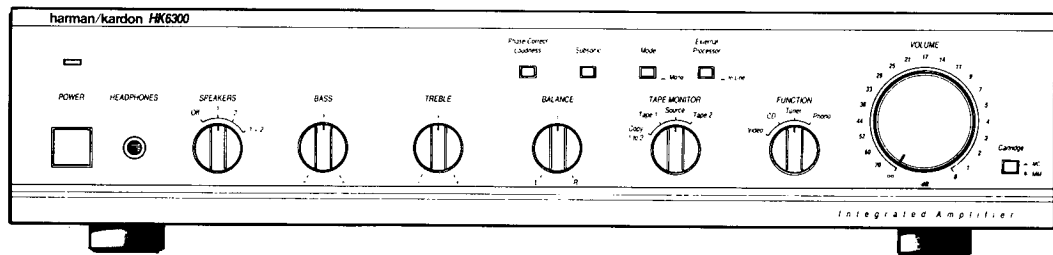


# The Harman Kardon Model HK6300

Manual 145A

## INTEGRATED AMPLIFIER

# Technical Manual



The following marks found in the parts list of this manual identify the models as follows.

- G : German model
- GB : German model Black version
- I : International model
- IB : International model Black version
- BB : Australian model Black version

HK6300

**harman/kardon**

240 Crossways Park West, Woodbury, N.Y. 11797  
1112-3152145A8 P-088905 1500 Printed in Japan

**SPECIFICATIONS**

	Nominal	Limit
<b>RMS Output Power</b>		
8Ω, 20Hz ~ 20kHz THD 0.09%	70.8W	≥ 60W
4Ω, 1kHz THD 0.3%	72.2W	≥ 60W
<b>High Instantaneous Current Capability (HICC)</b>	40A	≥ 35A
<b>Half Power Bandwidth</b>	10Hz ~ 100kHz	
<b>Frequency Response at -3dB</b>	0.62Hz ~ 136kHz*	
<b>Input Sensitivity</b>		
Tuner	135mV ± 25mV	
Phono(MM)	2.4mV ± 0.2mV*	
Phono(MC)	150μV ± 20μV*	
<b>Signal to Noise Ratio</b>		
Tuner	82dB	≥ 75dB
Phono(MM)	79dB	≥ 73dB
Phono(MC)	75.5dB	≥ 70dB
<b>Channel Separation at 10kHz</b>		
Tuner	55dB	≥ 45dB
Phono(MM)	63dB	≥ 45dB
Phono(MC)	60dB	≥ 43dB
<b>IM Distortion Ratio</b>	0.048%	≤ 0.1%
<b>Damping Factor at 1kHz</b>	66	≥ 50
<b>Tone Control Characteristics</b>		
<b>Bass Turnover Frequency (200Hz/400Hz)</b>		
<b>Bass at 50Hz/100Hz</b>		
Boost	10dB	± 2dB
Cut	10dB	± 2dB
<b>Treble Turnover Frequency (2kHz/6kHz)</b>		
<b>Treble at 10kHz/30kHz</b>		
Boost	10dB	± 2dB
Cut	10dB	± 2dB

	Nominal	Limit
<b>Filters</b>		
Subsonic	15Hz, -3dB ± 1dB/Octave	
High Cut	6kHz, -3dB ± 1dB/Octave	
<b>DC Output Voltage</b>		
L channel	0mV ± 60mV	
R channel	0mV ± 60mV	
<b>RIAA Equalization at Tape Out (20Hz/20kHz) (No load)</b>	0.18dB + 1.0dB/0.18dB - 0.2dB	
<b>Phono Over Load (No load)</b>		
Phono (MM)	143mV	≥ 110mV
Phono (MC)	8.0mV	≥ 5mV
<b>Dimensions (W × H × D)</b>	17-1/2" × 4-1/16" × 13-7/8"	
	(443 × 103 × 351mm)	
<b>Weight</b>	17 lbs. 10oz. (8kg)	
<b>Power Supply</b>	AC 220/240V, 50/60Hz	
<b>Power Consumption</b>	176W	

\* 0.62Hz ~ 180kHz International model

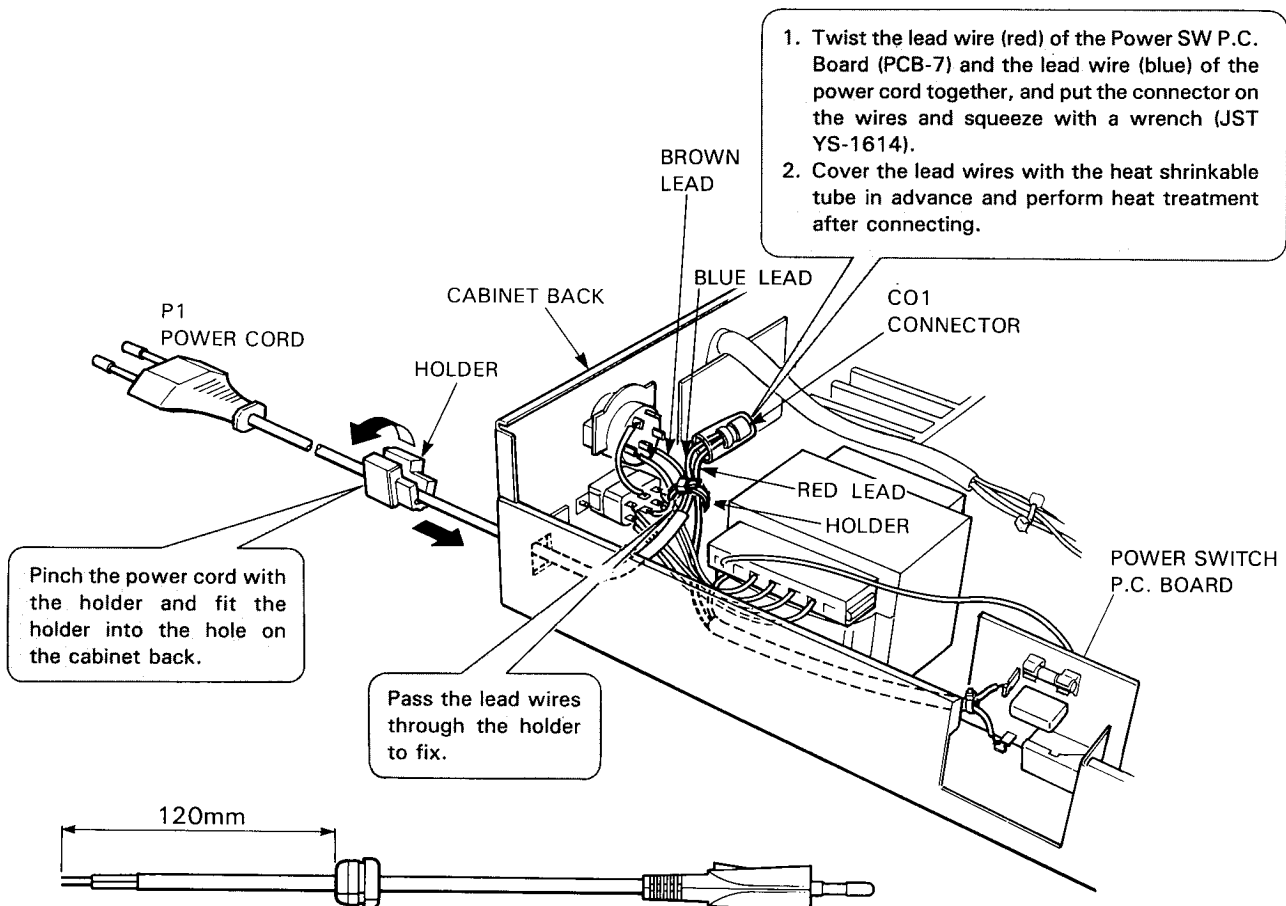
\* Input Sensitivity for International model are 2.2mV ± 0.2mV (MM) and 120μV ± 20μV (MC).

These specifications are service target specs.

Specifications and components subject to change without notice. Overall performance will be maintained or improved.

**POWER CORD REPLACEMENT**

In order to prevent fire or shock hazard when replacing the power cord, follow the procedure below to replace the parts with the standard supply parts.



**DISASSEMBLY PROCEDURES (REFER TO PAGES 5 AND 16)**

**1 CABINET TOP (131) REMOVAL**

Remove 6 screws (A) and then remove the Cabinet Top (131).

**2 FRONT PANEL ASS'Y (AA) REMOVAL**

1. Remove the Cabinet Top (131), referring to the previous step 1.
2. Remove 5 screw (B) and then remove the Front Panel Ass'y (AA).

**3 BASS CONTROL P. C. BOARD (PCB-10) REMOVAL**

1. Remove the Front Panel Ass'y (AA), referring to the previous step 2.
2. Open the lid of connector (CN502) on the Main P. C. Board (PCB-1) and then disconnect the lead wires.
3. Open the lid of connector (CN501) on the Function P. C. Board (PCB-9) and then disconnect the lead wires.
4. Open the lid of connectors (CN503, CN504 and CN505) on the Bass Control P. C. Board (PCB-10) and then disconnect the lead wires.
5. Remove 2 screws (C) and then remove the Bass Control P. C. Board (PCB-10).  
If necessary, unsolder the lead wire connected to the PCB-10.

**4 MAIN P. C. BOARD (PCB-1) REMOVAL**

1. Remove the Bass Control P. C. Board (PCB-10), referring to the previous step 3.
2. Open the lid of connectors (CN601 and CN803) on the Main P. C. Board (PCB-1) and then disconnect the lead wires.
3. Open the lid of connector (CN109) on the Function P. C. Board (PCB-9) and then disconnect the lead wires.
4. Remove 4 screws (D) and 3 hexagon nuts (E) and then remove the Main P. C. Board (PCB-1).  
If necessary, unsolder the lead wires connected to the PCB-1.

**5 FUNCTION P. C. BOARD (PCB-9) REMOVAL**

1. Remove the Main P. C. Board (PCB-1), referring to the previous step 4.
2. Open the lid of connector (CN801) on the Function P. C. Board (PCB-9) and then disconnect the lead wires.
3. Pull out the Shafts (215 and 216).
4. Remove 10 screws (F) and then remove the Cabinet Back Ass'y (AB) with the Speakers P. C. Board (PCB-2).
5. Remove 2 screws (G) and 2 hexagon nuts (H) and then remove the Function P. C. Board (PCB-9) with the Equalizer P. C. Board (PCB-11).

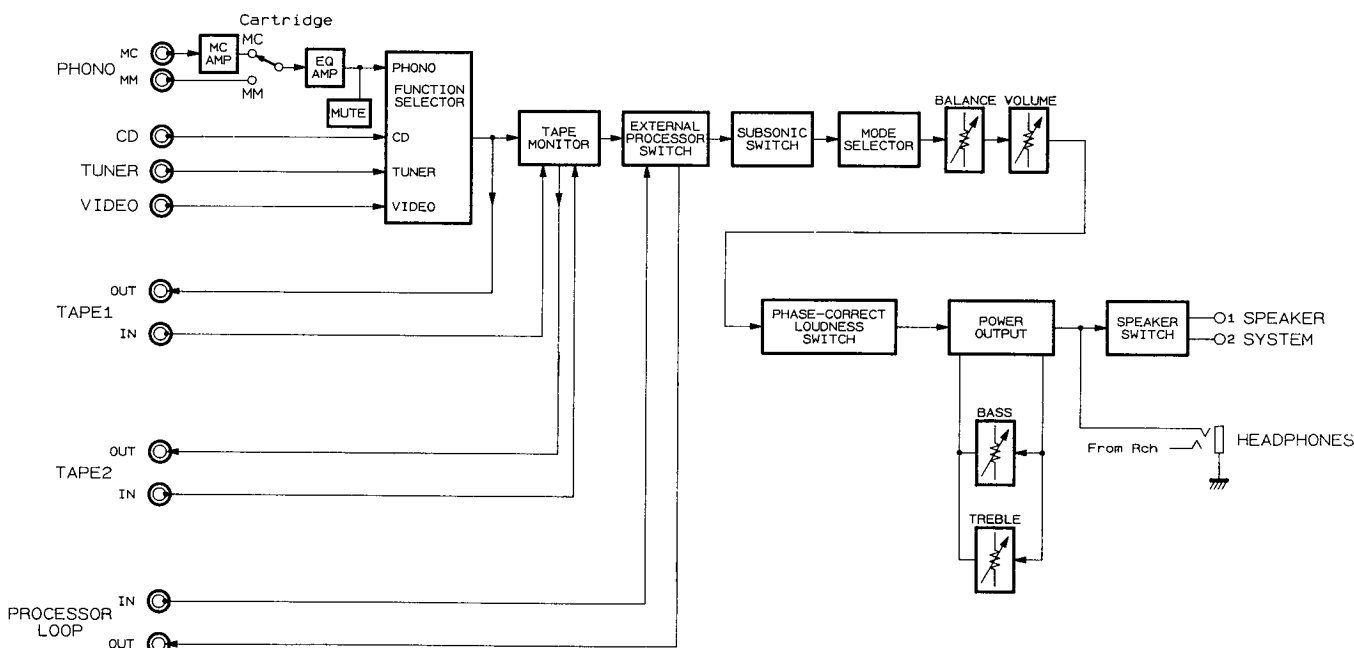
**ALIGNMENT PROCEDURES (REFER TO PAGES 7, 8 AND 15)**

- Conditions:**
- Set the Volume control to minimum.
  - Set the Speaker selector to "1 + 2" position.
  - Set the Speaker Operating Mode switch to "8Ω" position.
  - Make the adjustment at a room temperature of 77°F (25°C).
  - After the Power switch is pushed on, wait for 30 minutes before measuring to be sure of the most stable operation.

