



QUAD

SERVICE MANUAL

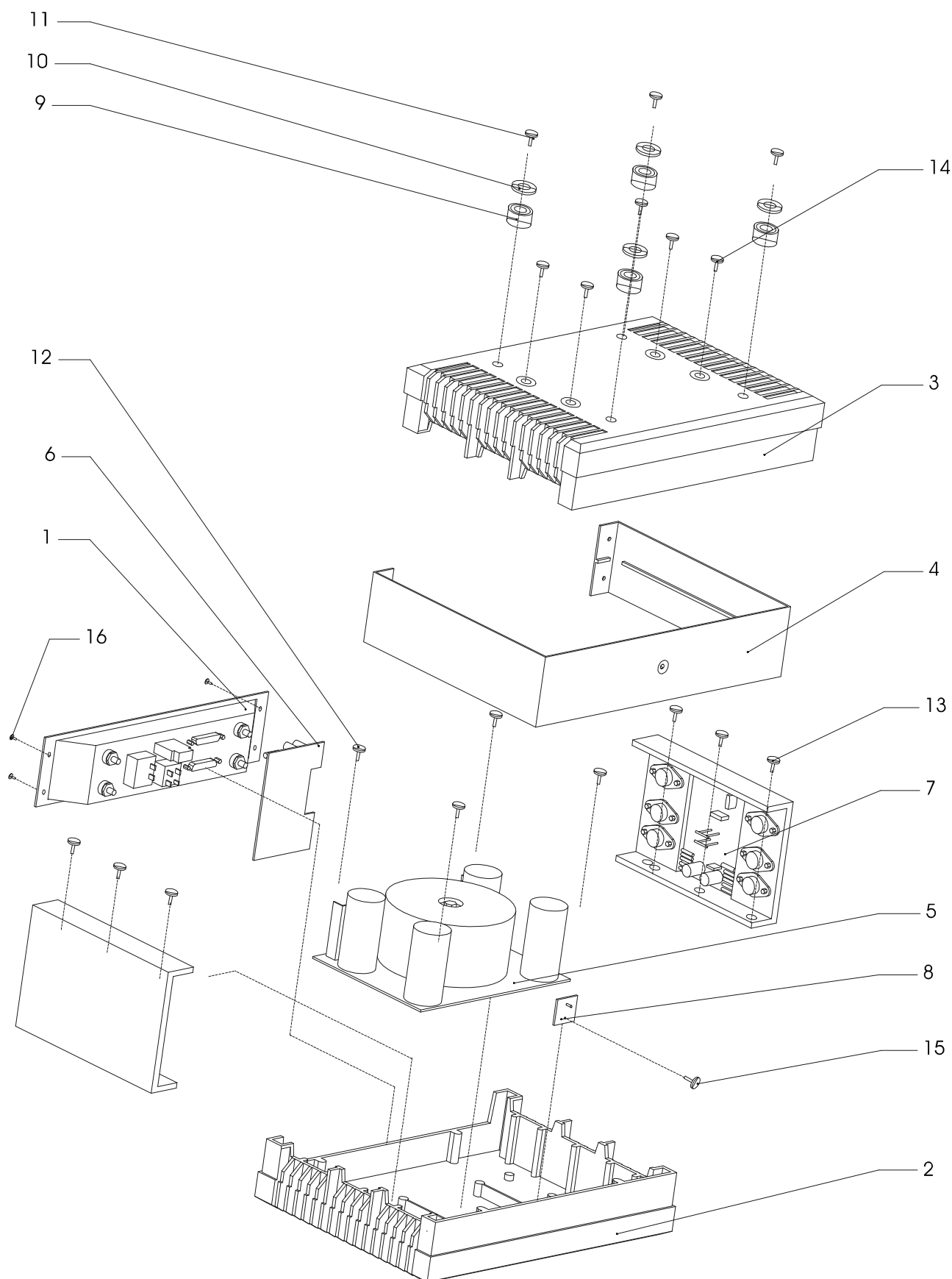
909 STEREO POWER AMPLIFIER

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1. SPECIFICATIONS

Frequency response	$\leq \pm 0.5\text{dB}$ 20~20,000Hz
Signal/noise ratio	$\geq 70\text{dB}$ $V_0=32\text{V}$ $R_L=8\Omega$
Level Output	$V_0=32\pm 1\text{V}$ $\text{THD}\leq 0.3\%$ $R_L=8\Omega$
Sensitivity	500mV $\text{THD}\leq 0.3\%$ $R_c=8\Omega$
Dimensions	128mm $\times$ 321mm $\times$ 240mm(H $\times$ W $\times$ D)
Weight	12Kg

