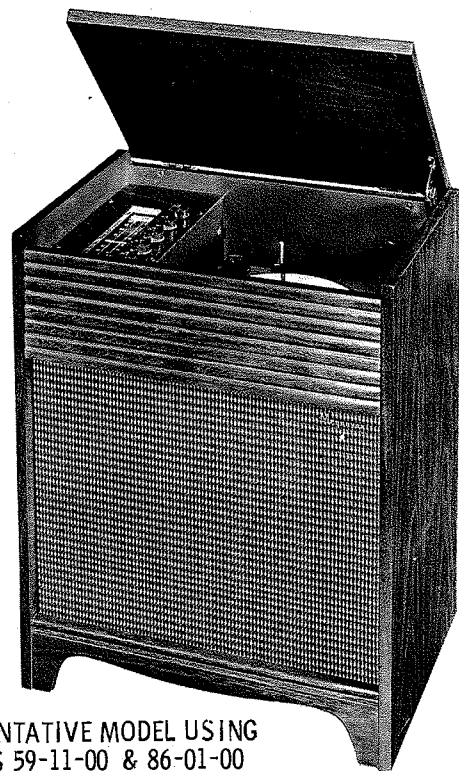


PHOTOFACT® Folder

with CIRCUITRACE®

MAGNAVOX CHASSIS 59-11-00,
59-12-00, 59-14-00, 86-01-00, 86-01-10,
86-02-00, 86-02-10, 86-03-00, 86-03-10

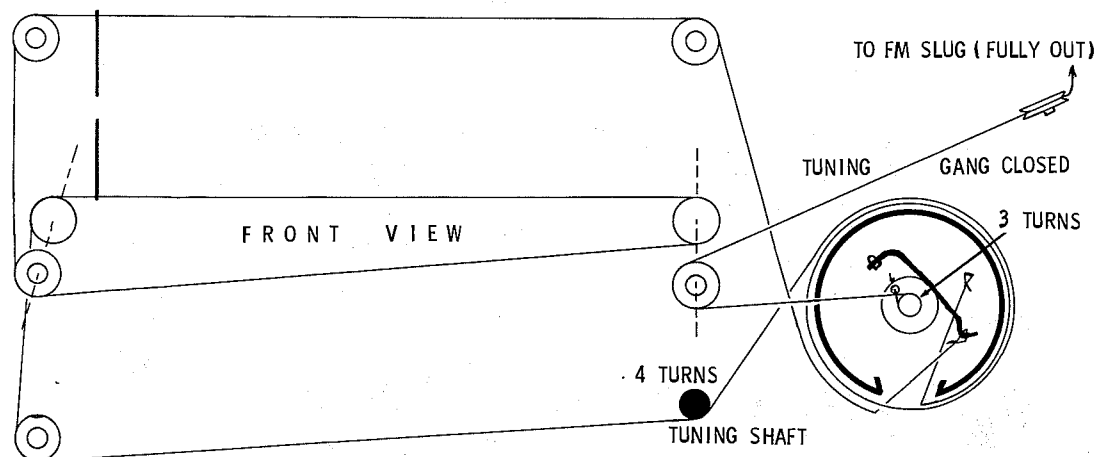


REPRESENTATIVE MODEL USING
CHASSIS 59-11-00 & 86-01-00

TRADE NAME	Magnavox Chassis 59-11-00, 59-12-00, 59-14-00 (Amp); 86-01-00, 86-01-10, 86-02-00, 86-02-10, 86-03-00, 86-03-10 (Tuner)		
MANUFACTURER	The Magnavox Co., 2131 Bueter Road, Fort Wayne 4, Indiana		
TYPE SET	AC Operated 5 Tube FM-AM Tuner, 4 Tube Stereo Amplifier and 4 Speed Automatic Record Changer		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles	RATING	70 Watts, .65 Amp. @117 Volts AC (Less Motor)
TUNING RANGE—BROADCAST	540 - 1620KC	FREQ. MOD.	88 - 108MC

FOR SERVICE INFORMATION ON RECORD CHANGER — SEE SIMILAR B.S.R. UA-12 — PHOTOFACT SET 465 FOLDER 6

DIAL CORD STRINGING



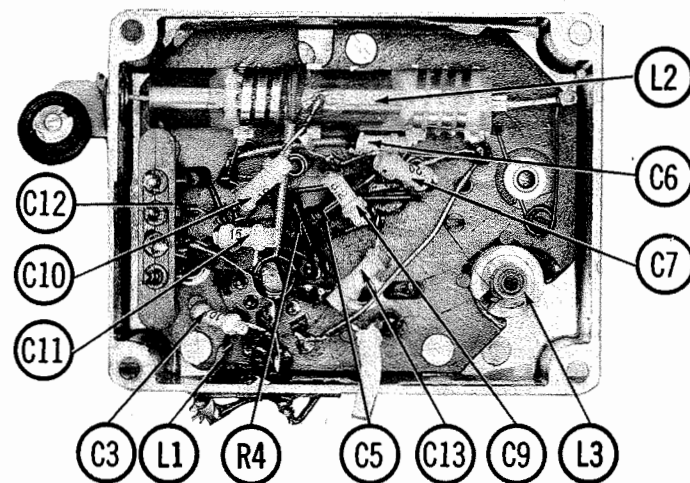
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



