

SET 900 FOLDER 7

MAGNAVOX CHASSIS R212 SERIES

PHOTOFACT® Folder with CIRCUTRACE™

MAGNAVOX CHASSIS R212 SERIES



TRADE NAME: Magnavox Chassis: R212-01-00, -AA, R212-02-00, -AA, R212-03-00, -AA, R212-04-00, -AA, R212-05-00, -AA, R212-06-00, R212-07-00, R212-08-00, R212-09-00, R212-10-00, R212-11-00, R212-12-00, R212-13-00

SUPPLIER: For Current Address, See Annual Index

TYPE SET: 19-Transistor AM-FM-FM Stereo Receiver W/4-Speed Automatic Record Changer

POWER SUPPLY: 110-120 Volts AC, 60 Cycles RATING: 6.5 Watts, .075 Amp @ 117 Volts AC (Less Motor)

FOR SERVICE INFORMATION ON RECORD CHANGER W611-01-01-SEE SIMILAR CHANGER-PHOTOFACT SET 848, FOLDER 5

ADJUSTMENTS

FM STEREO BALANCE ADJUSTMENT
 Connect across antenna terminals an FM stereo generator having equal modulation on both channels or tune in an FM station broadcasting a monaural signal. Connect an AC volt meter or oscilloscope between points E and F . Adjust FM Stereo Balance control R5 for MINIMUM voltage or deflection. An increase in voltage or deflection will be obtained on either side of the correct setting.

STEREO INDICATOR SENSITIVITY ADJUSTMENT
 Turn Band switch to FM stereo position. Tune in an FM station broadcasting a stereo signal. Adjust the Indicator Sensitivity control fully clockwise. Then turn counterclockwise until indicator just lights. Check across the dial to insure indicator light does not light on a monaural signal or spurious noise. Repeat if necessary.

AUDIO BALANCE ADJUSTMENT
 Connect an AC voltmeter or scope across points G and H . Tune in an AM station and turn Band switch to AM position. Adjust the Audio Balance control R4 for minimum voltage or deflection.

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206



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. SN230

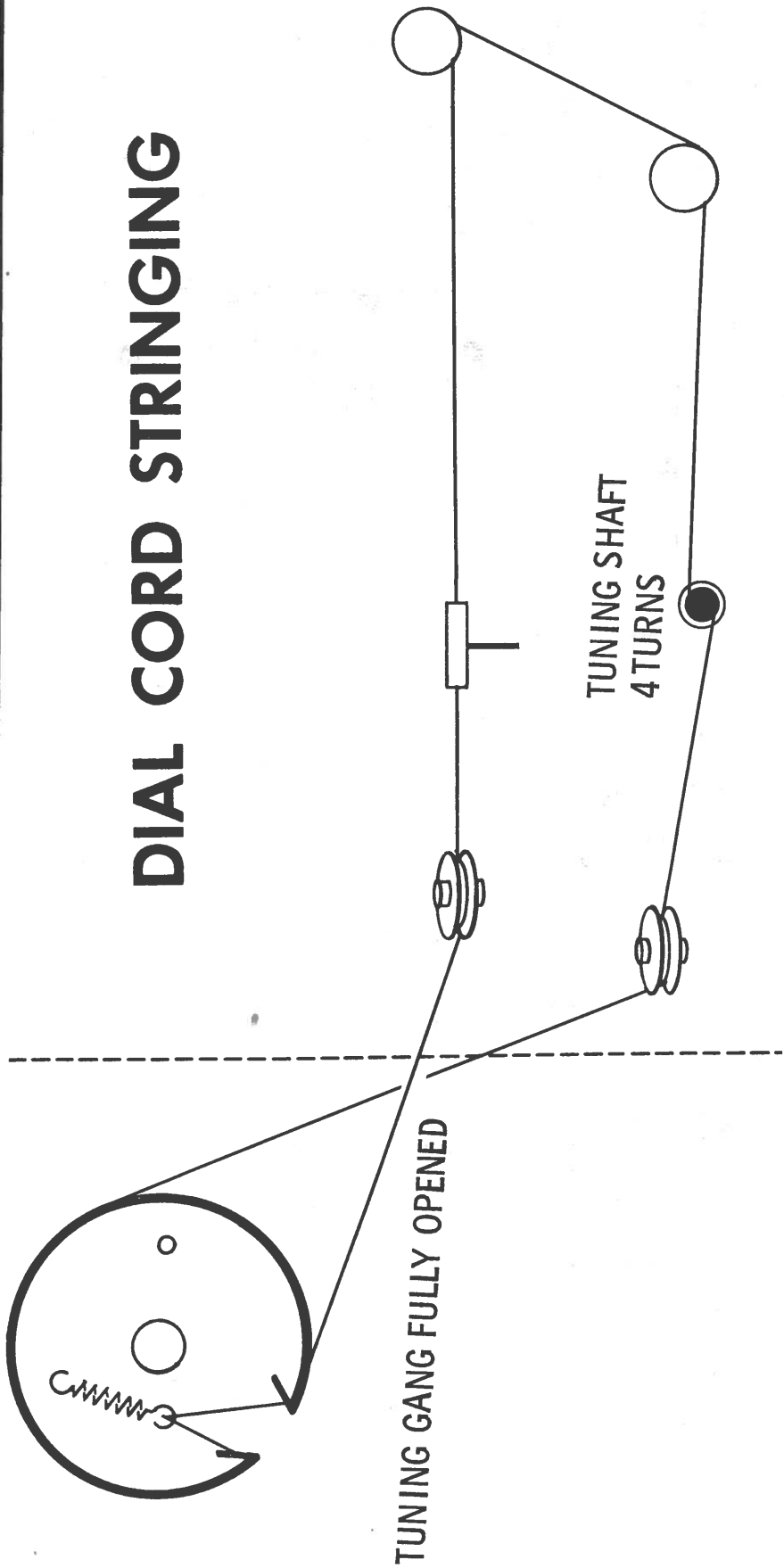
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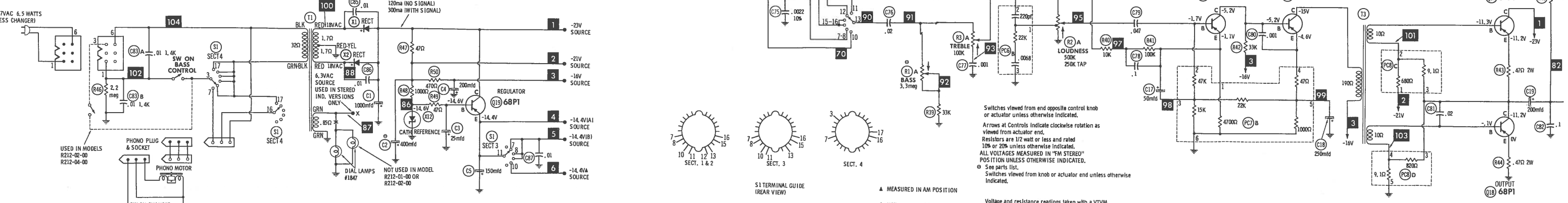
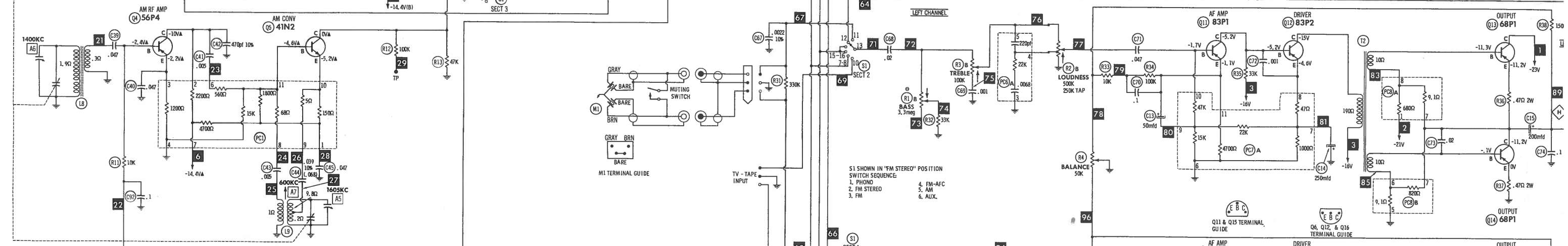
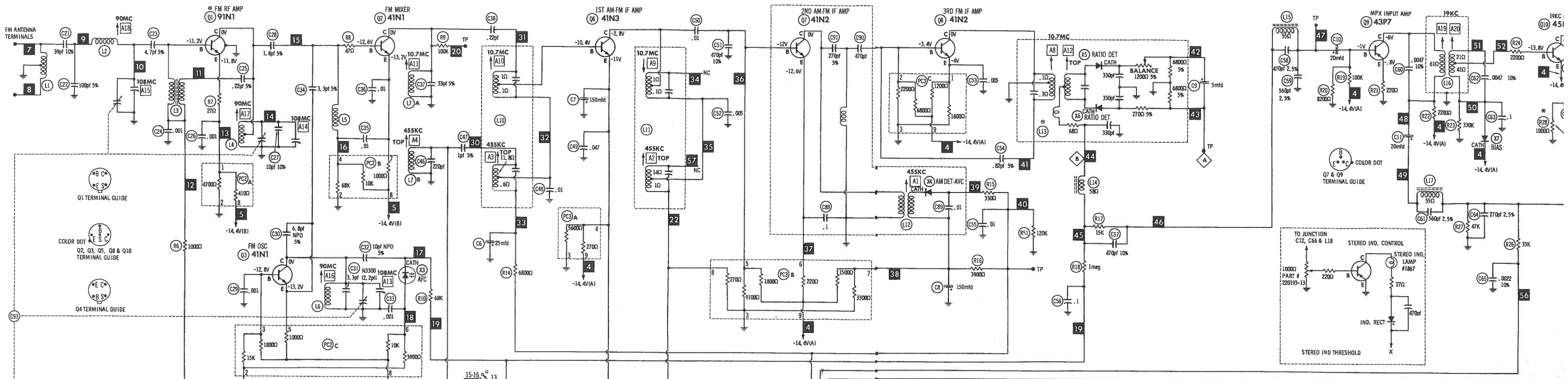
DATE 8 -67 SET 900 FOLDER 7