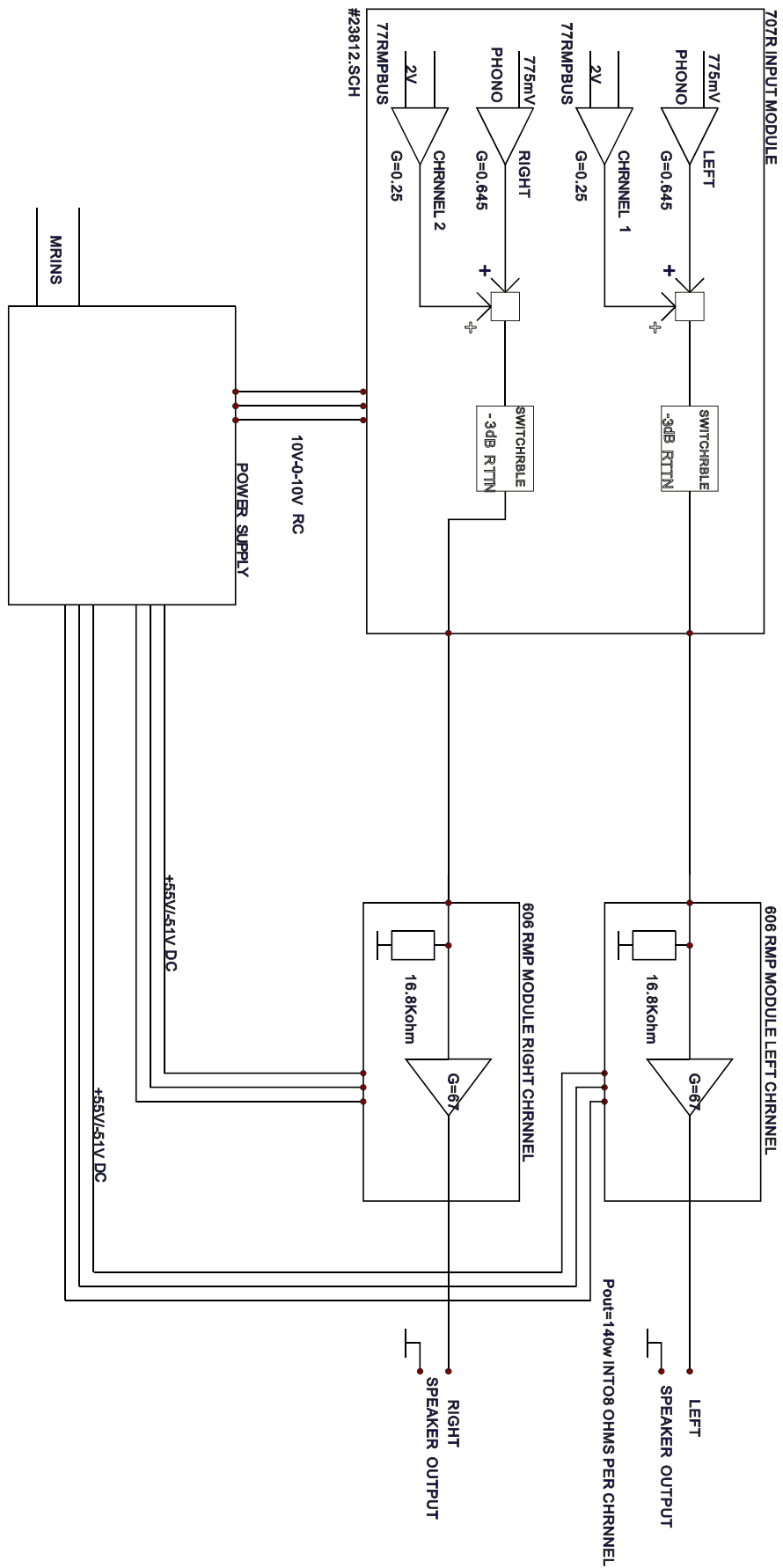
2. ASSEMBLY SKETCH



3. ASSEMBLY PARTS LIST

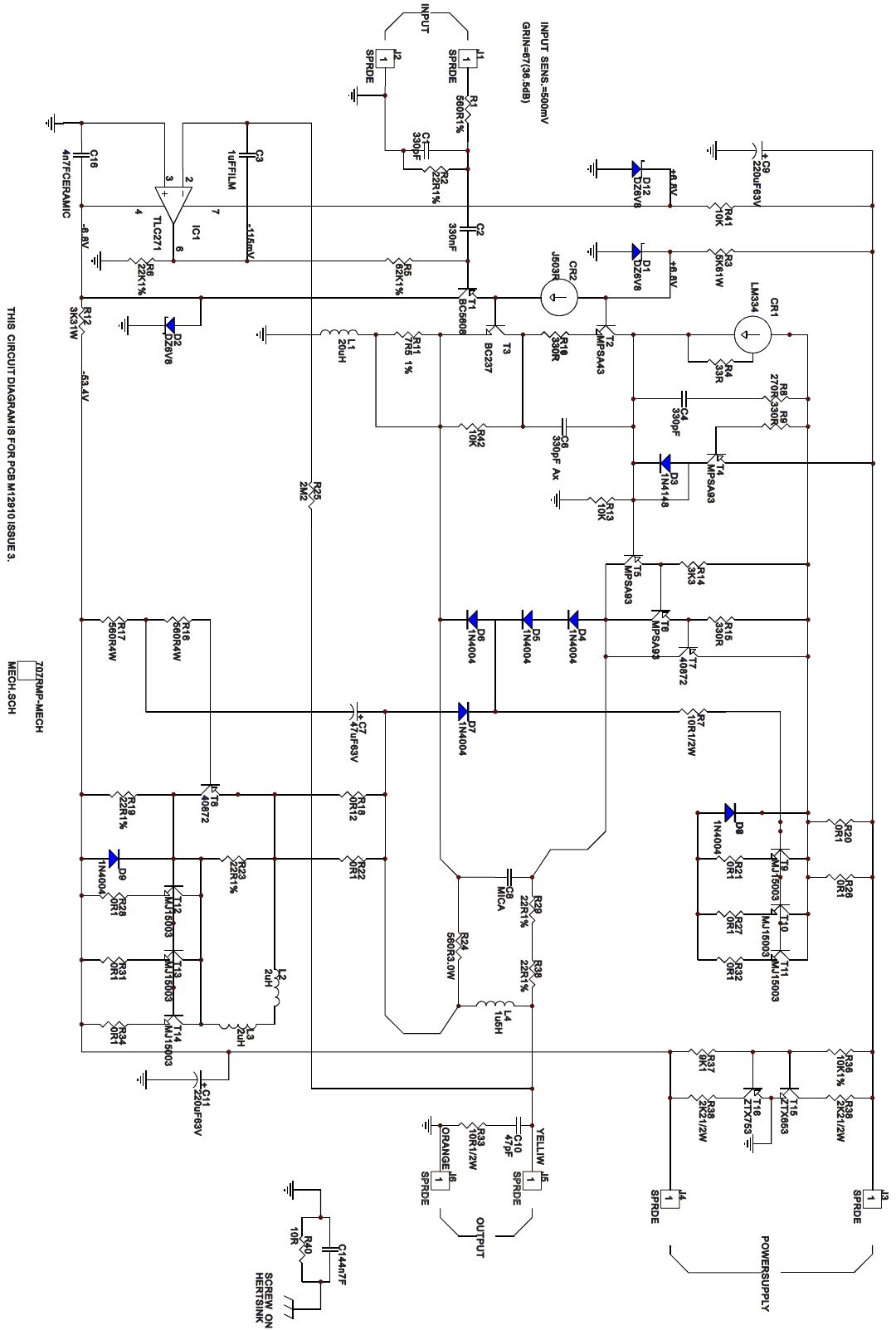
R/P	P/N	PART NAME	DESCRIPTION	QUA
1	301-1185000001	REAR PANEL		1
2	302-1185000001	TOP COVER		1
3	303-1185000001	BOTTOM COVER		1
4	309-1185000001	QUAD909 ENCRUST		1
5	088-1040000400	POWER SUPPLY P.C.B		1
6	088-1040000300	CORTROL P.C.B		1
7	088-1040001000	AMPLIFIER P.C.B		2
8	088-1040000800	LED P.C.B		1
9	392-0501800432	FOOT		4
10	231-2016006300	FEEL SELF-ADHESIVE		4
11	533-4001100801A	SCREW	MT(+)*4*10 B Zn D	4
12	533-5001100801A	SCREW	MT(+)*5*10 B Zn D	4
13	533-4001060301A	SCREW	MT(+)*4*6 ZnD	6
14	534-4001120801A	SCREW	MK(+)*4*12 B ZnD	4
15	534-3001080801A	SCREW	MK(+)*3*8 B ZnD	1
16	533-3001080801A	SCREW	MT(+)*3*8ZnD	4

