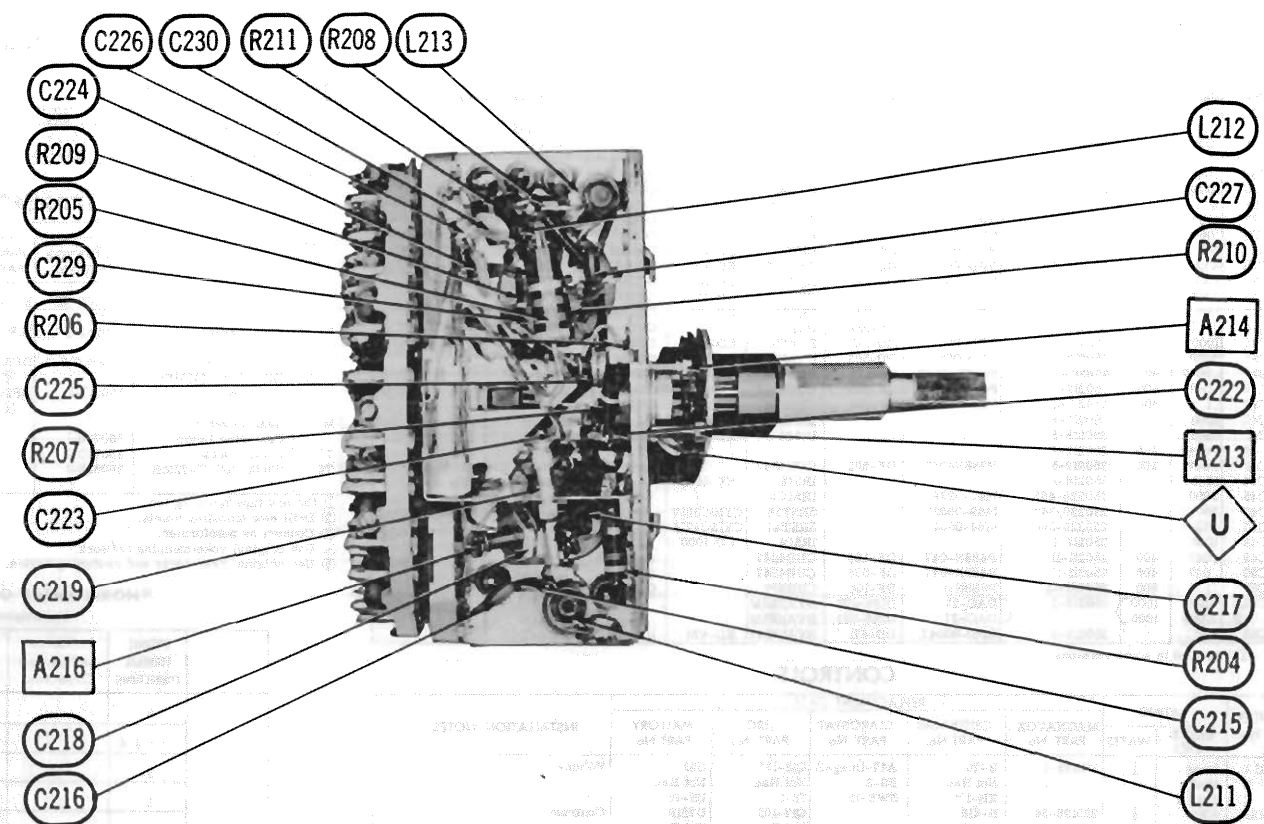
UHF TUNER-LEFT SIDE



UHF TUNER-RIGHT SIDE



RF TUNER ROTARY ASSEMBLY



RF TUNER BOTTOM VIEW

SET 392 FOLDER 1

MAGNAVOX CHASSIS U24-01AA, U24-02AA, U24-03AA,  
U24-04AA, U24-06AA, V24-01AA, V24-02AA, V24-03AA,  
V24-04AA, V24-06AA (24 Series)

FOLDER 1

## TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	1st. Video IF Amp.	6BZ6	
V2	2nd. Video IF Amp.	6BZ6	
V3	3rd. Video IF Amp.	6CB6	
V4	Video Output	12BY7A	
V5	Sound IF Amp.	6AU6	
V6	Audio Det.	6DT9	
V7	Audio Output	6DG6GT	