**IDLING CURRENT ADJUSTMENT**

Step	Connection Equipments	Adjustment	For
1	Connect the Digital Volt Meter to TP1 and TP2.	VR401 (L ch)	40mV ± 2mV
2	Connect the Digital Volt Meter to TP3 and TP4.	VR402 (R ch)	40mV ± 2mV

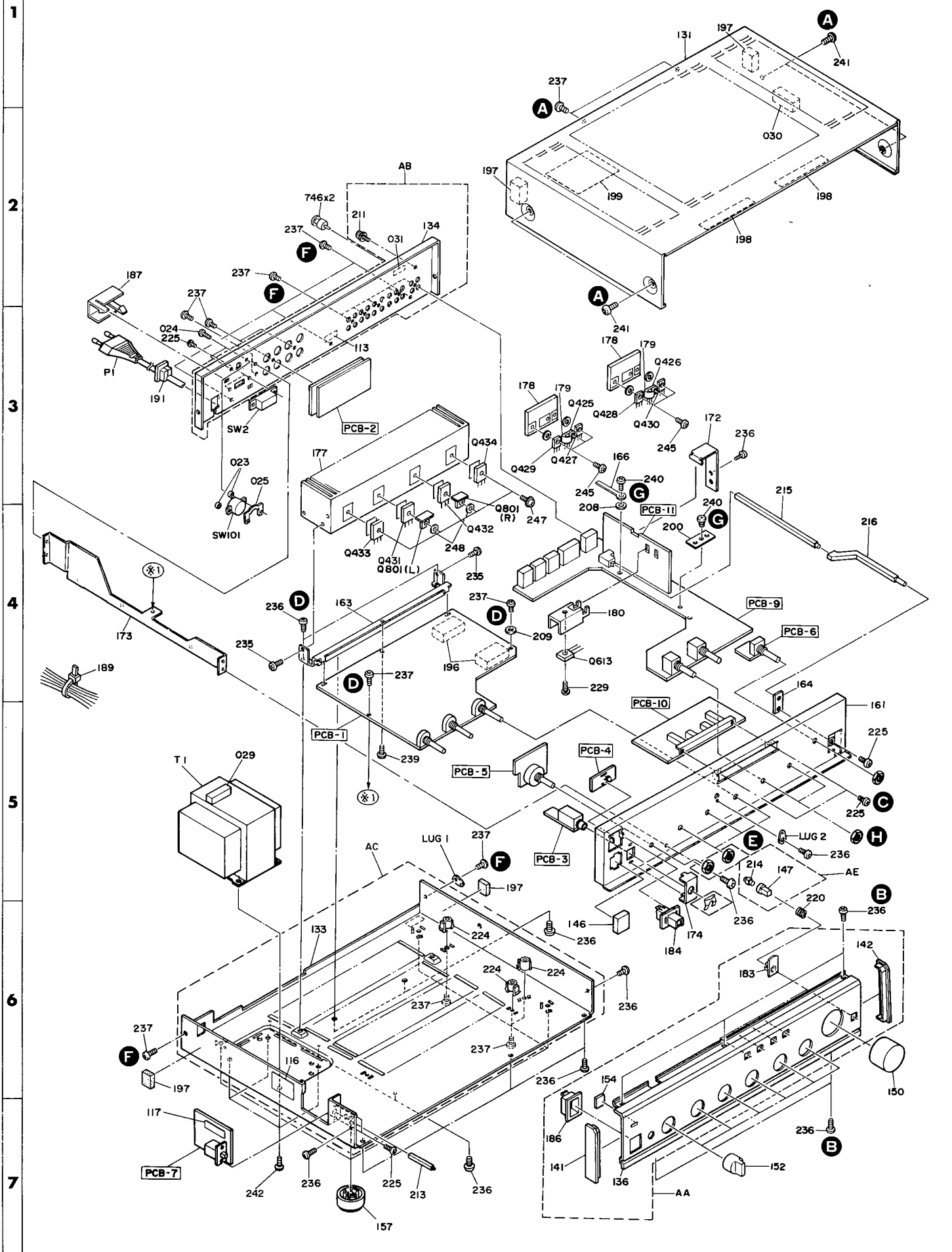
**BLOCK DIAGRAM**



**PARTS LIST**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AA	A443-HK6300A	FRONT PANEL ASS'Y <b>G I</b>	213	2672-7018	LEVER, POWER SHAFT
AA	A443-HK6300B	FRONT PANEL ASS'Y <b>GB</b>	214	2601-7077	SHAFT
AA	A443-HK6300C	FRONT PANEL ASS'Y <b>BB</b>	215	2601-7170	SHAFT, MC/MM SWITCH
AA	A443-HK6300D	FRONT PANEL ASS'Y <b>IB</b>	216	2601-7165	SHAFT, MC/MM BUTTON
AB	A424-HK6300C	CABINET BACK ASS'Y <b>G</b>	220	2651-210189	SPRING, PUSH BUTTON
AB	A424-HK6300E	CABINET BACK ASS'Y <b>GB</b>	224	2360-7015	BOSS, SPE (X3)
AB	A424-HK6300G	CABINET BACK ASS'Y <b>BB</b>	225	2327-R0130064	SCREW, BND +
AB	A424-HK6300J	CABINET BACK ASS'Y <b>I</b>	229	2327-R0130082	SCREW, BND +
AB	A424-HK6300L	CABINET BACK ASS'Y <b>IB</b>	235	2347-R0130062	SCREW, BND T +
AC	A424-HK6300D	CABINET BOTTOM ASS'Y <b>G</b>	236	2347-R0130062	SCREW, BND T +
AC	A424-HK6300F	CABINET BOTTOM ASS'Y <b>GB</b>	237	2347-R0130084	SCREW, BND T + (X27)
AC	A424-HK6300H	CABINET BOTTOM ASS'Y <b>BB</b>	239	2347-R0130102	SCREW, BND T +
AC	A424-HK6300K	CABINET BOTTOM ASS'Y <b>I</b>	240	2347-R0130102	SCREW, BND T+
AC	A424-HK6300M	CABINET BOTTOM ASS'Y <b>IB</b>	241	2347-R0140064	SCREW, BND T +
AE	A662-HK6300A	PUSH BUTTON ASS'Y <b>G I</b>	242	2347-400827	SCREW, BND T +
AE	A662-HK6300B	PUSH BUTTON ASS'Y <b>GB</b>	245	2557-300829	SCREW, B SPW +
AE	A662-HK6300C	PUSH BUTTON ASS'Y <b>BB</b>	247	2557-301429	SCREW, B SPW +
AE	A662-HK6300D	PUSH BUTTON ASS'Y <b>IB</b>	248	2401-0373	WASHER, METAL (X2)
023	2132-7116	SPACER	746	4442-14	PIN PLUG (X2)
024	2327-R0130124	SCREW, BND +	△ P1	4161-7256	CORD W/PLUG <b>G GB I IB</b>
025	2440-7017	NUT, SPE	△ P1	4161-04100	CORD W/PLUG <b>BB</b>
029	2112-11771	SPONGE	△ T1	5584-2507	XFORMER, POWER
030	2112-11796	SPONGE	LUG1	4211-4	LUG <b>G GB</b>
031	1756-19302	LABEL <b>G GB</b>	LUG2	4211-4	LUG
113	1117-78	SERIAL LABEL	△ SW2	4464-00102022	SWITCH, SEESAW
117	1756-01404	LABEL, FUSE	△ SW101	4411-102729	SWITCH, ROTARY
131	1414-04901	CABINET TOP	Q425	5613-945(P)	XISTOR, NPN R
133	1424-29101	CABINET BOTTOM	Q426	5613-945(P)	XISTOR, NPN R
134	1424-29003	CABINET BACK	Q427	5613-3298 (Y)	XISTOR, NPN R
136	1443-13204	FRONT PANEL <b>G I</b>	Q428	5613-3298 (Y)	XISTOR, NPN R
136	1443-13205	FRONT PANEL <b>GB BB IB</b>	Q429	5611-1306 (Y)	XISTOR, PNP R
141	1562-07301	FRAME LEFT <b>G I</b>	Q430	5611-1306 (Y)	XISTOR, PNP R
141	1562-07302	FRAME LEFT <b>GB BB IB</b>	△ Q431	5613-3907 (O)	XISTOR, NPN R
142	1562-07401	FRAME RIGHT <b>G I</b>	△ Q432	5613-3907 (O)	XISTOR, NPN R
142	1562-07402	FRAME RIGHT <b>GB BB IB</b>	△ Q433	5611-1516 (O)	XISTOR, PNP R
146	1660-00401	PUSH BUTTON, POWER <b>G I</b>	△ Q434	5611-1516 (O)	XISTOR, PNP R
146	1660-00403	PUSH BUTTON, POWER <b>GB BB IB</b>	Q613	5614-1266 (Q)	XISTOR, NPN A
147	1662-05701VN	PUSH BUTTON <b>G I</b>	Q801(L)	5613-2682 (Q)	XISTOR, NPN R
147	1662-05702	PUSH BUTTON <b>GB BB IB</b>	Q801(R)	5613-2682 (Q)	XISTOR, NPN R
150	1630-02601	ROTARY KNOB, VOLUME <b>G I</b>			
150	1630-02603	ROTARY KNOB, VOLUME <b>GB BB IB</b>			
152	1632-16502	ROTARY KNOB, FUNCTION SWITCH <b>G I</b>			
152	1632-16501	ROTARY KNOB, FUNCTION SWITCH <b>GB BB IB</b>			
154	1732-05801	INDICATOR, LED			
157	1319-02201	LEG, BOTTOM			
161	2211-7295	CHASSIS, FRONT			
163	2219-8179	METAL FITTING, MAIN HEAT SINK			
164	2219-8178	METAL FITTING, SHAFT GUIDE			
166	2218-R0130	BRACKET, FIX			
172	2219-8247	METAL FITTING, EQ PCB			
173	2219-8207	METAL FITTING, BOTTOM			
174	2219-7879	METAL FITTING, H/P JACK			
177	2222-7233	HEAT SINK, MAIN			
178	2222-7214	HEAT SINK, DRIVER			
179	2222-7067	HEAT SINK, DRIVER MONO			
180	2222-7230	HEAT SINK, EQ			
183	2240-7141	HOLDER <b>G I</b>			
183	2240-7202	HOLDER <b>GB BB IB</b>			
184	2240-7349	HOLDER, LED			
186	2240-7209	HOLDER, POWER			
187	2240-7359	HOLDER, 4/8 SW			
189	2240-R0101	HOLDER, WIRING (X9)			
191	2240-364	HOLDER, AC CORD			
196	2112-11797	SPONGE (X2)			
197	2112-11771	SPONGE, REAR SIDE			
198	2111-11744	FELT, PANEL (X2)			
199	2111-11770	FELT			
200	2224-7090	INSULATOR			
208	2402-0374	WASHER, PLASTIC			
209	2402-0374	WASHER, PLASTIC			
211	4214-168	TERMINAL, GND			

**GENERAL UNIT**  
EXPLODED VIEW



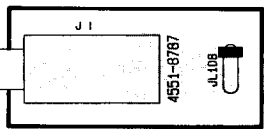
A B C D E

P. C. BOARDS

1

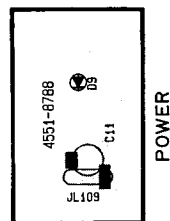
**PCB-3** Headphone P. C. Board

**PCB-4** LED P. C. Board



HEADPHONES

2

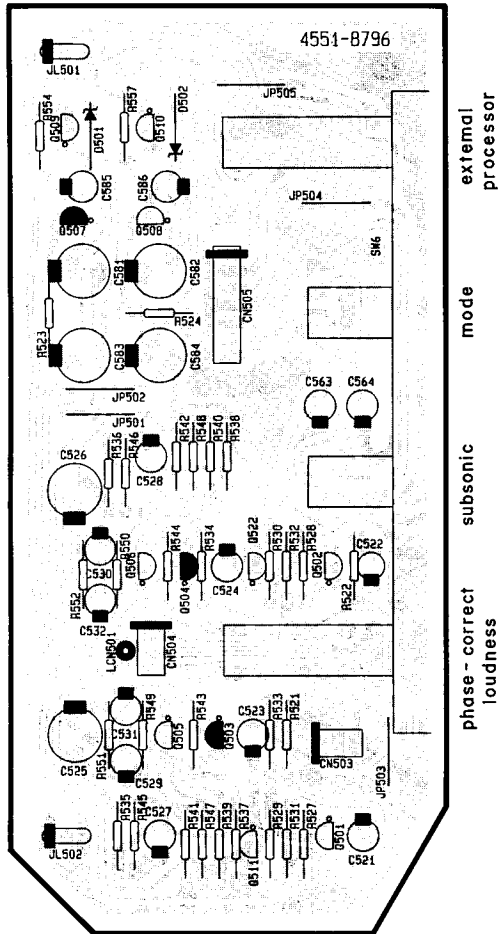


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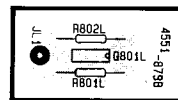
**PCB-10** Bass Control P. C. Board