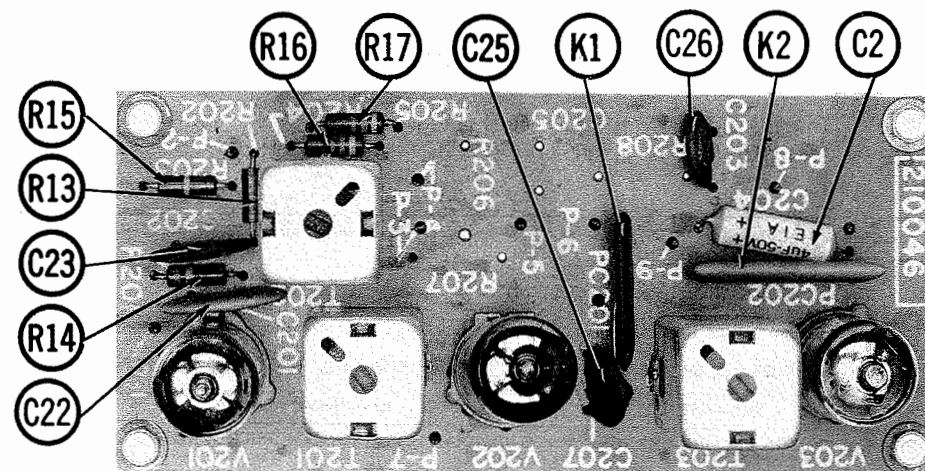
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of KN653

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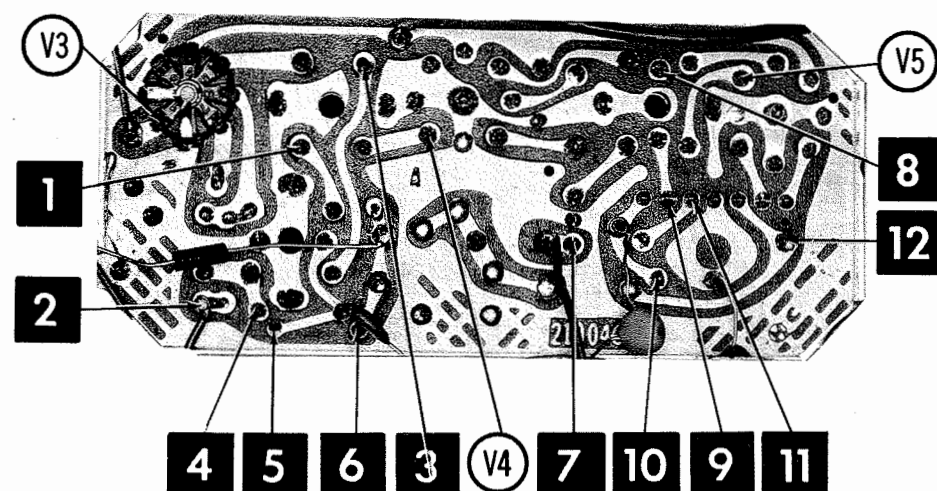
MAGNAVOX CHASSIS 59-11-00,
59-12-00, 59-14-00, 86-01-00, 86-01-10,
86-02-00, 86-02-10, 86-03-00, 86-03-10