## PICTURE TUBE

ITEM No.	MAGNAVOX PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	NOTES
V15	2ICBP4	17AVP4/17ATP4A	2ICBP4-A	2ICBP4-A	1 Silverama 2 Silver screen "85" 3 Aluminized
	17BJP4 17AVP4		17BJP4 17AVP4-A 17ATP4-A		

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MAGNAVOX PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
CLA	40	270021-62	AFH3-154-30	D0471	FP284.5	TMT-97	T-110	R2351 *
B	70				TC39	TD-30-350	MT-0550	
C	50							
C2A	30	270021-64	AFH4-56-93.5	D0418	FP420.28	T-735	MTD-4508	R2346 *
B	20				TC85			
C	350							
D	100							
C4	20	270027-20	PR8450V20	BR2035	TC65	TD-20-350	MT-4520	TVA-1608
C3	20	270027-20	PR8450V20	BR2035	TC65	TD-20-350	MT-4520	TVA-1608

\* Non-catalog item.

## FIXED CAPACITORS

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

ITEM No.	RATING	MAGNAVOX PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C5	24	250226-315	1469-000024	TCZ-24	ED-470	UC-5347	MS-424	5%
C7	470	250218-6	BPD-00047	DD-471	BYA10T47	ED-470	SGA-T47	10%
C8	800	250218-14	BPD-00068	DD-681	BYA10T68	ED-680	SGA-T68	10%
C9	800	250218-14	BPD-00068	DD-681	BYA10T68	ED-680	SGA-T68	10%
C10	800	250218-14	BPD-00068	DD-681	BYA10T68	ED-680	SGA-T68	10%
C11	800	250218-14	BPD-00068	DD-681	BYA10T68	ED-680	SGA-T68	10%
C12	1500	250218-18	BPD-00015	DD-152	BYA10D15	ED-1500	SHK-D15	10%
C13	.22	250202-15	P288N-22	CUB2P22	GEM-2022	2TM-P22	2TM-P22	
C14	.1	250202-13	P288N-1	CUB2P1	GEM-201	2TM-P1	2TM-P1	
C15	.1	250186-16	P288N-1	CUB2P1	GEM-201	2TM-P1	2TM-P1	
C16	880	250218-4	BPD-00068	DD-681	BYA10T68	ED-680	SGA-T68	
C17	.1	250202-13	P288N-1	CUB2P1	GEM-201	2TM-P1	2TM-P1	
C18	2.2	250221-18	NPO-SI 2.2	TCZ-2R2	TCO-100	ZT-531	STCC-T1	NPO
C19	100	250175-59	NPO-DI 100	TCZ-100	TCO-100	ZT-531	STCC-T1	
C20	3900	250175-31	BPD-004	DD-302	BYA10D31	ED-3005	SHK-D31	
C21	5000	250175-1	BPD-005	DD-502	BYA10D5	ED-5005	SHK-D5	
C22	10000	250175-19	BPD-01	DD-103	BYA10D19	ED-1003	SHK-D19	
C23	18	250175-54	BPD-01	DD-103	BYA10D19	ED-1003	SHK-D19	
C24	.047	250202-11	P288N-047	DD-503	CUB2P47	GEM-4147	2TM-47	
C25	10000	250218-19	BPD-01	DD-103	BYA10D19	ED-1003	SHK-D19	
C26	470	250218-6	BPD-00047	DD-471	BYA10T47	ED-470	SGA-T47	
C27	10000	250175-2	BPD-01	DD-103	BYA10D19	ED-1003	SHK-D19	
C28	100	250218-22	BPD-0001	DD-101	BYA10D22	ED-1001	SHK-D22	
C29	470	250218-6	BPD-00047	DD-471	BYA10T47	ED-470	SGA-T47	
C30	100	250218-6	BPD-00047	DD-471	BYA10T47	ED-470	SGA-T47	
C31	.0022	25021-3	P488N-0022	DD-122	CUB2P22	GEM-6222	4TM-D22	
C32	150	250229-334	1469-00015	DD-151	SW5T15	ED-150	UC-5315	
C33	.1	250211-13	P488N-1	DD-103	CUB4P1	GEM-401	4TM-P1	
C34	5000	250218-19	P488N-1	DD-103	CUB4P1	GEM-401	4TM-P1	
C35	10000	250218-19	P488N-1	DD-103	CUB4P1	GEM-401	4TM-P1	
C36	5000	250218-19	P488N-1	DD-103	CUB4P1	GEM-401	4TM-P1	
C37	.0047	400	P488N-0047	DD-472	CUB4P47	GEM-4147	4TM-47	
C38	.047	400	P488N-047	DD-503	CUB4P47	GEM-4147	4TM-47	
C39	.1	400	P488N-1	DD-503	CUB4P1	GEM-401	4TM-P1	
C40	1000	250218-8		DD-1000	MCB255	MS-21	MS-21	10%
C41	1000	250218-8		DD-1000	MCB255	MS-21	MS-21	10%
C42	.0047	400		DD-1000	MCB255	MS-21	MS-21	10%
C43	.047	200		DD-1000	MCB255	MS-21	MS-21	10%
C44	1000	250218-8		DD-1000	MCB255	MS-21	MS-21	10%
C45	3900	250228-468	1469-00039	DD-468	SR5T36	CY15C36V	MS-336	5%
C46	360	250229-343	1469-00036	DD-343	SR5T36	CY15C36V	MS-336	5%
C47	470	250229-346	1469-00047	DD-346	SR5T47	CY15C47V	MS-347	5%
C48	1000	250218-8		DD-1000	MCB255	MS-21	MS-21	10%
C49	.047	400	P488N-047	DD-503	CUB4P47	GEM-4147	4TM-47	
C50	.047	400	P488N-047	DD-503	CUB4P47	GEM-4147	4TM-47	
C51	.1	900	P488N-1	DD-503	CUB4P1	GEM-401	4TM-P1	
C52A	10000	1000	DAC-27	DD-103	BYA10D1M	ED-1003	BL-810	
C53	10000	1000	DAC-27	DD-103	BYA10D1M	ED-1003	BL-810	
C54	470	250218-6	BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	