**PCB-12** Bias P. C. Board (Lch)

4

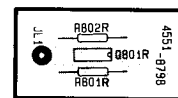


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6

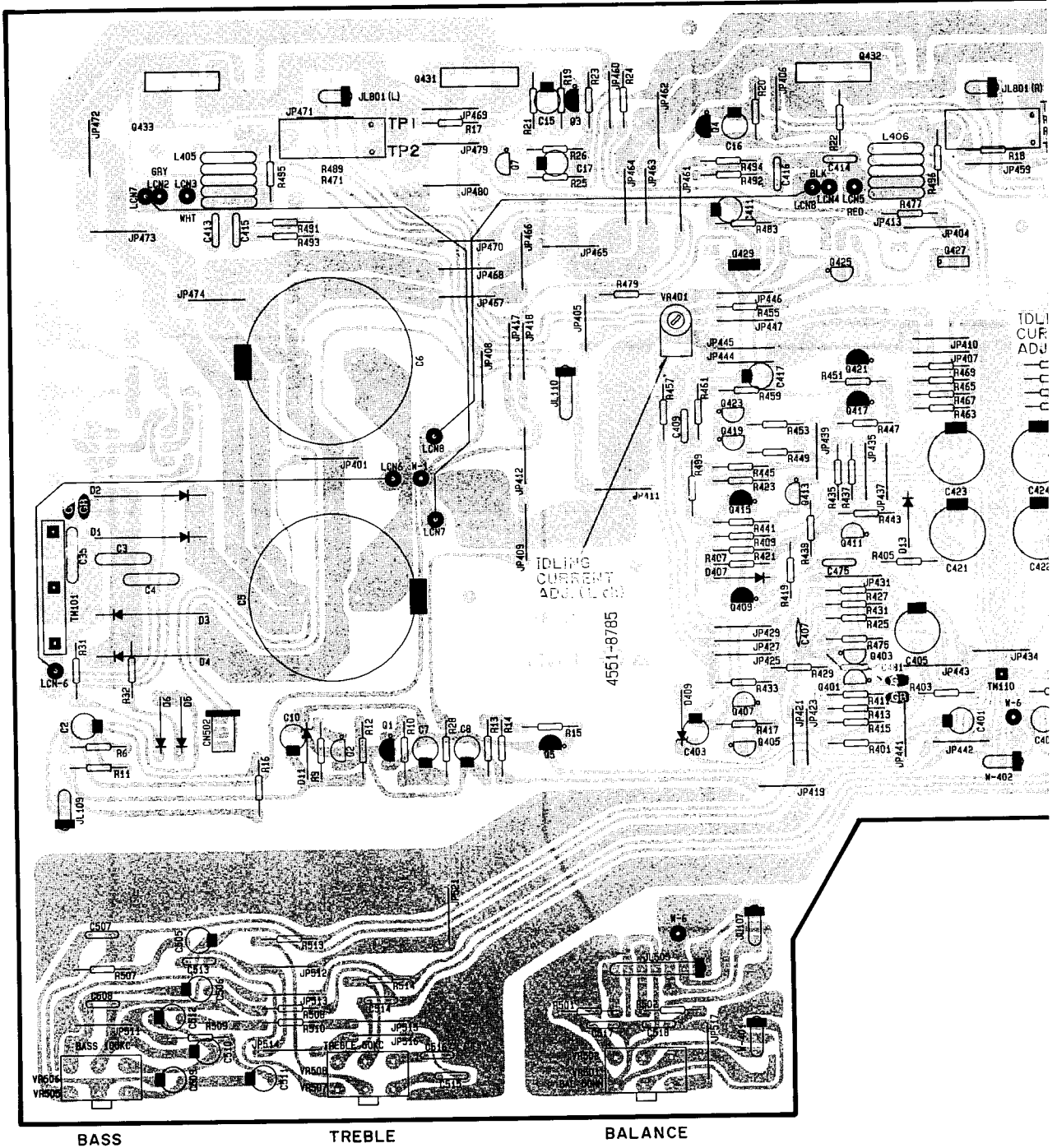
**PCB-13** Bias P. C. Board (Rch)



7

# P. C. BOARDS

**PCB-1** Main P. C. Board



BASS

TREBLE

BALANCE

1

2

3

4

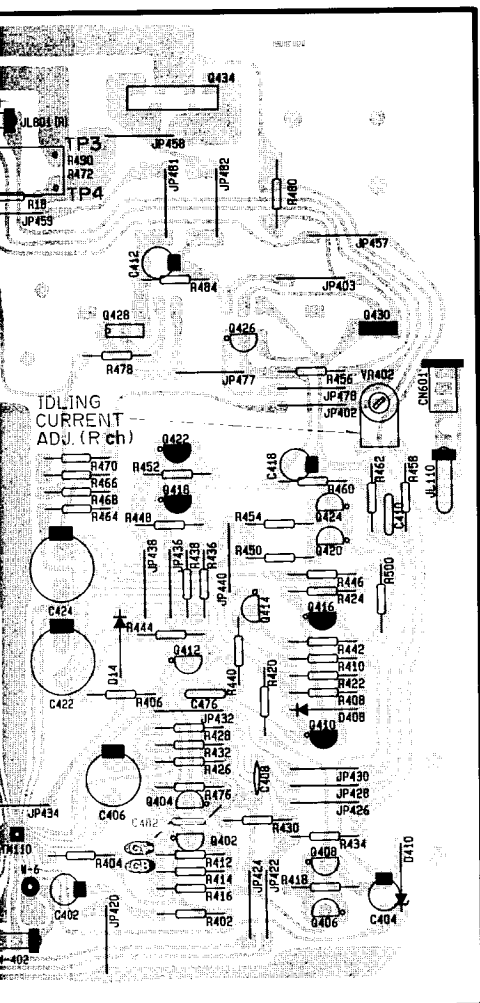
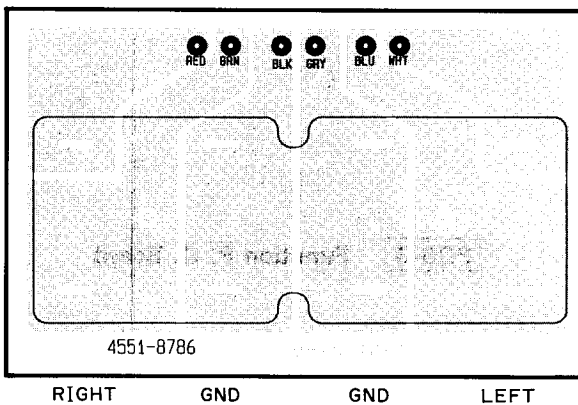
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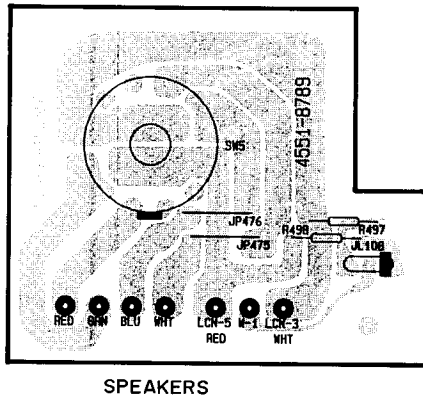
7

E F G H I J

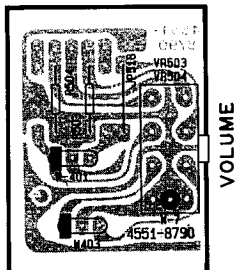
**PCB-2 Speakers P. C. Board**



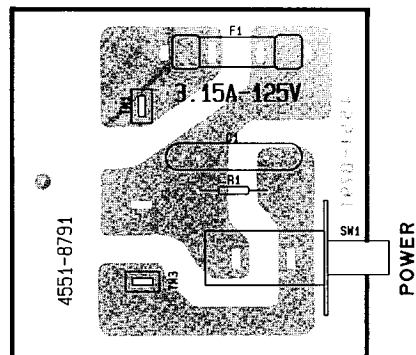
**PCB-5 Speakers Switch P. C. Board**



**PCB-6 VR P. C. Board**



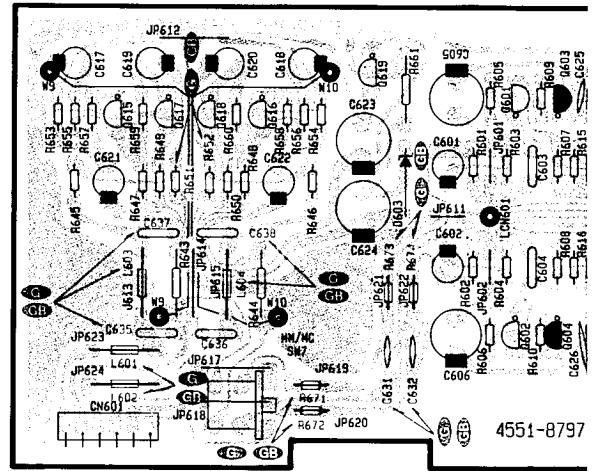
**PCB-7 Power Switch P. C. Board**



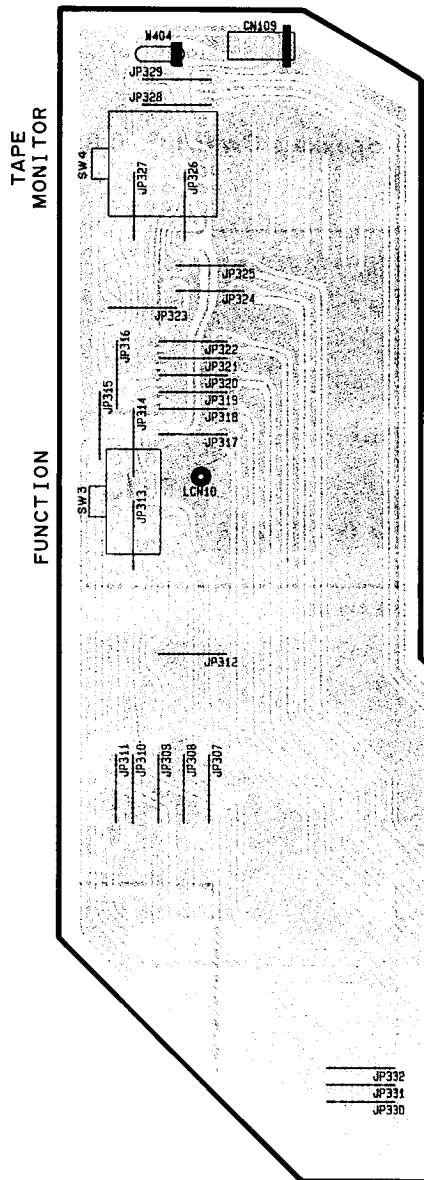


P. C. BOARDS

PCB-11 Equalizer P. C. Board



PCB-9 Function P. C. Board

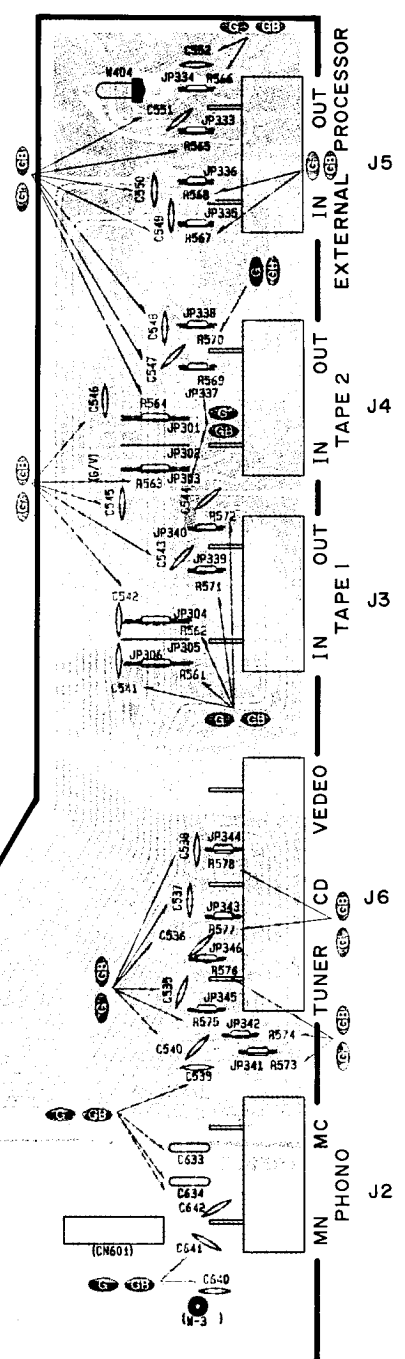
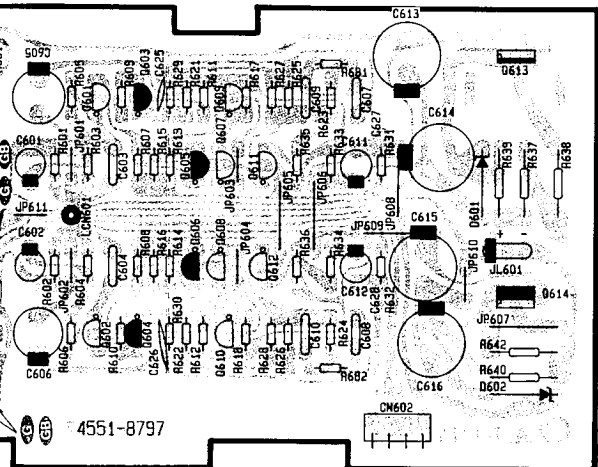