FM RF SUBCHASSIS

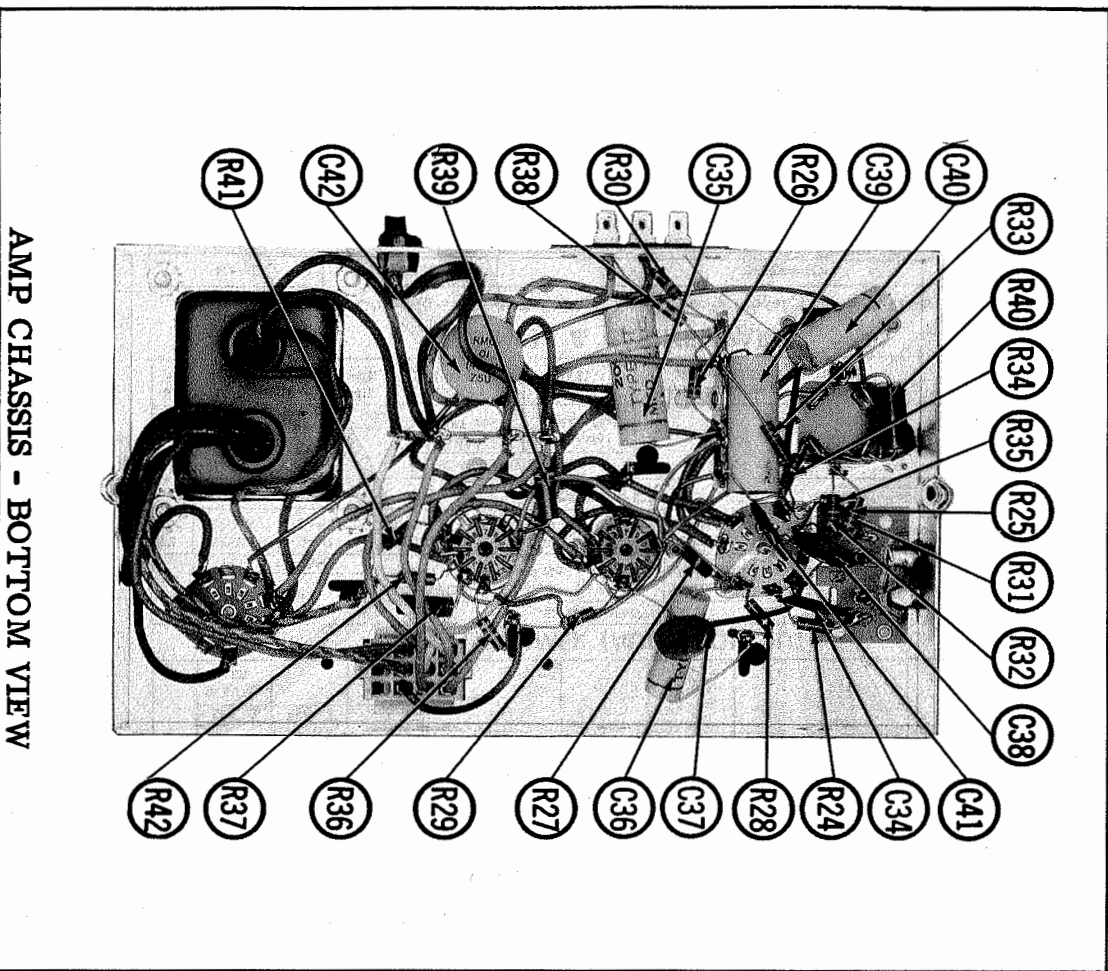
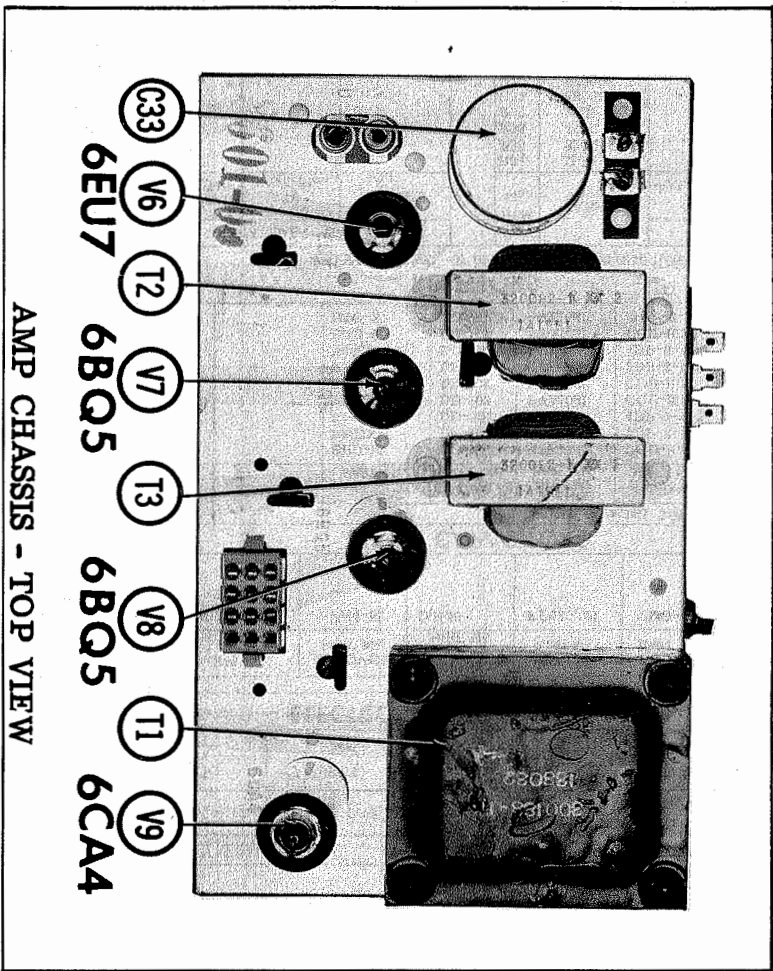


