

fp-402

PowerPlant

SERVICE MANUAL



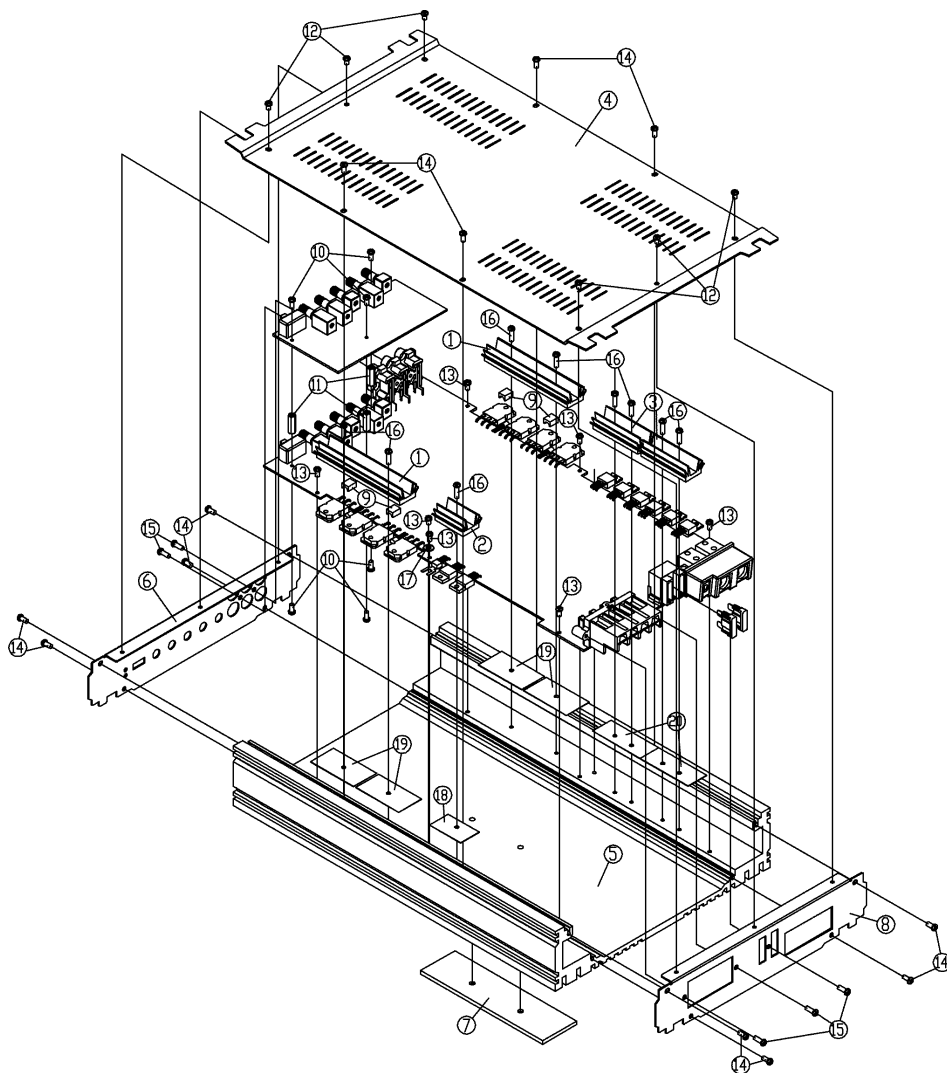
FUSION®

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fp-series

PowerPlant

EXPLODED VIEW



Exploded View Parts List				
NO.	NAME	STAN	QUTY	CODE
1	BKTS 2184	AL 85X16	2	G-BKTS-2184-1
2	BKTS 2202	AL 29X16	1	G-BKTS-2202-1
3	BKTS 2203	AL 46X16	2	G-BKTS-2203-1
4	BOCA CBCP330-01	EG11.21 330X212	1	G-CBA-CBCP330
5	HSM HSPP004-01	PP-330mm	1	G-HSM-HSPP004
6	PFA PFPP002-01	EG11.01 216X45.5	1	G-PFA-PFPP002
7	BADGE	FUSION-LOGO	1	G-PLA-FUSION1
8	PRA PRPP004-01	EG11.01 216X45.5	1	G-PRA-PRPP004
9	SILICON RUBBER	6.4X4.3X8.0 BK	4	G-RUBS-4075-1
10	SCREW MACHINE	PH/M3X6 BK	6	G-SMPH003061
11	MAIN SPACER	HEX 5X15mm	3	G-SPC-515-1
12	SCREW TAPPING	PH3/T3X4 C BK	6	G-STPH303041C
13	SCREW TAPPING	PH3/T3X5 BK	8	G-STPH303051
14	SCREW TAPPING	PH3/T3X6 BK	12	G-STPH303061
15	SCREW TAPPING	PH3/T3X8 BK	5	G-STPH303081
16	SCREW TAPPING	PH3/T3X12 BK	9	G-STPH303121
17	WASHER PLATE	Ø3.2X8.0X1.0 ZN	1	G-SWWP3280101
18	SILICON RUBBER 19X32P	INS-2202	1	H-RUBS-32P-1
19	SILICON RUBBER 23.5X44P	INS-2182	4	H-RUBS-44P-2
20	SILICON RUBBER 19X49P	INS-2203	2	H-RUBS-49P-1

PART LIST

NO	CODE	NAME	STAN	Q'TY	REMARK
1	B-FLUX-----1	FLUX NT2016	@50000	1.000	
2	B-IPA-----1	IPA 2070	15kg:@28,000 g	1.000	
3	B-SLDR-BAR--1	SOLDER BAR 60%	kg:\$4.7 g:\$0.0047	1.000	
4	B-SLDR-WIRE-1	SOLDER WIRE 60%	kg:\$4.2 g:\$0.0042	1.000	