4551-8795

CN602

JP332  
 JP331  
 JP330

d



95 CN602

## ELECTRICAL PARTS LIST

Ser.No	Ref. No.	Part No.	Description	Ser.No	Ref. No.	Part No.	Description
<b>PCB-1 MAIN P.C.BOARD</b>							
<b>CAPACITORS</b>							
662	C2	5345-106F041	CAP, MINI ELE 10μ/50V	670	R23	5135-472522	RES, CBN 1/2P 4.7K
689	C3	5362-103048	CAP, CER .01μ	670	R24	5135-472522	RES, CBN 1/2P 4.7K
689	C4	5362-103048	CAP, CER .01μ	671	R25	5135-104522	RES, CBN 1/2P 100K
687	△C5	5341-002GM109	CAP, ELE 10000μ/63V	672	R26	5135-683522	RES, CBN 1/2P 68K
687	△C6	5341-002GM109	CAP, ELE 10000μ/63V	670	R28	5135-472522	RES, CBN 1/2P 4.7K
660	C7	5345-106F041	CAP, MINI ELE 10μ/50V	667	R31	5135-102522	RES, CBN 1/2P 1K
661	C8	5345-107B041	CAP, MINI ELE 100μ/10V	667	R32	5135-102522	RES, CBN 1/2P 1K
659	C10	5345-106C041	CAP, MINI ELE 10μ/16V	603	R401	5135-331522	RES, CBN 1/2P 330
663	C15	5345-334F0951	CAP, MINI ELE .33μ/50V	603	R402	5135-331522	RES, CBN 1/2P 330
663	C16	5345-334F0951	CAP, MINI ELE .33μ/50V	604	R403	5135-683522	RES, CBN 1/2P 68K
664	C17	5345-105J0962	CAP, MINI ELE 1μ/100V	604	R404	5135-683522	RES, CBN 1/2P 68K
057A	C35	5352-1041957	CAP, MTL .1μ <b>G GB</b>	622	R405	5135-331522	RES, CBN 1/2P 330
581	C401	5345-476B0951	CAP, MINI ELE 47μ/10V	622	R406	5135-331522	RES, CBN 1/2P 330
581	C402	5345-476B0951	CAP, MINI ELE 47μ/10V	622	R407	5135-331522	RES, CBN 1/2P 330
589	C403	5345-476C0951	CAP, MINI ELE 47μ/16V	622	R408	5135-331522	RES, CBN 1/2P 330
589	C404	5345-476C0951	CAP, MINI ELE 47μ/16V	606	R409	5135-822522	RES, CBN 1/2P 8.2K
582	C405	5345-227A0951	CAP, MINI ELE 220μ/6.3V	606	R410	5135-822522	RES, CBN 1/2P 8.2K
582	C406	5345-227A0951	CAP, MINI ELE 220μ/6.3V	608	R411	5135-390522	RES, CBN 1/2P 39
592	C407	5353-020934	CAP, MCA 2p	608	R412	5135-390522	RES, CBN 1/2P 39
592	C408	5353-020934	CAP, MCA 2p	608	R413	5135-390522	RES, CBN 1/2P 39
590	C409	5359-1015851	CAP, PPP 100p	608	R414	5135-390522	RES, CBN 1/2P 39
590	C410	5359-1015851	CAP, PPP 100p	623	R415	5135-222522	RES, CBN 1/2P 2.2K
583	C411	5345-106C0951	CAP, MINI ELE 10μ/16V	623	R416	5135-222522	RES, CBN 1/2P 2.2K
583	C412	5345-106C0951	CAP, MINI ELE 10μ/16V	609	R417	5135-331522	RES, CBN 1/2P 330
595	C413	5354-683J1HM	CAP, MYL .068μ	609	R418	5135-331522	RES, CBN 1/2P 330
595	C414	5354-683J1HM	CAP, MYL .068μ	604	R419	5135-683522	RES, CBN 1/2P 68K
595	C415	5354-683J1HM	CAP, MYL .068μ	604	R420	5135-683522	RES, CBN 1/2P 68K
595	C416	5354-683J1HM	CAP, MYL .068μ	638	△R421	5102-3315116	RES, FUSE 330
583	C417	5345-106C0951	CAP, MINI ELE 10μ/16V	638	△R422	5102-3315116	RES, FUSE 330
583	C418	5345-106C0951	CAP, MINI ELE 10μ/16V	638	△R423	5102-3315116	RES, FUSE 330
584	△C421	5345-107G045	CAP, MINI ELE 100μ/63V	638	△R424	5102-3315116	RES, FUSE 330
584	△C422	5345-107G045	CAP, MINI ELE 100μ/63V	610	R425	5135-473522	RES, CBN 1/2P 47K
584	△C423	5345-107G045	CAP, MINI ELE 100μ/63V	610	R426	5135-473522	RES, CBN 1/2P 47K
584	△C424	5345-107G045	CAP, MINI ELE 100μ/63V	610	R427	5135-473522	RES, CBN 1/2P 47K
593	C475	5359-3315851	CAP, PPP 330p	610	R428	5135-473522	RES, CBN 1/2P 47K
593	C476	5359-3315851	CAP, PPP 330p	611	R429	5135-224522	RES, CBN 1/2P 220K
067A	C481	5359-1015851	CAP, PPP 100p <b>G GB</b>	611	R430	5135-224522	RES, CBN 1/2P 220K
067A	C482	5359-1015851	CAP, PPP 100p <b>G GB</b>	618	R431	5135-101522	RES, CBN 1/2P 100
585	C505	5345-225F0951	CAP, MINI ELE 2.2μ/50V	618	R432	5135-101522	RES, CBN 1/2P 100
585	C506	5345-225F0951	CAP, MINI ELE 2.2μ/50V	612	R433	5135-272522	RES, CBN 1/2P 2.7K
596	C507	5354-273J1HM	CAP, MYL .027μ	612	R434	5135-272522	RES, CBN 1/2P 2.7K
596	C508	5354-273J1HM	CAP, MYL .027μ	613	R435	5135-223522	RES, CBN 1/2P 22K
600	C509	5345-154F0951	CAP, MINI ELE .15μ/50V	613	R436	5135-223522	RES, CBN 1/2P 22K
600	C510	5345-154F0951	CAP, MINI ELE .15μ/50V	613	R437	5135-223522	RES, CBN 1/2P 22K
586	C511	5345-106C0951	CAP, MINI ELE 10μ/16V	613	R438	5135-223522	RES, CBN 1/2P 22K
586	C512	5345-106C0951	CAP, MINI ELE 10μ/16V	624	R439	5135-153522	RES, CBN 1/2P 15K
597	C513	5354-682J1HM	CAP, MYL 6800p	624	R440	5135-153522	RES, CBN 1/2P 15K
597	C514	5354-682J1HM	CAP, MYL 6800p	614	R441	5135-123522	RES, CBN 1/2P 12K
598	C515	5354-393J1HM	CAP, MYL .039μ	614	R442	5135-123522	RES, CBN 1/2P 12K
598	C516	5354-393J1HM	CAP, MYL .039μ	633	R443	5174-222381	RES, MTL 1/4P 2.2K
591	C517	5359-6805851	CAP, PPP 68p	633	R444	5174-222381	RES, MTL 1/4P 2.2K
591	C518	5359-6805851	CAP, PPP 68p	633	R445	5174-222381	RES, MTL 1/4P 2.2K
<b>RESISTORS</b>							
668	R6	5135-103522	RES, CBN 1/2P 10K	633	R446	5174-222381	RES, MTL 1/4P 2.2K
670	R9	5135-472522	RES, CBN 1/2P 4.7K	636	△R447	5102-4705116	RES, FUSE 47
670	R10	5135-472522	RES, CBN 1/2P 4.7K	636	△R448	5102-4705116	RES, FUSE 47
668	R11	5135-103522	RES, CBN 1/2P 10K	636	△R449	5102-4705116	RES, FUSE 47
669	R12	5135-104522	RES, CBN 1/2P 100K	636	△R450	5102-4705116	RES, FUSE 47
675	R13	5135-683522	RES, CBN 1/2P 68K	636	△R451	5102-4705116	RES, FUSE 47
676	R14	5135-333522	RES, CBN 1/2P 33K	636	△R452	5102-4705116	RES, FUSE 47
672	R15	5135-223522	RES, CBN 1/2P 22K	636	△R453	5102-4705116	RES, FUSE 47
677	R16	5135-272522	RES, CBN 1/2P 2.7K	636	△R454	5102-4705116	RES, FUSE 47
674	R17	5135-562522	RES, CBN 1/2P 5.6K	628	R455	5135-221522	RES, CBN 1/2P 220
674	R18	5135-562522	RES, CBN 1/2P 5.6K	628	R456	5135-221522	RES, CBN 1/2P 220
673	R19	5135-821522	RES, CBN 1/2P 820	615	R457	5135-391522	RES, CBN 1/2P 390
673	R20	5135-821522	RES, CBN 1/2P 820	615	R458	5135-391522	RES, CBN 1/2P 390
674	R21	5135-101522	RES, CBN 1/2P 100	625	R459	5135-183522	RES, CBN 1/2P 18K
674	R22	5135-101522	RES, CBN 1/2P 100	625	R460	5135-183522	RES, CBN 1/2P 18K
				625	R461	5135-183522	RES, CBN 1/2P 18K
				625	R462	5135-183522	RES, CBN 1/2P 18K
				617	R463	5135-220522	RES, CBN 1/2P 22
				617	R464	5135-220522	RES, CBN 1/2P 22
				617	R465	5135-220522	RES, CBN 1/2P 22

Ser.No	Ref. No.	Part No.	Description
617	R466	5135-220522	RES, CBN 1/2P 22
637	△R467	5102-2205116	RES, FUSE 22
637	△R468	5102-2205116	RES, FUSE 22
637	△R469	5102-2205116	RES, FUSE 22
637	△R470	5102-2205116	RES, FUSE 22
639	R471/ 489	5273-R27672	RES, CEM 3P 27
639	R472/ 490	5273-R27672	RES, CEM 3P 27
605	R475	5135-122522	RES, CBN 1/2P 1.2K
605	R476	5135-122522	RES, CBN 1/2P 1.2K
635	△R477	5102-5R65116	RES, FUSE 5.6
635	△R478	5102-5R65116	RES, FUSE 5.6
635	△R479	5102-5R65116	RES, FUSE 5.6
635	△R480	5102-5R65116	RES, FUSE 5.6
616	R483	5135-820522	RES, CBN 1/2P 82
616	R484	5135-820522	RES, CBN 1/2P 82
627	R491	5135-4R7522	RES, CBN 1/2P 4.7
627	R492	5135-4R7522	RES, CBN 1/2P 4.7
627	R493	5135-4R7522	RES, CBN 1/2P 4.7
627	R494	5135-4R7522	RES, CBN 1/2P 4.7
626	R495	5135-220522	RES, CBN 1/2P 22
626	R496	5135-220522	RES, CBN 1/2P 22
607	R499	5135-680522	RES, CBN 1/2P 68
607	R500	5135-680522	RES, CBN 1/2P 68
619	R501	5135-331522	RES, CBN 1/2P 330
619	R502	5135-331522	RES, CBN 1/2P 330
620	R507	5135-153522	RES, CBN 1/2P 15K
620	R508	5135-153522	RES, CBN 1/2P 15K
621	R509	5135-272522	RES, CBN 1/2P 2.7K
621	R510	5135-272522	RES, CBN 1/2P 2.7K
622	R513	5135-681522	RES, CBN 1/2P 680
622	R514	5135-681522	RES, CBN 1/2P 680

**TRANSISTORS**

652	Q1	5611-933S(S)	XISTOR, PNP R
651	Q2	5613-1740S(S)	XISTOR, NPN R
655	Q3	5611-970(BL)	XISTOR, PNP R
653	Q4	5611-970(BL)	XISTOR, PNP R
653	Q5	5611-970(BL)	XISTOR, PNP R
654	Q7	5613-2240(BL)	XISTOR, NPN R
561	Q401	5613-2240(BL)	XISTOR, NPN R
561	Q402	5613-2240(BL)	XISTOR, NPN R
561	Q403	5613-2240(BL)	XISTOR, NPN R
561	Q404	5613-2240(BL)	XISTOR, NPN R
562	Q405	5613-2320L(F)	XISTOR, NPN R
562	Q406	5613-2320L(F)	XISTOR, NPN R
562	Q407	5613-2320L(F)	XISTOR, NPN R
562	Q408	5613-2320L(F)	XISTOR, NPN R
563	Q409	5611-970(BL)	XISTOR, PNP R
563	Q410	5611-970(BL)	XISTOR, PNP R
574	Q411	5613-2320L(F)	XISTOR, NPN R
574	Q412	5613-2320L(F)	XISTOR, NPN R
573	Q413	5613-2240(BL)	XISTOR, NPN R
573	Q414	5613-2240(BL)	XISTOR, NPN R
578	Q415	5611-999L(F)	XISTOR, PNP R
578	Q416	5611-999L(F)	XISTOR, PNP R
564	Q417	5612-646A(C)	XISTOR, PNP A
564	Q418	5612-646A(C)	XISTOR, PNP A
565	Q419	5614-666A(C)	XISTOR, NPN A
565	Q420	5614-666A(C)	XISTOR, NPN A
564	Q421	5612-646A(C)	XISTOR, PNP A
564	Q422	5612-646A(C)	XISTOR, PNP A
565	Q423	5614-666A(C)	XISTOR, NPN A
565	Q424	5614-666A(C)	XISTOR, NPN A
566	Q425	5613-945(P)	XISTOR, NPN R
566	Q426	5613-945(P)	XISTOR, NPN R
567	Q427	5613-3298(Y)	XISTOR, NPN R
567	Q428	5613-3298(Y)	XISTOR, NPN R
587	Q429	5611-1306(Y)	XISTOR, PNP R
587	Q430	5611-1306(Y)	XISTOR, PNP R
569	△Q431	5613-3907(O)	XISTOR, NPN R

Ser.No	Ref. No.	Part No.	Description
569	△Q432	5613-3907(O)	XISTOR, NPN R
571	△Q433	5611-1516(O)	XISTOR, PNP R
571	△Q434	5611-1516(O)	XISTOR, PNP R

**DIODES**

681	△D1	5632-ERC102FL	DIODE, RECT
681	△D2	5632-ERC102FL	DIODE, RECT
681	△D3	5632-ERC102FL	DIODE, RECT
681	△D4	5632-ERC102FL	DIODE, RECT
656	△D5	5636-1S2471	DIODE, SWITCH
656	△D6	5636-1S2471	DIODE, SWITCH
657	D11	5635-HZ6B-1L	DIODE, ZENER
658	D13	5631-1S2473	DIODE, DET
658	D14	5631-1S2473	DIODE, DET
575	D407	5631-1S2473	DIODE, DET
575	D408	5631-1S2473	DIODE, DET
576	D409	5635-HZ12B2L	DIODE, ZENER
576	D410	5635-HZ12B2L	DIODE, ZENER

**COILS**

644	L405	5991-7165	SPRING COIL
644	L406	5991-7165	SPRING COIL

**CONTROLS**

641	VR401	5101-50171913	RES, SEMI FIX 500
641	VR402	5101-50171913	RES, SEMI FIX 500
720	VR501/ 502	5113-50399122	RES, V CBN 16 50K
714	VR505/ 506	5113-10441122	RES, V CBN 16 100K
717	VR507/ 508	5113-50342122	RES, V CBN 16 50K

