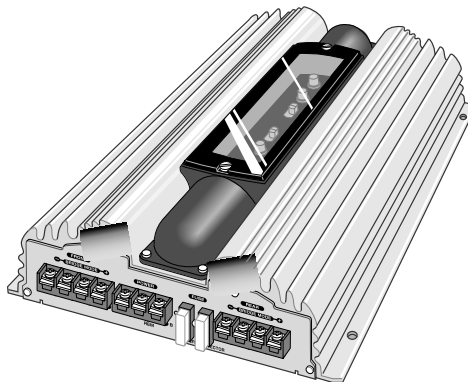


JVC

SERVICE MANUAL

POWER AMPLIFIER

KS-AX4500



<p>Area Suffix E --- Continental Europe J ----- Northern America</p>

Caution

If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

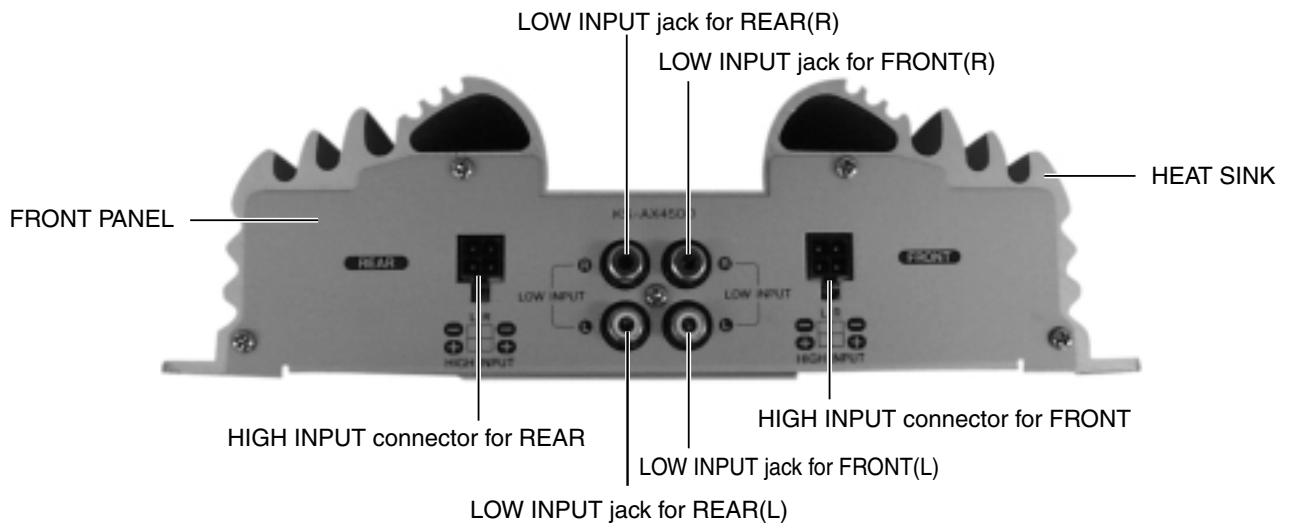
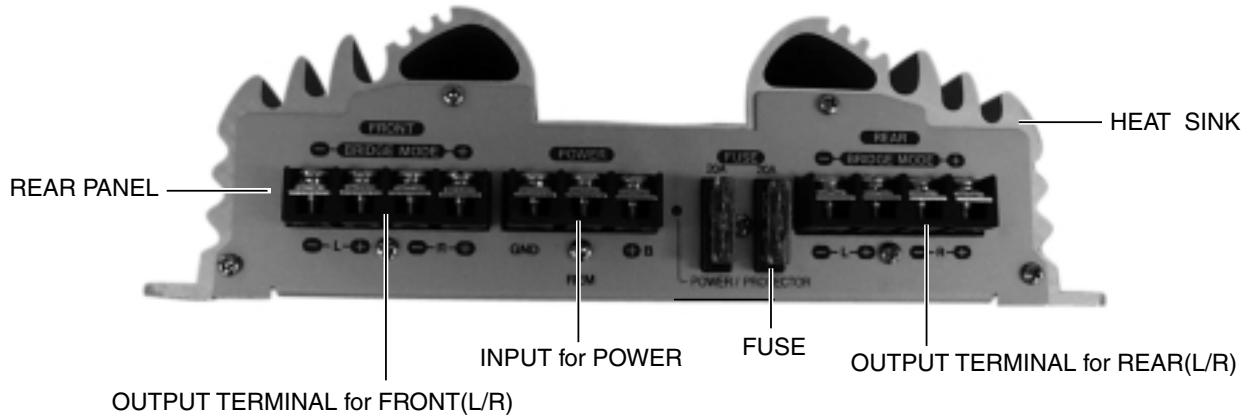
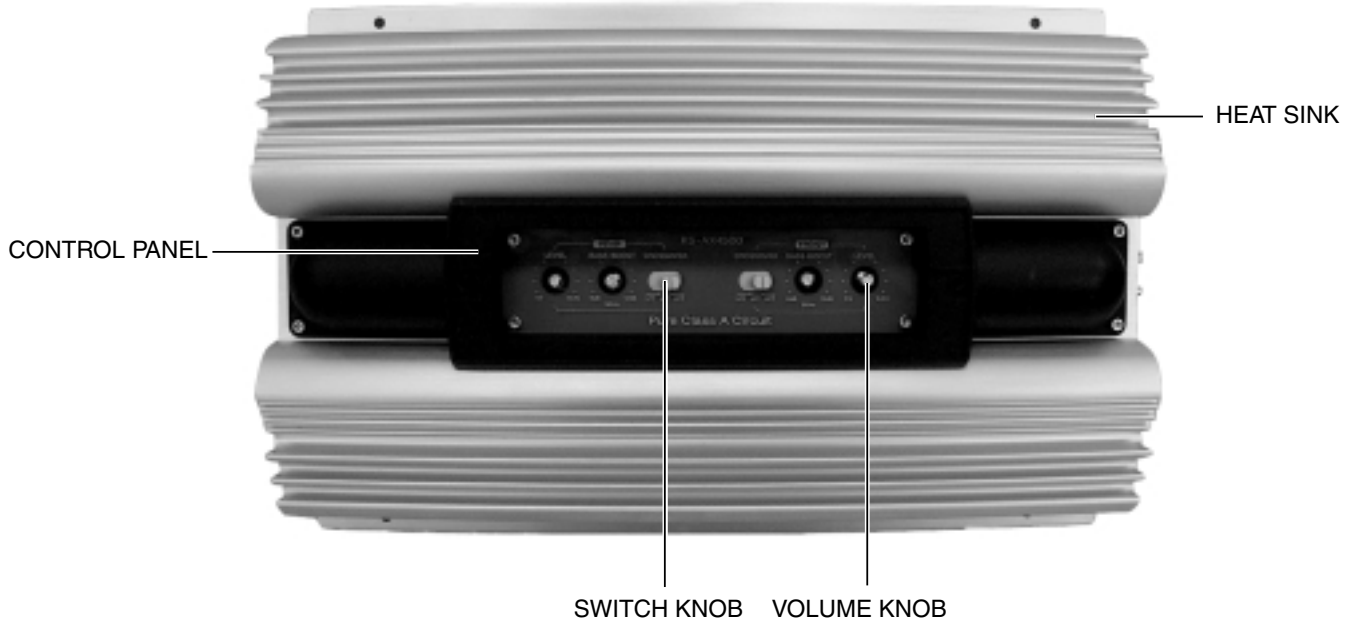
Contents

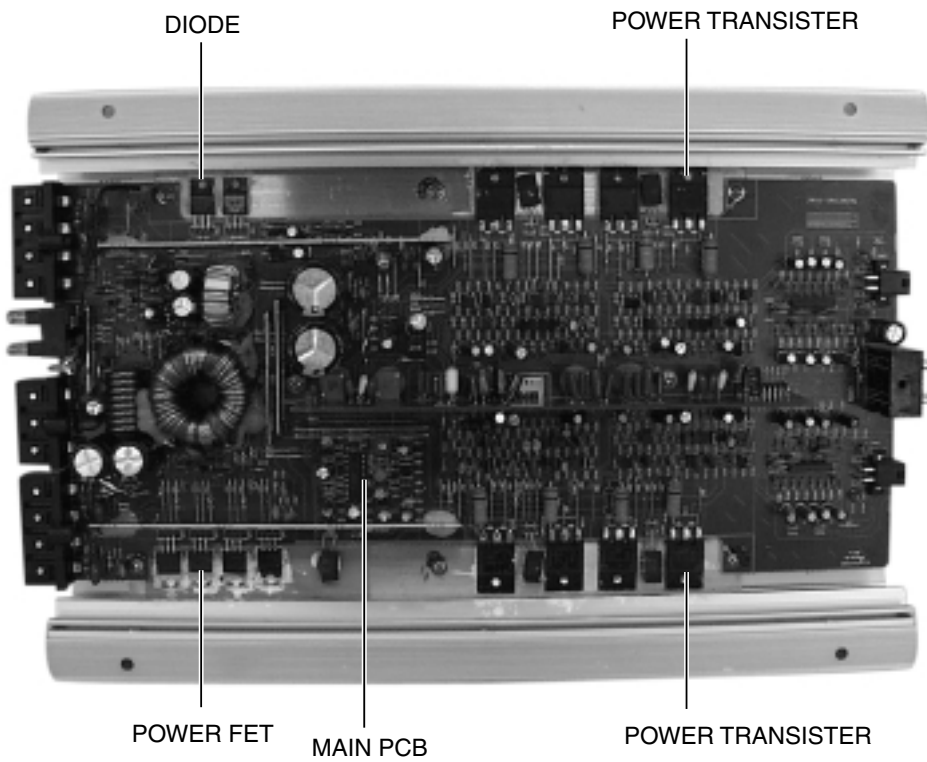
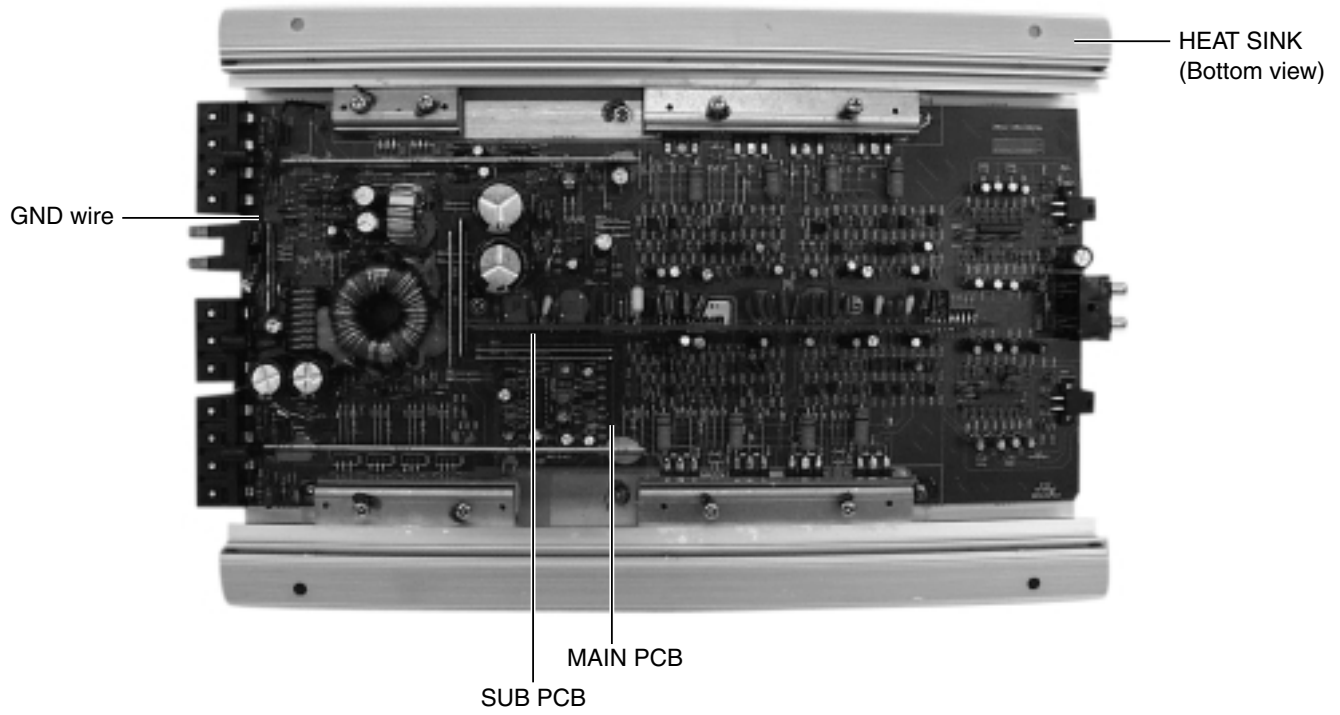
Safety precaution	1-2
Location of main parts	1-3
Removal of main parts	1-5
Test method	1-7
Description of major ICs	1-8



CAUTION Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

Location of main parts





Removal of main parts

CAUTION: If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

■ Removing the bottom cover (see Fig. 1)

1. From the bottom side of the main unit, remove the 4 screws A retaining the bottom cover.
2. Then remove the 6 screws B retaining the bottom cover.
3. Remove the bottom cover.