MAGNAVOX CHASSIS R212 SERIES

SET 900 FOLDER 7

DIAL CORD STRINGING



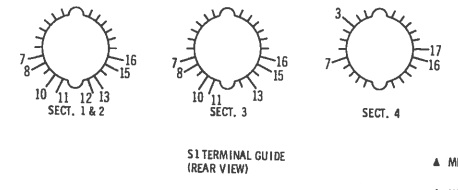


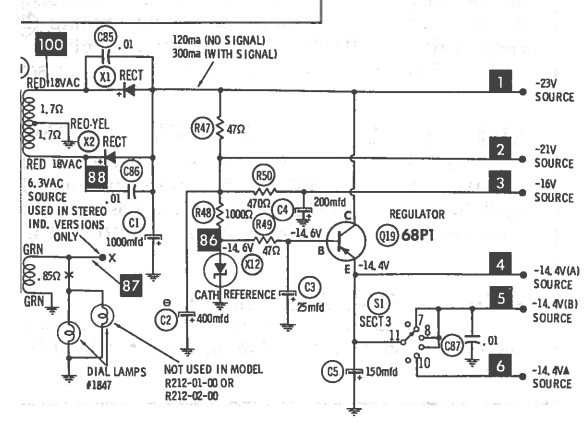
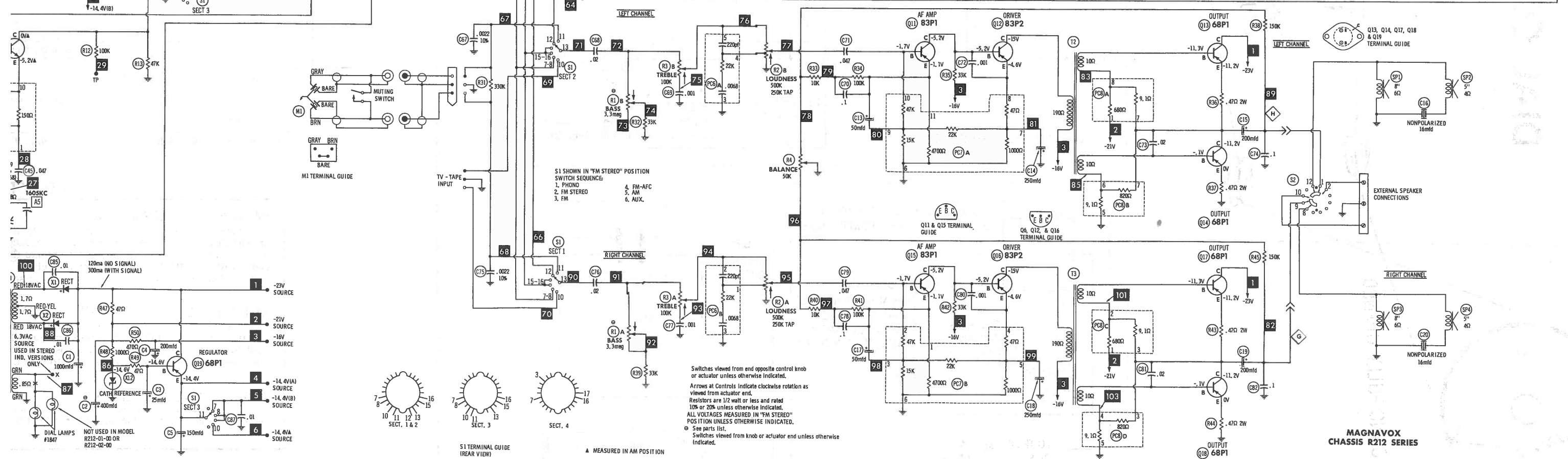
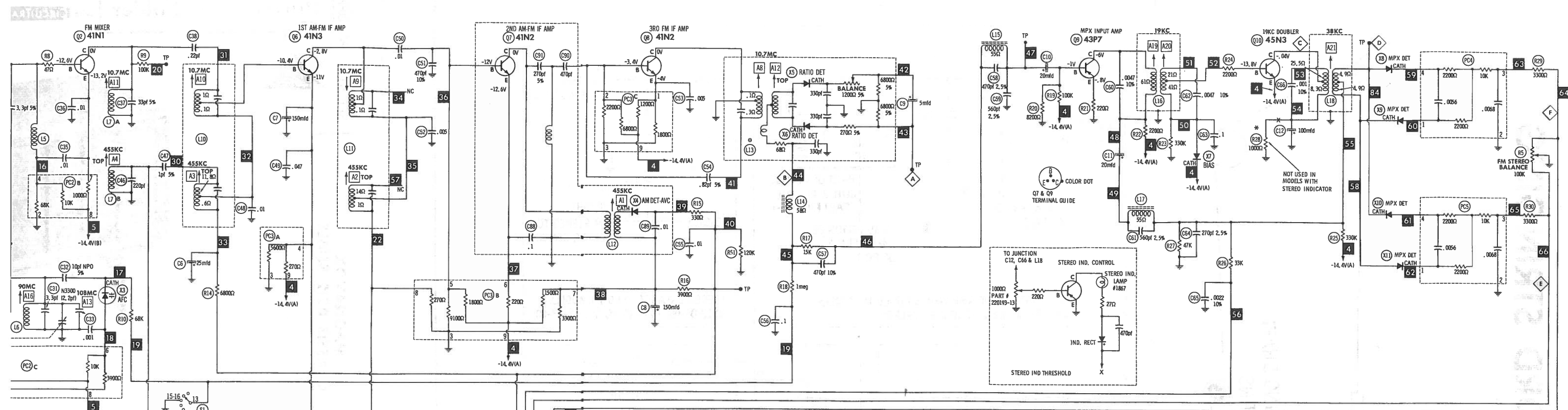
117VAC 6.5 WATTS (LESS CHANGER)
 120ma (NO SIGNAL)
 300ma (WITH SIGNAL)
 USED IN MODELS R212-02-00 R212-04-00
 PHONO PLUG & SOCKET
 PHONO MOTOR
 SW ON CHANGER
 A PHOTOFAC STANDARD NOTATION SCHEMATIC with Circuitrace
 © Howard W. Sams & Co., Inc. 1967

REFER TO PAGE 16 FOR PARTIAL SCHEMATICS

Switches viewed from end opposite control knob or actuator unless otherwise indicated.
 Arrows at Controls indicate clockwise rotation as viewed from actuator end.
 Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.
 ALL VOLTAGES MEASURED IN "FM STEREO" POSITION UNLESS OTHERWISE INDICATED.
 See parts list.
 Switches viewed from knob or actuator end unless otherwise indicated.