5	B-TUB-EMP1--1	TUBE EMPIRE	1mm/0.05원 @20	1.000	TH1, Q107, Q207
6	G-LED-HOLDER4	HOLDER LED ASS'Y	3MM R/G L934EB/111GD	1.000	LED
7	H-CER-100CHT1	CER CAP 100PF CH	TP TYPE	4.000	C144, C145, C244, C245
8	H-CER-104T--1	CER CAP 104PF	TP TYPE	1.000	C1
9	H-CER-10CHT-1	CER CAP 10PF CH	TP TYPE	5.000	C102, C150, C202, C205, C250
10	H-CER-56CHT-1	CER CAP 56PF CH	TP TYPE	1.000	C105
11	H-CER-680T--1	CER CAP 680PF	TP TYPE	4.000	C103, C142, C203, C242
12	H-COPER-2--3	COPER 2P NI	30mm	5.000	CO1, CO3, CO4, CO5, CO6
13	H-COPER-2--4	COPER 2P NI	45mm	1.000	CO2
14	H-DIO-25C---2	DIODE YG225C2		1.000	D8
15	H-DIO-25N---2	DIODE YG225N2		1.000	D7
16	H-DIO-4002--1	DIODE IN4002		1.000	D6
17	H-DIO-4148--1	DIODE IN4148M		9.000	D1, D2, D4, D5, D11
18	H-DIO-4148--1	DIODE IN4148M		0.000	D101, D201, D501, D502
19	H-DIO-5402--1	DIODE 1N5402		1.000	D3
20	H-DIZ-1W15V-1	DIODE ZENER TZP15B	1N4744	2.000	DZ2, DZ3
21	H-DIZ-5.6B--1	DIODE ZENER MTZ5.6B		1.000	DZ4
22	H-DIZ-7.5B--1	DIODE ZENER MTZ7.5B		1.000	ZD1
23	H-E10-25SHT-1	EC 10/25 5X11 SHL	TP TYPE	6.000	C113, C116, C213, C216, C148, C248
24	H-E10-50SHT-1	EC 10/50 5X11 SHL	TP TYPE	2.000	C15, C502
25	H-E13-25SX--2	EC1000/25 12.5X25 SXE		2.000	C3, C4
26	H-E1-50SHT--1	EC 1/50 5X11 SHL	TP TYPE	2.000	C14, C23
27	H-E220-25SHT1	EC 220/25 8X11.5 SHL	TP TYPE	2.000	C10, C11
28	H-E330-16SHT1	EC 330/16 8X11.5 SHL	TP TYPE	4.000	C2, C19, C24, C506



