



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index



Panasonic Model RS-810S
8-Track Stereo

OPERATING INSTRUCTIONS

Turn unit on, insert a cartridge until it locks, and move Selector switch to 8 Track.

Press program selector to play desired tracks, or allow unit to select tracks automatically.

Set operating controls as desired.

DISASSEMBLY

Remove four push-on knobs and remove back held by four Phillips screws.

Remove six red Phillips screws from bottom of cabinet and remove chassis.

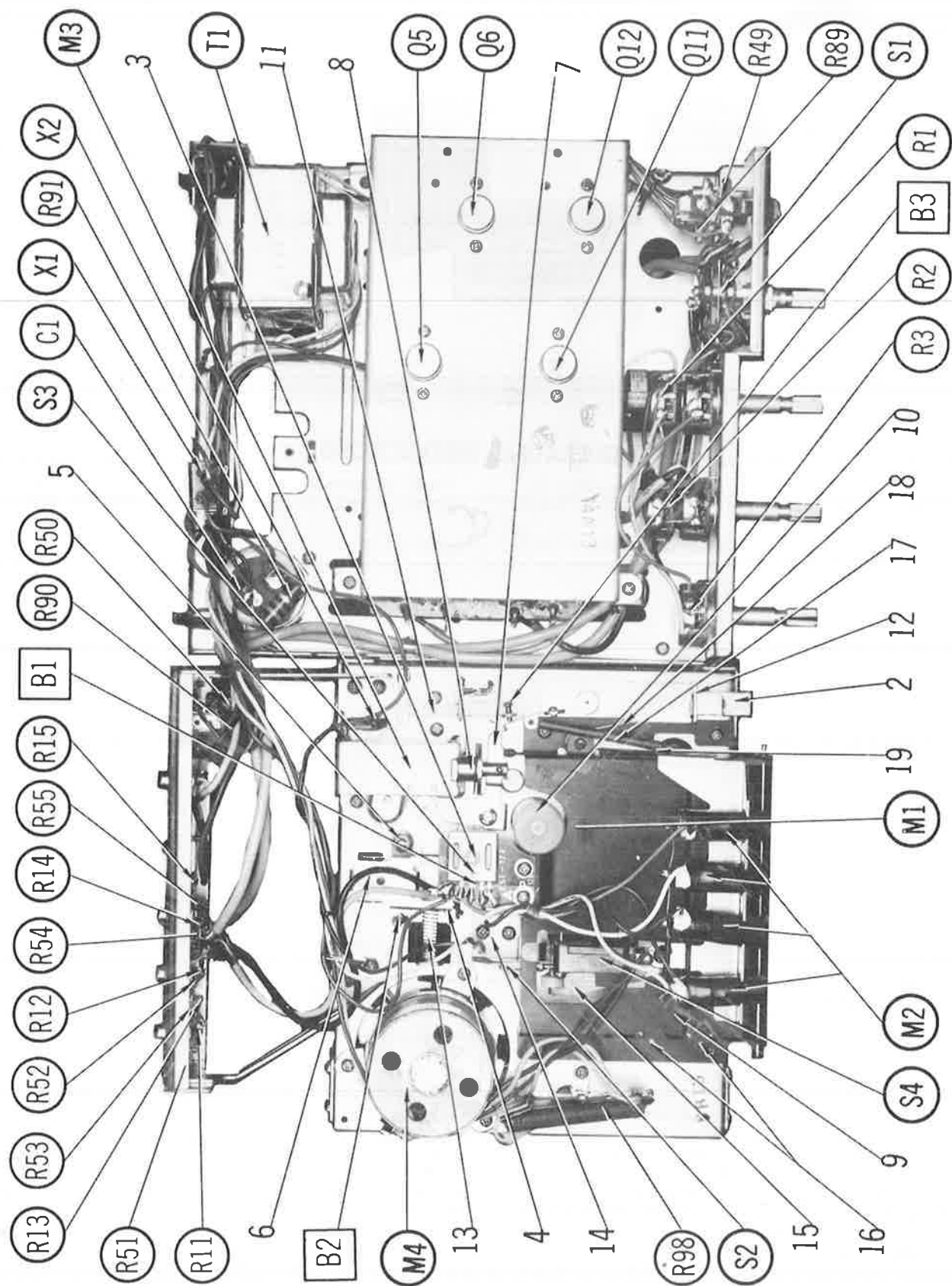
ADJUSTMENTS

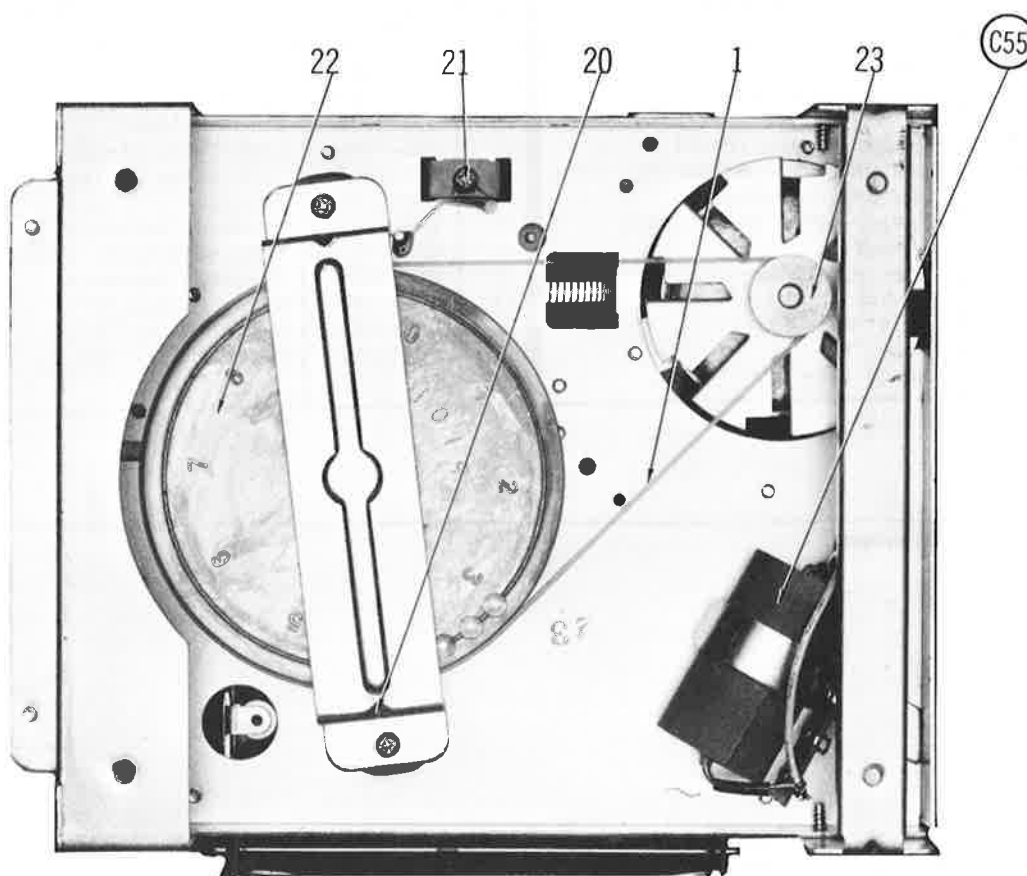
ADJUST	REMARKS
Head Height	Play a test cartridge, follow instructions with cartridge, and adjust B1 for proper response.
Head Azimuth	Connect an AC VTVM across right output. Play a test cartridge and adjust B2 for maximum.
Hum Reduction	Rotate motor for minimum hum and position Shield (9) for minimum hum.
Indexing Solenoid Position	Hold Plunger (8) into solenoid and position solenoid until Pawl (4) clears tooth on Cam (3) by 1/32 inch.