PRINTED BOARD

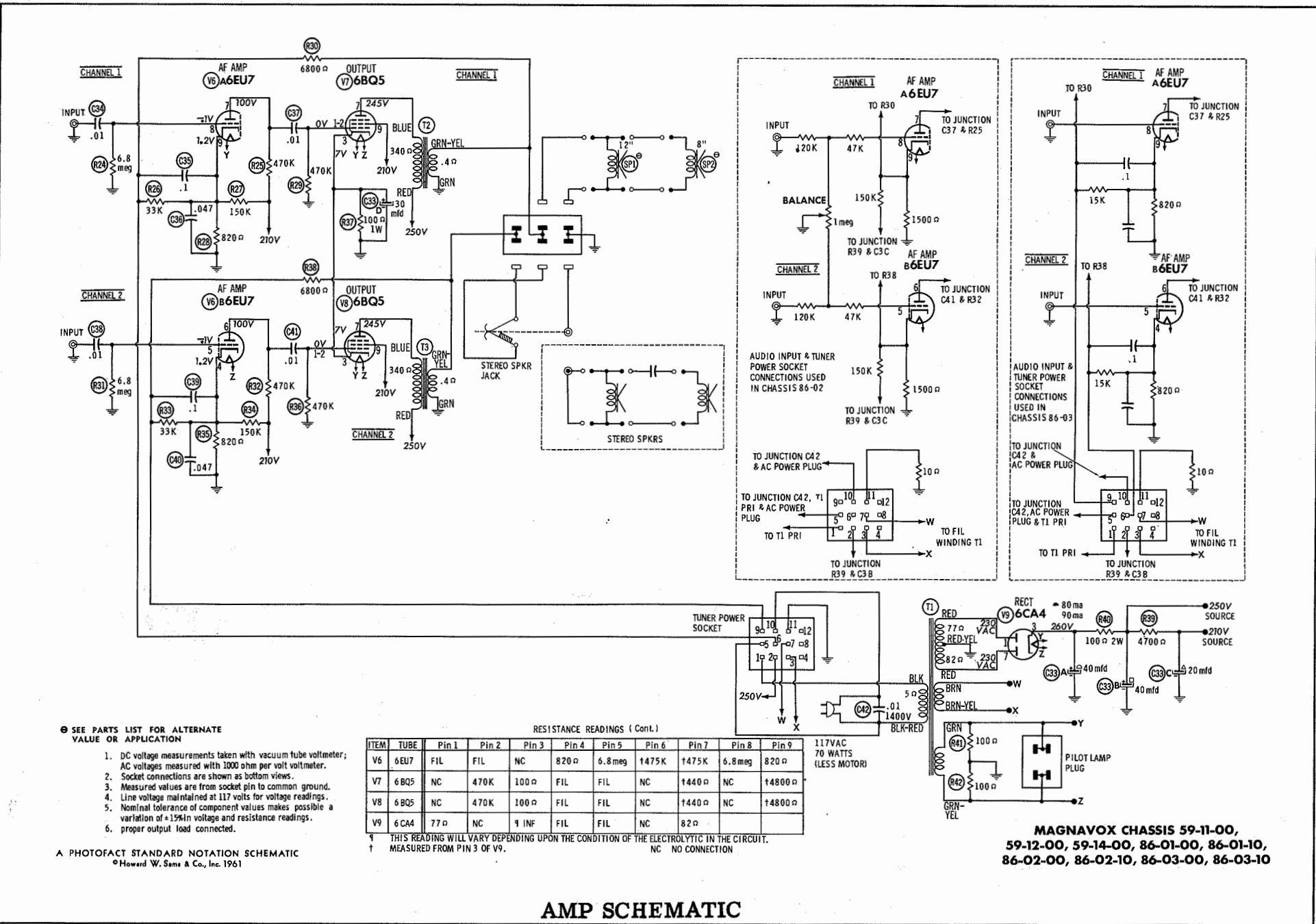


PRINTED BOARD

ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



FOLDER 10



AMP SCHEMATIC

TUNER PARTS LIST AND DESCRIPTIONS

TUBES

• GENERAL ELECTRIC • RAYTHEON • SYLVANIA •			
ITEM No.	USE	ITEM No.	TYPE
V1	FM RF Amp.-FM Conv.	6DT8	
V2	AM Converter	6BB6	6BA6
V3	1st FM-AM IF Amp.	6BA6	6AL5