**MISCELLANEOUS**

699	CN502	4443-030185	CONNECTOR
699	CN601	4443-030185	CONNECTOR
764	JL107	4242-R0203600	JUMPER LEAD
763	JL109	4242-R0103201	JUMPER LEAD
762	JL110	4242-R0104181	JUMPER LEAD
766	JL505	4242-R0207141	JUMPER LEAD
755	JL801(L)	4132-R0202800	CORD, 2C
755	JL801(R)	4132-R0202800	CORD, 2C
747	LCN2	4163-0140026	CONNECTOR W/W
748	LCN3	4163-0140027	CONNECTOR W/W
749	LCN4	4163-0140024	CONNECTOR W/W
750	LCN5	4163-0140025	CONNECTOR W/W
751	LCN6	4163-0112024	CONNECTOR W/W
751	LCN7	4163-0112024	CONNECTOR W/W
751	LCN8	4163-0112024	CONNECTOR W/W
694	TM101	4214-11033	TERMINAL
646	TM110	4214-11013	TERMINAL

**POP-2 SPEAKER P.C BOARD**

**MISCELLANEOUS**

743	TM10	4214-156	TERMINAL
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**POP-3 HEADPHONE P.C BOARD**

**MISCELLANEOUS**

736	J1	4451-00159	JACK, 1P
761	JL120	4242-043805	JUMPER LEAD

**POP-4 LED P.C BOARD**

**CAPACITOR**

666	C11	5345-106C0951	CAP, MINI ELE 10μ/16V
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**DIODE**

741	D9	5637-GL5EG41	LED
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**PCB-5 SPEAKER SWITCH P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>RESISTORS</b>			
632	R497	5135-681522	RES, CBN 1/2P 680
632	R498	5135-681522	RES, CBN 1/2P 680
<b>MISCELLANEOUS</b>			
765	JL108	4242-R0103101	JUMPER LEAD
729	SW5	4411-00301104	SWITCH, ROTARY

**PCB-6 VR P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>RESISTORS</b>			
629	R503	5135-472522	RES, CBN 1/2P 4.7K
629	R504	5135-472522	RES, CBN 1/2P 4.7K
<b>CONTROLS</b>			
711	VR503/504	5113-10419122	RES, V CBN 16 100K

**PCB-7 POWER SWITCH P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>CAPACITORS</b>			
688A	△C1	5352-1030958	CAP, MTL .01μ
<b>RESISTORS</b>			
054A	R1	5135-335522	RES, CBN 1/2P 3.3M
<b>MISCELLANEOUS</b>			
684	△HF1	4472-0131	HOLDER, FUSE
684	△HF2	4472-0131	HOLDER, FUSE
732	△SW1	4433-00401	PU-PW
696A	TM1	4214-122	TERMINAL
696A	TM3	4214-122	TERMINAL

**PCB-8 FUNCTION P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>CAPACITORS</b>			
065A	C535	5361-101KSL	CAP, CER 100p G GB
065A	C536	5361-101KSL	CAP, CER 100p G GB
065A	C537	5361-101KSL	CAP, CER 100p G GB
065A	C538	5361-101KSL	CAP, CER 100p G GB
065A	C539	5361-101KSL	CAP, CER 100p G GB
065A	C540	5361-101KSL	CAP, CER 100p G GB
065A	C541	5361-101KSL	CAP, CER 100p G GB
065A	C542	5361-101KSL	CAP, CER 100p G GB
065A	C543	5361-101KSL	CAP, CER 100p G GB
065A	C544	5361-101KSL	CAP, CER 100p G GB
065A	C545	5361-101KSL	CAP, CER 100p G GB
065A	C546	5361-101KSL	CAP, CER 100p G GB
065A	C547	5361-101KSL	CAP, CER 100p G GB
065A	C548	5361-101KSL	CAP, CER 100p G GB
065A	C549	5361-101KSL	CAP, CER 100p G GB
065A	C550	5361-101KSL	CAP, CER 100p G GB
065A	C551	5361-101KSL	CAP, CER 100p G GB
065A	C552	5361-101KSL	CAP, CER 100p G GB
059A	C633	5359-1215851	CAP, PPP 120p G GB
059A	C634	5359-1215851	CAP, PPP 120p G GB
058A	C640	5361-103ZF	CAP, CER 01μ G GB
064A	C641	5361-101KSL	CAP, CER 100p G GB
064A	C642	5361-101KSL	CAP, CER 100p G GB
<b>RESISTORS</b>			
066A	R561	5135-102522	RES, CBN 1/2P 1K G GB
066A	R562	5135-102522	RES, CBN 1/2P 1K G GB
066A	R563	5135-102522	RES, CBN 1/2P 1K G GB
066A	R564	5135-102522	RES, CBN 1/2P 1K G GB
061A	R565	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R566	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R567	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R568	5232-102J16P	RES, CBN 1/6P 1K G GB

Ser.No	Ref. No.	Part No.	Description
061A	R569	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R570	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R571	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R572	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R573	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R574	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R575	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R576	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R577	5232-102J16P	RES, CBN 1/6P 1K G GB
061A	R578	5232-102J16P	RES, CBN 1/6P 1K G GB

Ser.No	Ref. No.	Part No.	Description
<b>MISCELLANEOUS</b>			
700	CN109	4443-030185	CONNECTOR
700	CN501	4443-030185	CONNECTOR
737	J2	4484-46	PIN JACK, 4P
738	J3	4484-46	PIN JACK, 4P
738	J4	4484-46	PIN JACK, 4P
738	J5	4484-46	PIN JACK, 4P
739	J6	4486-15	PIN JACK, 6P
753	LCN10	4163-0110039	CONNECTOR W/W
700	CN109	4443-030185	CONNECTOR
700	CN501	4443-030185	CONNECTOR
723	SW3	4411-00203104	SWITCH, ROTARY
726	SW4	4411-00204204	SWITCH, ROTARY

**PCB-10 BASS CONTROL P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>CAPACITORS</b>			
806	C521	5345-104F0951	CAP, MINI ELE .1μ/50V
806	C522	5345-104F0951	CAP, MINI ELE .1μ/50V
810	C523	5345-154F0951	CAP, MINI ELE .15μ/50V
810	C524	5345-154F0951	CAP, MINI ELE .15μ/50V
808	C525	5345-107D041	CAP, MINI ELE 100μ/25V
808	C526	5345-107D041	CAP, MINI ELE 100μ/25V
811	C527	5345-334F0951	CAP, MINI ELE .33μ/50V
811	C528	5345-334F0951	CAP, MINI ELE .33μ/50V
807	C529	5345-474F0951	CAP, MINI ELE .47μ/50V
807	C530	5345-474F0951	CAP, MINI ELE .47μ/50V
807	C531	5345-474F0951	CAP, MINI ELE .47μ/50V
807	C532	5345-474F0951	CAP, MINI ELE .47μ/50V
812	C563	5345-474F0951	CAP, MINI ELE .47μ/50V
812	C564	5345-474F0951	CAP, MINI ELE .47μ/50V
809	C581	5345-227D041	CAP, MINI ELE 220μ/25V
809	C582	5345-227D041	CAP, MINI ELE 220μ/25V
809	C583	5345-227D041	CAP, MINI ELE 220μ/25V
809	C584	5345-227D041	CAP, MINI ELE 220μ/25V
813	C585	5345-476G0962	CAP, MINI ELE 47μ/63V
813	C586	5345-476G0962	CAP, MINI ELE 47μ/63V

Ser.No	Ref. No.	Part No.	Description
<b>RESISTORS</b>			
814	R521	5135-471522	RES, CBN 1/2P 470
814	R522	5135-471522	RES, CBN 1/2P 470
824	R523	5135-220522	RES, CBN 1/2P 22
824	R524	5135-220522	RES, CBN 1/2P 22
816	R527	5135-104522	RES, CBN 1/2P 100K
816	R528	5135-104522	RES, CBN 1/2P 100K
817	R529	5135-332522	RES, CBN 1/2P 3.3K
817	R530	5135-332522	RES, CBN 1/2P 3.3K
817	R531	5135-332522	RES, CBN 1/2P 3.3K
817	R532	5135-332522	RES, CBN 1/2P 3.3K
818	R533	5135-183522	RES, CBN 1/2P 18K
818	R534	5135-183522	RES, CBN 1/2P 18K
819	R535	5135-472522	RES, CBN 1/2P 4.7K
819	R536	5135-472522	RES, CBN 1/2P 4.7K
820	R537	5135-562522	RES, CBN 1/2P 5.6K
820	R538	5135-562522	RES, CBN 1/2P 5.6K
817	R539	5135-332522	RES, CBN 1/2P 3.3K
817	R540	5135-332522	RES, CBN 1/2P 3.3K
817	R541	5135-332522	RES, CBN 1/2P 3.3K
817	R542	5135-332522	RES, CBN 1/2P 3.3K
819	R543	5135-472522	RES, CBN 1/2P 4.7K
819	R544	5135-472522	RES, CBN 1/2P 4.7K

Ser.No	Ref. No.	Part No.	Description
821	R545	5135-331522	RES, CBN 1/2P 330
821	R546	5135-331522	RES, CBN 1/2P 330
823	R547	5135-221522	RES, CBN 1/2P 220
823	R548	5135-221522	RES, CBN 1/2P 220
821	R549	5135-331522	RES, CBN 1/2P 330
821	R550	5135-331522	RES, CBN 1/2P 330
822	R551	5135-104522	RES, CBN 1/2P 100K
822	R552	5135-104522	RES, CBN 1/2P 100K
830	△ R554	5102-8215116	RES, FUSE 820
830	△ R557	5102-8215116	RES, FUSE 820

**TRANSISTORS**

801	Q501	5613-2240(BL)	XISTOR, NPN R
801	Q502	5613-2240(BL)	XISTOR, NPN R
802	Q503	5611-970(BL)	XISTOR, PNP R
826	Q504	5611-970(BL)	XISTOR, PNP R
801	Q505	5613-2240(BL)	XISTOR, NPN R
801	Q506	5613-2240(BL)	XISTOR, NPN R
804	Q507	5612-647(C)	XISTOR, PNP A
803	Q508	5614-667(C)	XISTOR, NPN A
829	Q509	5616-2SK373(Y)	FET, N-CH
829	Q510	5616-2SK373(Y)	FET, N-CH
828	Q511	5616-2SK246(Y)	FET, N-CH
828	Q512	5616-2SK246(Y)	FET, N-CH

**DIODES**

805	D501	5635-HZ12B2L	DIODE, ZENER
805	D502	5635-HZ12B2L	DIODE, ZENER

**MISCELLANEOUS**

702	CN503	4443-030185	CONNECTOR
702	CN504	4443-030185	CONNECTOR
703	CN505	4443-070185	CONNECTOR
767	JL501	4242-R0203800	JUMPER LEAD
767	JL502	4242-R0203800	JUMPER LEAD
754	LCN501	4163-0119020	CONNECTOR W/W
731	SW6A/	4431-04127170	SWITCH, PUSH

**CAPACITORS**

509	C601	5345-475D0951	CAP, MINI ELE 4.7μ25V
509	C602	5345-475D0951	CAP, MINI ELE 4.7μ25V
513	C603	5359-1215851	CAP, PPP 120p
513	C604	5359-1215851	CAP, PPP 120p
510	C605	5345-227A0951	CAP, MINI ELE 220μ6.3V
510	C606	5345-227A0951	CAP, MINI ELE 220μ6.3V
514	C607	5359-5625851	CAP, PPP 5600p
514	C608	5359-5625851	CAP, PPP 5600p
515	C609	5359-2025851	CAP, PPP 2000p
515	C610	5359-2025851	CAP, PPP 2000p
511	C611	5345-106C0951	CAP, MINI ELE 10μ16V
511	C612	5345-106C0951	CAP, MINI ELE 10μ16V
512	C613	5345-227D041	CAP, MINI ELE 220μ25V
512	C614	5345-227D041	CAP, MINI ELE 220μ25V
512	C615	5345-227D041	CAP, MINI ELE 220μ25V
512	C616	5345-227D041	CAP, MINI ELE 220μ25V
546	C617	5345-106C0951	CAP, MINI ELE 10μ16V
546	C618	5345-106C0951	CAP, MINI ELE 10μ16V
547	C619	5345-107B0951	CAP, MINI ELE 100μ10V
547	C620	5345-107B0951	CAP, MINI ELE 100μ10V
549	C621	5345-477C041	CAP, MINI ELE 470μ16V
549	C622	5345-477C041	CAP, MINI ELE 470μ16V
548	C623	5345-337C041	CAP, MINI ELE 330μ16V
548	C624	5345-337C041	CAP, MINI ELE 330μ16V
508	C625	5353-040934	CAP, MCA 4P
508	C626	5353-040934	CAP, MCA 4P
516	C627	5359-8215851	CAP, PPP 820P
516	C628	5359-8215851	CAP, PPP 820P
056A	C631	5353-820534	CAP, MCA 82p
056A	C632	5353-820534	CAP, MCA 82p
060A	C635	5359-S010J103	CAP, PPP .01μ
060A	C636	5359-S010J103	CAP, PPP .01μ

Ser.No	Ref. No.	Part No.	Description
060A	C637	5359-S010J103	CAP, PPP .01μ
060A	C638	5359-S010J103	CAP, PPP .01μ