Manual Trip Clearance	Push Lever (2) fully in, push plunger into solenoid, and adjust B3 for 1/64-inch clearance between trip plate and Lever (7).

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

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PANASONIC MODEL RS-810S





CLEANING HEAD DEMAGNETIZING LUBRICATING

Refer to "General Servicing Information" on Page 4.

TROUBLE CHART

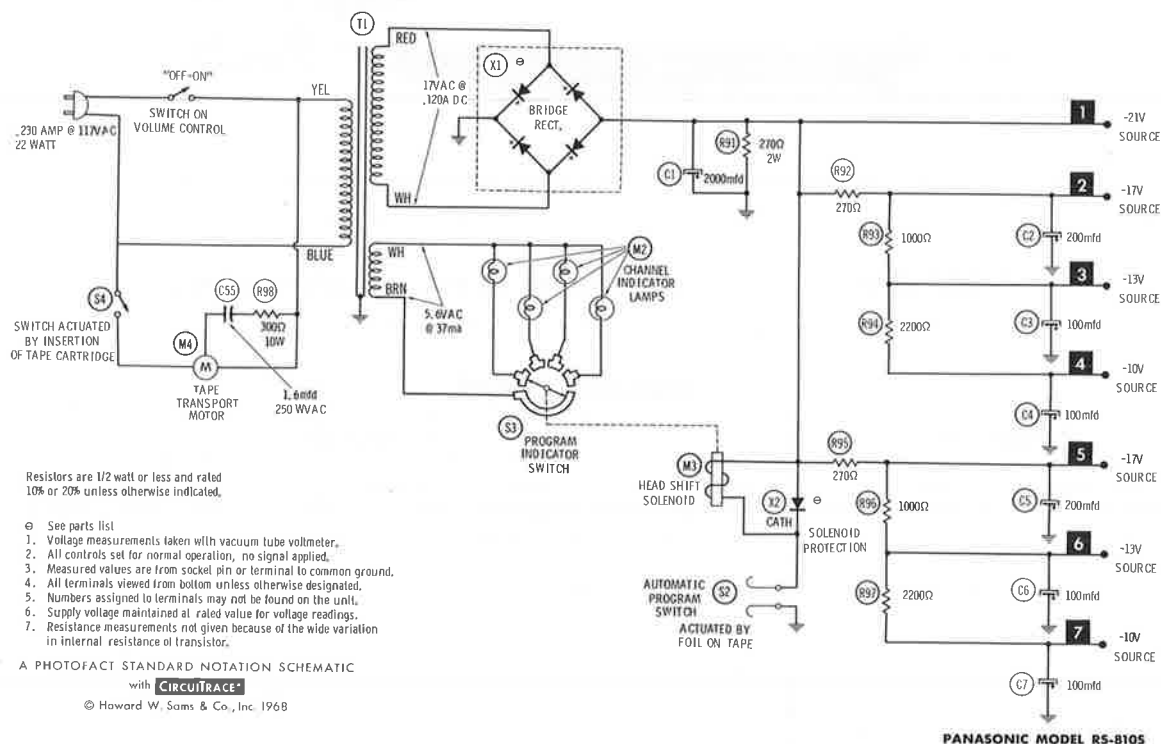
SYMPTOM	REMARKS
Capstan does not rotate	Belt (1) dirty, worn, or broken. Assembly (10) binding. Motor defective or not supplied with power.
Track-shift mechanism inoperative	Switch (S2) dirty. Cam (3) binding or worn. Pawl (4) worn. Arm (6) binding. Solenoid (M6) defective or not supplied with power. Cartridge defective.
Wow or Flutter	Belt (1) dirty or worn. Capstan dirty or binding. Cartridge defective. Motor defective.
Sound weak or distorted	Head dirty, misaligned, or defective. Cartridge defective. Amplifiers defective.
Tape is pulled from cartridge	Cartridge defective. Capstan dirty or scored.