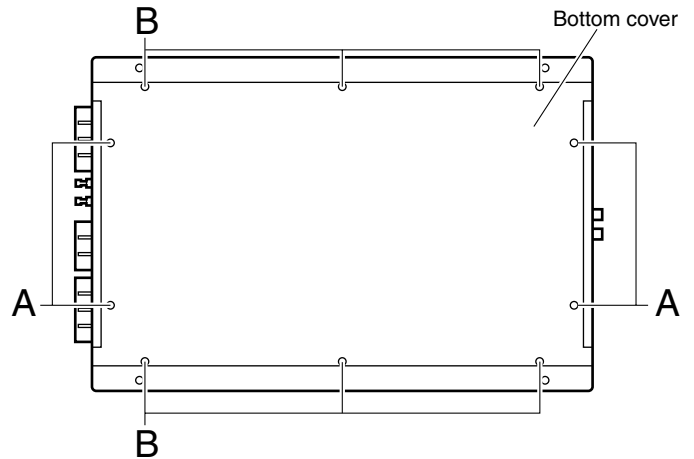


Fig. 1

■ Removing the MAIN PCB (see Fig. 2 to 8)

1. Remove the bottom cover from the main unit.
2. Loosen and remove the 2 screws C retaining the top plate on the main unit. (Stoppers are attached to the backs of the C screws so that they cannot be removed easily.)

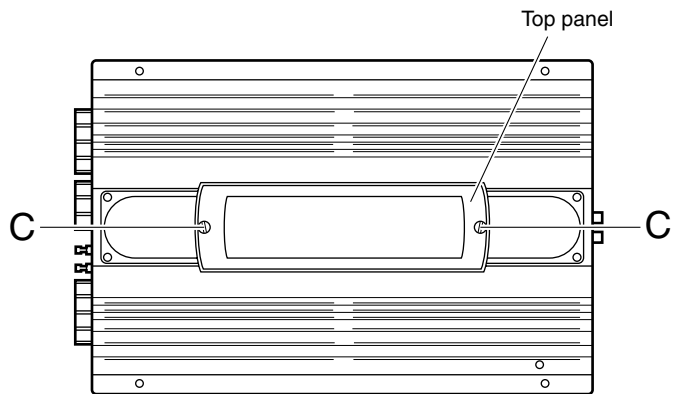


Fig. 2

3. Remove the 4 volume knobs on top of the control panel. If it cannot be pulled out easily, insert a rope or wire between the base of the volume knob and the control panel so that the volume knob is raised a little above the surface and then remove it.

(Be careful when inserting a lever etc. not to scratch the surface of the control panel).

4. Remove the 4 screws D retaining the control panel. Then detach the control panel and the switch knobs.

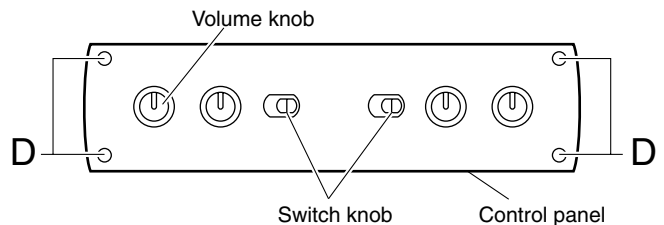


Fig. 3

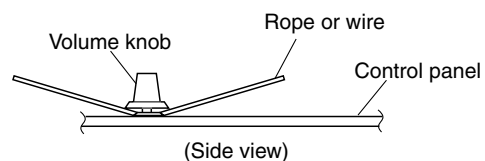
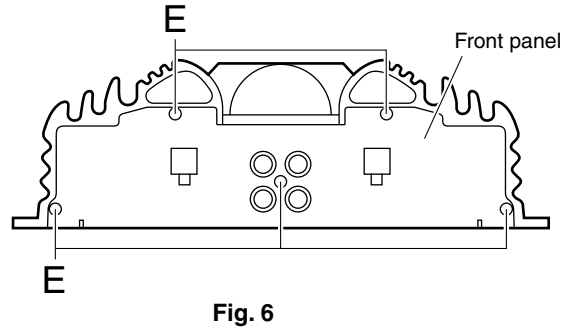
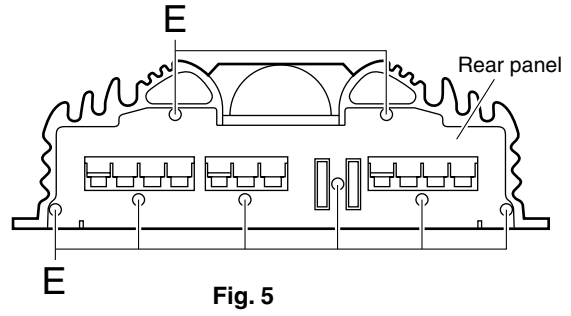
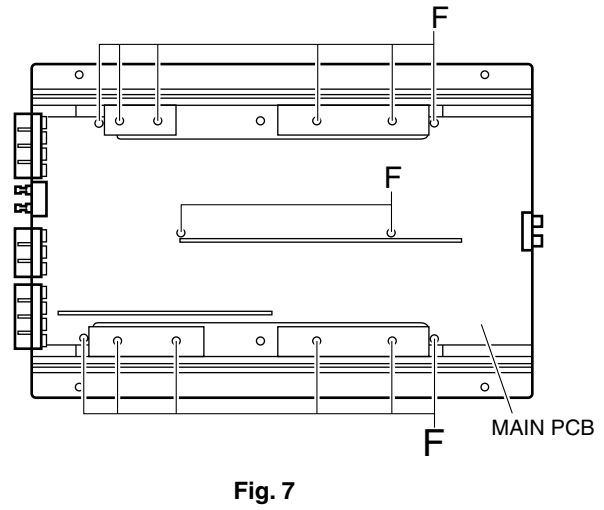


Fig. 4

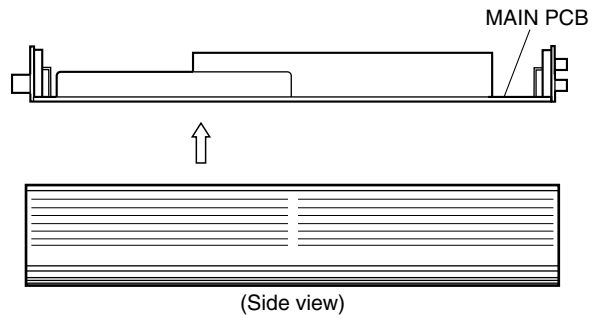
- Remove the 13 screws E retaining the panels on both sides of the main unit.



- Remove the 14 screws F attaching the MAIN PCB to the bottom of the main unit.



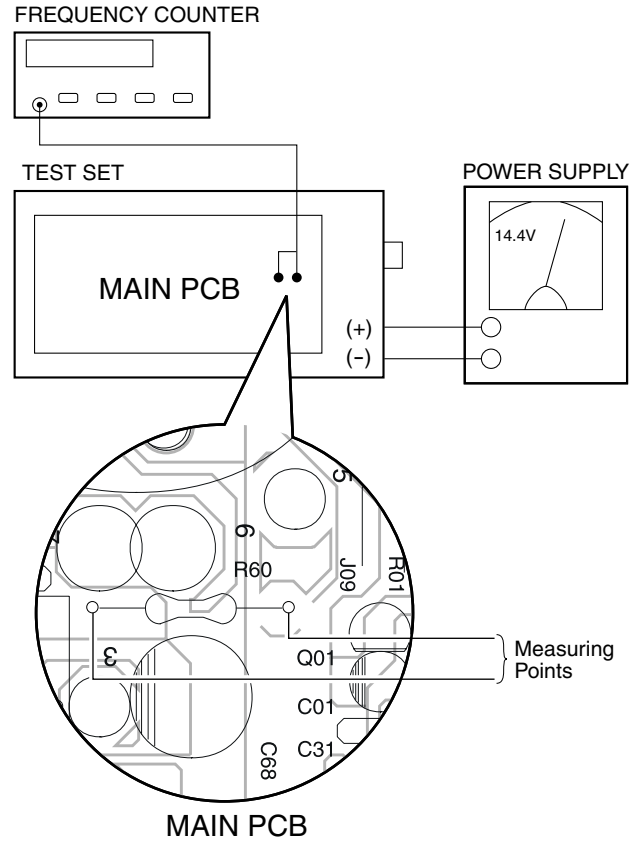
- Remove the MAIN PCB by lift up the arrow mark.



Test method

1. Check the voltage and frequency of the secondary toroidal coil.

FREQUENCY: 22.87kHz ± 50Hz
 VOLTAGE VALUE: 60Vp-p ± 2.5V



2. Measure the secondary toroidal coil, if the standard frequency value of 22.87 kHz ± 50 Hz is not attained, measure the R60 terminal, then adjust the SV01 so that the R60 terminal becomes 22.87 kHz ± 50Hz.

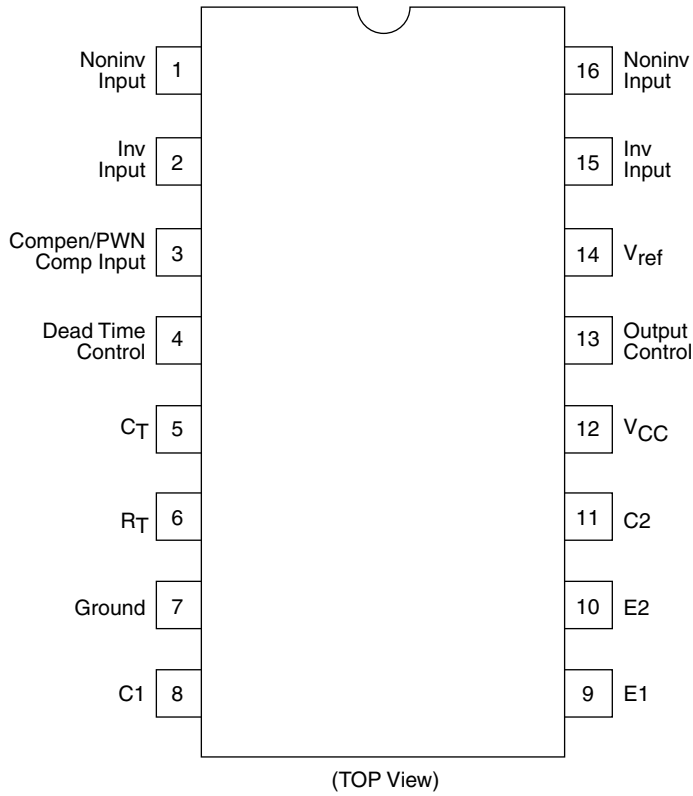
Note: When measuring, adjust and apply power with no signal or load on each board.