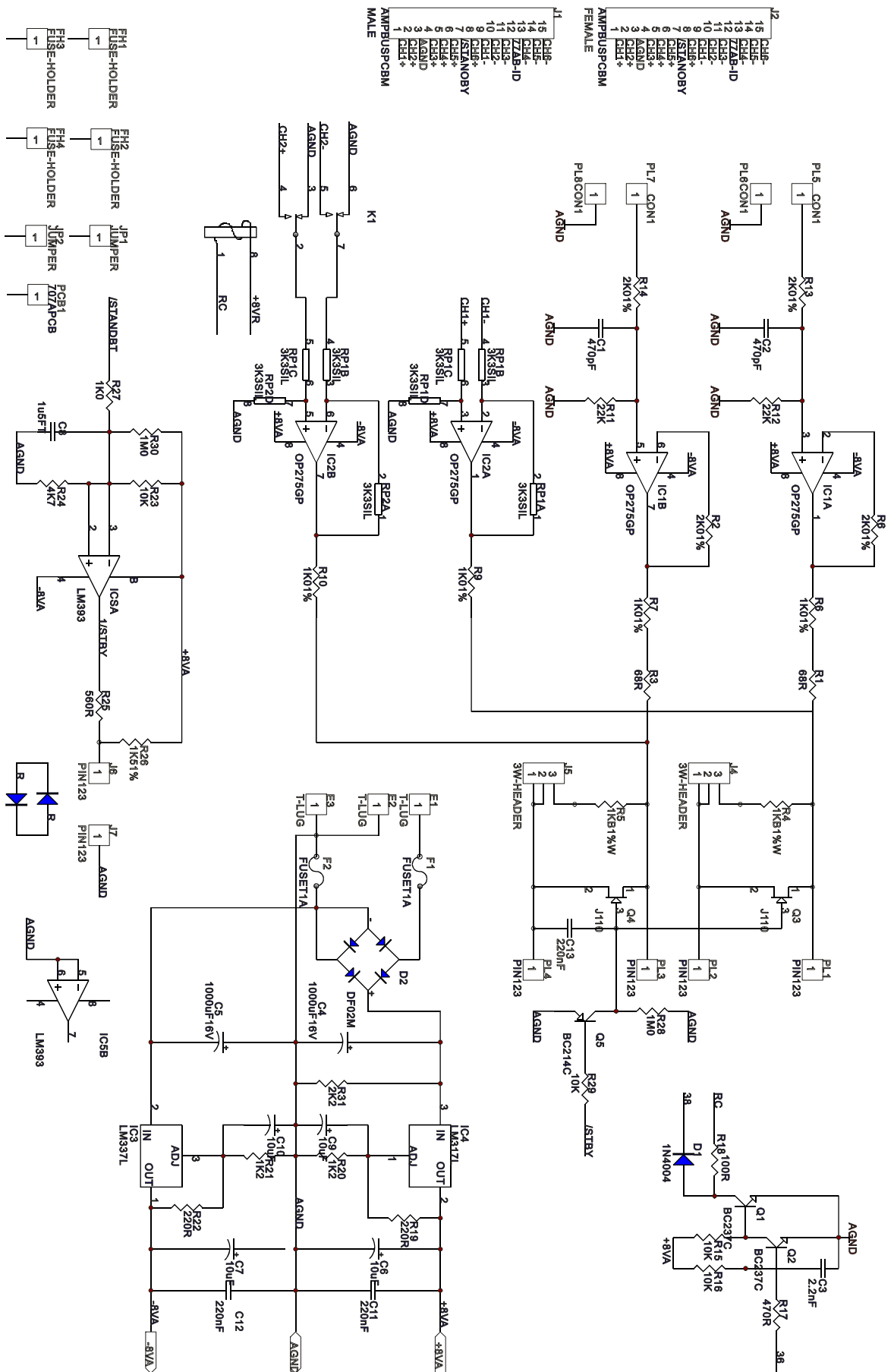
4. SCHEMATIC DIAGRAM



4. SCHEMATIC DIAGRAM

(CONTINUE)





5. ELECTRONIC PARTS LIST

R/P	P/N	PART NAME	DESCRIPTION	REF/N
	088-1040000400	POWER SUPPLY P.C.B		
1	031-2200515121	FUSES	50T063H	FS2,3
2	050-0100070211	FUSES HOLDERS	FUC-2	
3	006-1534358073	CAPACITOR	15000uF/63V	C1~4
4	034-1112000805	BRIDGE DIODES	KBU8D	D1,2
5	013-4740321004	CAPACITOR	B32561-J1474K	C5~8
6	053-1040001604	P.C.B	201*55mm	PCB1
7	060-1181300000	WIRE	2.8F/130/18(RED)	PL1,3
8	060-1181300400	WIRE	2.8F/130/18(BLACK)	PL4,6
9	086-0600000000	TERMINALS	PC110	PL2,5
	088-1040000300	CORTROL.P.C.B		
1	013-4710310502	CAPACITOR	470pF5%100VWIMA	C1,2
2	013-2220310501	CAPACITOR	2.2nF 100V BOX 5%	C3
3	006-1024101733	CAPACITOR	1000uF 16V	C4,5
4	006-1004051163	CAPACITOR	10uF 50V	C6,7,9,10
5	011-1553501110	CAPACITOR	1.5uFT35V	C8
6	013-2240210501	CAPACITOR	220nF BOX 5%63V	C11,12,13
7	053-1040001603	P.C.B	107*72mm	PCB2
8	067-2204001603	S.M.BARRIER DIODES	1N4004	D1
9	034-3442000108	BRIDGE DIODES	DF02M	D2
10	050-0100070211	FUSE HOLDERS	FUC-2	FH1~4
11	031-2200504121	FUSES	50T010H	F1,2
12	017-0340000000	IC	OP275GP	IC1,2
13	017-0350000000	IC	LM337LZ	IC3
14	017-0240000000	IC	LM317LZ	IC4
15	017-0360000000	IC	LM393N	IC5
16	086-0100000000	TERMINALS	3280-JS-15-M	J1
17	086-0200000000	TERMINALS	3820-JS-15-F	J2
18	805-2540200000	JIVE	2700-G58 2.54PH 2PIN	
19	057-2547001031	3PIN WAFER	2.54PH	J4~6