▲ MEASURED IN AM POSITION
 * NOT USED IN SOME VERSIONS



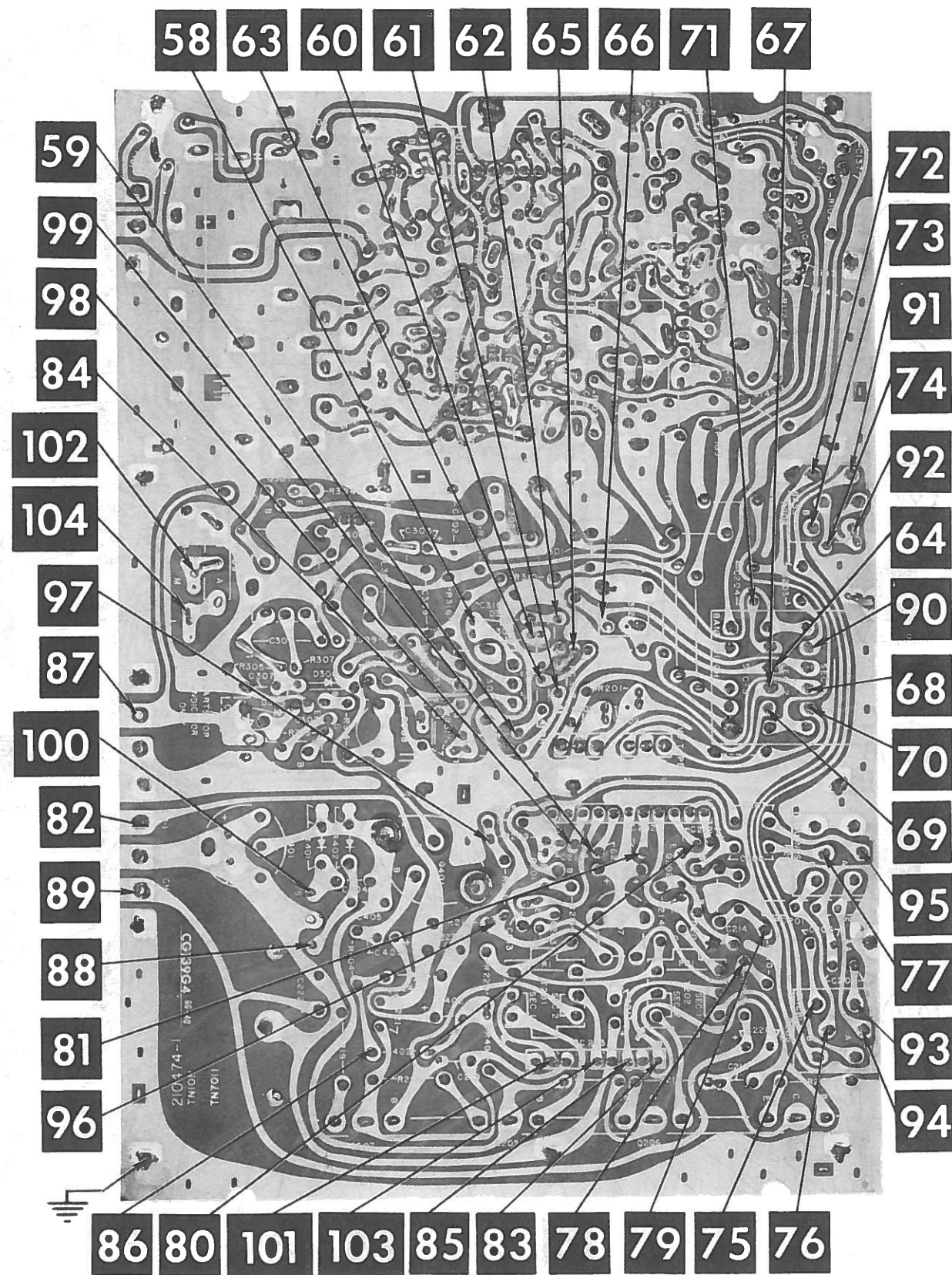
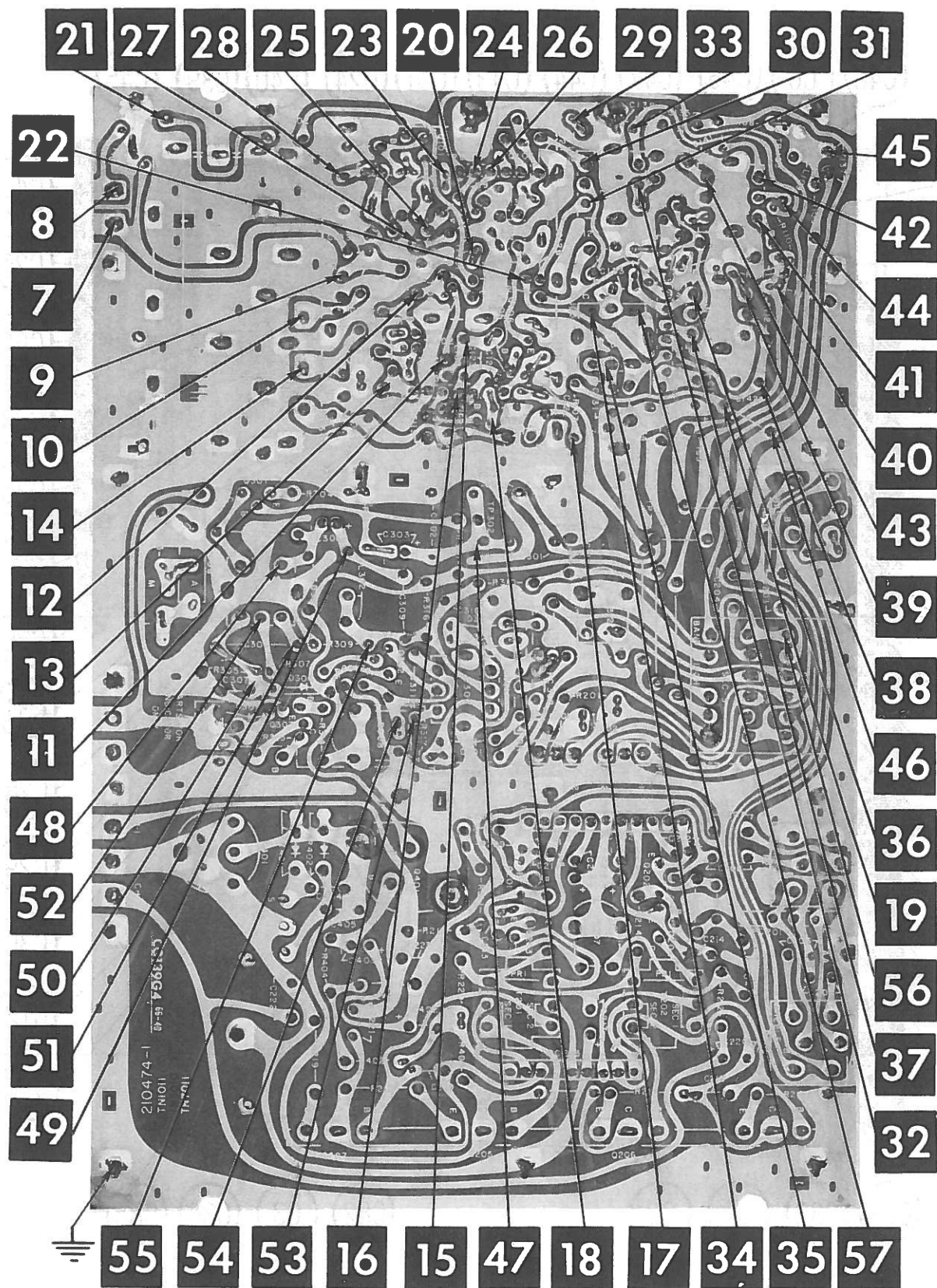