DC/DC CONVERTER SECOND GENERATOR SWITCHING

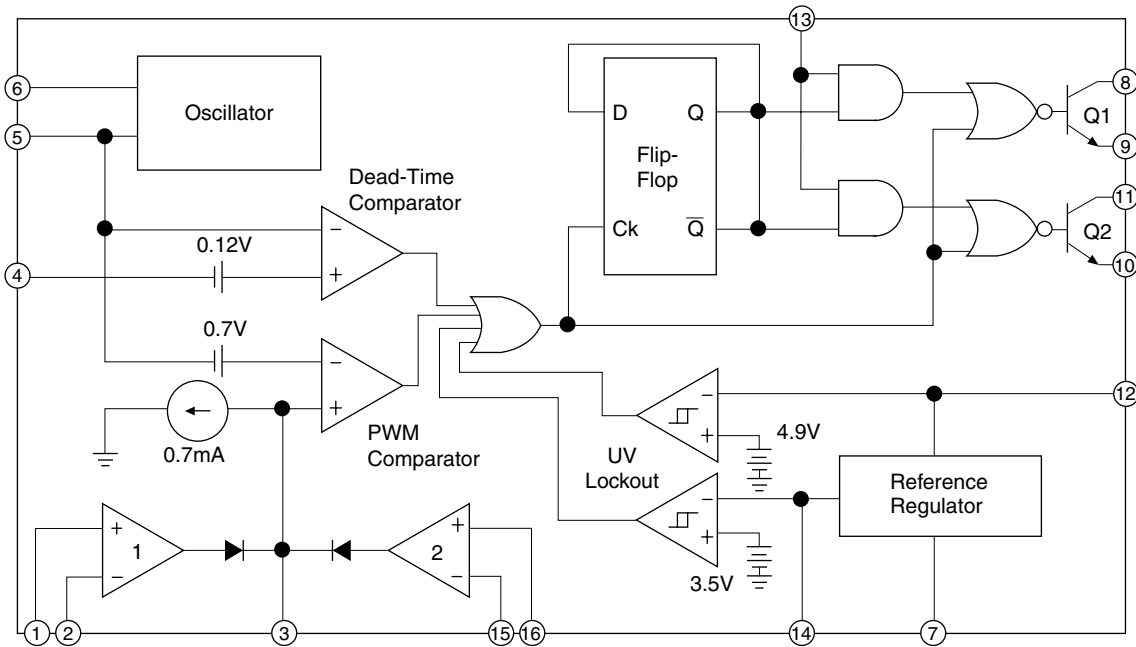
TEST ITEM	SPECIFICATION	CONDITION	
VOLTAGE TEST	60Vp-p±2.5V	OSCILLOSCOPE VOLT/DIV: 10 TIME/DIV: 10msec	
FREQUENCY CHECK	22.87KHz±50Hz		

Description of major ICs

PIN CONNECTIONS



TL494





VICTOR COMPANY OF JAPAN, LIMITED

MOBILE ELECTRONICS DIVISION

PERSONAL & MOBILE NETWORK B.U. 10-1, 1Chome, Ohwatari-machi, Maebashi-city, Japan

PARTS LIST

[KS-AX4500]

* All printed circuit boards and its assemblies are not available as service parts.

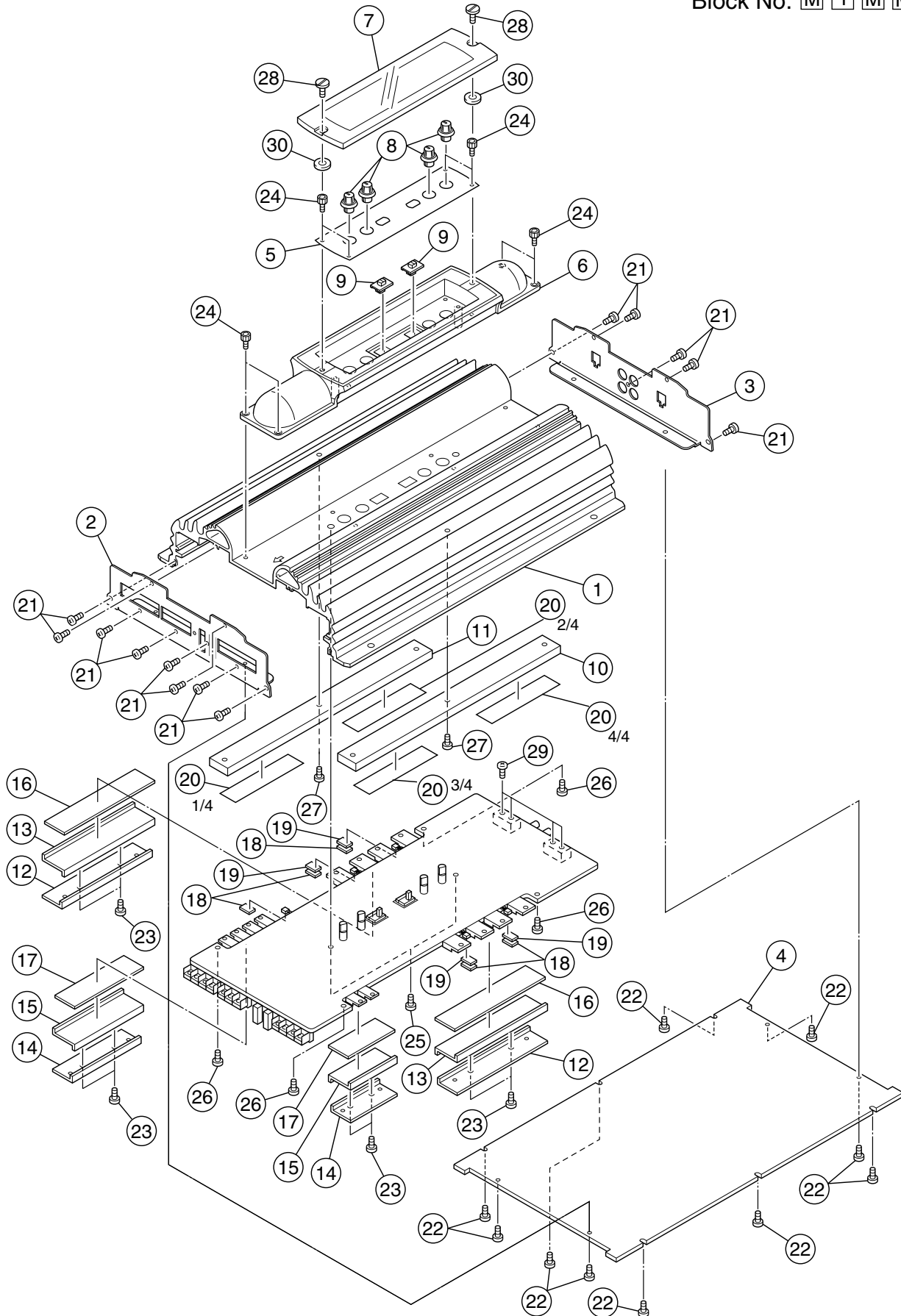
Areas suffix	
E -----	Continental Europe
J -----	Northern America

- Contents -

Exploded view of enclosure assembly and parts list	3-2
Electrical parts List	3-4
Packing and accessories	3-9

Exploded view of enclosure assembly and parts list

Block No. M 1 M M



Parts list (Enclosure assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	MA-HS-IT-1123-1	MAIN HEAT SINK	1		
	2	MA-FP-IT-6411-1	FRONT PANEL	1		
	3	MA-RP-IT-6412-1	REAR PANEL	1		
	4	MA-BC-IT-6415-2	BOTTOM COVER	1		
	5	MA-SD-06-1924-0	CONTROL PANEL	1		
	6	MA-TC-03-1122-0	PIPE	1		
	7	MA-TC-04-1922-0	TOP PANEL	1		
	8	MO-KB-07-6023-2	VOLUME KNOB	4		
	9	MO-KB-07-6024-1	SWITCH KNOB	2		
	10	MA-SH-IT-6416-1	SUB HEAT SINK-A	1		
	11	MA-SH-IT-6417-1	SUB HEAT SINK-B	1		
	12	MA-BR-03-4116-0	TR BRACKET-C	2		
	13	MA-BR-03-4117-0	TR BRACKET-D	2		
	14	MA-BR-03-4180-0	TR BRACKET-E	2		
	15	MA-BR-03-4181-0	TR BRACKET-F	2		
	16	MO-CU-02-4866-1	TR/BKT CUSHION-B	2		
	17	MO-CU-02-4195-1	TR/BKT CUSHION-C	2		
	18	MO-CU-01-4097-1	RUBBER CUSH.-A	5		
	19	MO-CU-01-4097-0	RUBBER CUSH.-B	4		
	20	MA-SP-02-1901-0	SILICON PAD	1	430mm(107.5mm × 4)	
	21	MNSC-04-3-30-08	SCREW	13		
	22	MNSC-04-2-30-06	SCREW	10		
	23	MNC-00-3-40-14	SCREW	8		
	24	MNSC-04-6-30-06	SCREW	8		
	25	MZSC-04-5-30-08	SCREW	2		
	26	MZSC-04-5-30-13	SCREW	4		
	27	MZSC-04-5-30-10	SCREW	2		
	28	MNSC-00-1-40-7	SCREW (SPECIFIC)	2		
	29	MNSC-04-3-30-06	SCREW	4		
	30	MOWA-05-8085-0	POLY WASHER	2		