MECHANICAL PARTS LIST

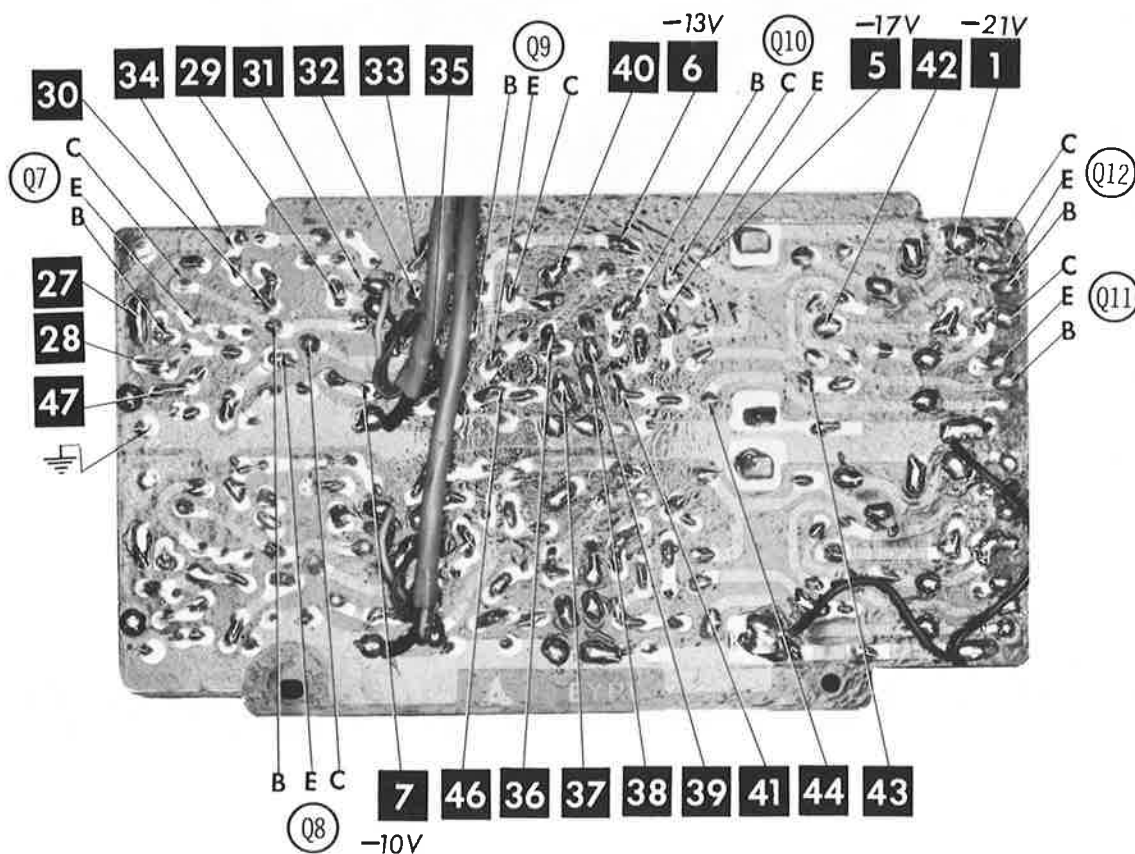
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	QDB-0065	Flywheel Belt	14	QAG-1127	Tape Guide
2	QXL-0135	Change Lever "B"	15	QXJ-0053	Spring
3	QXM-0019	Cam Assembly	16	QBJ-1189	Guide Roller
4	QBP-1105(1)	Ratchet Spring (Pawl)	17	QXL-0136	Lock Lever Assembly
5	QBC-1077	Head Arm Pressure Spring	18	QBN-1037-2	Lock Lever Spring
6	QXA-0058	Head Arm Assembly	19	QBT-1216-1	Spring
7	QXL-0134	Change Lever "A" Assembly	20	QMH-1052	Flywheel Retainer
8	QME-0108	Plunger	21	QMH-1053-2	Head Adjustment Table
9	QXE-0019	Cartridge Guide Assembly	22	QXF-0031	Flywheel Assembly
10	QYQ-0066	Flywheel Metal	23	QDP-1185	Motor Pulley "1"
11	QMA-1167	Angle "A"		QDP-1186	Motor Pulley "2"
12	QMA-1174	Angle "B"		QDP-1187	Motor Pulley "3"
13	QBC-1074	Change Lever "A" Spring			