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA			
ITEM No.	RATING	CORNELL-DUBILIER	REMARKS
C1A	450	AFH2-54	270021-58
C1B	450	PTT90	270559-9
C2	50	NLW4-50	MLV5-50
			TE-1302.1

FIXED CAPACITORS

REPLACEMENT DATA			
ITEM No.	RATING	CENTRALAB	REMARKS
C3	10 N750	TCN-10	TCN-10
C4	2-10	TCN-10	TCN-10
C5	.001	TCN-10	TCN-10
C6	20 NPO	TCN-20	TCN-20
C7	2-6	TCN-20	TCN-20
C8	8.2 P100	TCN-20	TCN-20
C9	10 N470	TCN-20	TCN-20
C10	15 NPO	TCN-20	TCN-20
C11	.001	TCN-20	TCN-20
C12	68 N750	TCN-20	TCN-20
C13	.005	TCN-20	TCN-20
C14	5 N470 5%	TCN-20	TCN-20
C15	470	TCN-20	TCN-20
C16	1.1 100V	TCN-20	TCN-20
C17	.47	TCN-20	TCN-20
C18	.005	TCN-20	TCN-20
C19	.002 400V	TCN-20	TCN-20
C20	.005	TCN-20	TCN-20
C21	.01	TCN-20	TCN-20
C22	.0033 10%	TCN-20	TCN-20
C23	.0033 10%	TCN-20	TCN-20
C24	.005	TCN-20	TCN-20
C25	.0015 10%	TCN-20	TCN-20
C26	.001	TCN-20	TCN-20
C27	.001	TCN-20	TCN-20
C28	.001	TCN-20	TCN-20
C29	.001	TCN-20	TCN-20
C30	.001	TCN-20	TCN-20
C31	.001	TCN-20	TCN-20
C32	.001	TCN-20	TCN-20

* Magnavox Part Number.
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

REPLACEMENT DATA			
ITEM No.	RATING	CENTRALAB	REMARKS
R1A	3.3meg	BT-180	220151-33
B	1.5meg Tap	STR-180	220151-33
C	1.5meg Tap	Not Req.	220151-33
R2A	1meg	Not Req.	220151-33
B	50K	Not Req.	220151-33
R3A	1meg	Not Req.	220151-33
B	50K	Not Req.	220151-33
C	Shift	Not Req.	220151-33

* Use 1.5meg.

TUBES

• GENERAL ELECTRIC • RAYTHEON • SYLVANIA •			
ITEM No.	USE	ITEM No.	TYPE
V6	Channel 1 AF Amp.-	V8	Channel 2 Output Rectifier
V7	Channel 2 AF Amp.	V9	Channel 1 Output Rectifier

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA			
ITEM No.	RATING	CORNELL-DUBILIER	REMARKS
C38A	.01 200V	DD-103	DD-103
C38B	.01 200V	DD-103	DD-103
C38C	.01 200V	DD-103	DD-103
C38D	.01 200V	DD-103	DD-103
C38E	.01 200V	DD-103	DD-103
C38F	.01 200V	DD-103	DD-103
C38G	.01 200V	DD-103	DD-103
C38H	.01 200V	DD-103	DD-103
C38I	.01 200V	DD-103	DD-103
C38J	.01 200V	DD-103	DD-103
C38K	.01 200V	DD-103	DD-103
C38L	.01 200V	DD-103	DD-103
C38M	.01 200V	DD-103	DD-103
C38N	.01 200V	DD-103	DD-103
C38O	.01 200V	DD-103	DD-103
C38P	.01 200V	DD-103	DD-103
C38Q	.01 200V	DD-103	DD-103
C38R	.01 200V	DD-103	DD-103
C38S	.01 200V	DD-103	DD-103
C38T	.01 200V	DD-103	DD-103
C38U	.01 200V	DD-103	DD-103
C38V	.01 200V	DD-103	DD-103
C38W	.01 200V	DD-103	DD-103
C38X	.01 200V	DD-103	DD-103
C38Y	.01 200V	DD-103	DD-103
C38Z	.01 200V	DD-103	DD-103

FIXED CAPACITORS

REPLACEMENT DATA			
ITEM No.	RATING	CENTRALAB	REMARKS
C39	.01 200V	DD-103	DD-103
C40	.01 200V	DD-103	DD-103
C41	.01 200V	DD-103	DD-103
C42	.01 200V	DD-103	DD-103