Electrical parts list

■ Electrical parts list (P.C.board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 01	ELE10UF/16V	E.CAPACITOR	ELECTROLYTIC			C 139	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC	
	C 03	MAL105J/50V	M.CAPACITOR	MYLAR 63V 5%			C 140	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 09	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			C 141	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 11	ELE2200UF/25V	E.CAPACITOR	ELECTROLYTIC			C 142	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 12	ELE2200UF/25V	E.CAPACITOR	ELECTROLYTIC			C 151	ELE220UF/16V	E.CAPACITOR	ELECTROLYTIC	
	C 13	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 161	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 15	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 162	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 16	MAL334J/50V	M.CAPACITOR	MYLAR 50V 5%			C 163	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 17	ELE47UF/16V	E.CAPACITOR	ELECTROLYTIC			C 164	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 18	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			C 191	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 19	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			C 192	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 20	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 193	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 21	ELE100UF/25V	E.CAPACITOR	ELECTROLYTIC			C 194	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 22	ELE47UF/25V	E.CAPACITOR	ELECTROLYTIC			C 195	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 23	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			C 196	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 24	MAL103M/50V	M.CAPACITOR	MYLAR 50V 5%			C 201	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 25	MAL103M/50V	M.CAPACITOR	MYLAR 50V 5%			C 202	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 27	CER473PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 204	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 31	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			C 205	CER100PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 40	MAL102G	S.CAPACITOR	STYCON			C 206	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 41	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			C 207	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 60	MAL222J/50V	M.CAPACITOR	MYLAR 50V 5%			C 208	SMD36PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 61	ELE2.2UF/50V	E.CAPACITOR	ELECTROLYTIC			C 211	SMD47PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 62	ELE2.2UF/50V	E.CAPACITOR	ELECTROLYTIC			C 212	MAL224J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 63	ELE220UF/16V	E.CAPACITOR	ELECTROLYTIC			C 213	MAL183J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 64	ELE220UF/16V	E.CAPACITOR	ELECTROLYTIC			C 214	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 65	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 215	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 66	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 216	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 67	ELE470UF/35V	E.CAPACITOR	ELECTROLYTIC			C 217	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 68	ELE470UF/35V	E.CAPACITOR	ELECTROLYTIC			C 230	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 69	ELE3300UF/35V	E.CAPACITOR	ELECTROLYTIC			C 231	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 70	ELE3300UF/35V	E.CAPACITOR	ELECTROLYTIC			C 232	CER68PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 73	CER473PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 233	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC	
	C 74	CER473PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 234	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC	
	C 80	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 235	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 81	ELE10UF/50V	E.CAPACITOR	ELECTROLYTIC			C 236	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 91	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 237	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 92	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 238	CER56PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 93	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 239	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC	
	C 100	ELE330UF/25V(NP)	E.CAPACITOR	ELECTROLYTIC(NP)			C 240	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 101	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			C 241	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 102	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			C 261	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 104	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 262	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 105	CER100PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 263	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 106	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 264	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 107	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			C 291	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 108	SMD68PF/50V	CAPACITOR	SMD 0805 50V 5			C 292	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 111	SMD47PF/50V	CAPACITOR	SMD 0805 50V 5			C 293	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 112	MAL224J/50V	M.CAPACITOR	MYLAR 50V 5%			C 294	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 113	MAL183J/50V	M.CAPACITOR	MYLAR 50V 5%			C 295	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 114	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			C 296	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 115	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			C 301	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 116	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			C 302	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 117	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			C 304	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 130	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			C 305	CER100PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 131	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			C 306	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50	
	C 132	CER68PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 307	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC	
	C 133	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			C 308	SMD68PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 134	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			C 311	SMD47PF/50V	CAPACITOR	SMD 0805 50V 5	
	C 135	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 312	MAL224J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 136	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			C 313	MAL183J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 137	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 314	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%	
	C 138	CER56PF/50V	C.CAPACITOR	CERAMIC DISK 50			C 315	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%	

■ Electrical parts list (P.C.board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 316	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			D 02	1N4004	DIODE	RECTIFIER	
	C 317	MAL473J /50V	M.CAPACITOR	MYLAR 50V 5%			D 05	1N4148	GE DIODE	SWITCHING SIGNA	
	C 330	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			D 10	1N4148	GE DIODE	SWITCHING SIGNA	
	C 331	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			D 11	1N4148	GE DIODE	SWITCHING SIGNA	
	C 332	CER68PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 31	FR154	DIODE	FAST RECOVERY	
	C 333	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			D 32	FR154	DIODE	FAST RECOVERY	
	C 334	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			D 34	FR154	DIODE	FAST RECOVERY	
	C 335	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 35	FR154	DIODE	FAST RECOVERY	
	C 336	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			D 51	YG225D2	DIODE(BRIDGE)	FAST RECOVERY	
	C 337	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 52	YG225D2	DIODE(BRIDGE)	FAST RECOVERY	
	C 338	CER56PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 53	1N4744	ZENER DIODE		
	C 339	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			D 54	1N4744	ZENER DIODE		
	C 340	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 70	1N4148	GE DIODE	SWITCHING SIGNA	
	C 341	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			D 71	1N4148	GE DIODE	SWITCHING SIGNA	
	C 342	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 101	1N4148	GE DIODE	SWITCHING SIGNA	
	C 361	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			D 201	1N4148	GE DIODE	SWITCHING SIGNA	
	C 362	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			D 301	1N4148	GE DIODE	SWITCHING SIGNA	
	C 363	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50			D 401	1N4148	GE DIODE	SWITCHING SIGNA	
	C 364	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50			△ F 1	FUSE20A/32V	AUTO FUSE		
	C 391	CER104PF/50V	C.CAPACITOR	CERAMIC DISK 50			F 01	FH-9604	FUSE HOLDER		
	C 392	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			HP 01	2X8P	HEADER PIN	GOLD PLATED	
	C 393	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			HP 02	2X2P	HEADER PIN	GOLD PLATED	
	C 394	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			HP 03	5P	HEADER PIN	GOLD PLATED	
	C 395	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			HP 04	4P	HEADER PIN	GOLD PLATED	
	C 396	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			JA 01	SY-SW0406G	RCA JACK		
	C 401	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			JA 02	LAD-1140-04	WAFER		
	C 402	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			JA 03	LAD-1140-04	WAFER		
	C 403	CER103PF/50V	C.CAPACITOR	CERAMIC DISK 50			LED01	SAM3270	LED		
	C 404	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50			P 01	TM0006-00	TERMINAL		
	C 405	CER100PF/50V	C.CAPACITOR	CERAMIC DISK 50			P 02	TM0009-00	TERMINAL		
	C 406	CER22PF/50V	C.CAPACITOR	CERAMIC DISK 50			P 03	TM0009-00	TERMINAL		
	C 407	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			Q 01	KTA1023Y	TRANSISTOR	SMALL SIGNAL PN	
	C 408	SMD36PF/50V	CAPACITOR	SMD 0805 50V 5			Q 02	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	
	C 411	SMD47PF/50V	CAPACITOR	SMD 0805 50V 5			Q 05	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 412	MAL224J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 06	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 413	MAL183J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 07	KTC3198BL	TRANSISTOR	SMALL SIGNAL NP	
	C 414	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 08	KTA1268GR	TRANSISTOR	SMALL SIGNAL PN	
	C 415	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 31	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	
	C 416	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 32	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	
	C 417	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 40	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 430	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			Q 41	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 431	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			Q 45	FQP50N06	FET	N-CH POWER MOSF	
	C 432	CER68PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 46	FQP50N06	FET	N-CH POWER MOSF	
	C 433	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			Q 55	FQP50N06	FET	N-CH POWER MOSF	
	C 434	ELE22UF/16V	E.CAPACITOR	ELECTROLYTIC			Q 56	FQP50N06	FET	N-CH POWER MOSF	
	C 435	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 80	KTK117	FET	N-CH JFET	
	C 436	MAL473J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 100	J108	FET	MUTING JFET	
	C 437	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 101	KTC3198GR	TRANSISTOR	SMALL SIGNAL PN	
	C 438	CER56PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 102	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 439	ELE100UF/16V	E.CAPACITOR	ELECTROLYTIC			Q 103	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 440	CER150PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 104	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN	
	C 441	MAL104J/50V	M.CAPACITOR	MYLAR 50V 5%			Q 105	KTA1268GR	TRANSISTOR	SMALL SIGNAL PN	
	C 461	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			Q 106	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP	
	C 462	ELE4.7UF/50V	E.CAPACITOR	ELECTROLYTIC			Q 107	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP	
	C 463	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 108	KTC1027Y	TRANSISTOR	SMALL SIGNAL NP	
	C 464	CER102PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 109	KTA1023Y	TRANSISTOR	SMALL SIGNAL PN	
	C 491	CER04PF/50V	C.CAPACITOR	CERAMIC DISK 50			Q 110	KTD998	TRANSISTOR	AUDIO POWER NPN	
	C 492	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			Q 111	KTB778	TRANSISTOR	AUDIO POWER PNP	
	C 493	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			Q 112	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP	
	C 494	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			Q 113	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	
	C 495	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			Q 200	J108	FET	MUTING JFET	
	C 496	SMD473PF/50V	CAPACITOR	SMD 0805 50V 5			Q 201	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	
	D 01	1N5404	DIODE	RECTIFIER			Q 202	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP	

■ Electrical parts list (P.C.board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	Q 203	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 43	CAR1/4WJ220	RESISTOR	CARBON FILM 1/4	
	Q 204	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 44	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	Q 205	KTA1268GR	TRANSISTOR	SMALL SIGNAL PN			R 45	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	Q 206	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 46	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	Q 207	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 47	MET2W10	RESISTOR	METAL FILM 2WJ	
	Q 208	KTC1027Y	TRANSISTOR	SMALL SIGNAL NP			R 54	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	Q 209	KTA1023Y	TRANSISTOR	SMALL SIGNAL PN			R 55	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	Q 210	KTD998	TRANSISTOR	AUDIO POWER NPN			R 56	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	Q 211	KTB778	TRANSISTOR	AUDIO POWER PNP			R 57	MET2W10	RESISTOR	METAL FILM 2WJ	
	Q 212	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 60	MET2W100	RESISTOR	METAL FILM 2WJ	
	Q 213	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP			R 70	MET2W220	RESISTOR	METAL FILM 2WJ	
	Q 300	J108	FET	MUTING JFET			R 71	MET2W220	RESISTOR	METAL FILM 2WJ	
	Q 301	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP			R 77	MET1/2WJ10K	RESISTOR	METAL FILM 1/2W	
	Q 302	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP			R 78	MET1/2WJ10K	RESISTOR	METAL FILM 1/2W	
	Q 303	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 80	CAR1/5WJ220K	RESISTOR	CARBON FILM 1/5	
	Q 304	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 81	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5	
	Q 305	KTA1268GR	TRANSISTOR	SMALL SIGNAL PN			R 82	CAR1/5WJ2.2M	RESISTOR	CARBON FILM 1/5	
	Q 306	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 90	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5	
	Q 307	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 101	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	Q 308	KTC1027Y	TRANSISTOR	SMALL SIGNAL NP			R 102	MET1/5WF21.5K	RESISTOR	METAL FILM 1/5W	
	Q 309	KTA1023Y	TRANSISTOR	SMALL SIGNAL PN			R 103	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	Q 310	KTD998	TRANSISTOR	AUDIO POWER NPN			R 105	MET1/5WF33K	RESISTOR	METAL FILM 1/5W	
	Q 311	KTB778	TRANSISTOR	AUDIO POWER PNP			R 106	MET1/5WF33K	RESISTOR	METAL FILM 1/5W	
	Q 312	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 108	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	Q 400	J108	FET	MUTING JFET			R 109	SMD1/5WF1.3K	RESISTOR	SMD 0805 1/5WF	
	Q 401	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP			R 110	SMD1/5WF15K	RESISTOR	SMD 0805 1/5WF	
	Q 402	KTC3198GR	TRANSISTOR	SMALL SIGNAL NP			R 111	SMD1/5WF11K	RESISTOR	SMD 0805 1/5WF	
	Q 403	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 112	SMD1/5WF30K	RESISTOR	SMD 0805 1/5WF	
	Q 404	KTA1266GR	TRANSISTOR	SMALL SIGNAL PN			R 113	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	Q 405	KTA1268GR	TRANSISTOR	SMALL SIGNAL PN			R 114	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	Q 406	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 115	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	Q 407	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 116	SMD1/5WJ20K	RESISTOR	SMD 0805 1/5WJ	
	Q 408	KTC1027Y	TRANSISTOR	SMALL SIGNAL NP			R 117	SMD1/5WJ100K	RESISTOR	SMD 0805 1/5WJ	
	Q 409	KTA1023Y	TRANSISTOR	SMALL SIGNAL PN			R 118	SMD1/5WJ5.6K	RESISTOR	SMD 0805 1/5WJ	
	Q 410	KTD998	TRANSISTOR	AUDIO POWER NPN			R 119	SMD1/5WJ470K	RESISTOR	SMD 0805 1/5WJ	
	Q 411	KTB778	TRANSISTOR	AUDIO POWER PNP			R 121	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	Q 412	KTC3200GR	TRANSISTOR	SMALL SIGNAL NP			R 122	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 01	CAR1/4WJ10	RESISTOR	CARBON FILM 1/4			R 123	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 02	CAR1/5WJ4.7K	RESISTOR	CARBON FILM 1/5			R 124	SMD1/5WJ62K	RESISTOR	SMD 0805 1/5WJ	
	R 03	CAR1/5WJ4.7K	RESISTOR	CARBON FILM 1/5			R 130	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5	
	R 04	CAR1/5WJ4.7K	RESISTOR	CARBON FILM 1/5			R 131	MET1/5WF5.6K	RESISTOR	METAL FILM 1/5W	
	R 05	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5			R 132	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	R 15	MET1/5WF130K	RESISTOR	METAL FILM 1/5W			R 133	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 16	MET1/5WF51K	RESISTOR	METAL FILM 1/5W			R 134	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 17	CAR1/5WJ4.7K	RESISTOR	CARBON FILM 1/5			R 135	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 18	CAR1/5WJ4.7K	RESISTOR	CARBON FILM 1/5			R 136	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 19	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5			R 137	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 20	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5			R 138	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 25	CAR1/5WJ10	RESISTOR	CARBON FILM 1/5			R 139	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 26	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 140	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 30	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 141	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 31	CAR1/5WJ22K	RESISTOR	CARBON FILM 1/5			R 142	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 32	CAR1/5WJ33K	RESISTOR	CARBON FILM 1/5			R 143	CAR1/5WJ 47	RESISTOR	CARBON FILM 1/5	
	R 33	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5			R 144	CAR1/5WJ 3.9K	RESISTOR	CARBON FILM 1/5	
	R 34	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5			R 145	CAR1/5WJ2.7K	RESISTOR	CARBON FILM 1/5	
	R 35	CAR1/5WJ1.2K	RESISTOR	CARBON FILM 1/5			R 146	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	R 36	CAR1/5WJ51K	RESISTOR	CARBON FILM 1/5			R 147	MET1/5WF12K	RESISTOR	METAL FILM 1/5W	
	R 37	CAR1/5WJ1.2K	RESISTOR	CARBON FILM 1/5			R 148	MET1/5WF1K	RESISTOR	METAL FILM 1/5W	
	R 38	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5			R 149	CAR1/5WJ220	RESISTOR	CARBON FILM 1/5	
	R 39	CAR1/5WJ68K	RESISTOR	CARBON FILM 1/5			R 150	MET3W0.1	RESISTOR		
	R 40	CAR1/5WJ27K	RESISTOR	CARBON FILM 1/5			R 151	MET3W0.1	RESISTOR		
	R 41	MET1/5WF24K	RESISTOR	METAL FILM 1/5W			R 152	CAR1/5WJ1.5K	RESISTOR	CARBON FILM 1/5	
	R 42	CAR1/4WJ220	RESISTOR	CARBON FILM 1/4			R 153	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5	