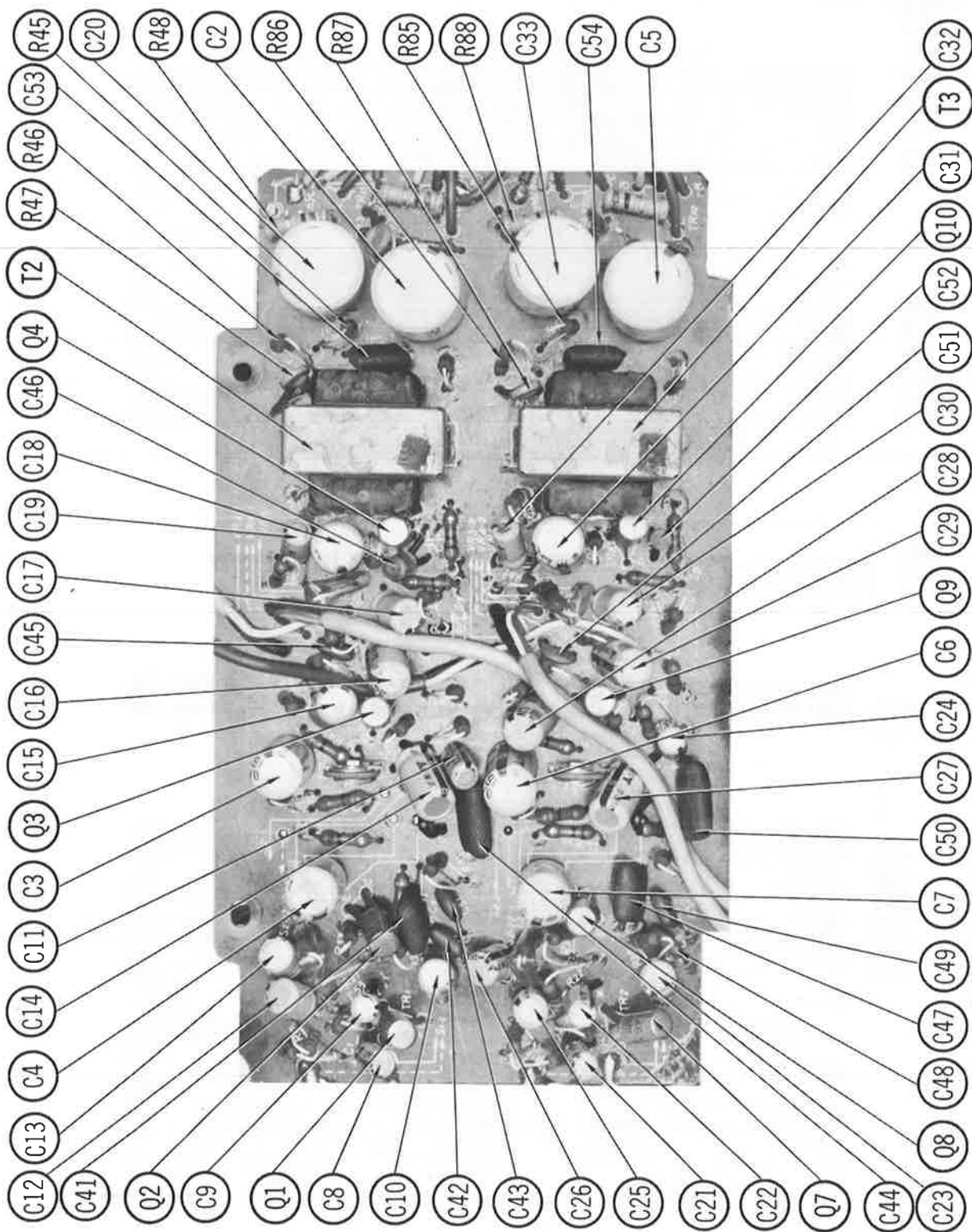
(1) Part of Assembly (7)..