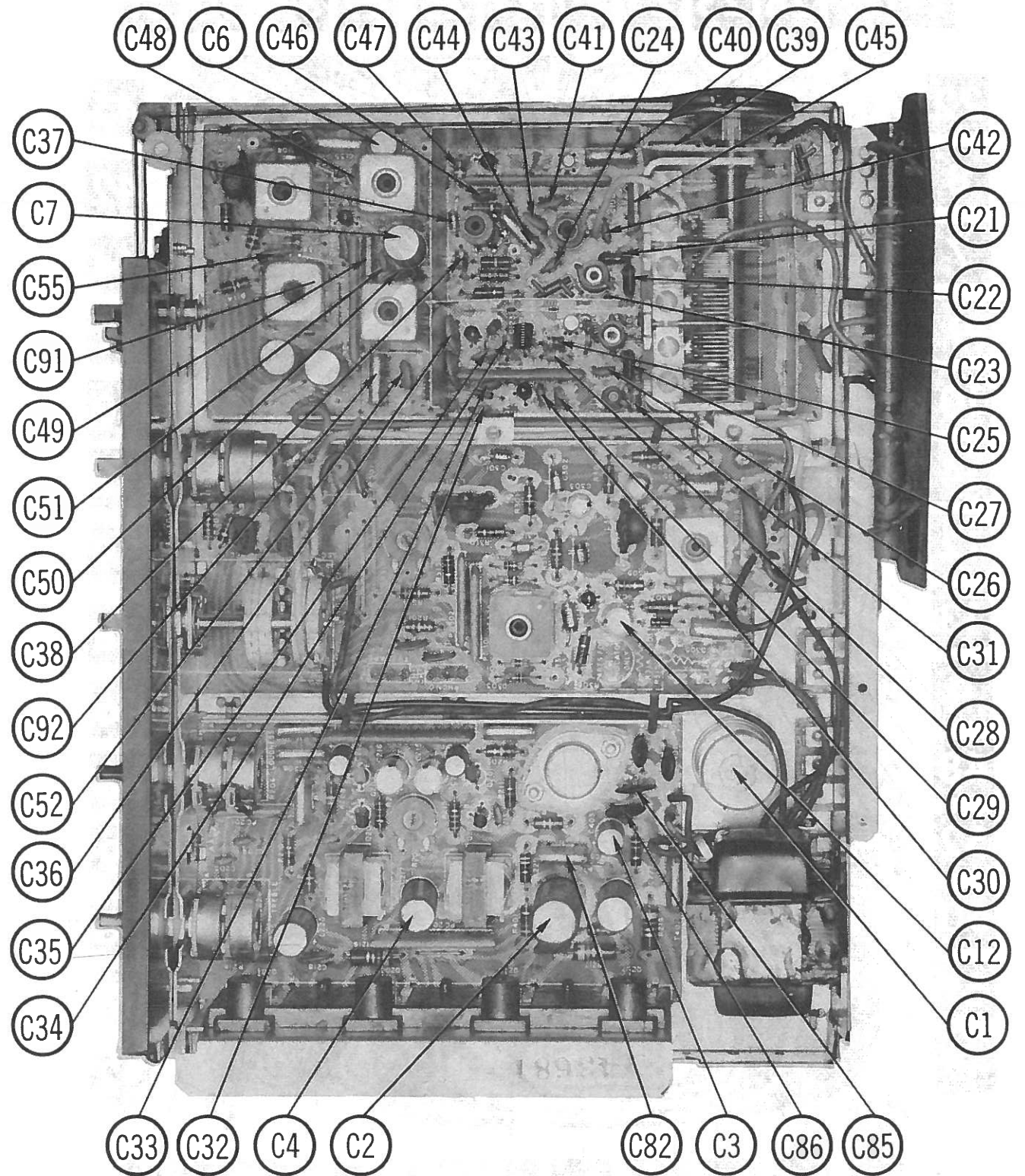
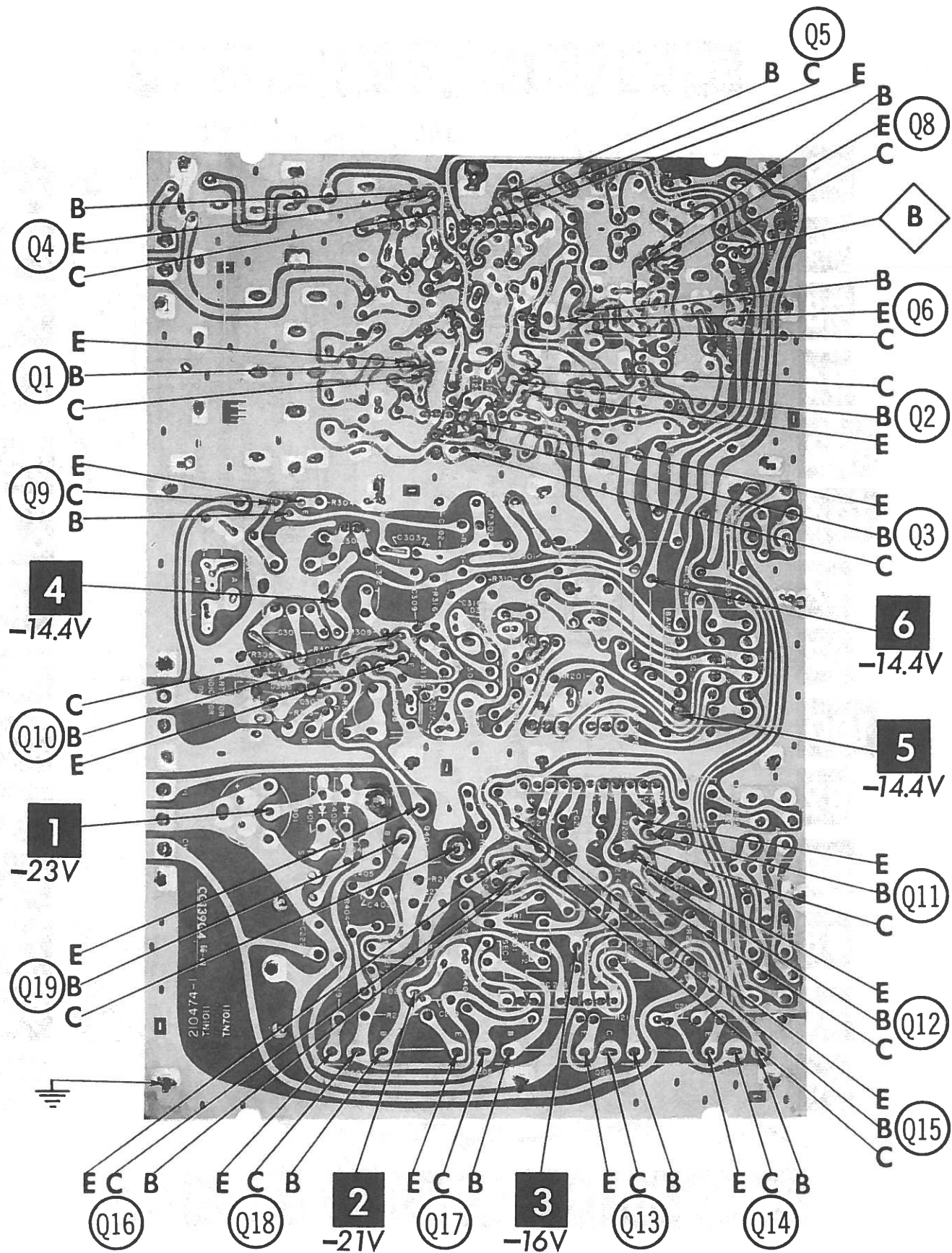
Switches viewed from end opposite control knob or actuator unless otherwise indicated.
 Arrows at Controls indicate clockwise rotation as viewed from actuator end.
 Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.
 ALL VOLTAGES MEASURED IN "FM STEREO" POSITION UNLESS OTHERWISE INDICATED.
 See parts list.
 Switches viewed from knob or actuator end unless otherwise indicated.