PART LIST

NO	CODE	NAME	STAN	Q'TY	REMARK
29	H-E33-25SHT-1	EC 33/25 5X11 SHL	TP TYPE	2.000	C143, C243
30	H-E333-35DL-1	EC3300/35 22X25 DL		2.000	C8, C9
31	H-E4.7-50SHT1	EC 4.7/50 5X11 SHL	TP TYPE	6.000	C101, C104, C141, C201, C204
32	H-E4.7-50SHT1	EC 4.7/50 5X11 SHL	TP TYPE	0.000	C241
33	H-FUS-25A---2	FUSE ATC-25A		1.000	FUSE
34	H-FUS-HOL3-31	FUSE HOLDER P3	DKT-08011 PCB-INSERT	1.000	FUSE
35	H-IC-13700D-1	IC NJM13700D DIP		1.000	U6
36	H-IC-358P---1	IC KIA358P		1.000	IC302
37	H-IC-4560L--1	IC NJM4560L SIP		6.000	U1, U2, U3, U4, U5, U7
38	H-IC-494CN--1	IC TL494CN		1.000	IC301
39	H-JAK-MODUL-1	MODULAR JACK 4P	616PCB4D	1.000	CON1
40	H-JAK-R4PG--8	JACK RCA DKJ44104	UP:RED / DOWN:WHITE	1.000	RCA1
41	H-JW-JUMPW06T	JUMP WIRE 0.6T	TP TYPE	100.000	
42	H-MFB-103P5T1	CAP/M-FILM 103/63V	BOX FILM 103 TP TYPE	6.000	C5, C6, C12, C18, C21, C501
43	H-MFB-104P5T1	CAP/M-FILM 104/63V	BOX FILM 104 TP TYPE	13.000	C13, C17, C20, C108, C115, C146
44	H-MFB-104P5T1	CAP/M-FILM 104/63V	BOX FILM 104 TP TYPE	0.000	C147, C208, C215, C246, C247
45	H-MFB-104P5T1	CAP/M-FILM 104/63V	BOX FILM 104 TP TYPE	0.000	CP1, C99
46	H-MFB-153P5T1	CAP/M-FILM 153/63V	BOX FILM 153 TP TYPE	4.000	C119, C120, C219, C220
47	H-MFB-184P5T1	CAP/M-FILM 184/63V	BOX FILM 184 TP TYPE	4.000	C111, C112, C211, C212
48	H-MFB-224P5T1	CAP/M-FILM 224/63V	BOX FILM 224 TP TYPE	2.000	C117, C217
49	H-MFB-473P5T1	CAP/M-FILM 473/63V	BOX FILM 473 TP TYPE	4.000	C106, C107, C206, C207
50	H-MFB-563P5T1	CAP/M-FILM 563/63V	BOX FILM 563 TP TYPE	2.000	C109, C209
51	H-MFB-683P5T1	CAP/M-FILM 683/63V	BOX FILM 683 TP TYPE	2.000	C118, C218
52	H-MOS-44---4	MOSFET FQP50N06	N-CH TO220	4.000	Q23, Q24, Q25, Q26
53	H-MYR-222T--2	MYLAR 222 (0.0022/50)	TP TYPE "J"	3.000	C7, C114, C214
54	H-MYR-472T--2	MYLAR 472 (0.0047/50)	TP TYPE "J"	1.000	C22
55	H-PBA-9502PP1	MAIN PCB FP2-250X	258X160 XPC	1.000	
56	H-PBS-9502PP1	REMOTE PCB FP2-250XSW	204x84x1.6t XPC (1/10)	1.000	