5. ELECTRONIC PARTS LIST

20	018-1400237115	S.M.TRANSISTORS(SOT-23)	BC237C TO-92	Q1,2
21	018-2800110115	TRANSISTORS	J110TO-92	Q3,4
22	018-2800110115	S.M.TRANSISTORS(SOT-23)	BC214C TO-92	Q5
23	003-3302084205	RESISTORS	3.3K RAB08332	RP1,2
24	001-6800205010	RESISTORS	68 1/4W 1%	R1,3
25	001-1001205010	RESISTORS	100R 1/4W 1%	R18
26	001-2201205010	RESISTORS	220R 1/4W 1%	R19,R22
27	001-4701205010	RESISTORS	470R 1/4W 1%	R17
28	001-7501205010	RESISTORS	750R 1/4W 1%	R25
29	001-1002205010	RESISTORS	1K 1/4W 1%	R7,8,27
30	001-1802205010	RESISTORS	1.8K 1/4W 1%	R4,5
31	001-1202205010	RESISTORS	1K2 1/4W 1%	R20,21
32	001-1302205010	RESISTORS	1K3 1/4W 1%	R26
33	001-9102205010	RESISTORS	2K 1/4W 1%	R2,6,13,14
34	001-2202205010	RESISTORS	2K2 1/4W 1%	R31
35	001-3002005010	RESISTORS	3K 1/4W 1%	R9,10
36	001-4702205010	RESISTORS	4K7 1/4W 1%	R24
37	001-1003205010	RESISTORS	10K 1/4W 1%	R15,16,23,29
38	001-2203205010	RESISTORS	22K 1/4W 1%	R11,12
39	001-1005205010	RESISTORS	1M 1/4W 1%	R28,30
40	086-0300000000	TERMINALS	LUGH2071Z01	E1,2,3
41	024-1050101004	RELAYS	OVR-SH-205L	K1
	088-1040001000	AMPLIFIER P.C.B		
1	009-3311006000	CAPACITOR	330PF 100V	C1,4,6
t	013-3340311004	CAPACITOR	MKT0.33UF5%100V(R60)	C2
3	013-1050321004	CAPACITOR	B32561-J1105K	C3
4	006-4704081173	CAPACITOR	47Uf63VD=10mm	C7
5	012-4703500101	CAPACITOR	Silver47pF350V MICA	C8
6	006-2214122073	CAPACITOR	220uF63VD=10mm	C9C11
7	009-4721006000	CAPACITOR	4n7F 100V	C14
8	013-4720211001	CAPACITOR	4n7F 63V	C16