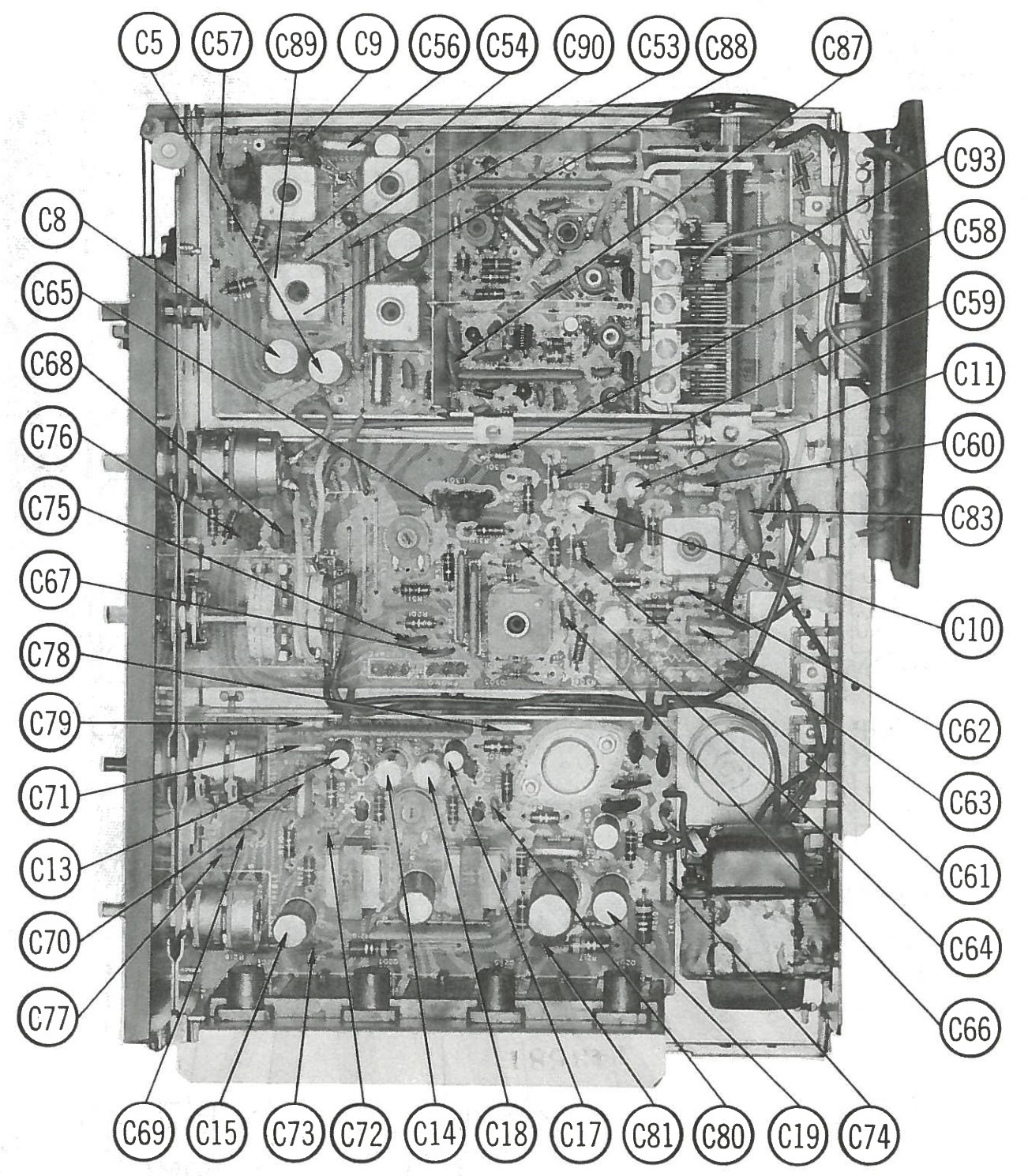
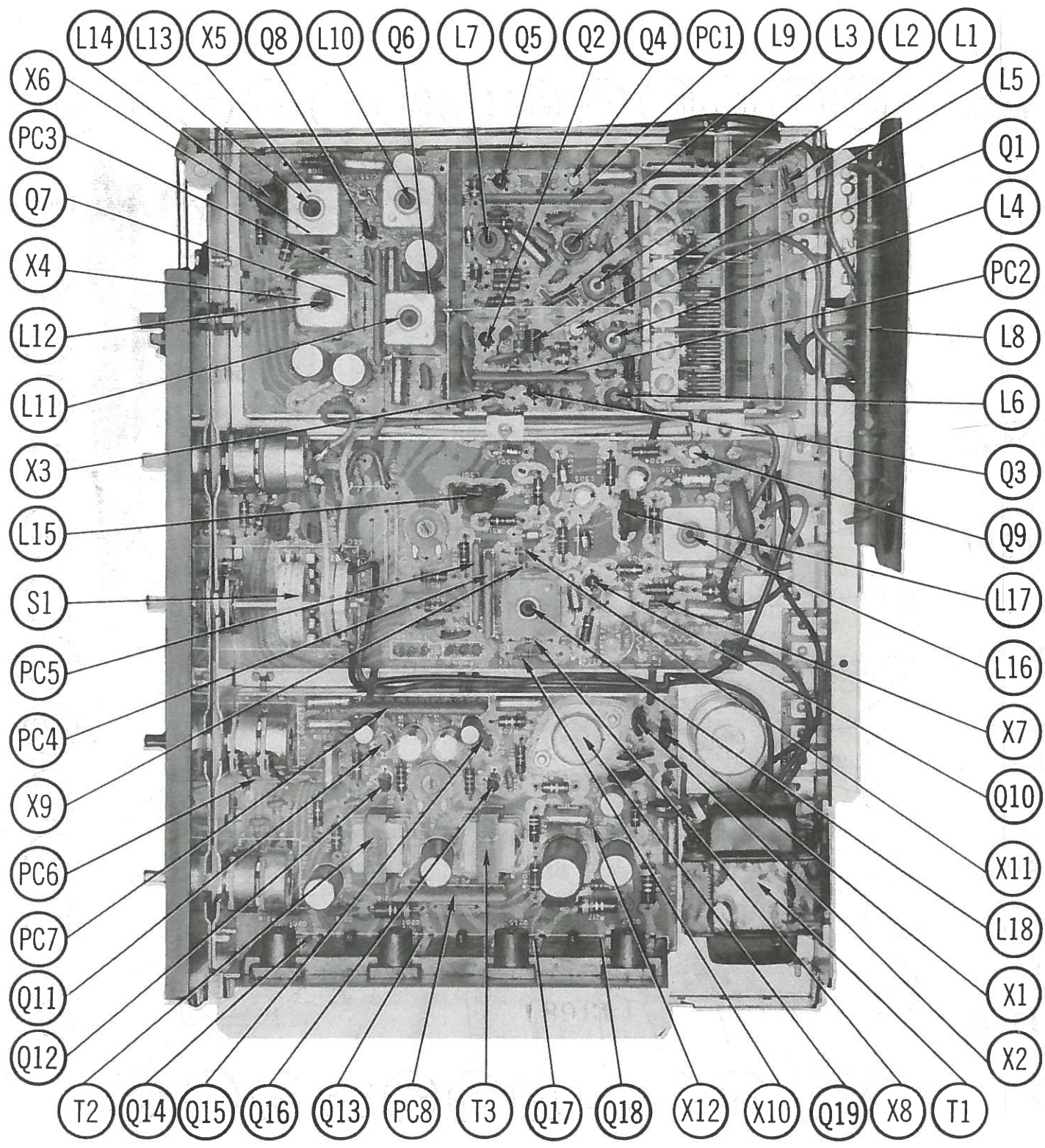
Voltage and resistance readings taken with a VTVM.
 Supply voltage maintained at rated value for voltage measurements.
 All controls set for normal operation, no signal applied.
 Measured values are from socket pin or terminal to common ground.
 All terminals viewed from bottom unless otherwise indicated.