PART LIST

NO	CODE	NAME	STAN	Q'TY	REMARK
57	H-PTRC-10---1	RFC COIL BAR(수직)	5UH/H 8X25 23mm	1.000	L1
58	H-PTTO-29--28	P.T TOROIDE 29mm	FP-402 6T/12T	1.000	T1
59	H-R12-220---1	RESISTOR 1/2W 220		2.000	R157, R257
60	H-R14-13----1	RESISTOR 1/4W 1K		3.000	R3, R4, R99
61	H-R14-27----1	RESISTOR 1/4W 27		2.000	R20, R21
62	H-R14-47----1	RESISTOR 1/4W 47		4.000	R5, R6, R10, R11
63	H-R18-100---1	RESISTOR 1/8W 100		8.000	R143, R144, R145, R146, R243
64	H-R18-100---1	RESISTOR 1/8W 100		0.000	R244, R245, R246
65	H-R18-1003--1	RESISTOR 1/8W 100K		10.000	R36, R41, R113, R130, R135
66	H-R18-1003--1	RESISTOR 1/8W 100K		0.000	R213, R230, R235, R501, R502
67	H-R18-103---1	RESISTOR 1/8W 10K		17.000	R25, R26, R28, R29, R30, R31
68	H-R18-103---1	RESISTOR 1/8W 10K		0.000	R37, R103, R104, R108, R142
69	H-R18-103---1	RESISTOR 1/8W 10K		0.000	R203, R204, R208, R242
70	H-R18-103---1	RESISTOR 1/8W 10K		0.000	RX101, RX201
71	H-R18-112---1	RESISTOR 1/8W 1.1K		1.000	R110
72	H-R18-113---1	RESISTOR 1/8W 11K		2.000	R119, R219
73	H-R18-123---1	RESISTOR 1/8W 12K		6.000	R153, R253, R115, R117, R215, R217
74	H-R18-13----1	RESISTOR 1/8W 1K		21.000	R1, R2, R42, R51, R52, R101
75	H-R18-13----1	RESISTOR 1/8W 1K		0.000	R102, R123, R126, R149, R150
76	H-R18-13----1	RESISTOR 1/8W 1K		0.000	R154, R201, R202, R223
77	H-R18-13----1	RESISTOR 1/8W 1K		0.000	R226, R249, R250, R254, RL1
78	H-R18-13----1	RESISTOR 1/8W 1K		0.000	RL2
79	H-R18-1503--1	RESISTOR 1/8W 150K		4.000	R132, R133, R232, R234
80	H-R18-153---1	RESISTOR 1/8W 15K		3.000	R166, R266, R32
81	H-R18-16----1	RESISTOR 1/8W 1M		1.000	R35
82	H-R18-184---1	RESISTOR 1/8W 1.8K		2.000	R156, R256
83	H-R18-223---1	RESISTOR 1/8W 22K		10.000	R106, R121, R131, R167, R206
84	H-R18-223---1	RESISTOR 1/8W 22K		0.000	R221, R231, R267, R39, R40