■ Electrical parts list (P.C.board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 154	CAR1/5WJ56K	RESISTOR	CARBON FILM 1/5			R 309	SMD1/5WF1.3K	RESISTOR	SMD 0805 1/5WF	
	R 155	MET1/2WJ4.7	RESISTOR	METAL FILM 1/2W			R 310	SMD1/5WF15K	RESISTOR	SMD 0805 1/5WF	
	R 156	MET2W680	RESISTOR	METAL FILM 2WJ			R 311	SMD1/5WF11K	RESISTOR	SMD 0805 1/5WF	
	R 161	MET1/5WF68K	RESISTOR	METAL FILM 1/5W			R 312	SMD1/5WF30K	RESISTOR	SMD 0805 1/5WF	
	R 162	MET1/5WF68K	RESISTOR	METAL FILM 1/5W			R 313	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 163	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5			R 314	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 201	MET1/5WF22K	RESISTOR	METAL FILM 1/5W			R 315	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 202	MET1/5WF21.5K	RESISTOR	METAL FILM 1/5W			R 316	SMD1/5WJ20K	RESISTOR	SMD 0805 1/5WJ	
	R 203	MET1/5WF22K	RESISTOR	METAL FILM 1/5W			R 317	SMD1/5WJ100K	RESISTOR	SMD 0805 1/5WJ	
	R 205	MET1/5WF33K	RESISTOR	METAL FILM 1/5W			R 318	SMD1/5WJ5.6K	RESISTOR	SMD 0805 1/5WJ	
	R 206	MET1/5WF33K	RESISTOR	METAL FILM 1/5W			R 319	SMD1/5WJ470K	RESISTOR	SMD 0805 1/5WJ	
	R 208	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ			R 321	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 209	SMD1/5WF1.3K	RESISTOR	SMD 0805 1/5WF			R 322	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 210	SMD1/5WF15K	RESISTOR	SMD 0805 1/5WF			R 323	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 211	SMD1/5WJ12K	RESISTOR	SMD 0805 1/5WJ			R 324	SMD1/5WJ62K	RESISTOR	SMD 0805 1/5WJ	
	R 212	SMD1/5WF56K	RESISTOR	SMD 0805 1/5WF			R 330	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5	
	R 213	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ			R 331	MET1/5WF5.6K	RESISTOR	METAL FILM 1/5W	
	R 214	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ			R 332	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	R 215	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ			R 333	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 216	SMD1/5WJ20K	RESISTOR	SMD 0805 1/5WJ			R 334	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 217	SMD1/5WJ100K	RESISTOR	SMD 0805 1/5WJ			R 335	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 218	SMD1/5WJ5.6K	RESISTOR	SMD 0805 1/5WJ			R 336	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 219	SMD1/5WJ470K	RESISTOR	SMD 0805 1/5WJ			R 337	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 221	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ			R 338	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 222	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ			R 339	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 223	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ			R 340	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 224	SMD1/5WJ62K	RESISTOR	SMD 0805 1/5WJ			R 341	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 230	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5			R 342	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 231	MET1/5WF5.6K	RESISTOR	METAL FILM 1/5W			R 343	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	R 232	MET1/5WF22K	RESISTOR	METAL FILM 1/5W			R 344	CAR1/5WJ3.9K	RESISTOR	CARBON FILM 1/5	
	R 233	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 345	CAR1/5WJ2.7K	RESISTOR	CARBON FILM 1/5	
	R 234	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5			R 346	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	R 235	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5			R 347	MET1/5WF12K	RESISTOR	METAL FILM 1/5W	
	R 236	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 348	MET1/5WF1K	RESISTOR	METAL FILM 1/5W	
	R 237	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 349	CAR1/5WJ220	RESISTOR	CARBON FILM 1/5	
	R 238	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5			R 350	MET3W0.1	RESISTOR		
	R 239	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5			R 351	MET3W0.1	RESISTOR		
	R 240	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5			R 352	CAR1/5WJ1.5K	RESISTOR	CARBON FILM 1/5	
	R 241	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5			R 353	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5	
	R 242	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5			R 354	CAR1/5WJ56K	RESISTOR	CARBON FILM 1/5	
	R 243	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5			R 355	MET1/2WJ4.7	RESISTOR	METAL FILM 1/2W	
	R 244	CAR1/5WJ3.9K	RESISTOR	CARBON FILM 1/5			R 356	MET2W680	RESISTOR	METAL FILM 2WJ	
	R 245	CAR1/5WJ2.7K	RESISTOR	CARBON FILM 1/5			R 361	MET1/5WF68K	RESISTOR	METAL FILM 1/5W	
	R 246	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5			R 362	MET1/5WF68K	RESISTOR	METAL FILM 1/5W	
	R 247	MET1/5WF12K	RESISTOR	METAL FILM 1/5W			R 363	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5	
	R 248	MET1/5WF1K	RESISTOR	METAL FILM 1/5W			R 401	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	R 249	CAR1/5WJ220	RESISTOR	CARBON FILM 1/5			R 402	MET1/5WF21.5K	RESISTOR	METAL FILM 1/5W	
	R 250	MET3W0.1	RESISTOR				R 403	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	R 251	MET3W0.1	RESISTOR				R 404	CAR1/5WJ470	RESISTOR	CARBON FILM 1/5	
	R 252	CAR1/5WJ1.5K	RESISTOR	CARBON FILM 1/5			R 405	MET1/5WF33K	RESISTOR	METAL FILM 1/5W	
	R 253	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5			R 406	MET1/5WF 33K	RESISTOR	METAL FILM 1/5W	
	R 254	CAR1/5WJ56K	RESISTOR	CARBON FILM 1/5			R 408	SMD 1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 255	MET1/2WJ4.7	RESISTOR	METAL FILM 1/2W			R 409	SMD1/5WF1.3K	RESISTOR	SMD 0805 1/5WF	
	R 256	MET2W680	RESISTOR	METAL FILM 2WJ			R 410	SMD1/5WF15K	RESISTOR	SMD 0805 1/5WF	
	R 261	MET1/5WF68K	RESISTOR	METAL FILM 1/5W			R 411	SMD1/5WJ12K	RESISTOR	SMD 0805 1/5WJ	
	R 262	MET1/5WF68K	RESISTOR	METAL FILM 1/5W			R 412	SMD1/5WF56K	RESISTOR	SMD 0805 1/5WF	
	R 263	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5			R 413	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 301	MET1/5WF22K	RESISTOR	METAL FILM 1/5W			R 414	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 302	MET1/5WF21.5K	RESISTOR	METAL FILM 1/5W			R 415	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ	
	R 303	MET1/5WF22K	RESISTOR	METAL FILM 1/5W			R 416	SMD1/5WJ20K	RESISTOR	SMD 0805 1/5WJ	
	R 305	MET1/5WF33K	RESISTOR	METAL FILM 1/5W			R 417	SMD1/5WJ100K	RESISTOR	SMD 0805 1/5WJ	
	R 306	MET1/5WF33K	RESISTOR	METAL FILM 1/5W			R 418	SMD1/5WJ5.6K	RESISTOR	SMD 0805 1/5WJ	
	R 308	SMD1/5WJ1K	RESISTOR	SMD 0805 1/5WJ			R 419	SMD1/5WJ470K	RESISTOR	SMD 0805 1/5WJ	