MAGNAVOX CHASSIS R212 SERIES

REFER TO PAGE 16 FOR PARTIAL SCHEMATICS

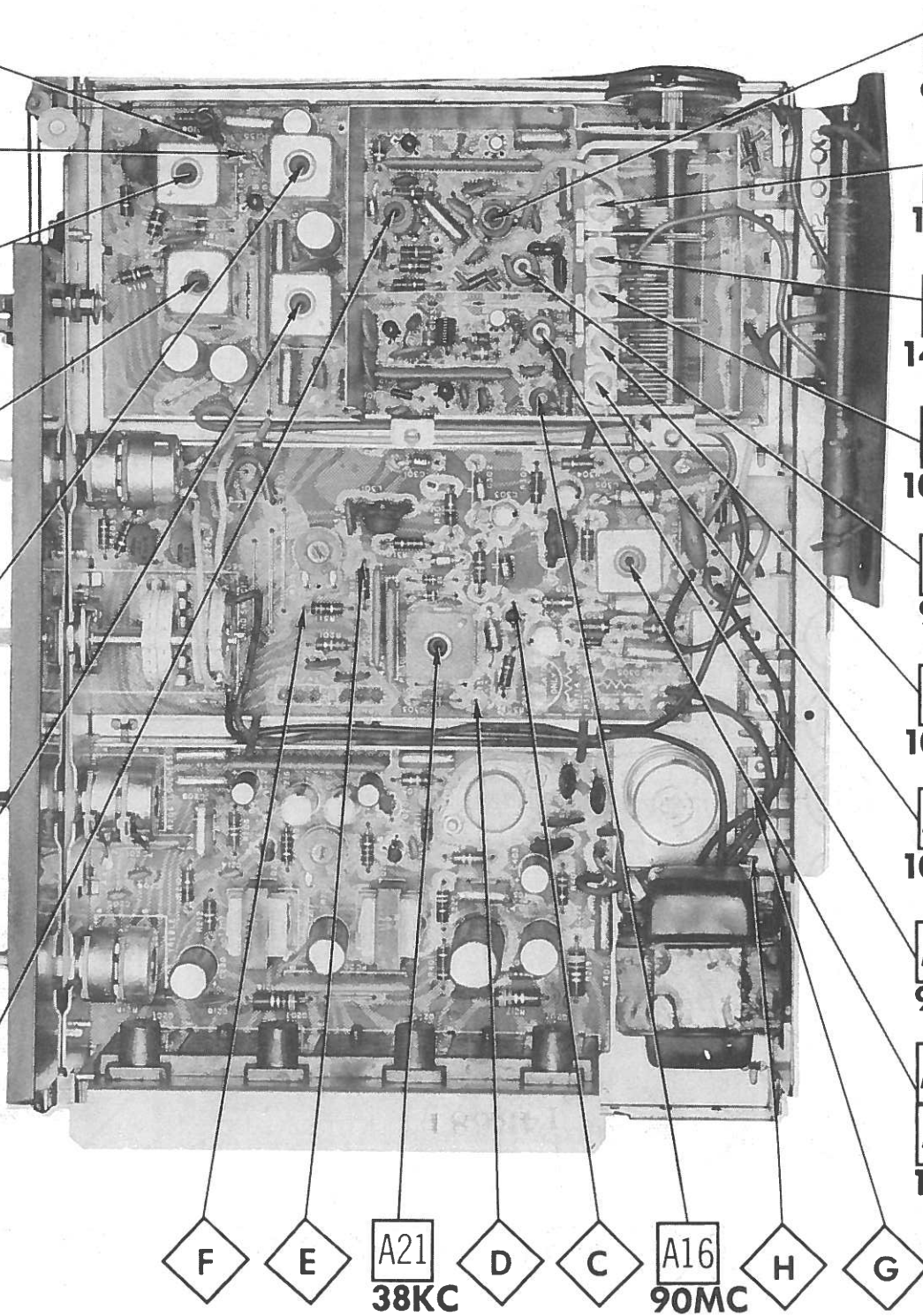




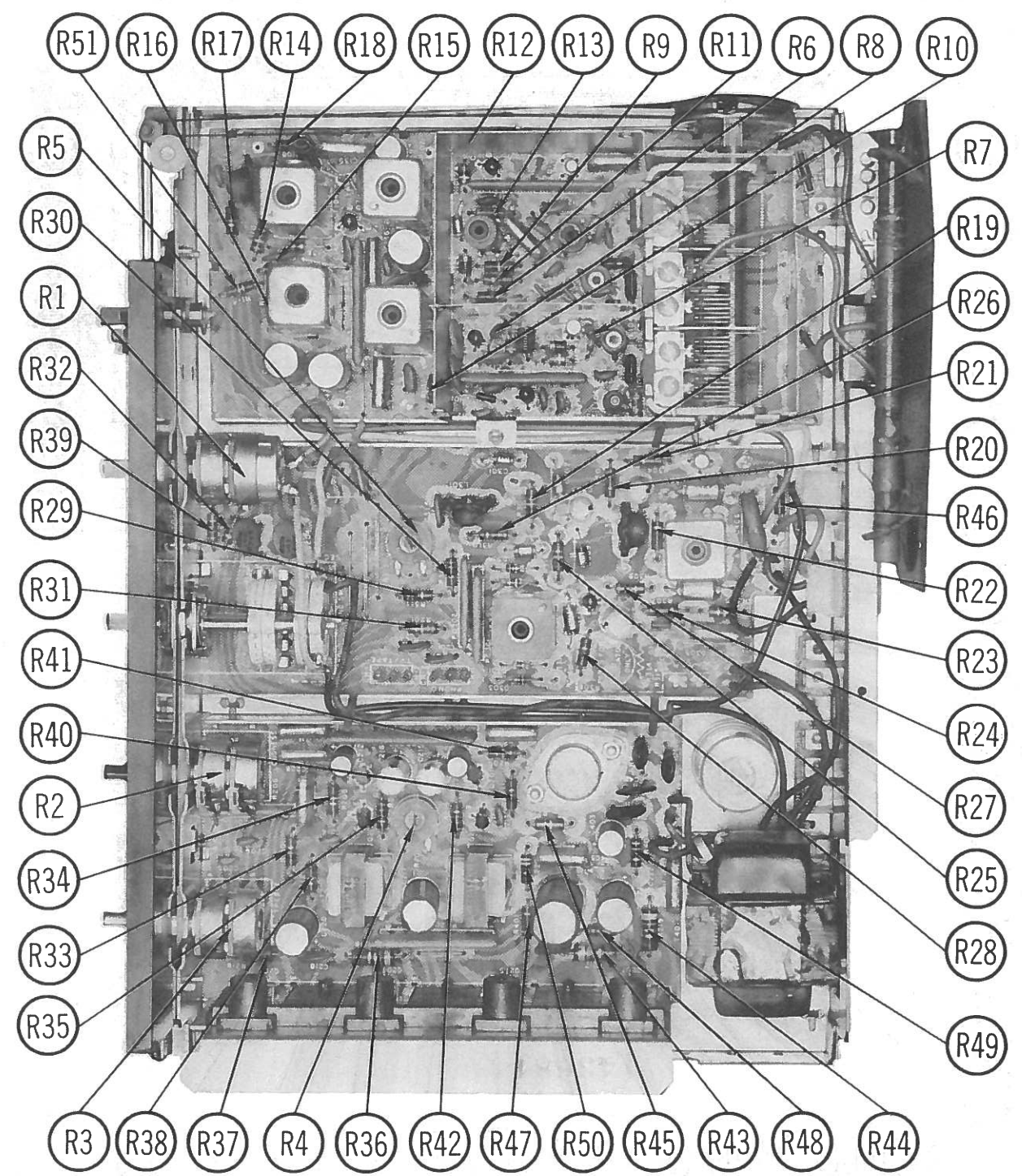


**RATIO DET.
BALANCE
CONTROL**

- A**
- A8**
- A12**
- TOP**
- 10.7MC**
- A1**
- 455KC**
- TOP**
- 455KC**
- A3**
- A10**
- 10.7MC**
- TOP**
- 455KC**
- A2**
- A9**
- 10.7MC**
- TOP**
- 455KC**
- A4**
- A11**
- 10.7MC**



- A7**
- 600KC**
- A5**
- 1605KC**
- A6**
- 1400KC**
- A15**
- 108MC**
- A18**
- 90MC**
- A14**
- 108MC**
- A13**
- 108MC**
- A17**
- 90MC**
- A19**
- A20**
- 19KC**
- A21**
- 38KC**
- A16**
- 90MC**



PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	MAGNAVOX	MERIT	STANCOR	THORDARSON	TRIAD	
				PART No.	PART No.	PART No.	PART No.	PART No.	
T2	4.4	1	1	320324-1					
T3	4.4	1	1	320324-1					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		MAGNAVOX	JENSEN	QUAM	
		PART No.	PART No.	PART No.	
SP1	8" PM 6-8Ω	580803-1	C8T8	8A1PA	
SP2	5" PM 3-4Ω	580503-1	P5W3	5A1	
SP3	8" PM 6-8Ω	580803-1	C8T8	8A1PA	
SP4	5" PM 3-4Ω	580503-1	P5W3	5A1	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MAGNAVOX PART NO.	REPLACEMENT DATA
PC1	AM RF Network	5Ω, 68Ω, 150Ω, 560Ω, 1200Ω, 1800Ω, 2200Ω, 4700Ω, 15K	250560-2	
PC2	FM Oscillator Network	410Ω, 1000Ω, 1000Ω, 1800Ω, 3900Ω, 4700Ω, 10K, 10K, 15K, 68K	250563-1	
PC3	AM-FM IF Network	220Ω, 270Ω, 270Ω, 1200Ω, 1500Ω, 1800Ω, 1800Ω, 2200Ω, 3300Ω, 5600Ω, 6800Ω, 9100Ω, 2200Ω, 2200Ω, 10K, .0056, .0068	250564-1	
PC4	MPX Detector Network	2200Ω, 2200Ω, 10K, .0056, .0068	250538-1	
PC5	MPX Detector Network	2200Ω, 2200Ω, 10K, .0056, .0068	250538-1	Centralab PC-482
PC6	Loudness Compensation Network	22K, 22K, 22Ω, 22Ω, .0068, .0068	250496-1	
PC7	Audio Network	47Ω, 47Ω, 1000Ω, 1000Ω, 4700Ω, 4700Ω, 15K, 15K, 22K, 22K, 47K, 47K	250488-1	Centralab PC-487
PC8	Audio Network	9.1Ω, 9.1Ω, 9.1Ω, 9.1Ω, 680Ω, 680Ω, 820Ω, 820Ω	250559-1	

PHONO CARTRIDGE & NEEDLES

*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

ITEM No.	REPLACEMENT DATA								NOTES
	MAGNAVOX PART No.		ASTATIC PART No.		ELECTRO-VOICE PART No.		SONOTONE PART No.		
	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	
M1	56030 (560310-2)	560312-1 *	465D	N56SD *	257D	2622DS*			
				N307SD		2622DS			Needle Replacement for Original Cartridge

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
S1	Switch	160395-3	Function (R212-12 Version)
	Switch	160395-2	Function (TV Version)
	Switch	160410-1	Function (R212-10 Version)
	Switch	160395-1	Function (All other Versions)
S2	Switch	160370-5	Speaker (R212-09, 13 Version)

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in 12 Colors
8524 (Stranded) Available in 12 Colors
Power Cord Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft.
17109 (Plastic) or 17129 (Rubber) - 9 Ft.
Power Cord (Interlock Type) Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
Low-Loss Shielded Lead (Interconnecting) Use BELDEN No. 8401 or 8421
Phono Pick-up Arm Cable Use BELDEN No. 8430 (Two Conductor-Unshielded)
8428 (Two Conductor-Shielded)
8419 (Three Conductor-Shielded)

ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment. CAUTION: Use isolation transformer, if available. If not, observe polarity when connecting test equipment. Suggested Alignment Tools: A1 thru A4, A7 thru A12 A17 thru A21: GENERAL CEMENT: 8606, 8606L, 8869 WALSCO: 2543, 2544, 2588 A16: GENERAL CEMENT: 9296, 9297, 9300 WALSCO: 2510, 2546, 2547 A5, A6, A13, A14, A15: GENERAL CEMENT: 8868, 8987, 9089 WALSCO: 2531-X, 2541, 2587

AM ALIGNMENT - SELECTOR IN AM POSITION

Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (400v Mod.)	Tuning gang fully open.	Output Meter across Voice coil.	A1, A2, A3, A4	Adjust for maximum. Repeat until no further improvement can be made.
2. 1605KC	"	"	A5	Adjust for maximum.
3. 1400KC	Tune to signal.	"	A6	"
4. 600KC	"	"	A7	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

FM ALIGNMENT USING AM SIGNAL GENERATOR - SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point \diamond ; common to ground.	A8, A9, A10, A11	Adjust for maximum.
6. "	"	DC probe to point \diamond ; common to ground	A12 Ratio Det. Balance	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR - SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead. Use only enough marker signal to obtain indication. Use 60v frequency modulated signal with 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (450KC Swp.)	Point of non-interference	Vert. amp. of Scope to point \diamond ; low side to ground.	A8, A9, A10, A11	Disconnect stabilizing capacitor C9. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C 9.
6. "	"	Vert. amp. to point \diamond ; low side to ground	A12 Ratio Det. Balance	Adjust A12 (Secondary) to place marker at center of crossover lines similar to Fig. 2. Adjust A8 (Primary) for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

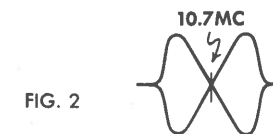
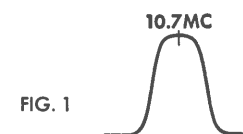
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 108MC	Set at high end.	DC probe of VTVM to point \diamond ; common to ground.	A13, A14, A15	Adjust for maximum.
8. 90MC	Tune to signal.	"	A16, A17, A18	Rock tuning and adjust for maximum. Repeat steps 7 and 8 until no further improvement can be made.

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001%) ACCURACY

Connect high side of generator to point \diamond Low side to ground.

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
9. 19KC	Vert. amp. thru 47K to point \diamond ; low side to ground.	A19, A20	Adjust for maximum.
10. "	Vert. amp. thru 47K to point \diamond ; low side to ground.	A21	Adjust maximum for 38KC response.
11. Modulated Left Channel	Vert. amp. to point \diamond ; low side to ground.	A19, A20, A21	Adjust for MINIMUM. This step should require only a slight adjustment.
12. Modulated Right Channel	Vert. amp. to point \diamond ; low side to ground.		Check for MINIMUM. Make compromise adjustment of A19, A20, A21 if necessary.

To align multiplex section using an air signal, first make sure FM section is properly aligned. Tune in a strong FM stereo signal. Follow steps 9 thru 12.



PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES	MAGNAVOX PART No.
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q1	91N1	FM RF Amp	DS-81	GE-11	TR-22	SK-3018	NPN ③	610091-1
Q2	41N2	FM Mixer	DS-81	GE-11	TR-22	SK-3018	NPN	610041-2
Q3	41N2	FM Oscillator	DS-81	GE-11	TR-22	SK-3018	NPN	610041-2
Q4	56P4	AM RF Amp	DS-25	GE-1	TR-11	SK-3008	PNP	610056-4
Q5	41N2	AM Converter	DS-72	GE-10	TR-21	SK-3018	NPN	610041-2
Q6	41N3	1st AM-FM IF Amp	DS-74	GE-11	TR-21	SK-3018	NPN	610041-3
Q7	41N2	2nd AM-FM IF Amp	DS-74	GE-11	TR-21	SK-3018	NPN	610041-2
Q8	41N2	3rd FM IF Amp	DS-74	GE-11	TR-21	SK-3018	NPN	610041-2
Q9	43P7	MPX Input Amp	DS-26	GE-2	TR-14	SK-3004	PNP	610043-7
Q10	45N3	19KC Doubler	DS-66	GE-10	TR-21	SK-3020	NPN	610045-3
Q11	83P1	AF Amp			TR-19		NPN	610083-1
Q12	83P2	Driver			TR-19		PNP	610083-2
Q13	68P1	Output	DS-520	GE-3	TR-01	SK-3009	PNP ① ②	170666-1
Q14	68P1	Output	DS-520	GE-3	TR-01	SK-3009	PNP ① ②	170666-1
Q15	83P1	AF Amp			TR-19		PNP	610083-1
Q16	83P2	Driver			TR-19		PNP	610083-2
Q17	68P1	Output	DS-520	GE-3	TR-01	SK-3009	PNP ① ②	170666-1
Q18	68P1	Output	DS-520	GE-3	TR-01	SK-3009	PNP ① ②	170666-1
Q19	68P1	Regulator	DS-520	GE-3	TR-01	SK-3009	PNP ①	610068-1

① When replacing, apply silicone grease to both sides of insulator. Tighten mounting screws securely.
② Matched pair
③ 92N1 used in some versions

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.150A Max	530111-1	GE-504A or GE-505	8D4 or 5A4-D	A50 or SK3017A	SK3016 or SK3017A	40C or S-5981-N ①
X2	.150A Max	530111-1	GE-504A or GE-505	8D4 or 5A4-D	A50 or CTN50 ①	SK3016 or SK3017A	40C or S-5981-N ①
X3		530104-1 ②					
X4			1N60	1N60			
X5			1N60	1N60			
X6			1N60	1N60			
X7		530072-8	1N60	1N60			
X8		530092-1	1N60	1N60			
X9		530092-1	1N60	1N60			
X10		530092-1	1N60	1N60			
X11		530092-1	1N60	1N60			
X12	.0065A	530073-12 ③		1ZM15T5 or Z-1016	ZA16A or 1N5025A		.25T16 or .4T16A