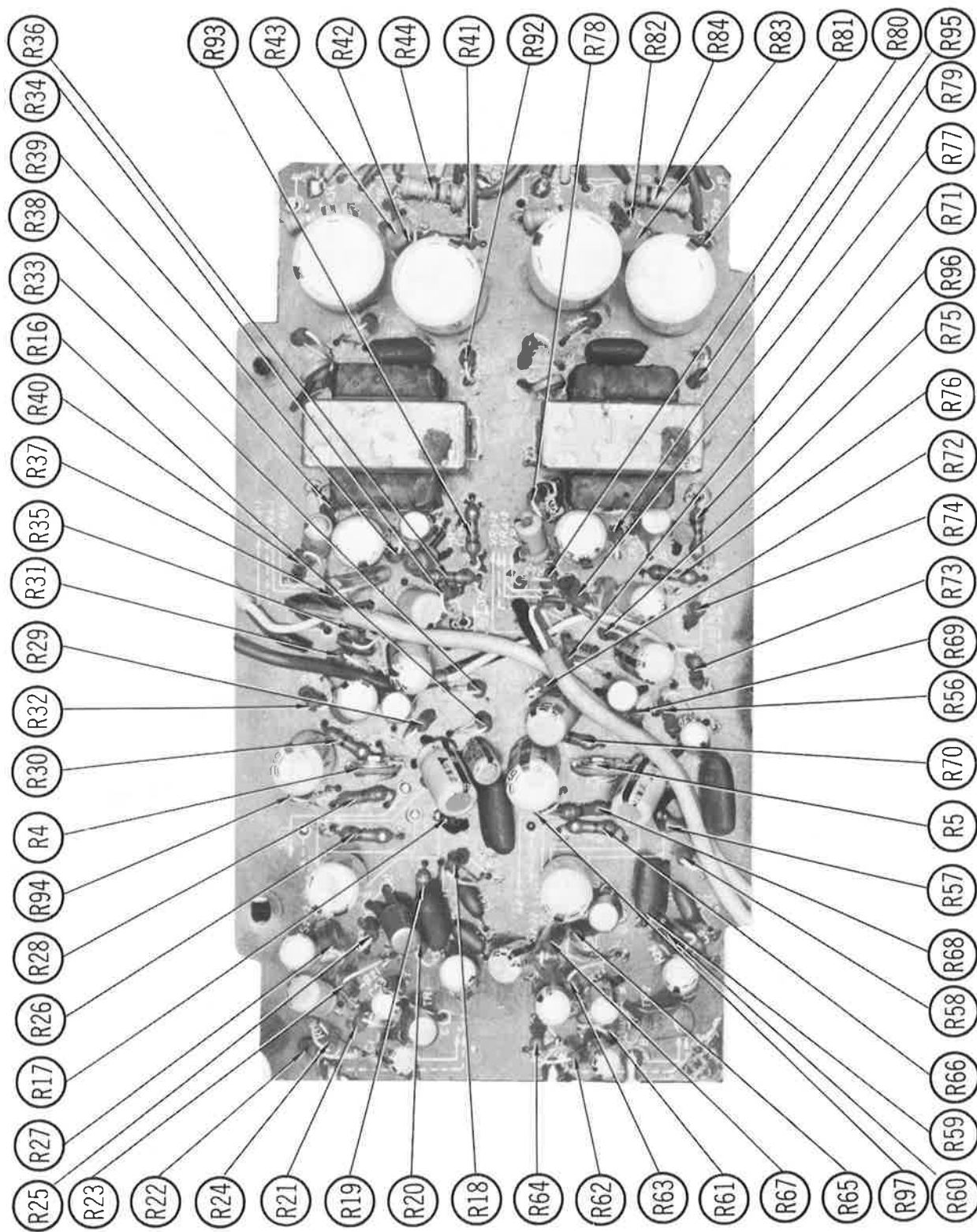
NOTE: DEMAGNETIZE HEADS AFTER SERVICING



POWER SUPPLY

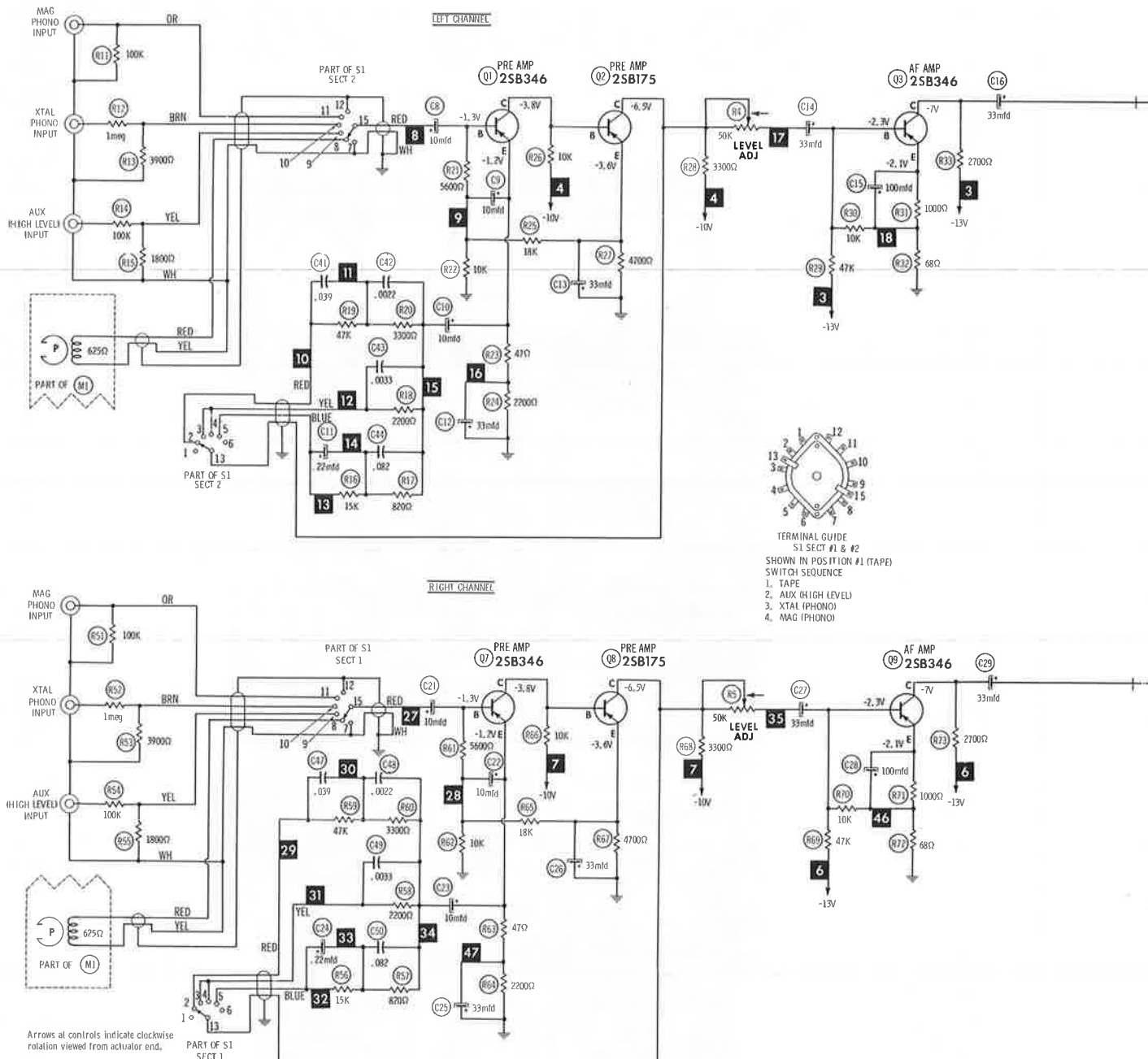






PANASONIC MODEL RS-810S

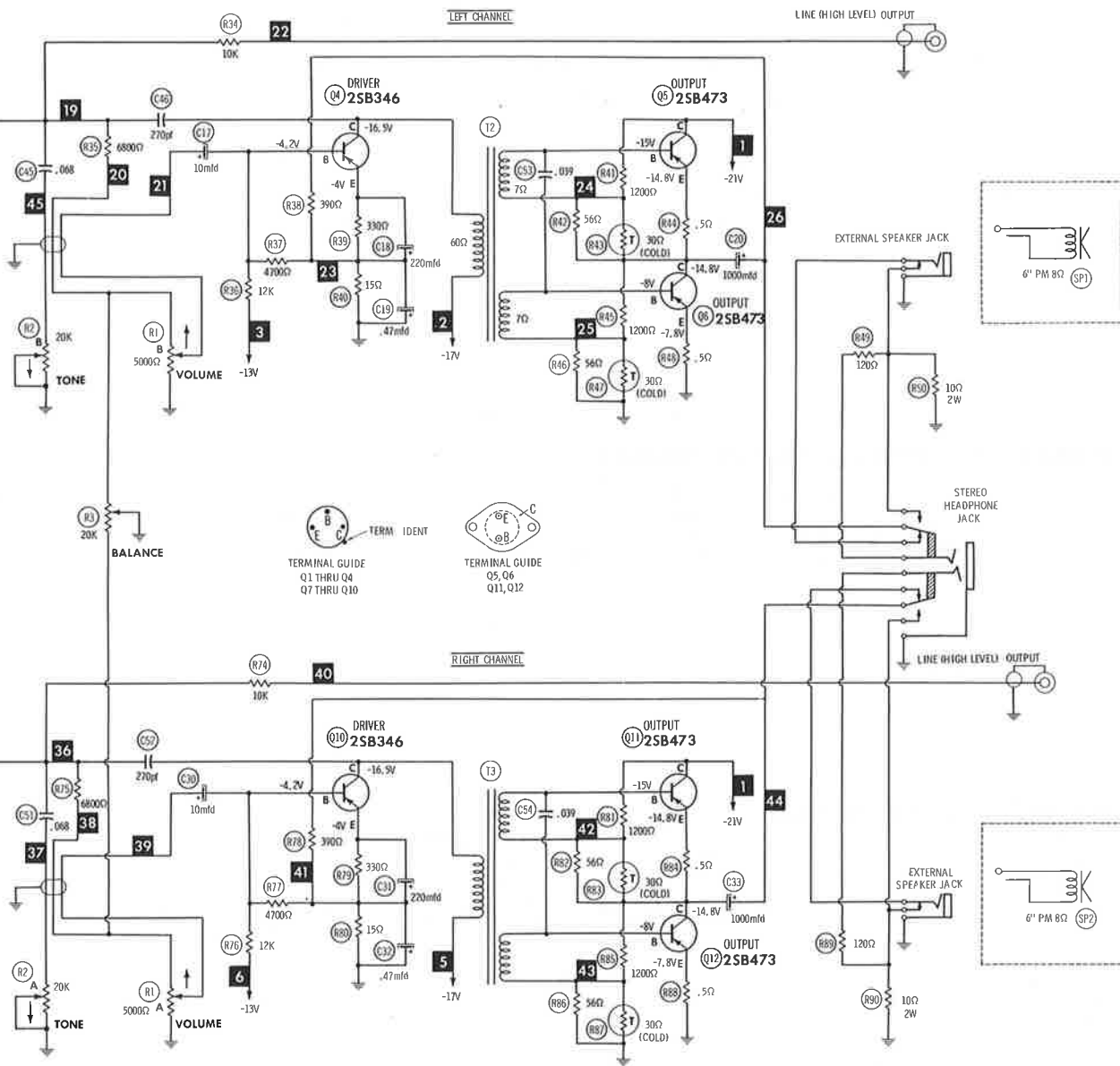
NOTE: DEMAGNETIZE HEADS AFTER SERVICING



- See parts list
1. Voltage measurements taken with vacuum tube voltmeter.
 2. All controls set for normal operation, no signal applied.
 3. Measured values are from socket pin or terminal to common ground.
 4. All terminals viewed from bottom unless otherwise designated.
 5. Numbers assigned to terminals may not be found on the unit.
 6. Supply voltage maintained at rated value for voltage readings.
 7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
 with **CIRCUITACE**

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PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.
Q1	2SB346	Preamp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q2	2SB175	Preamp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q3	2SB346	AF Amp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q4	2SB346	Driver		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q5	2SB473	Output						ECG 131MP
Q6	2SB473	Output						(1)
Q7	2SB346	Preamp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q8	2SB175	Preamp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q9	2SB346	AF Amp		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q10	2SB346	Driver		DS-26	GE-2	TR-14	SK-3004	ECG 102