① Not used in some versions.

## CONTROLS

ITEM No.	RATING	MAGNAVOX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1meg	220135-1	11-7V	A47-1meg-Z	Q3-137	U53	Volume
B	Shaft		Not Req.	178-3	Not Req.	Not Req.	
C	Switch		11-45	178-1	U53-36	U53-36	
R2A	800K	220126-56	11-45	Q1-123	U53-36	U53-36	Contrast
B	Shaft		Not Req.	Q1-123	Not Req.	TA54L	
R3A	50K	220132-1	B-31	A47-50K-S	Q1-123	Not Req.	Horiz. Hold
B	Shaft		Not Req.	K38-3	Not Req.	U43	
R4A	200K	220132-2	B-46	A47-200K-S	Q1-129	Not Req.	Brightness
B	Shaft		Not Req.	K38-3	Not Req.	Not Req.	

## PARTS LIST AND DESCRIPTIONS

### CONTROLS (cont)

ITEM No.	RATING	MAGNAVOX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R5A	1.5meg	220132-13	B-742	A47-1.5meg	Q1-138	TA155L	Vert. Hold
B	Shaft		Not Req.	K38-3	Not Req.	TA255L	
R6A	2.5meg	220146-2	Not Req.	A47-2.5meg	B11-239	Not Req.	Vert. Height
B	Shaft		Not Req.	F38-1/4	TM2-K11	Not Req.	
R7A	3000K	220146-5	AK-1	A47-3000-S	B11-112	PTA55L	Vert. Lin.
B	Shaft		AK-1	F38-1/4	TM2-K11	Not Req.	

\* Use R1-1 with red label control.

### RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	MAGNAVOX PART No.	NOTES
R8	3000K 5%	230094-190	
R9	1000K	230104-82	
R10	47K	230104-46	
R11	82K 5%	230094-205	
R12	1000K	230104-82	
R13	1000K	230104-82	
R14	47K	230104-46	
R15	36K 5%	230094-196	
R16	1000K	230104-82	
R17	120K	230104-51	
R18	470K	230104-82	
R19	3900K 5%	230094-173	
R20	1meg	230104-98	
R21	1meg	230104-98	
R22	470K	230104-94	
R23	4300K	240073-1	
R24	8200K	230105-73	
R25	8200K	230105-73	
R26	270K	230104-91	
R27	11K 5%	230094-164	
R28	270K	230104-91	
R29	270K	230104-91	
R30	12K	230104-75	
R31	220K	230104-54	
R32	270K	230104-91	
R33	560K	230104-95	
R34	680K	230104-72	
R35	680K	230104-60	
R36	1meg 5%	230094-231	
R37	1.2meg 5%	230094-233	
R38	1meg	230104-98	
R39	270K	230108-55	
R40	3300K	230104-68	
R41	4.7meg	230104-106	
R42	470K	230104-94	

Note 1. Some versions may use 2meg (Part #230094-238) in this application.

Note 2. Temperature compensating. Do not measure.

Note 3. Some versions may use 300K in this application.

Note 4. Not used in some versions.

### TRANSFORMER (POWER)

ITEM No.	RATING	MAGNAVOX PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	1/2V 1.6A	560VCT 240A	5V 3A	6.3V 3A	300093-1	P-3077	26R90 ① R-66BC ①

① Use original mounting bracket.

### TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	MAGNAVOX PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	NOTES
T2	Vert. Osc.	320262-2B	B4702	A-3003	V408	Y80-201	28A04	A-97X	
T3	Alt. Vert. Osc.	320262-2	Z1807	A-2824	V315 ①	A-8141 ②	26854 ②	A-109X ②	
T4A	Yoke-Horiz. (21MH)	XD360817-2	DF812	MDF-92	Y90F19/43	DY-16A	Y-16 ④	Y-41 ④	
B	(90°)-Vert. (45MH)		DF812	MDF-92	Y90F19/43	DY-16A	Y-16 ④	Y-41 ④	
M7	Rear Cover & Centering Device	360738-1	MS-21	MS-21	MS-21	MS-21	MS-21	MS-21	
T5	Horiz. Output	360700-1	MS-21	MS-21	MS-21	MS-21	MS-21	MS-21	
T6	Width Coil (7-22MH)	360899-1	MS-21	MS-21	MS-21	MS-21	MS-21	MS-21	

① Cut and tape blanking lead.

② Drill new mounting hole(s).

③ Connect as autotransformer.

④ Use original yoke damping network.

⑤ Use original rear cover and centering device.

### \*HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

Use Original Width Coil Unless Replacement Type Is Listed

ORIGINAL CONNECTIONS	Halldorson Replacement Connections	Merit Replacement Connections	Ram Replacement Connections	Stancor Replacement Connections	Thordarson Replacement Connections	Triad Replacement Connections
8			8	8		8
5 & 4			5	5		5
3-			3	3		3
2			2	2		2
1			1	1		1
Connect Width Coil Across	2 & 1		2 & 1	2 & 1		2 & 1

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	MAGNAVOX PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	NOTES
T7	3200K 3-4K	320280-1	Z1008	A-3018	AU-604	A-3849	26850	8-5Z	

## SPEAKER

ITEM No.	TYPE	MAGNAVOX PART No.	QUAM PART No.	NOTES
SP1	8"	PM	6-8Q	583985 ①
SP2	8"	PM	6-8Q	583987 ①

## COILS (RF-IF)

ITEM No.	USE	MAGNAVOX PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	NOTES
L1	1st. Video IF	360854-1	17-4503	TV-130	6219	VF-3	Includes 41.25MC Trap
L2	2nd. Video IF	360720-1	17-4522	TV-130	6219	VF-3	Includes 41.25MC Trap
L3	3rd. Video IF	360644-1	17-4511	TV-203	6174	VR-8 *	Includes 41.25MC Trap
L4	4th. Video IF	360644-1	17-4511	TV-203	6174	VR-8 *	Includes 41.25MC Trap