■ Electrical parts list (P.C.board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 421	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 422	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 423	SMD1/5WJ30K	RESISTOR	SMD 0805 1/5WJ	
	R 424	SMD1/5WJ62K	RESISTOR	SMD 0805 1/5WJ	
	R 430	CAR1/5WJ10K	RESISTOR	CARBON FILM 1/5	
	R 431	MET1/5WF5.6K	RESISTOR	METAL FILM 1/5W	
	R 432	MET1/5WF22K	RESISTOR	METAL FILM 1/5W	
	R 433	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 434	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 435	CAR1/5WJ5.6K	RESISTOR	CARBON FILM 1/5	
	R 436	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 437	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 438	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 439	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 440	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 441	CAR1/5WJ22	RESISTOR	CARBON FILM 1/5	
	R 442	CAR1/5WJ1K	RESISTOR	CARBON FILM 1/5	
	R 443	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	R 444	CAR1/5WJ3.9K	RESISTOR	CARBON FILM 1/5	
	R 445	CAR1/5WJ2.7K	RESISTOR	CARBON FILM 1/5	
	R 446	CAR1/5WJ47	RESISTOR	CARBON FILM 1/5	
	R 447	MET1/5WF12K	RESISTOR	METAL FILM 1/5W	
	R 448	MET1/5WF1K	RESISTOR	METAL FILM 1/5W	
	R 449	CAR1/5WJ220	RESISTOR	CARBON FILM 1/5	
	R 450	MET3W0.1	RESISTOR		
	R 451	MET3W0.1	RESISTOR		
	R 452	CAR1/5WJ1.5K	RESISTOR	CARBON FILM 1/5	
	R 453	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5	
	R 454	CAR1/5WJ56K	RESISTOR	CARBON FILM 1/5	
	R 455	MET1/2WJ4.7	RESISTOR	METAL FILM 1/2W	
	R 456	MET2W680	RESISTOR	METAL FILM 2WJ	
	R 461	MET1/5W 68K	RESISTOR	METAL FILM 1/5W	
	R 462	MET1/5WF68K	RESISTOR	METAL FILM 1/5W	
	R 463	CAR1/5WJ15K	RESISTOR	CARBON FILM 1/5	
	SV 01	GF06P-202	SEMI VOLUME	2K OHM	
	SW101	JSS-2319	SWITCH	SLIDE SW	
	SW301	JSS-2319	SWITCH	SLIDE SW	
	T 01	TF137061201	TRANS FORMER		
	TH 01	FTD5-350	THERMISTOR	50KNTC	
	U 01	TL494CN	I.C	PWM IC	
	U 101	NJM2068LD	I.C	DUAL OP AMP	
	U 102	KIA4558F	I.C	DUAL OP AMP	
	U 103	KIA4558F	I.C	DUAL OP AMP	
	U 104	KIA4558F	I.C	DUAL OP AMP	
	U 105	KIA4558F	I.C	DUAL OP AMP	
	U 106	KIA4558F	I.C	DUAL OP AMP	
	U 301	NJM2068LD	I.C	DUAL OP AMP	
	U 302	KIA4558F	I.C	DUAL OP AMP	
	U 303	KIA4558F	I.C	DUAL OP AMP	
	U 304	KIA4558F	I.C	DUAL OP AMP	
	U 305	KIA4558F	I.C	DUAL OP AMP	
	U 306	KIA4558F	I.C	DUAL OP AMP	
	VR101	RK0971220-20KB2	VOLUME		
	VR102	RK0971220-20KB2	VOLUME		
	VR301	RK0971220-20KB2	VOLUME		
	VR302	RK0971220-20KB2	VOLUME		
	W 01	150M/M		1007 AWG#22	

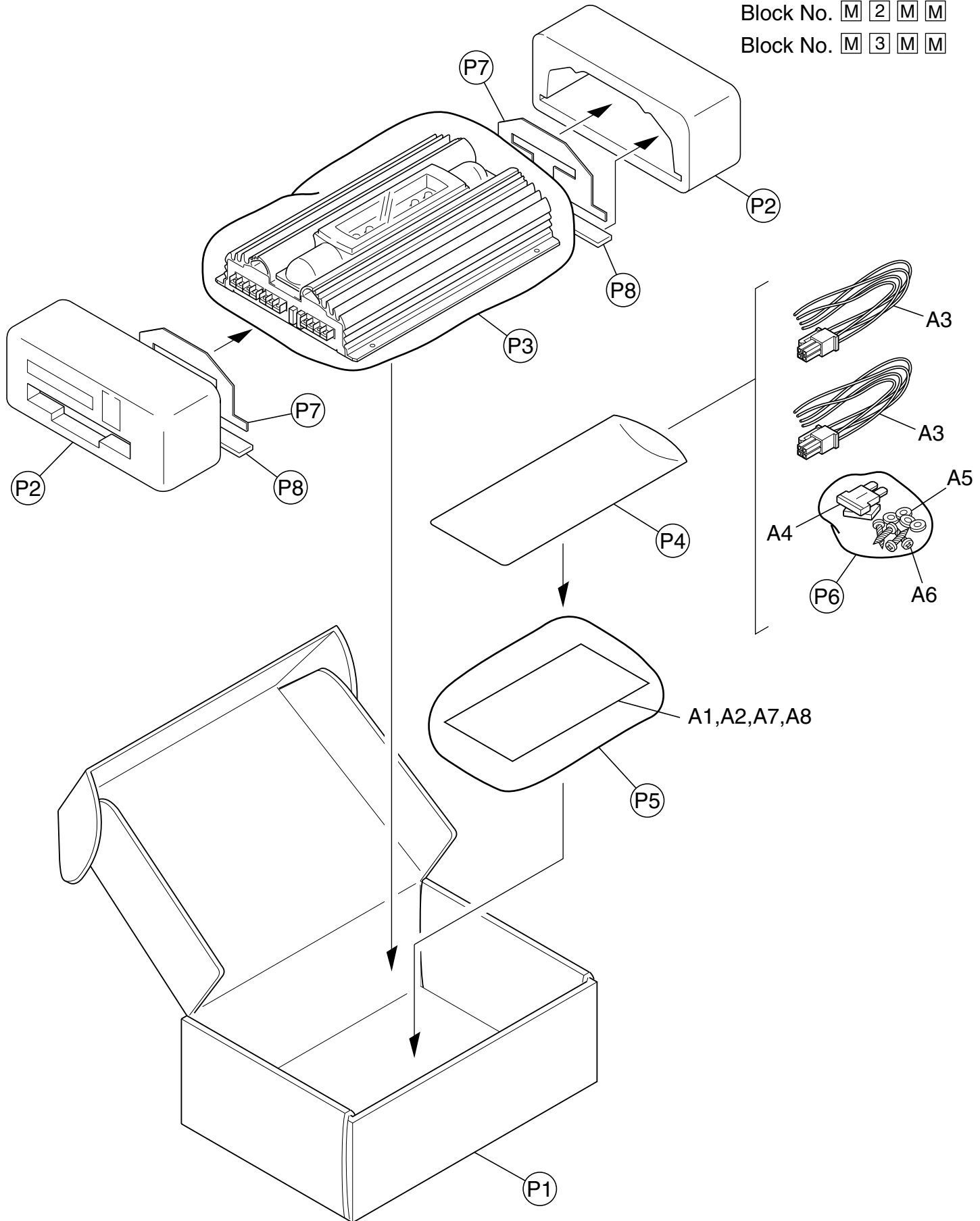
Packing and accessories

Block No.

M	2	M	M
---	---	---	---

Block No.

M	3	M	M
---	---	---	---



■ Packing parts list

Block No. M2MM

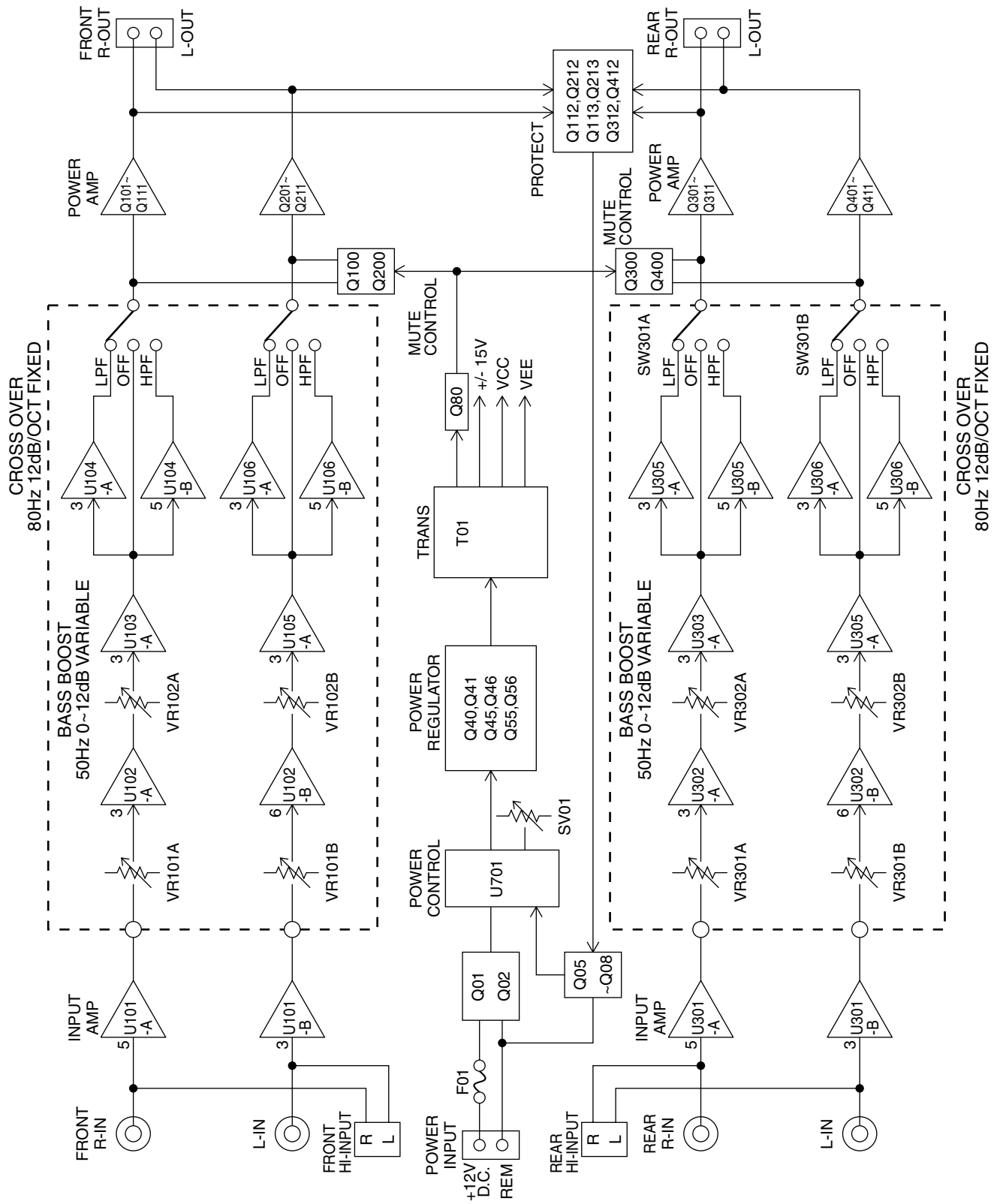
△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	MA-GB-02-6419-0	GIFT BOX	1		
	P 2	MA-SN-07-1116-0	CUSHION	2		
	P 3	MA-PB-01-1039-0	POLY BAG-A	1		
	P 4	MA-PB-01-1524-1	POLY BAG-D	1		
	P 5	MA-PB-01-1715-0	POLY BAG-B	1		
	P 6	MA-PB-01-4101-0	POLY BAG-C	1		
	P 7	MO-FI-01-8087-0	PAPER SPACER	2		
	P 8	MA-IN-02-8090-0	FLAT PAD	2		

■ Accessories parts list

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0727-001A	INST BOOK	1		
	A 2	BT-52004-1	WARRANTY CARD	1		J
		BT-51018-2	WARRANTY CARD	1		J
		BT-54013-1	WARRANTY CARD	1		E
	A 3	CHD114-N	CONNECTOR ASS'Y	2		
	A 4	FUSE20A/32V	AUTO FUSE	2		
	A 5	MO-CU-01-4167-0	RUBBER CUSHION	4		
	A 6	MNSC-05-2-40-20	SCREW	4		
	A 7	BT-51020-2	REGIST CARD	1		
	A 8	BT-20071B	SERVICE CECTER LIST	1		J
	KIT 1	KSAX4700-SCREW	SCREW PARTS LIST	1	A5, A6, P6	J