① A single unit replacement for X1 and X2
② Variable Capacitor Diode
③ 16 volt Zener Diode

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					
	CAP.	VOLT.	MAGNAVOX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	1000	30	270096-1 (270093-1) 270068-827	PRS1295	BR1000-50		TC50100	TVLP-1249, 8
C2	400	25		PRS1290	BR500-25	QT1-31	TC2505	TL-1216
C3	25	25	270068-609	BCD25025	NLW25-25	MT1-11	PET1980	TE-1207
C4	200	20	270068-523	BCD20200	BR250-25	QT1-28	MTA200F25	TVA-1423
C5	150	20	270068-521	PRS1370	BR150-50	QT1-28	MTA150F35	TVA-1311
C6	25	25	270068-609	BCD25025	NLW25-25	MT1-11	PET1980	TE-1207
C7	150	20	270068-521	PRS1370	BR150-50	QT1-28	MTA150F35	TVA-1311
C8	150	20	270068-521	PRS1370	BR150-50	QT1-28	MTA150F35	TVA-1311
C9	5	25	270082-603	CRE604A	NLW5-50	MT1-3	TT25X5	TE-1202
C10	20	15	270068-408 (68-408)	BCD15020	NLW20-15	MT1-10	PET1570	TE-1157
C11	20	15	270068-408 (68-408)	BCD15020	NLW20-15	MT1-10	PET1570	TE-1157
C12	100	10	270068-319 (270068-311)	BCD10100	NLW100-12	MT1-19	PET1400	TE-1135
C13	50	3	270068-113	BCD3050	NLW50-3	MT1-15	PET1575	TE-1058
C14	250	10	270068-324	BCD12250	NLW250-12	MT1-25	TT12X250	TVA-1131
C15	200	20	270068-523	BCD20200	BR250-25	QT1-28	MTA200F25	TVA-1423
C16	16	25NP	270040-4	PRS7350	BRNP20-400	NPQT-4	TCN2516	TVAN-1204.3
C17	50	3	270068-113	BCD3050	NLW50-3	MT1-15	PET1980	TE-1058
C18	250	10	270068-324	BCD12250	NLW250-12	MT1-25	TT12X250	TVA-1131
C19	200	20	270068-523	BCD20200	BR250-25	QT1-28	MTA200F25	TVA-1423
C20	16	25NP	270040-4	PRS7350	BRNP20-400	NPQT-4	TCN2516	TVAN-1204.3

① Some versions may use 400 mfd @ 20V (Part No. 270068-528)

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			MAGNAVOX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1A	Bass/Right	3.3meg	220204-4②	F2-3 meg, R2-3 meg, SF104, CPL-2, KR-1	NP-3 meg-Z, NR-3 meg-Z, UP-B-400, DC-2, NWE-12	B13-140, B13-140, 76-1, SK1, QCM or (BU2, CF28, CR23, SS1, SS7A, GC) *	FA36A, RU36A, CS3500, US41
R2A	Loudness/Right	500K	220206-3	F16-500K, R16-500K, SF104, CPL-2		B19-133X, B19-133X, SK1, QCM or (BU2, CF46T, CR35T, SS1, SS7A, DC1) *	FA55T254, RU55T254, CS3500
R3A	B	500K Tap 500K 250K Tap					
R3A	Treble/Right	100K	220204-3	F1-100K, R1-100K, SF104, CPL-2	NP-100K-S, NR-100K-S, UP-B-400, DC-2	B11-128, B11-128, SK1, QCM or (BU2, CF13, CR8, SS1, SS7A, DC1) *	FA15L, RU15L, CS3500
R4	Balance	50K	220193-16③	TH-50K ①			MTC54L4
R5	FM Stereo Balance	100K	220193-14	TH-100K ①			MTC15L4

* "SNAPTROL"
① Cut off studs and bend terminals to duplicate original mounting
② Part No. 220204-5 used in CHASSIS R212-05-AA
③ Part No. 220072-72 used CHASSIS R212-06, 07, 09 and -13

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.	
C21	39	10%	ADM-15-390	CPR-39J	CD15E390J500	DM-15-390J	SX439	MS-439	
C22	100	5%	NPO-DI 100	DTZ-100	CV601CG101K	CCTO-101	CNO310	10TCC-T10	
C23	4.7	5%		DTZ-4R7		CCTO-4R7	CNO547	10TCC-V47	
C24	.001		DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10	
C25	.22pf	5%	#250221-5						
C26	.001		DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10	
C27	10	10%	ADM-15-100			DM-15-100J	SX410	MS-41	
C28	1.8	5%	#250221-17						
C29	.001		DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10	
C30	6.8 NPO	5%	NPO-DI 6.8	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CNO598	10TCC-V68	
C31	3.3 N3300 (2.2) †		#250221-18						
C32	10 NPO	5%		DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10	
C33	.001			DI-1000	JBS601YP102K	CCD-102	SM210	5GAB-D10	
C34	3.3	5%		DTZ-3R3	CK-103	CCTO3R3	CNO533	10TCC-V30	
C35	.01			HOY101ZV103P	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C36	.01			TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C37	33	5%	#250221-5						
C38	.22pf								
C39	.047 100V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C40	.047 100V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C41	.005			CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50	
C42	.470	10%		DI-470	JBZ601YP471K	CCD-471	GP347	10TS-T47	
C43	.005			TTD-005	HOY101ZV502P	CCD-502	TA250	TG-D50	
C44	.039 100V 10%		(.068) †	DBE6S39	DPMS6S39	6DP-3-393	PVC6139	6PS-S39	
C45	.047 100V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C46	220			DI-220	JBZ601YP221K	CCD-221	GP322	10TS-T22	
C47	1pf	5%		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C48	.01 50V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C49	.047 100V			TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C50	.01 50V			DI-470	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C51	.470	10%		TTD-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C52	.005		#250221-13	TTD-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C53	.005								
C54	.82pf			TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C55	.01 50V			DMF1P1	DMF1P1	1DP-2-104	PVC101	10TS-T47	
C56	.1 100V			DI-470	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C57	470	10%							
C58	470 125V 2.5%								
C59	560 125V 2.5%								
C60	.0047 125V 10%								
C61	560 125V 2.5%								
C62	.0047 125V 10%								
C63	.1 100V			DBE2P1	DMF2P1	2DP-3-104	PVC201	2PS-P10	
C64	270 125V 2.5%								
C65	.0022 10%			DI-2200	DD-222	JBX601YP222K	CCD-222	GP222	10TS-D22
C66	.001 10%								
C67	.0022 10%			DI-2200	DD-222	JBX601YP222K	CCD-222	GP222	10TS-D22
C68	.02			TTD-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C69	.001			DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10
C70	.1 100V			DBE2P1	DMF2P1	2DP-3-104	PVC201	2PS-P10	
C71	.047 100V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C72	.001			DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10
C73	.02			TTD-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C74	.1 100V			DBE2P1	DMF2P1	2DP-3-104	PVC201	2PS-P10	
C75	.0022 10%			DI-2200	DD-222	JBX601YP222K	CCD-222	GP222	10TS-D22
C76	.02			TTD-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C77	.001			DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10
C78	.1 100V			DBE2P1	DMF2P1	2DP-3-104	PVC201	2PS-P10	
C79	.047 100V			DBE2S47	DMF2S47	4DP-3-473	PVC2147	2PS-S47	
C80	.001			DI-1000	DM-102	JBS601YP102K	CCD-102	SM210	5GAB-D10
C81	.02			TTD-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C82	.1 100V			DBE2P1	DMF2P1	2DP-3-104	PVC201	2PS-P10	
C83A	.01 1.4KV			DAC-27	CI-103	ACT142ZU103P	UAC110	125M-S10	
C83B	.01 1.4KV			DAC-27	CI-103	ACT142ZU103P	UAC110	125M-S10	
C84	.01 1.4KV			DAC-27	CI-103	ACT142ZU103P	UAC110	125M-S10	
C85	.01			DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C86	.01			DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C87	.01 50V			TTD-01	CK-103	HOY101ZV103P	CCD-103	TA1	