**RESISTORS**

517	R601	5232-823J16P	RES, CBN 1/6P 82K
517	R602	5232-823J16P	RES, CBN 1/6P 82K
518	R603	5232-124J16P	RES, CBN 1/6P 120K
518	R604	5232-124J16P	RES, CBN 1/6P 120K
519	R605	5232-221J16P	RES, CBN 1/6P 220
519	R606	5232-221J16P	RES, CBN 1/6P 220
520	R607	5154-122J25R	RES, CBN 1/4P 1.2K
520	R608	5154-122J25R	RES, CBN 1/4P 1.2K
521	R609	5178-220381	RES, MTL 1/6P 22
521	R610	5178-220381	RES, MTL 1/6P 22
522	R611	5154-122J25R	RES, CBN 1/4P 1.2K
522	R612	5154-122J25R	RES, CBN 1/4P 1.2K
523	R613	5232-223J16P	RES, CBN 1/6P 22K
523	R614	5232-223J16P	RES, CBN 1/6P 22K
532	R615	5232-820J16P	RES, CBN 1/6P 82
532	R616	5232-820J16P	RES, CBN 1/6P 82
524	R617	5232-121J16P	RES, CBN 1/6P 120
524	R618	5232-121J16P	RES, CBN 1/6P 120
525	R621	5232-821J16P	RES, CBN 1/6P 820
525	R622	5232-821J16P	RES, CBN 1/6P 820
526	R623	5232-393J16P	RES, CBN 1/6P 39K
526	R624	5232-393J16P	RES, CBN 1/6P 39K
527	R625	5232-564J16P	RES, CBN 1/6P 560K
527	R626	5232-564J16P	RES, CBN 1/6P 560K
528	R627	5232-334J16P	RES, CBN 1/6P 330K
528	R628	5232-334J16P	RES, CBN 1/6P 330K
529	R629	5232-102J16P	RES, CBN 1/6P 1K
529	R630	5232-102J16P	RES, CBN 1/6P 1K
530	R631	5232-104J16P	RES, CBN 1/6P 100K
530	R632	5232-104J16P	RES, CBN 1/6P 100K
529	R633	5232-102J16P	RES, CBN 1/6P 1K
529	R634	5232-102J16P	RES, CBN 1/6P 1K
531	R635	5232-222J16P	RES, CBN 1/6P 2.2K
531	R636	5232-222J16P	RES, CBN 1/6P 2.2K
538	△ R637	5102-6804715	RES, FUSE 68
537	R638	5135-680522	RES, CBN, 1/2P 68
533	R639	5135-123522	RES, CBN 1/2P 12K
534	R640	5135-153522	RES, CBN 1/2P 15K
539	△ R642	5102-1814715	RES, FUSE 180
550	R643	5135-822522	RES, CBN 1/2P 8.2K
550	R644	5135-822522	RES, CBN 1/2P 8.2K
551A	R645	5232-100J16P	RES, CBN 1/6P 10
551	R645	5232-1R0J16P	RES, CBN 1/6P 1
551A	R646	5232-100J16P	RES, CBN 1/6P 10
551	R646	5232-1R0J16P	RES, CBN 1/6P 1
552	R647	5232-121J16P	RES, CBN 1/6P 120
552	R648	5232-121J16P	RES, CBN 1/6P 120
553	R649	5178-220381	RES, MTL 1/6P 22
553	R650	5178-220381	RES, MTL 1/6P 22
554A	R651	5232-470J16P	RES, CBN 1/6P 47
554	R651	5232-560J16P	RES, CBN 1/6P 560
554A	R652	5232-470J16P	RES, CBN 1/6P 47
554	R652	5232-560J16P	RES, CBN 1/6P 560
555	R653	5232-272J16P	RES, CBN 1/6P 2.7K
555	R654	5232-272J16P	RES, CBN 1/6P 2.7K
552	R655	5232-121J16P	RES, CBN 1/6P 120
552	R656	5232-121J16P	RES, CBN 1/6P 120
556	R657	5178-681381	RES, MTL 1/6P 680
556	R658	5178-681381	RES, MTL 1/6P 680
557	R659	5232-562J16P	RES, CBN 1/6P 5.6K
557	R660	5232-562J16P	RES, CBN 1/6P 5.6K
559	R661	5135-152522	RES, CBN 1/2P 1.5K
055A	R671	5232-102J16P	RES, CBN 1/6P 1K
055A	R672	5232-102J16P	RES, CBN 1/6P 1K
055A	R673	5232-102J16P	RES, CBN 1/6P 1K
055A	R674	5232-102J16P	RES, CBN 1/6P 1K
531	R681	5232-222J16P	RES, CBN 1/6P 2.2K
531	R682	5232-222J16P	RES, CBN 1/6P 2.2K

Ser.No	Ref. No.	Part No.	Description
<b>TRANSISTORS</b>			
501	Q601	5613-2320L(F)	XISTOR, NPN R
501	Q602	5613-2320L(F)	XISTOR, NPN R
504	Q603	5611-999L(F)	XISTOR, PNP R
504	Q604	5611-999L(F)	XISTOR, PNP R
504	Q605	5611-999L(F)	XISTOR, PNP R
504	Q606	5611-999L(F)	XISTOR, PNP R
501	Q607	5613-2320L(F)	XISTOR, NPN R
501	Q608	5613-2320L(F)	XISTOR, NPN R
501	Q609	5613-2320L(F)	XISTOR, NPN R
501	Q610	5613-2320L(F)	XISTOR, NPN R
501	Q611	5613-2320L(F)	XISTOR, NPN R
501	Q612	5613-2320L(F)	XISTOR, NPN R
503	Q613	5614-1266(Q)	XISTOR, NPN A
506	Q614	5612-941(Q)	XISTOR, PNP A
542	Q615	5613-2855(E)	XISTOR, NPN R
542	Q616	5613-2855(E)	XISTOR, NPN R
542	Q617	5613-2855(E)	XISTOR, NPN R
542	Q618	5613-2855(E)	XISTOR, NPN R
543	Q619	5613-2320L(F)	XISTOR, NPN R

Ser.No	Ref. No.	Part No.	Description
<b>DIODES</b>			
507	D601	5635-HZ18-2L	DIODE, ZENER
507	D602	5635-HZ18-2L	DIODE, ZENER
544	D603	5635-HZ12B2L	DIODE, ZENER

Ser.No	Ref. No.	Part No.	Description
<b>COILS</b>			
062C	L601	5597-45502	CORE, BEADS <b>G</b> <b>GB</b>
062C	L602	5597-45502	CORE, BEADS <b>G</b> <b>GB</b>
062C	L603	5597-45502	CORE, BEADS <b>G</b> <b>GB</b>
062C	L604	5597-45502	CORE, BEADS <b>G</b> <b>GB</b>

Ser.No	Ref. No.	Part No.	Description
<b>MISCELLANEOUS</b>			
705	CN602	4443-047175	CONNECTOR
706	CN603	4443-067175	CONNECTOR
771	JL601	4242-R0203800	JUMPER LEAD
752	LCN601	4163-0130039	CONNECTOR W/W
733	SW7	4431-S0302102	SWITCH, PUSH

**PCB-12 BIAS P.C. BOARD (Lch)**

Ser.No	Ref. No.	Part No.	Description
<b>RESISTORS</b>			
630	R801(L)	5135-182522	RES, CBN 1/2P 1.8K
631	R802(L)	5135-122522	RES, CBN 1/2P 1.2K
<b>TRANSISTOR</b>			
579	Q801(L)	5613-2682(Q)	XISTOR, NPN R

**PCB-13 BIAS P.C. BOARD (Rch)**

Ser.No	Ref. No.	Part No.	Description
<b>RESISTORS</b>			
630	R801(R)	5135-182522	RES, CBN 1/2P 1.8K
631	R802(R)	5135-122522	RES, CBN 1/2P 1.2K
<b>TRANSISTOR</b>			
579	Q801(R)	5613-2682(Q)	XISTOR, NPN R

**MISCELLANEOUS**

052A	△CO1	4443-712	CONNECTOR
685A	△F1	5732-202052	FUSE
745A	△P1	4161-7256	CORD W/PLUG <b>G</b> <b>GB</b> <b>I</b> <b>IB</b>
745C	△P1	4161-04100	CORD W/PLUG <b>BB</b>
734A	△SW2	4464-00102022	SWITCH, SEESAW
051A	△SW101	4411-102729	SWITCH, ROTARY
683A	△T1	5584-S2507	XFORMER, POWER
053A		4150-8	TUBING, SPE
063A		4211-4	LUG <b>G</b> <b>GB</b>
746		4442-14	PIN PLUG

Ser.No	Ref. No.	Part No.	Description
<b>PACKAGING MATERIALS</b>			
021A		1756-06303	LABEL
022A		1756-03124	LABEL <b>G</b>
022B		1756-03108	LABEL <b>GB</b> <b>I</b> <b>IB</b>
022C		1756-03111	LABEL <b>BB</b>
027A		1119-0135	ATTACH SHEET <b>G</b> <b>GB</b>
028C		1756-08501	LABEL <b>BB</b>
107A		1111-J30314	OWNER GUIDE
121		1241-C12732	POLYETHYLENE BAG
122		1241-C1491	POLYETHYLENE BAG
124		1221-987144	CARTON BOX <b>G</b> <b>I</b>
124		1221-997144	CARTON BOX <b>GB</b> <b>BB</b> <b>IB</b>
125		1222-7216	CUSHION
127		1223-11729	SOFT SHEET

**ABBREVIATIONS IN PARTS LIST**

**CAPACITORS**

CAP, MINI ELE	: Electrolytic
CAP, CER	: Ceramic
CAP, PPP	: Polypropylene
CAP, MYL	: Mylar
CAP, MCA	: Mica
CAP, MINI BP	: Bipolar
CAP, ELE BP	: Electrolytic Bipolar
CAP, STY	: Polystyrene Film
CAP, SPE	: Special
CAP, TAN	: Tantalum

470μ	: 470μF
6800p	: 6800pF
.047μ	: 0.047μF

**RESISTORS**

RES, CBN 1/6P	: Carbon 1/6W
RES, FUSE	: Fuse
RES, CEM 5P	: Cement 5W
RES, MTL 1P	: Metal 1W
2.2K	: 2.2KΩ
220	: 220Ω

**TRANSISTORS**

XISTOR	: Transistor
FET	: Field Effect Transistor

**CONTROLS**

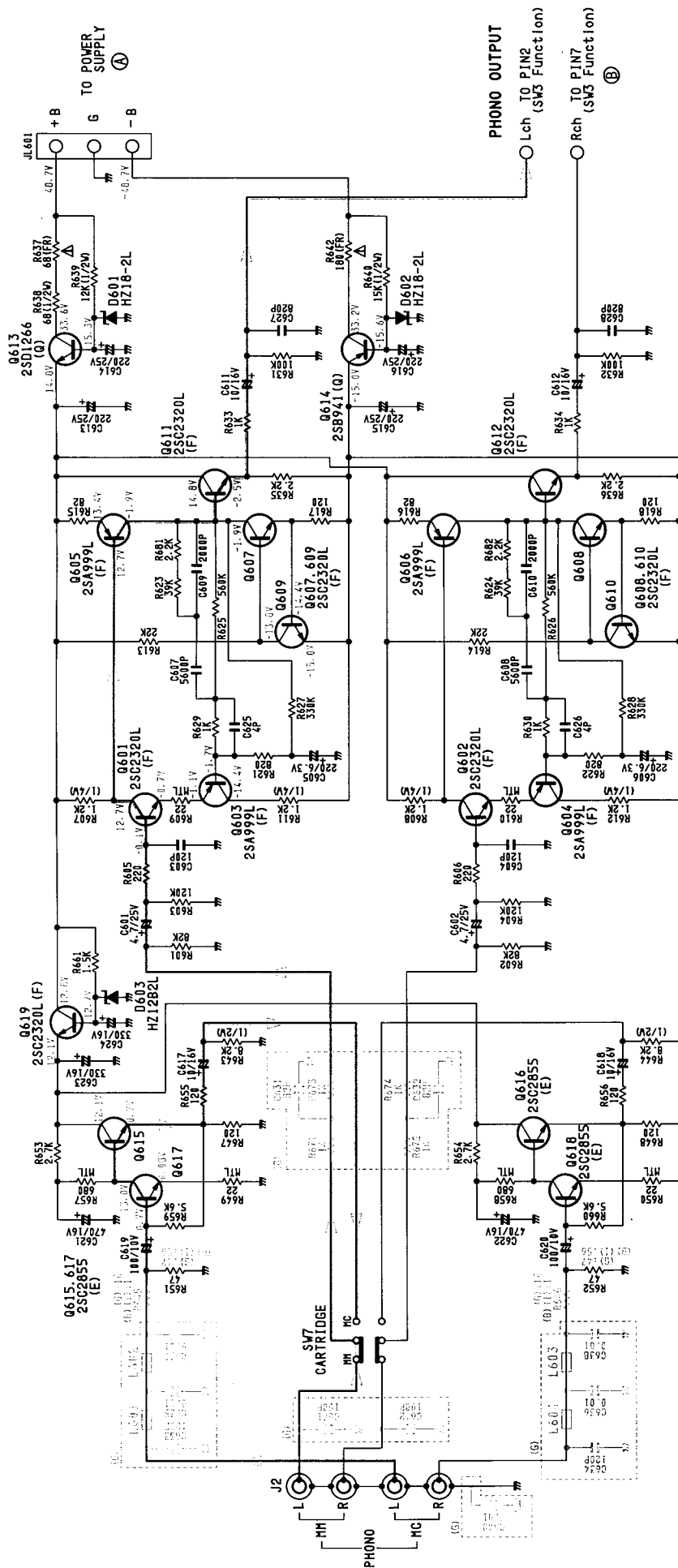
RES, V CBN	: Variable Carbon Resistor
RES, SEMI FIX	: Semi-fixed Resistor

**NOTE**



SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

**SCHEMATIC DIAGRAM (PHONO AMP SECTION)**



(G): German model  
 (B): Australian model  
 (I): International model

- NOTE:**
1. ALL RESISTANCE VALUES ARE IN  $\Omega$ .  
 $k\Omega=1000\Omega$ ,  $M\Omega=1000k\Omega$ .
  2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
  3. ALL CAPACITANCE VALUES ARE IN  $\mu F$  UNLESS OTHERWISE NOTED. P=44F.
  4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
  5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