Q11	2SB473	Output						ECG 131MP
Q12	2SB473	Output						(1)

(1) Matched Pair.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	KC2d22/1	GE-504A (1)	18DB2A or 8D4 (1)	ECG 116 (1) or ECG 117 (1)	SK-3030 (1) or SK-3031 (1)	S-5959 or 40C (1)	
X2	SW-05	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117	SK-3030 or SK-3031	40C or F-4	

(1) Four required.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		PANASONIC PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	2000 25V				BR2000-25		TC25200	
C2	200 25V		PRS1280	EA30-250	BR250-25	QT1-31	MTV200DJ25	TE-1213
C3	100 16V		BCD18100	EP15-100	NLW100-15	MT1-23	MTV100CF15	TE-1162
C4	100 16V		BCD18100	EP15-100	NLW100-15	MT1-23	MTV100CF15	TE-1162
C5	200 25V		PRS1280	EA30-250	BR250-25	QT1-31	MTV200DJ25	TE-1213
C6	100 16V		BCD18100	EP15-100	NLW100-15	MT1-23	MTV100CF15	TE-1162
C7	100 16V		BCD18100	EP15-100	NLW100-15	MT1-23	MTV100CF15	TE-1162
C8	10 6V		BCD6010	EP6-10	NLW10-6	MT1-5	PET1340	TE-1087
C9	10 6V		BCD6010	EP6-10	NLW10-6	MT1-5	PET1340	TE-1087
C10	10 16V		BCD25010	EP15-16	NLW10-15	MT1-6	MTV10CB50	TE-1155
C11	.22 25V				TYR13BF274K		TAS224K035P0A	150D224X9035 A2
C12	33 6.3V		BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TE-1132.1