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.			
ITEM No.	RATING	CENTRALAB	REMARKS
R24	6.8meg	DD-103	DD-103
R25	470K	DD-103	DD-103
R26	33K	DD-103	DD-103
R27	150K	DD-103	DD-103
R28	820K	DD-103	DD-103
R29	470K	DD-103	DD-103
R30	680K	DD-103	DD-103
R31	6.8meg	DD-103	DD-103
R32	470K	DD-103	DD-103
R33	33K	DD-103	DD-103

RESISTORS

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

REPLACEMENT DATA			
ITEM No.	RATING	CENTRALAB	REMARKS
R4	1meg	DD-103	DD-103
R5	470K	DD-103	DD-103
R6	470K	DD-103	DD-103
R7	100K	DD-103	DD-103
R8	1meg	DD-103	DD-103
R9	22K	DD-103	DD-103
R10	15K 1W	DD-103	DD-103
R11	1meg	DD-103	DD-103
R12	2.2meg	DD-103	DD-103
R13	100K	DD-103	DD-103

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MAGNAVOX PART No.	REPLACEMENT DATA
K1	FM IF Filter	.001mfd, .005mfd, 100%, 1000%	250330-1	
K2	FM Ratio Detector Comp.	220m, 330mfd, 330mfd, 1200, 1000, 1500, 8200, 8200, 68K	250254-2	PC-354
K3	Loudness Comp.	.001mfd, 220K, 220K	250362-2	

COILS (RF-IF)

REPLACEMENT DATA			
ITEM No.	USE	MAGNAVOX PART No.	REMARKS
L1	FM Ant.	360789-1	360789-1
L2	FM RF	360790-1	360790-1
L3	1st FM IF	360791-1	360791-1
L4	Loopstick	360792-1	360792-1
L5	AM Osc.	360793-1	360793-1
L6	1st AM IF	360794-1	360794-1
L7	2nd AM IF	360795-1	360795-1
L8	Ratio Detector	360796-1	360796-1

PHONO CARTRIDGE & NEEDLES

*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

REPLACEMENT DATA			
ITEM No.	MAGNAVOX PART No.	ELECTRO-VOICE CARTRIDGE	SONOTONE CARTRIDGE
M1	17	Not Req.	2604 *
			2605 *

MISCELLANEOUS

ITEM No.	PART NAME	MAGNAVOX PART No.	NOTES
M2	Tuner	706771-2	FM, Complete
M3	Tuning Cap.	260184-1	2 Gang, Ant. 4-346mmf, Osc. 5-75mmf
M4	Switch	160394-4	Band Selector (Chassis 59-11, 59-14)

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors
Power Cord	Use BELDEN No. 8524 (Stranded) Available in Ten Colors
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 1725-K (7 1/2 Ft. Length)
Phono Pick-up Arm Cable	Use BELDEN No. 8430 (Two Conductor - Twisted)

TRANSFORMER (POWER)

REPLACEMENT DATA			
ITEM No.	RATING	MAGNAVOX PART No.	NOTES
T1	SEC. 1 SEC. 2	300-188-1	
	460VCT 6.3V @ .65A		
	DC		
	SEC. 3 SEC. 4 SEC. 5		
	6.3V @ 1.8A		

TRANSFORMER (AUDIO OUTPUT)

REPLACEMENT DATA			
ITEM No.	IMPEDANCE	MAGNAVOX PART No.	NOTES
T2	SEC. 1 SEC. 2	320082-2	
	3-4K 3-4K		
T3	5700K 3-4K	320082-2	

SPEAKER

REPLACEMENT DATA			
ITEM No.	TYPE	MAGNAVOX PART No.	NOTES
SP1	FIELD V. C. IMP.	564045 *	* Alternate Part #564185-1
SP2	8" PM 3-4K	564100 †	† Alternate Part #564170-1