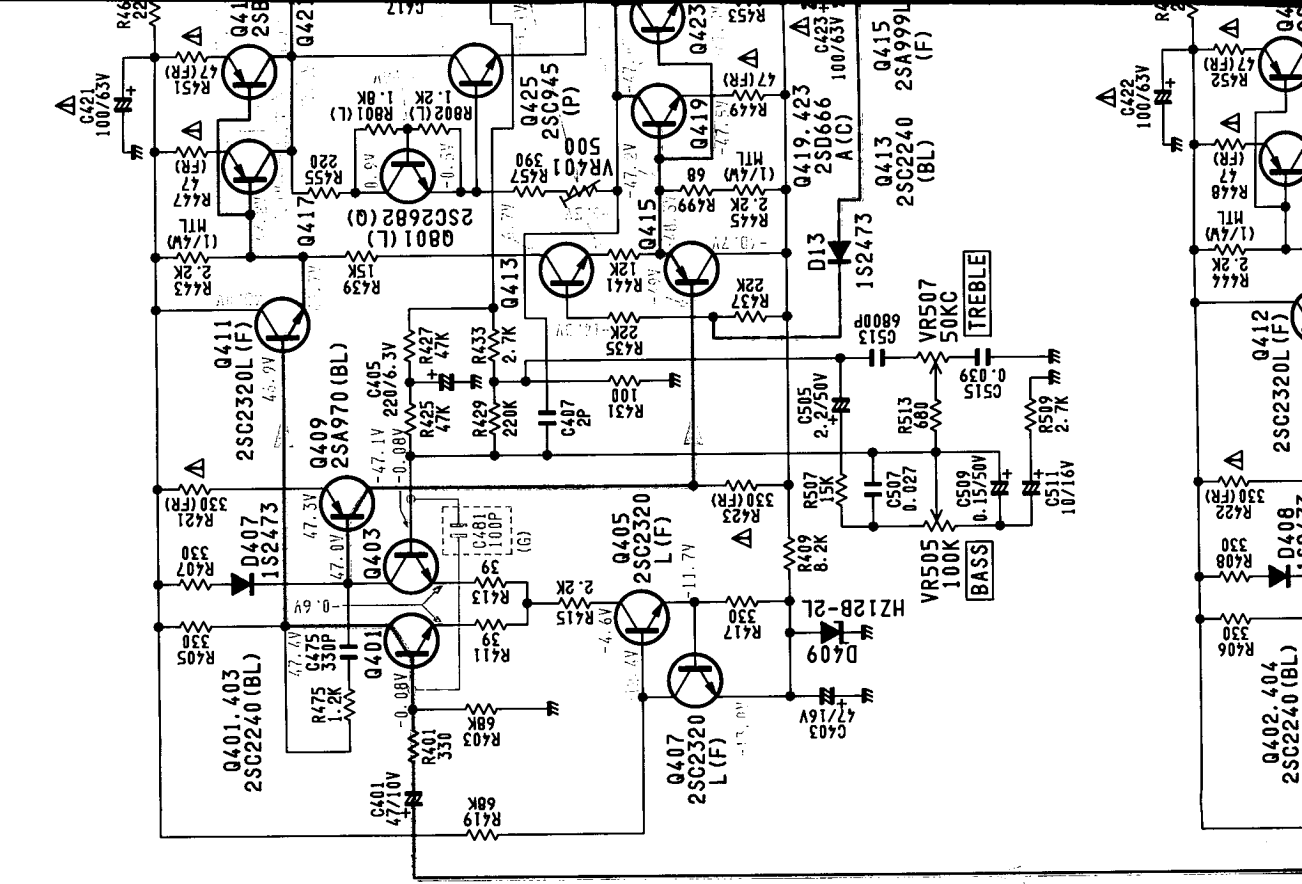
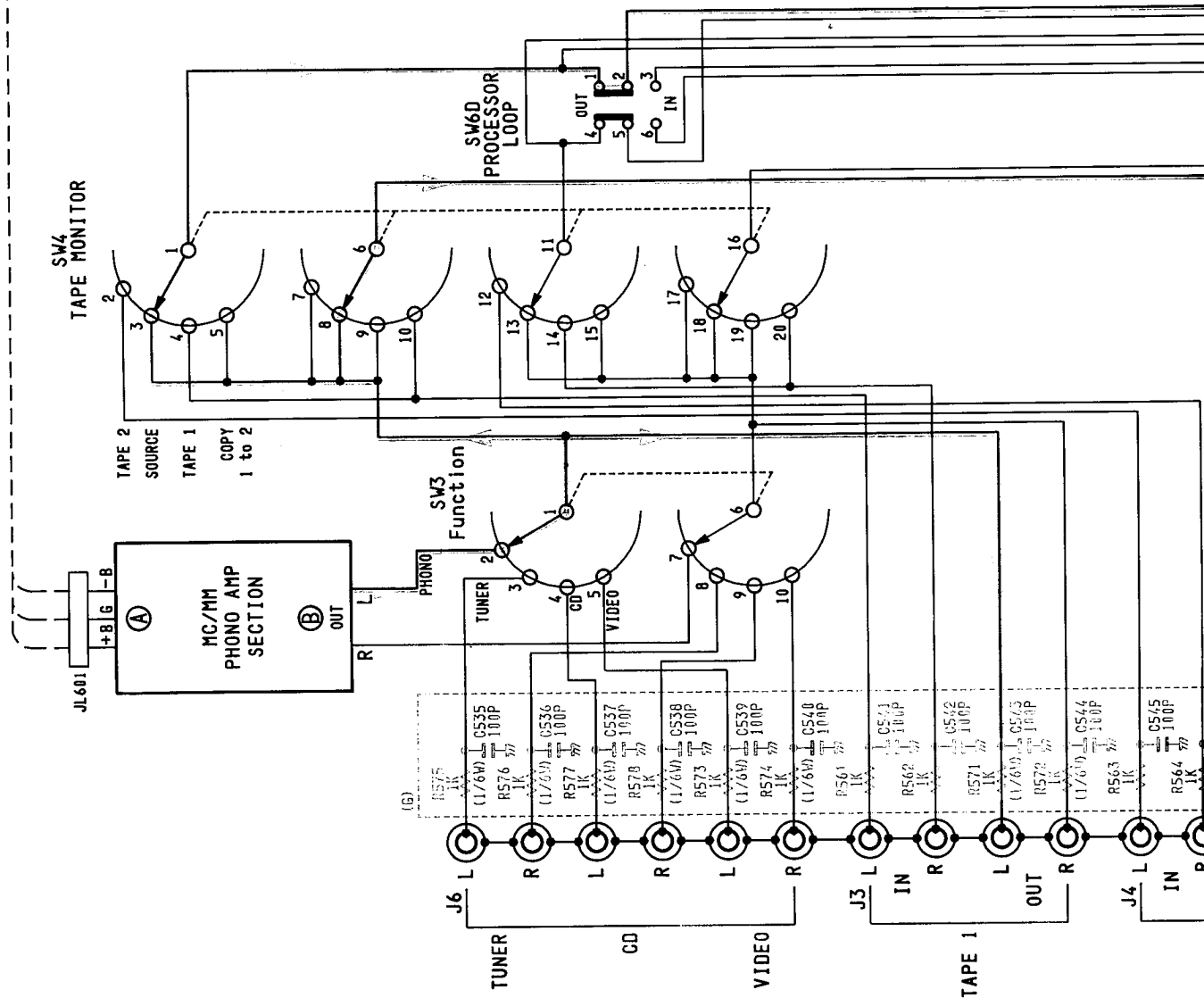


1  
2  
3  
4  
5  
6  
7

A B C D E

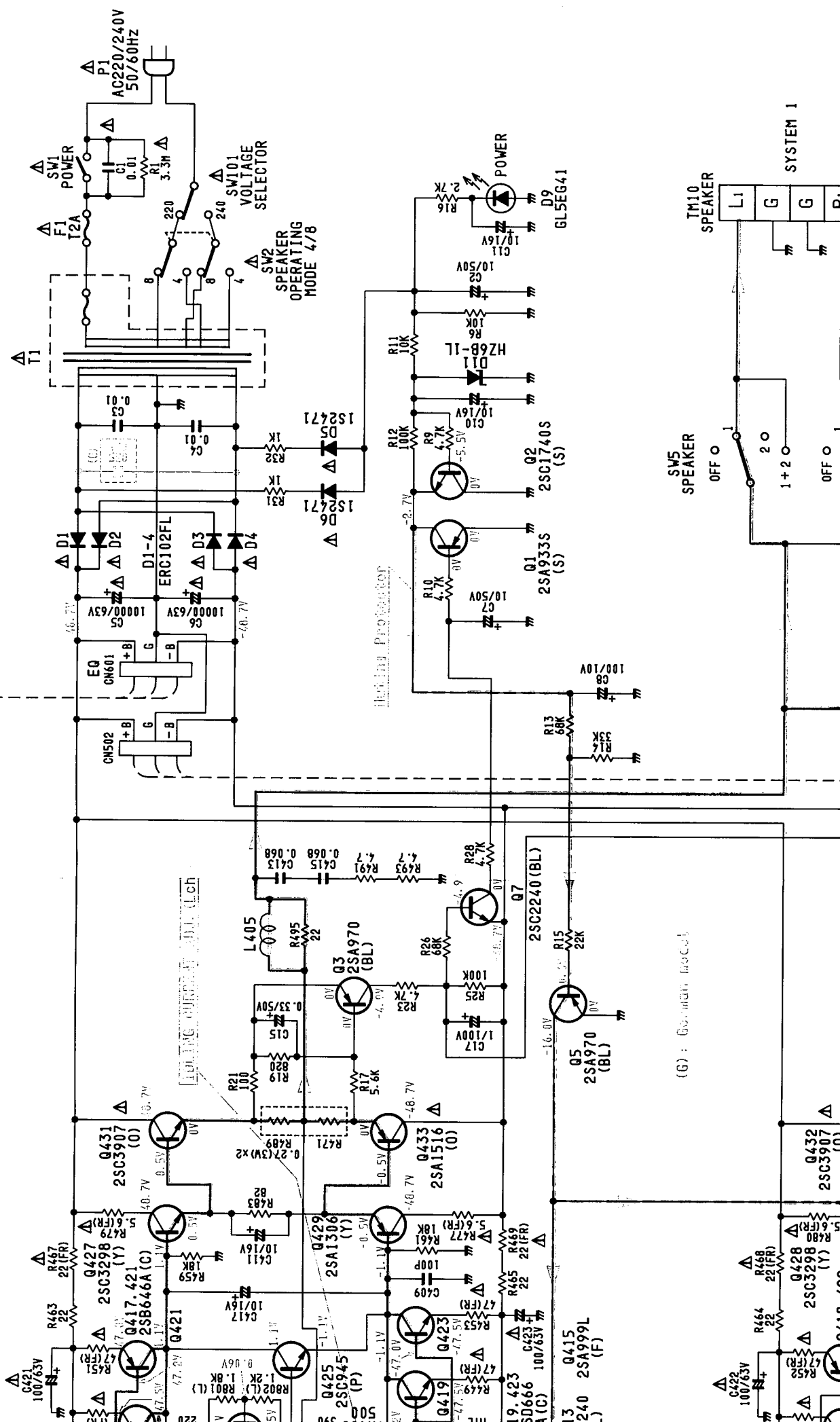


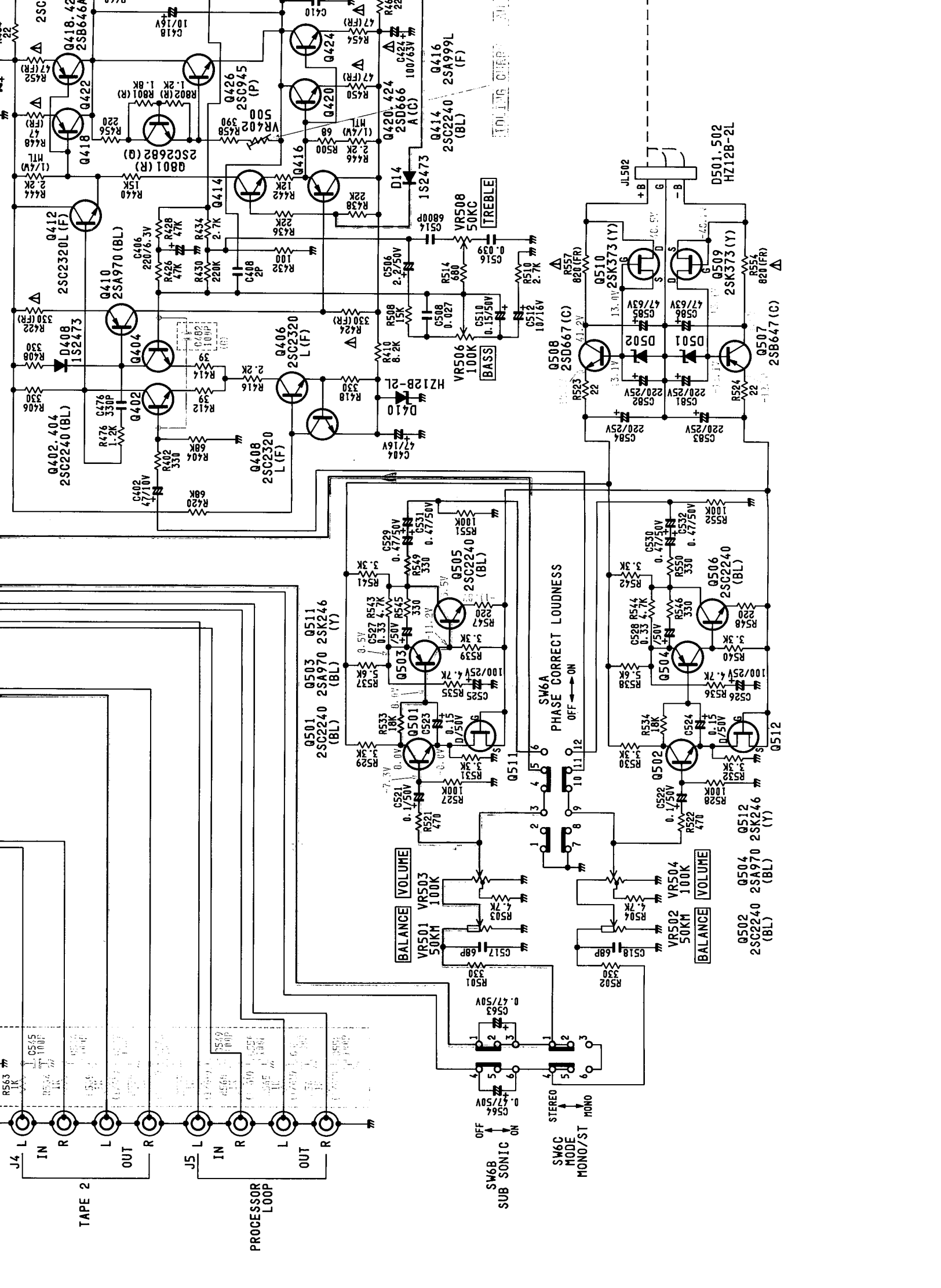
**SCHEMATIC DIAGRAM**



A B C D E F G

1 2 3 4 5







A B C D E F G

WIRING DIAGRAM

1

2

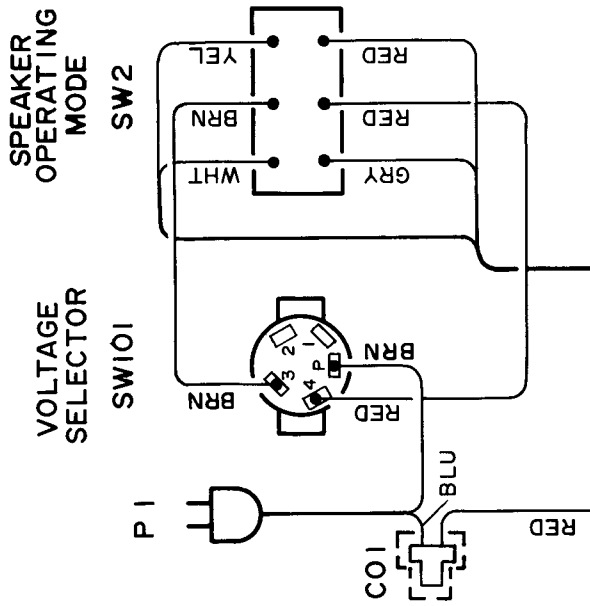
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4