C13	33 6.3V		BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TE-1132.1
C14	33 16V		CRE463A	EP15-50	NLW30-15	MT1-16	MTV30CB25	TE-1158
C15	100 6.3V		BCD6100	EP6-100	NLW100-12	MT1-18	MTV100CB6	TE-1102
C16	33 16V		CRE463A	EP15-50	NLW30-15	MT1-16	MTV30CB25	TE-1158
C17	10 16V		BCD25010	EP15-10	NLW10-15	MT1-6	MTV10CB50	TE-1155
C18	220 6.3V		BCD6200	EA6-250	NLW200-12	MT1-24	MTV200CK10	TE-1104
C19	.47 25V				TYR13BF747K		TAS474K050P0A	150D474X9035 A2
C20	1000 15V		PRS1230	EA15-1000	BR1000-15	QT1-32	TC1501A	TVA-1163
C21	10 6V		BCD6010	EP6-10	NLW10-6	MT1-5	PET1340	TE-1087
C22	10 6V		BCD6010	EP6-10	NLW10-6	MT1-5	PET1340	TE-1087
C23	10 16V		BCD25010	EP15-10	NLW10-15	MT1-6	MTV10CB50	TE-1155
C24	.22 25V				TYR13BF274K		TAS224K035P0A	150D224X9035 A2
C25	33 6.3V		BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TE-1132.1
C26	33 6.3V		BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TE-1132.1
C27	33 16V		CRE463A	EP15-50	NLW30-15	MT1-16	MTV30CB25	TE-1158
C28	100 6.3V		BCD6100	EP6-100	NLW100-12	MT1-18	MTV100CB6	TE-1102
C29	33 16V		CRE463A	EP15-50	NLW30-15	MT1-16	MTV30CB25	TE-1158
C30	10 16V		BCD25010	EP15-10	NLW10-15	MT1-6	MTV10CB50	TE-1155
C31	220 6.3V		BCD6200	EA6-250	NLW200-12	MT1-24	MTV200CK10	TE-1104
C32	.47 25V				TYR13BF747K		TAS474K050P0A	150D474X9035 A2
C33	1000 15V		PRS1230	EA15-1000	BR1000-15	QT1-32	TC1501A	TVA-1163