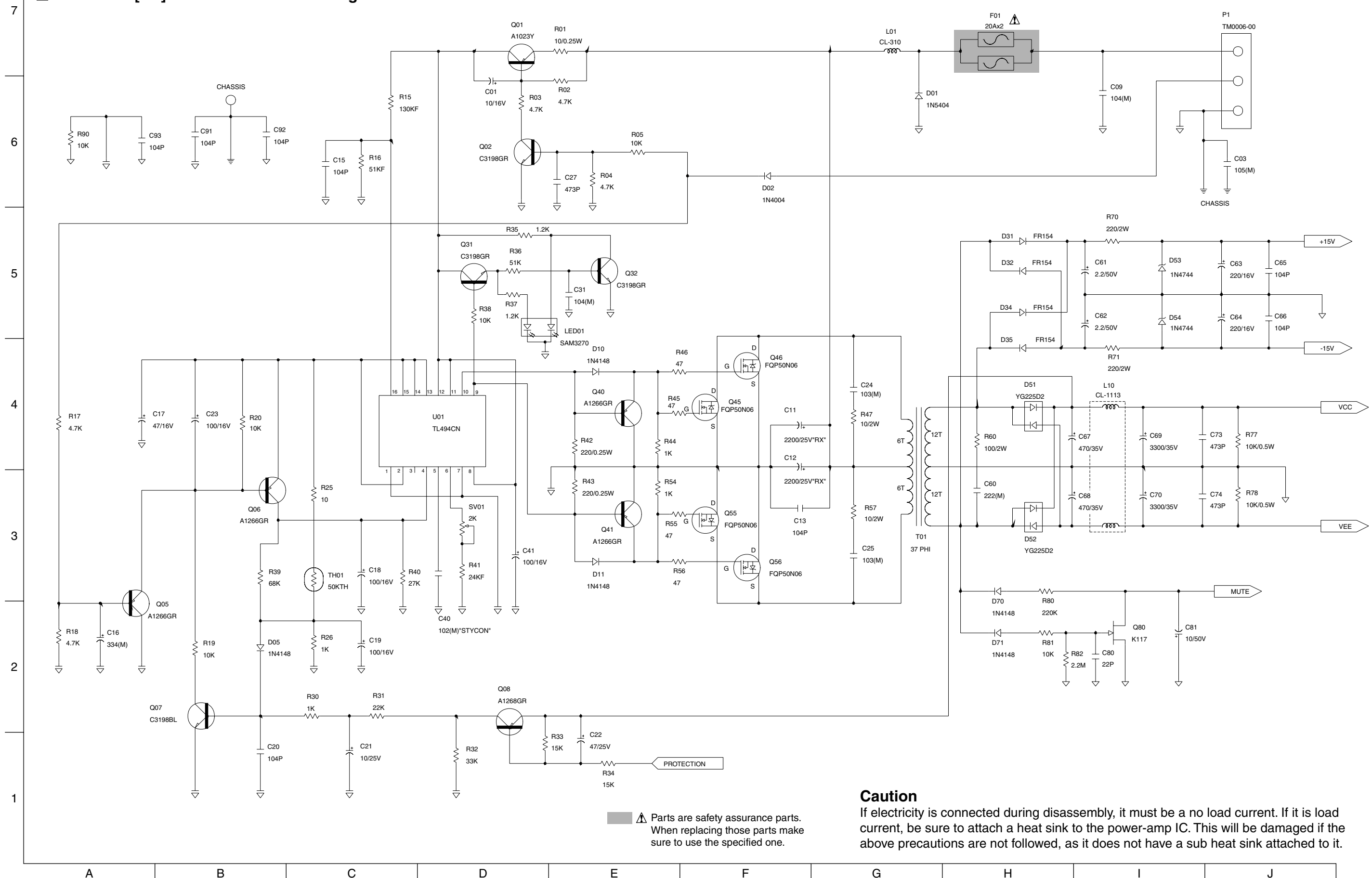
Circuit block diagram



— MEMO —

Standard schematic diagrams

MAIN PCB [1/3] and SUB PCB circuit diagrams

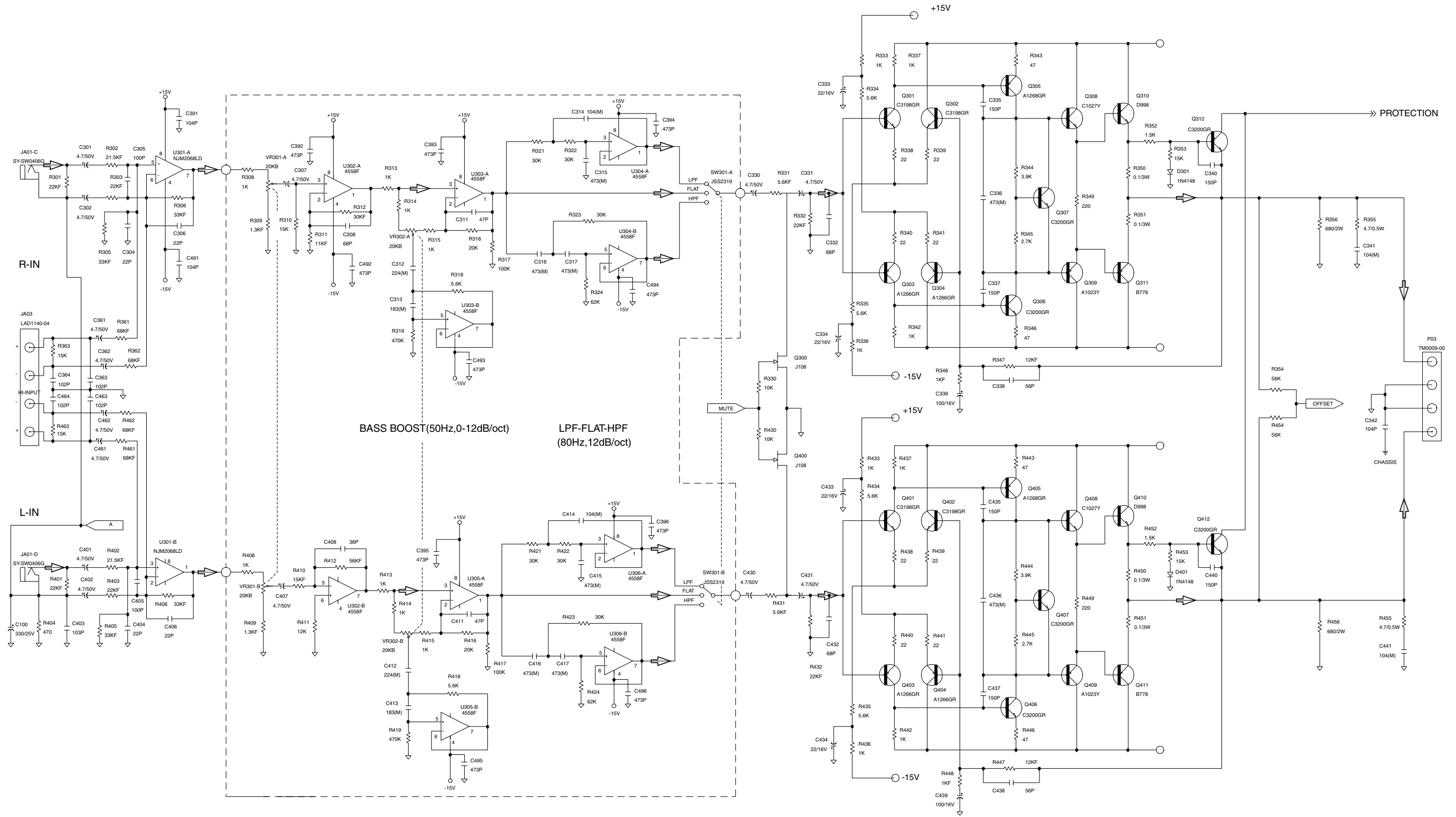


⚠ Parts are safety assurance parts. When replacing those parts be sure to use the specified one.