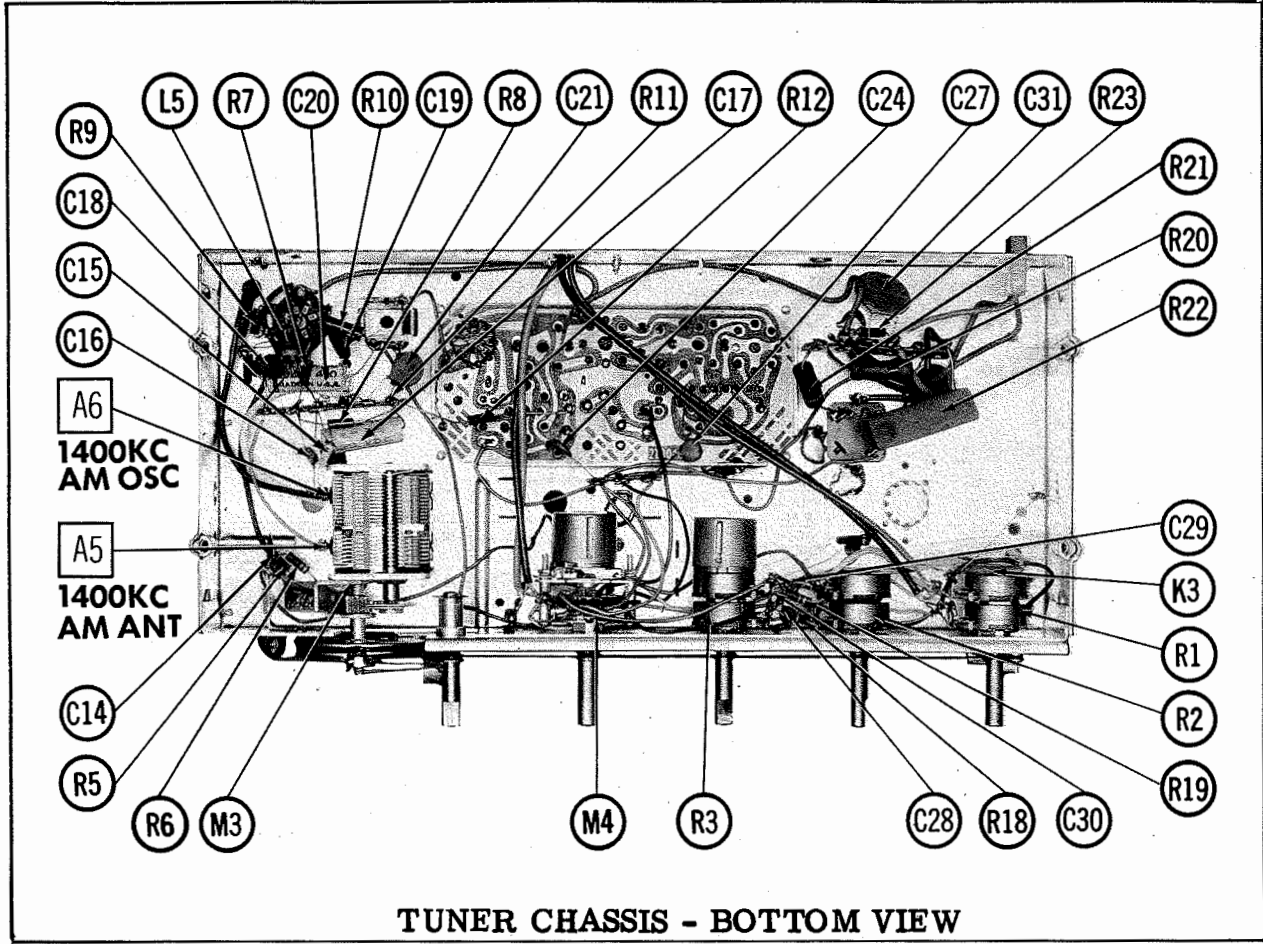
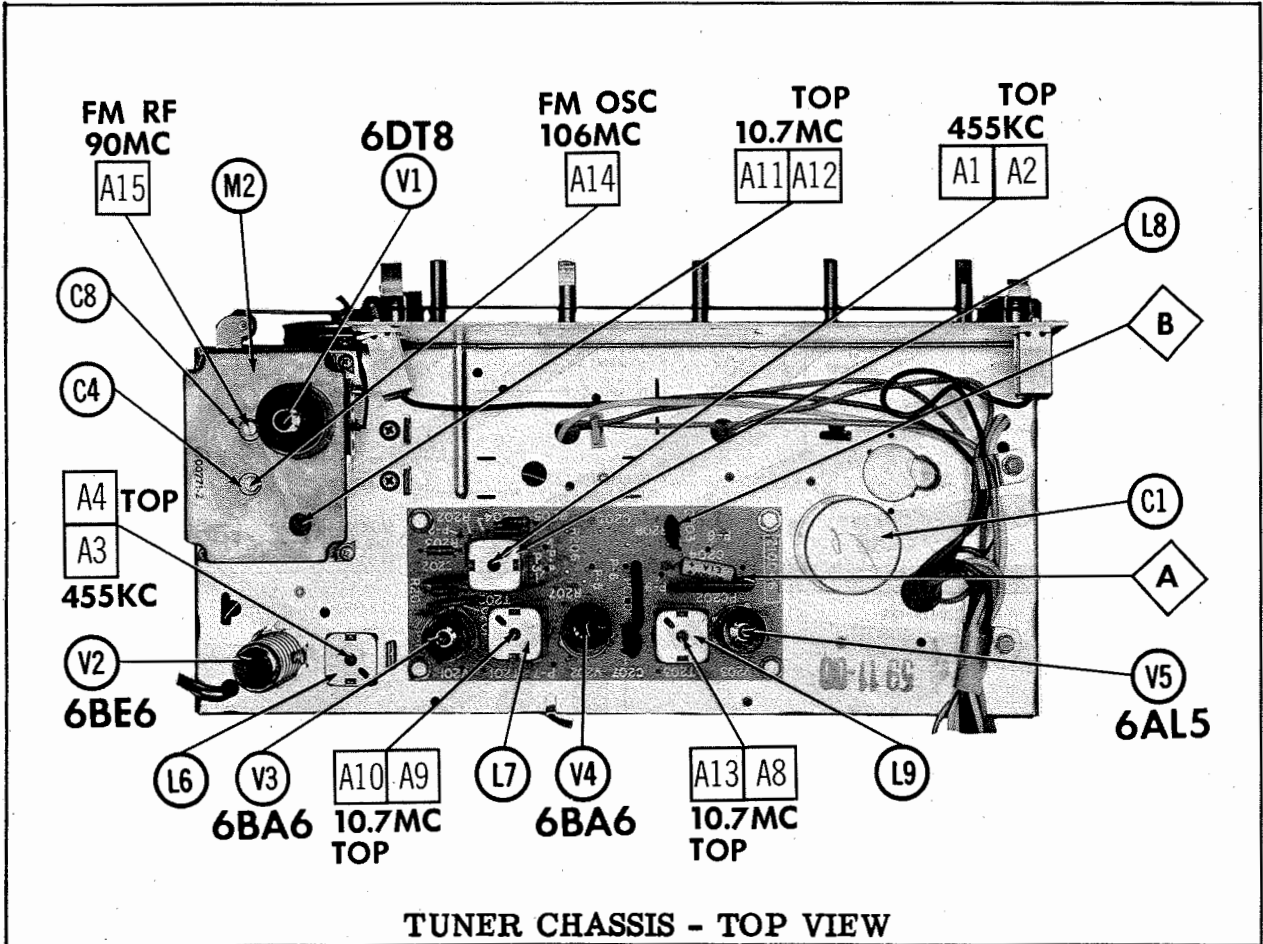
CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART No.	DESCRIPTION
Dial Glass	150586-4	Chassis 59-11
Dial Glass	150586-5	Chassis 59-12
Dial Glass	150586-3	Chassis 59-14