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C41	.039		DBE6S39		WMF1S39	6DP-3-393	PVC6139	225P39391
C42	.0022		V1614D22	CPR-2200J	WMF1D22	6DP-1-222	PVC6222	225P22291
C43	.0033		V1614D33	CPR-3300J	WMF1D33	6DP-1-332	PVC6233	225P33291
C44	.082		DBE6S82		WMF1S82	6DP-4-823		225P82391
C45	.068 12V		V1612S68		DMF1S68	1DP-2-683	PVC1168	225P68391
C46	270 125V			CPR-270J	CD15F271J500	DM-15-271J	SX327	MS-327
C47	.039		DBE6S39		WMF1S39	6DP-3-393	PVC6139	225P39391
C48	.0022		V1614D22	CPR-2200J	WMF1D22	6DP-1-222	PVC6222	225P22291
C49	.0033		V1614D33	CPR-3300J	WMF1D33	6DP-1-332	PVC6233	225P33291
C50	.082		DBE6S82		WMF1S82	6DP-4-823		225P82391
C51	.068 12V		V1612S68		DMF1S68	1DP-2-683	PVC1168	225P68391
C52	270 125V			CPR-270J	CD15V271J500	DM-15-271J	SX327	MS-327
C53	.039		DBE6S39		WMF1S39	6DP-3-393	PVC6139	225P39391
C54	.039		DBE6S39		WMF1S39	6DP-3-393	PVC6139	225P39391
C55	1.6 250V				MPY4W1P5			

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1A B C	Volume, Right Volume, Left On/Off Switch	5000 5000		F2-5000(1), R2-5000,SSK110, CPL-2,KR-1		B13-114,B13-114, SK1(1),QCM,76-1 or (BU1(1),CF60, CR52,SS1,SS7A, GC)*	P53A,3014(1), RU53A,CS3500, US41
R2A B	Tone, Right Tone, Left	20K 20K		F2-25K(1), R2-25K,SSK110, CPL-2		B13-120,B13-120, SK1(1),QCM or (BU1(1),CF11, CR6,SS1,SS7A, DC1)*	P253A,3014(1), RU253A,CS3500
R3	Balance	20K		F1-25K(1), SSK110	A47-20K-S(1), KSS-3 or (NP-20K-S(1), UP-C-400)	Q11-119(1) or (BU1(1),CF11, SS1,DC1)*	RU253L,SL36, SL3250 or (UA24L(1), SK3500) or (U26(1)) MTC54L1(2)
R4	Preamplifier Adjust Left	50K		T-50K(2)		X201R503B(1)	
R5	Preamplifier Adjust Right	50K		T-50K(2)		X201R503B(1)	MTC54L1(2)

* "SNAPTROL"

(1) Enlarge mounting hole.

(2) Cut off one of the outside terminals, bend terminals to fit "PC" Board.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	MFGR. PART No.			IRC PART No.	WORKMAN PART No.	MFGR. PART No.
R43	30 (Cold)		GM33		R84	.5	BWH1-0.51		
R44	.5				R87	30 (Cold)		GM33	
R47	30 (Cold)	BWH1-0.51	GM33		R88	.5	BWH1-0.51		
R48	.5				R98	300 10W	PW10-300	10W-SQ 300	
R83	30 (Cold)	BWH1-0.51	GM33						

TRANSFORMER (Power)

TRANSFORMER (Cont.)									
ITEM No.	RATING			REPLACEMENT DATA					NOTES
				MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T1	117VAC @ .230Amp	17VAC @ .120A DC	5.6VAC @ .030Amp	QLP-0395					

PANASONIC MODEL RS-810S

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
				MFR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T2	3,1	1	1	QLA-0118					
T3	3,1	1	1	QLA-0118					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA			NOTES
				MFR. PART No.	JENSEN PART No.	QUAM PART No.	
SP1	6"	PM	8 ohms	EAS16P49SM	6K78	6A15Z8	
SP2	6"	PM	8 ohms	EAS16P49SM	6K78	6A15Z8	

TAPE HEADS

ITEM NO.	MEASURED			PANASONIC PART NO.	NORTRONICS PART NO.	DESCRIPTION
	INDUCTANCE	BIAS/ERASE VOLTS (RMS)	BIAS FREQ.			
M1	460mh				5800(1)	8-Track Stereo Play (1) Use original mounting

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M2	Channel Lamps		4 used, CHICAGO MINIATURE Replacement CM40
M3	Solenoid	QNE0108	Head Shift
M4	Motor	QDAA4341	Tape Transport
S1	Switch		Function Selector
S2	Switch		Automatic Program Selector
S3	Switch	ESE-124	Program Indicator
S4	Switch		Motor On/Off

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.
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8401 or 8421
Phono Pick-up Arm Cable	Use BELDEN No. 8430 (Two Conductor-Unshielded) 8429 (Two Conductor-Shielded) 8419 (Three Conductor-Shielded)