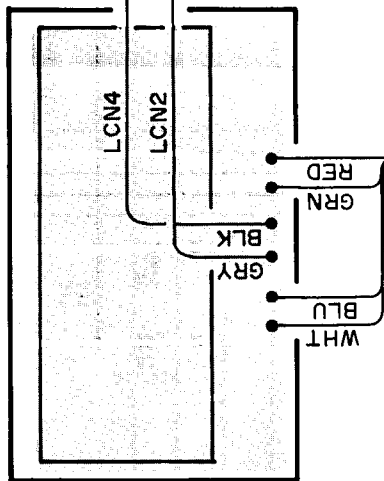
5

WIRE COLOR ABBREVIATIONS

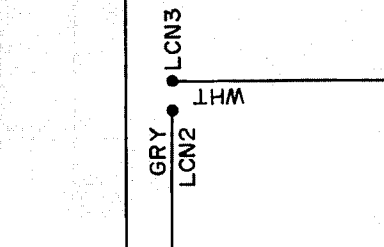
- |     |          |      |          |
|-----|----------|------|----------|
| RED | : Red    | YEL  | : Yellow |
| ORG | : Orange | PURP | : Purple |
| BLU | : Blue   | PIK  | : Pink   |
| WHT | : White  | GRY  | : Gray   |
| GRN | : Green  | BRN  | : Brown  |
| BLK | : Black  |      |          |



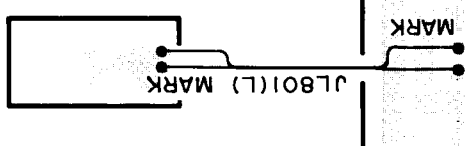
PCB-2



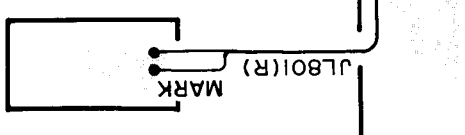
PCB-1



PCB-12

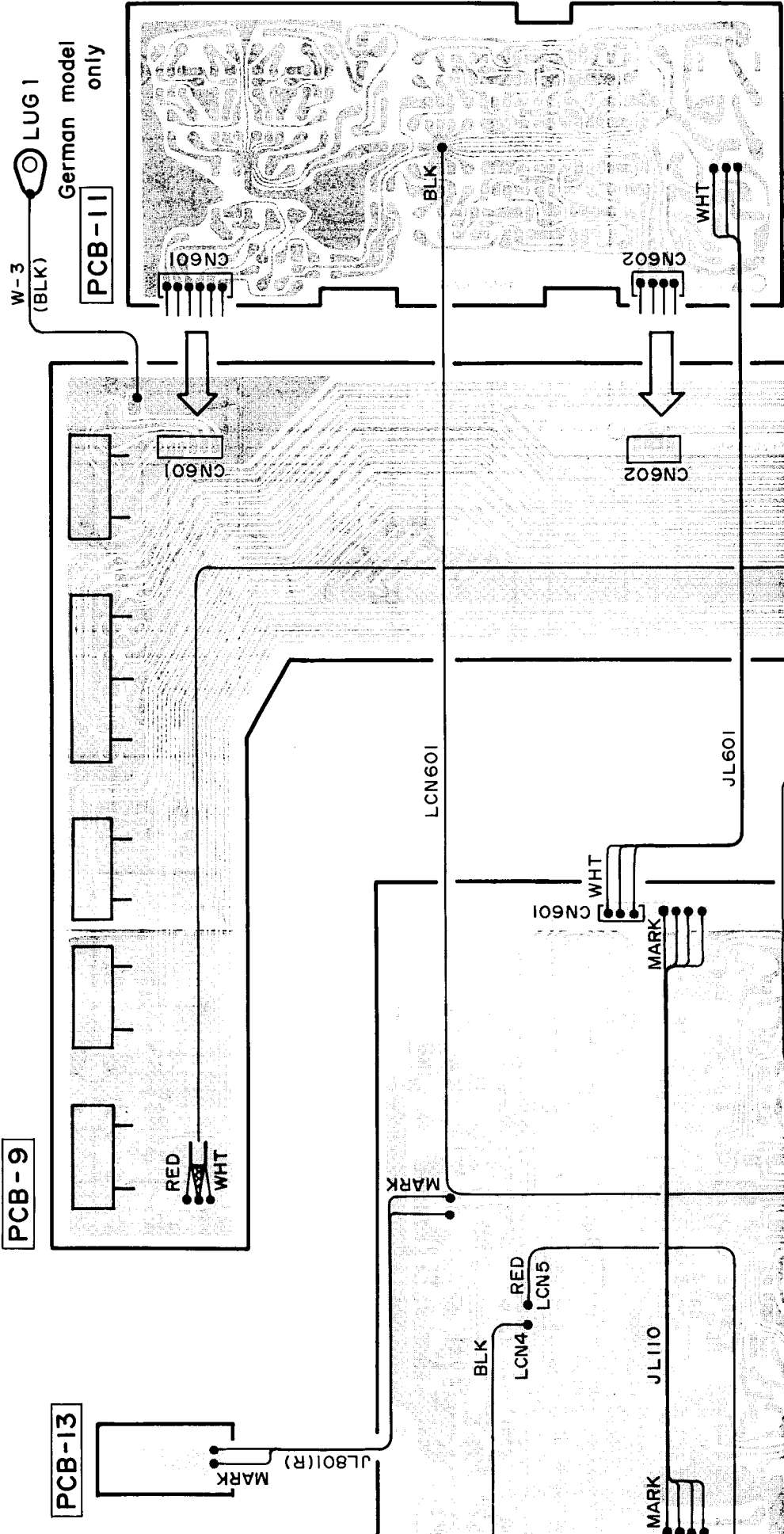


PCB-13



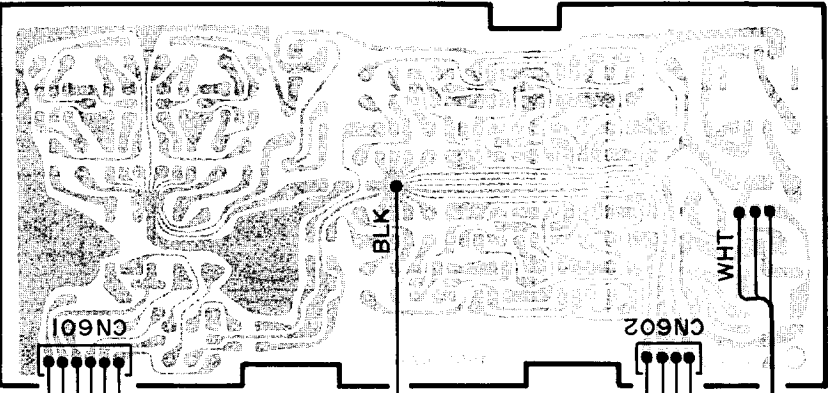
MARK

BLK

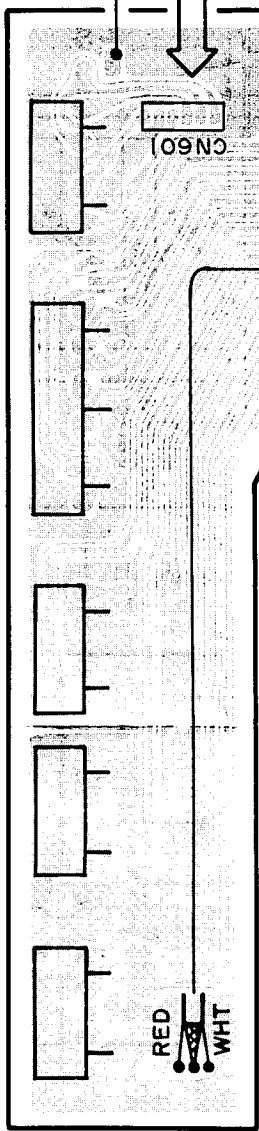


W-3 (BLK)  
LUG 1  
German model only

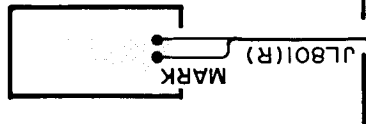
PCB-11



PCB-9



PCB-13



LCN601

BLK

RED  
LCN4  
LCN5

JL110

MARK

MARK

WHT

CN601

JL601

WHT

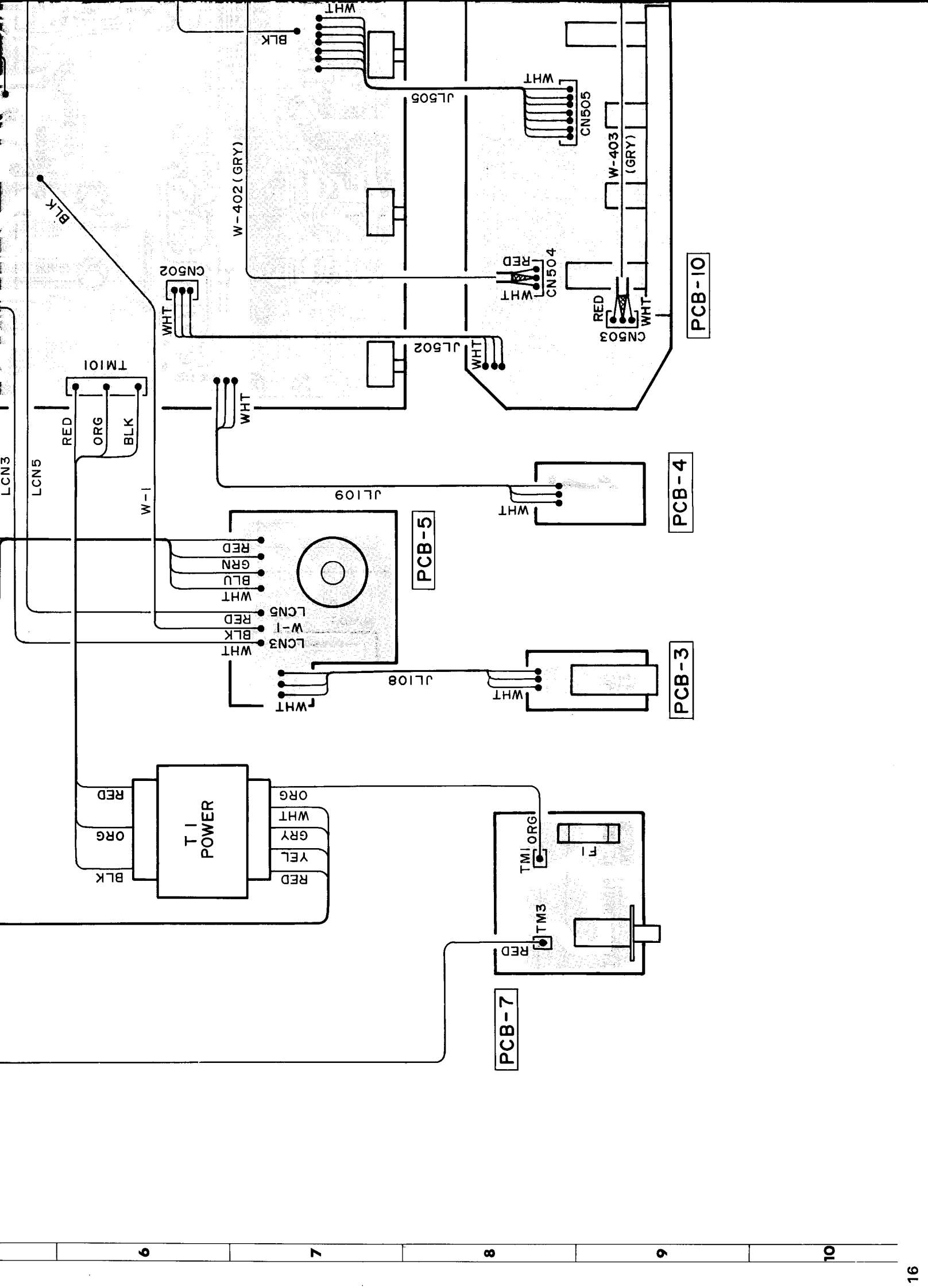
CN602

BLK

CN601

CN601

CN602



PCB-11