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors
Power Cord	Use BELDEN No. 8524 (Stranded) Available in Ten Colors
	Use BELDEN No. 1725-K (7 1/2 Ft. Length)



MAGNAVOX CHASSIS 59-11-00,
59-12-00, 59-14-00, 86-01-00, 86-01-10,
86-02-00, 86-02-10, 86-03-00, 86-03-10

FOLDER 10

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

Suggested Alignment Tools:

A1 thru A4, A8, A9, A10, A13..	GENERAL CEMENT #5097, 8727
	WALSCO #2515
A5, A6.....	GENERAL CEMENT #5004, 5008, 5009
	WALSCO #2520
A11, A12.....	GENERAL CEMENT #9440
A14, A15.....	GENERAL CEMENT #5000, 5003, 8276, 8290
	WALSCO #2512, 2515, 2522, 2523, 2525, 2537

AM ALIGNMENT — SELECTOR IN AM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. High side thru .1mfid to pin 7 (grid) of AM Converter. Low side to chassis.	455KC (400% 30% AM)	(AM) Tuning gang fully open.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2. High side to AM antenna terminal. Low side to chassis.	1400KC	1400KC	"	A5, A6	"
3. "	600KC	600KC	"	A7	Adjust for maximum output. Repeat Steps 2 and 3.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM — SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
4. Across FM antenna terminals.	10.7MC (Unmod.)	(FM) Point of non-interference.	DC probe to point A. Common to chassis.	A8, A9, A10, A11, A12	Adjust for maximum deflection.
5. "	"	"	DC probe to point B. Common to chassis.	A13	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE—SELECTOR IN FM POSITION

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

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
4. Across FM antenna terminals.	10.7MC (450KC Swp)	(FM) Point of non-interference.	Vert. amp. to point A. Low side to chassis.	A8, A9, A10, A11, A12	Disconnect stabilizing capacitor C2. Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. Reconnect C2.
5. "	"	"	Vert. amp. to point B. Low side to chassis.	A13	Adjust to place marker at the center of of crossover lines similar to Fig. 2. SLIGHTLY retouch A8 for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT — SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
6. Across FM antenna terminals with 120Ω in each lead.	106MC (Unmod.)	(FM) 106MC	DC probe to point A. Common to chassis.	A14	Adjust for maximum deflection.
7. "	90MC	90MC	"	A15	"