5. ELECTRONIC PARTS LIST

9	013-4730511004	CAPACITOR	47nF 400V	C10
10	067-3305235000	BARRIER DIODES	DZ6V8 1/2W	D1,2,12
11	067-1104148000	S.M.BARRIER DIODES	IN4148	D3
12	067-2204004000	S.M.BARRIER DIODES	IN4004	D4~9
13	026-2005001100	CHOKE	503966/20uH	L1
14	026-0205101100	CHOKE	503276/2uH	L2,3
15	026-1595101100	CHOKE	503276/1.5uH	L4
16	001-0010609050	RESISTORS	0R1 3W 5%	R20~22,26~28, 31,32,34
17	001-0129609050	RESISTORS	0R12 3W 5%	R18
18	001-1000206010	RESISTORS	10R 1/4W 1%	R40
19	001-1000206010	RESISTORS	10R 1/2W 1%	R7,33
20	001-3300205010	RESISTORS	33R 1/4W 1%	R4
21	001-2701205010	RESISTORS	270R 1/4W 1%	R8
22	001-3301205010	RESISTORS	330R 1/4W 1%	R9,10,15
23	001-5601124050	RESISTORS	560R 4W 5%	R16,17
24	001-5601109050	RESISTORS	560R 3W 5%	R24
26	001-3302205010	RESISTORS	3K3 1/4W 1%	R38,39
27	001-3302107050	RESISTORS	3K31W 5%	R14
28	001-5602107050	RESISTORS	5K6 1W 5%	R12
29	001-2205205010	RESISTORS	2M2 1/4W 1%	R25
R/P	P/N	PART NAME	DESCRIPTION	
30	001-2200205010	RESISTORS	22R 1/4W 1%	R19,23,29,30
31	001-5601205010	RESISTORS	560R 1/4W 1%	R1
32	001-0750205010	RESISTORS	7R5 1/4W 1%	R11
33	001-9102205010	RESISTORS	9K1 1/3W 1%	R37
34	001-1003205010	RESISTORS	10K 1/4W 1%	R13,36,41,42
35	001-2203205010	RESISTORS	22K 1/4W 1%	R2,6
36	001-6203205010	RESISTORS	62K 1/4W 1%	R5
37	018-3000334115	TRANSISTORS	LM334Z TO-92	CR1
38	018-2800503115	TRANSISTORS	J503A(TWOFOOT)TO-92	CR2
39	018-1400560115	TRANSISTORS	BC560B TO-92	T1

5 . ELECTRONIC PARTS LIST

40	018-2700043115	TRANSISTORS	MPSA43 TO-92	T2
41	018-1400237115	TRANSISTORS	BC237C TO-92	T3
42	018-2700093115	TRANSISTORS	MPSA43 TO-93	T4,5,6
43	018-3140872111	TRANSISTORS	RCA40872-99 TO-92	T7,8
44	018-1815003112	TRANSISTORS	Mj15003 TO-3	T9~14
45	018-3200653115	TRANSISTORS	ZTX653 TO-92	T15
46	018-3200753115	TRANSISTORS	ZTX753 TO-92	T16
47	017-0370000000	IC	TLC271CP	IC1
48	053-1040001610	P.C.B	188*120mm	PCB3
49	086-0600000000	TERMINALS	PC110	J1~6
	088-10400001608	LED P.C.B		
1	053-1040001608	P.C.B	188*120mm	PCB4
2	019-0321122001	BARRIER DIODES		J5
3	060-2220281100	WIRE	22#(black/green)	
4	742-0201000000	BUSH	L=20mmø 2 black	
		ELECTRO-ASSEMBLY		
1	022-2000902021	TRANSFORMER	B403	
R/P	P/N	PART NAME	DESCRIPTION	
2	041-2171000000	SWITCH	Mk120	
3	044-0300000000	SOCKET POWER	R3014-2P	
4	079-0023000000	PTC RESISTOR	T1-6142A-24V~16A	
5	046-3100000000	TERMINALS	2P AuD red&black	
6	060-0180080100	WIRE	18#L=80mm brown	
7	060-0180080100	WIRE	18#L=80mm blue	
8	060-9180170700	WIRE	18#L=170mm yellow	
9	060-9180171300	WIRE	18#L=170mm orange	
10	051-4600000000	AUDIO TERMINAL	Red	
11	051-4500000000	AUDIO TERMINAL	White	
12	055-0002350344	CONNECTING WIRE	2PIN L=350mm black	
13	055-0002170344	CONNECTING WIRE	2PIN L=350mm black	
14	071-1070000000	BELT	JY-70	

5. ELECTRONIC PARTS LIST

15	742-0501000000	BUSH		
16	085-0081200100	PVC BUSH		
17	031-2200515121	FUSE	50T063H 250V 6.3A	
18	061-0100000000	FUSES		
19	812-0060000000	CONNECTER	QUAD LINK 15P L=1M	
20	062-5218000110	INLET SCOKET	301RVVZ-2P	