Caution
If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

■ MAIN PCB [2/3] and SUB PCB circuit diagrams

7
6
5
4
3
2
1

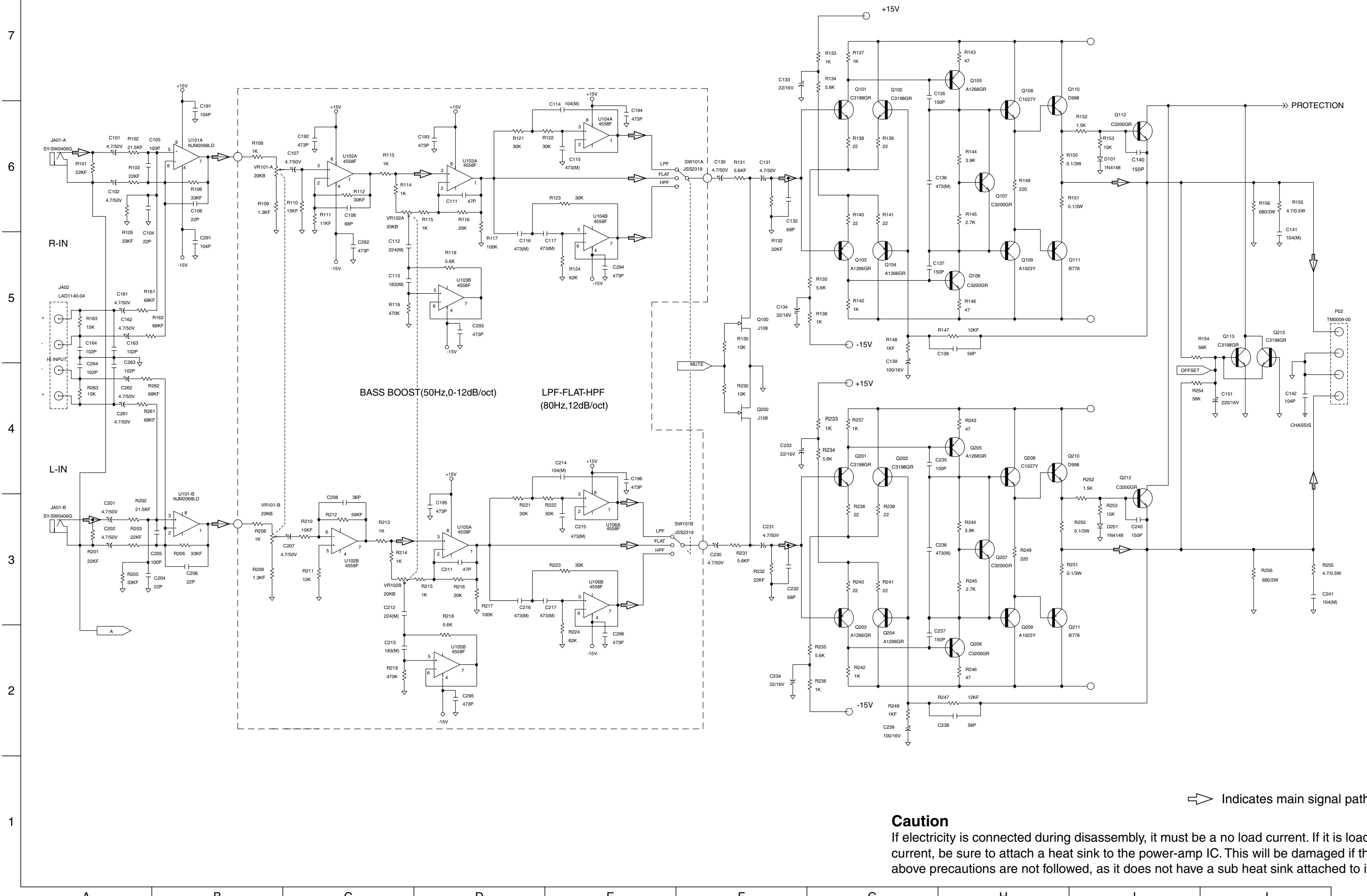


➤ Indicates main signal path

Caution
If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

A B C D E F G H I J

MAIN PCB [3/3] circuit diagrams



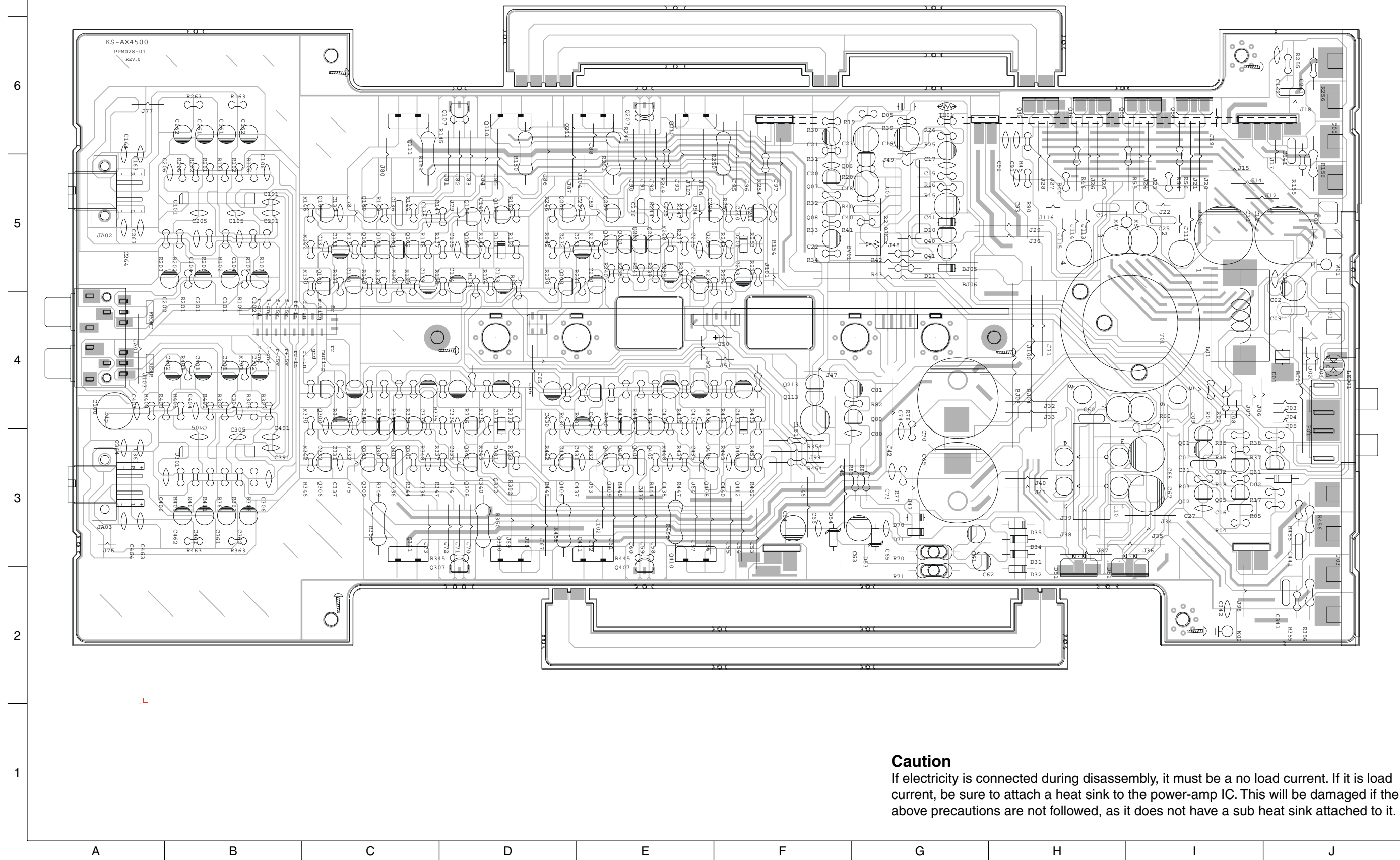
➔ Indicates main signal path

Caution
 If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

Printed circuit boards

■ MAIN PCB

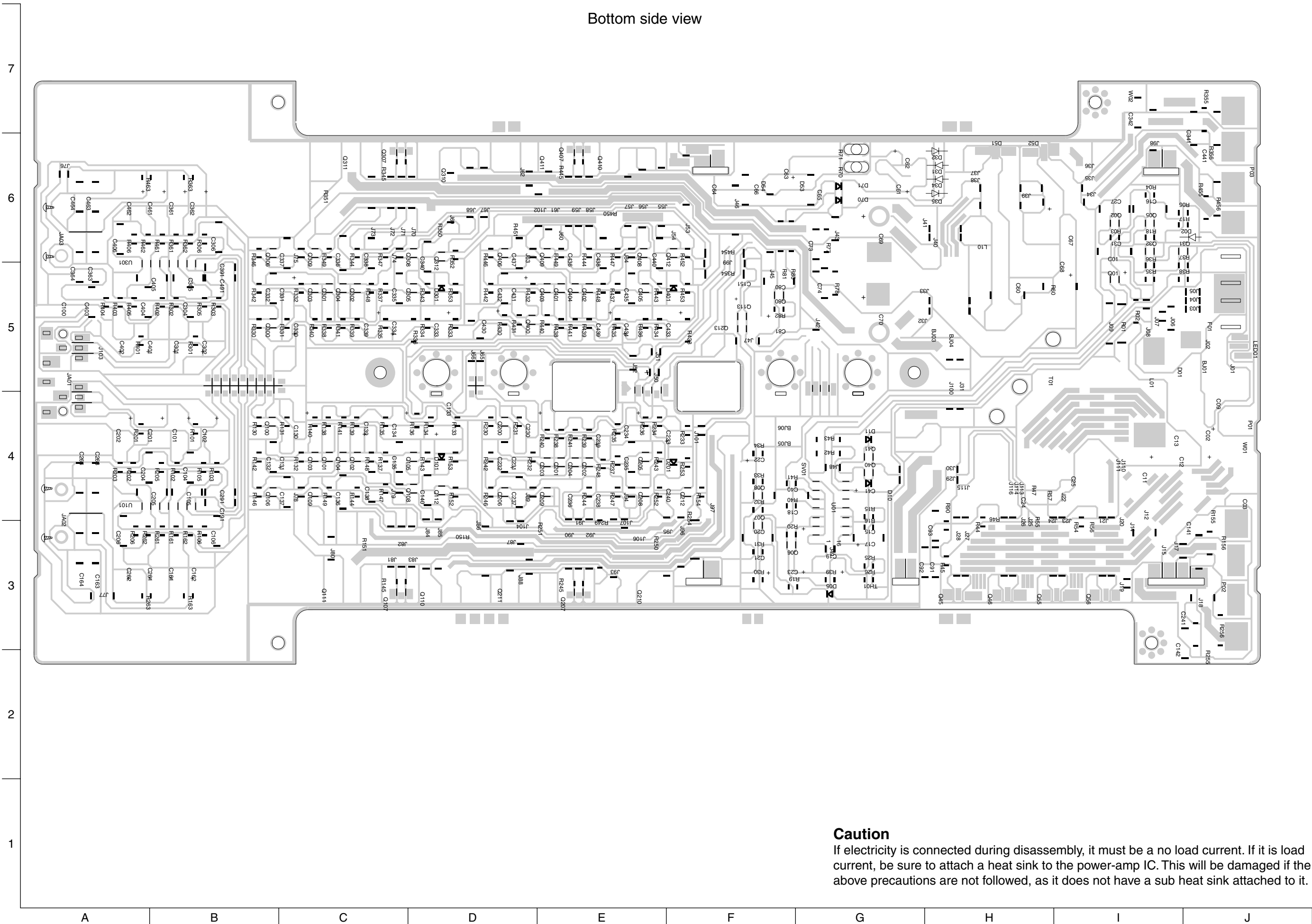
Surface side view



Caution

If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

Bottom side view

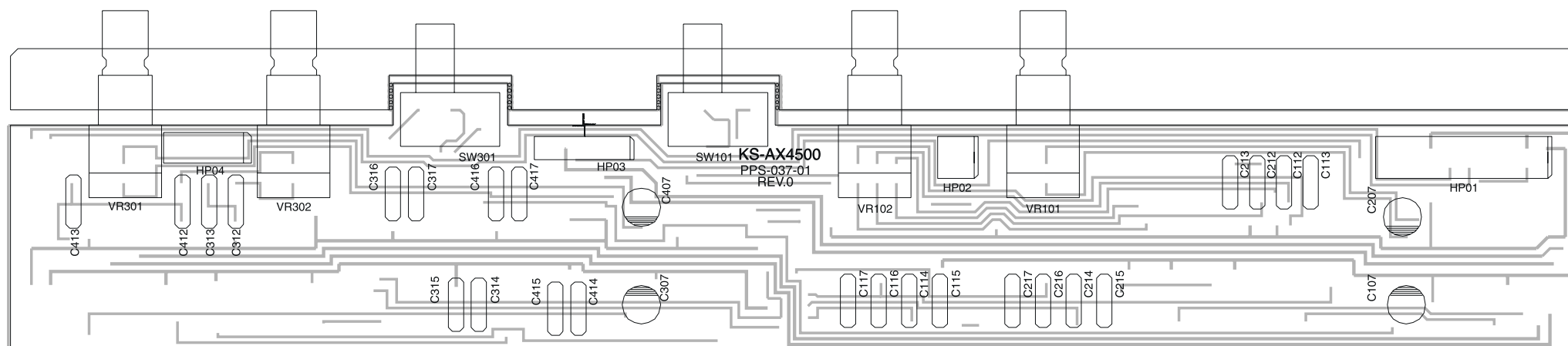


Caution

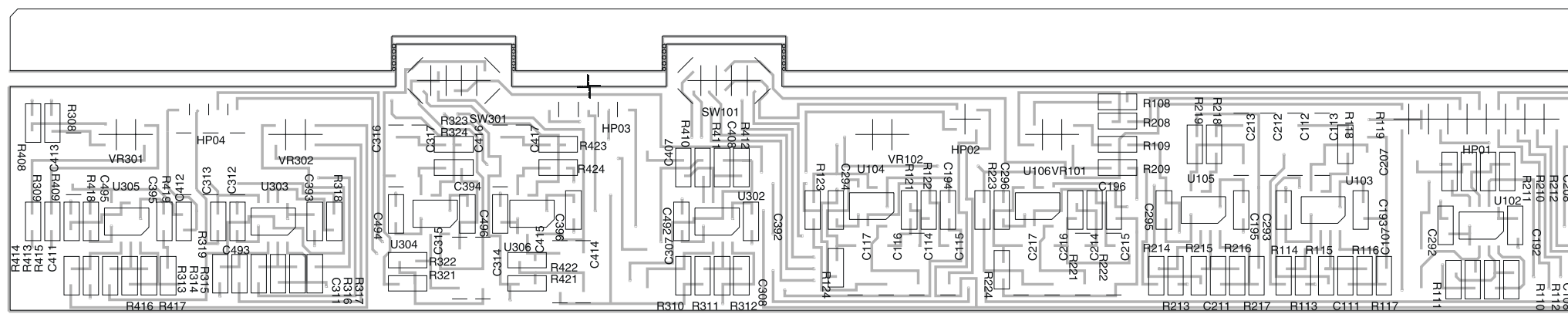
If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.

■ SUB PCB (Volume board)

Surface side view



Bottom side view



Caution

If electricity is connected during disassembly, it must be a no load current. If it is load current, be sure to attach a heat sink to the power-amp IC. This will be damaged if the above precautions are not followed, as it does not have a sub heat sink attached to it.