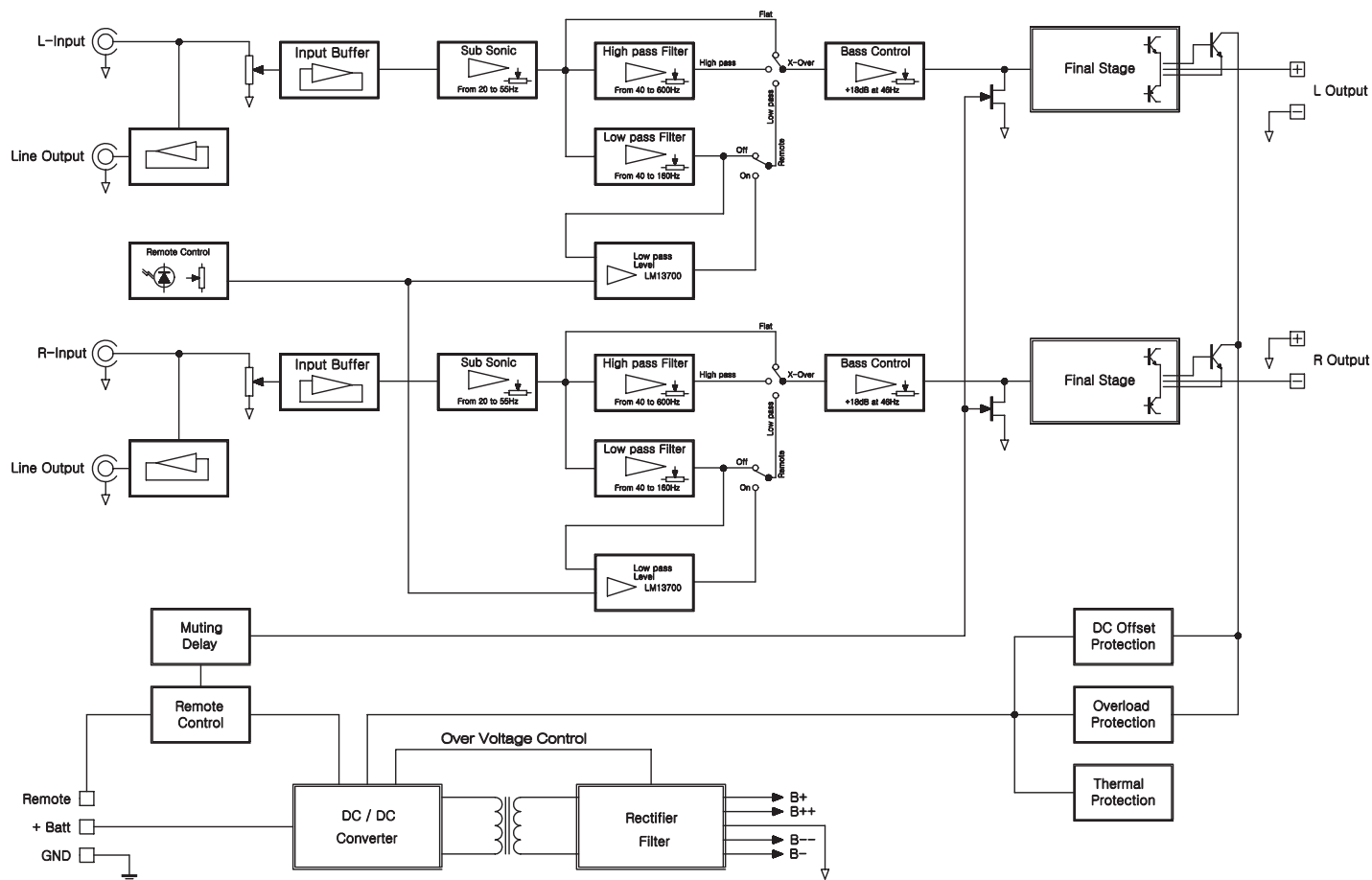
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NO	CODE	NAME	STAN	Q'TY	REMARK
85	H-R18-224---1	RESISTOR 1/8W 2.2K		8.000	R33, R34, R141, R164, R241
86	H-R18-224---1	RESISTOR 1/8W 2.2K		0.000	R264, R521, R522
87	H-R18-243---1	RESISTOR 1/8W 24K		2.000	R122, R222
88	H-R18-273---1	RESISTOR 1/8W 27K		3.000	R124, R224, R507
89	H-R18-33---1	RESISTOR 1/8W 3K		1.000	R38
90	H-R18-393---1	RESISTOR 1/8W 39K		1.000	R506
91	H-R18-432---1	RESISTOR 1/8W 4.3K		2.000	R112, R212
92	H-R18-4703--1	RESISTOR 1/8W 470K		1.000	R505
93	H-R18-47---1	RESISTOR 1/8W 47		4.000	R151, R152, R251, R252
94	H-R18-473---1	RESISTOR 1/8W 47K		8.000	R105, R120, R125, R128, R205
95	H-R18-473---1	RESISTOR 1/8W 47K		0.000	R220, R225, R228
96	H-R18-474---1	RESISTOR 1/8W 4.7K		5.000	R27, R134, R155, R233, R255
97	H-R18-680---1	RESISTOR 1/8W 680		2.000	R162, R262
98	H-R18-683---1	RESISTOR 1/8W 68K		2.000	R127, R227
99	H-R18-750---1	RESISTOR 1/8W 750		2.000	R107, R207
100	H-R18-824---1	RESISTOR 1/8W 8.2K		8.000	R114, R140, R147, R148, R214
101	H-R18-824---1	RESISTOR 1/8W 8.2K		0.000	R240, R247, R248
102	H-R18-913---1	RESISTOR 1/8W 91K		1.000	R211
103	H-R18-914---1	RESISTOR 1/8W 9.1K		1.000	R111
104	H-R1WM-220--2	RESISTOR 1W 220	M TYPE	2.000	R23, R24
105	H-R1WM-22---2	RESISTOR 1W 22	M TYPE	1.000	R22
106	H-R1WM-472--2	RESISTOR 1W 4.7	M TYPE	2.000	R165, R265
107	H-R5WM-015--3	RESISTOR MPR 5W 0.15	2P ROUND 16X8X18	4.000	R158, R159, R258, R259
108	H-STRG-3PG-13	TERMINAL SCREW	DKPT03300 3P GOLD	1.000	TER2
109	H-STRG-4PG--8	TERMINAL SCREW	DK041124	1.000	TER1
110	H-SWS-2203--1	SW SL SK22J03G6	2C2P 6mm	1.000	SW2
111	H-SWS-2301--3	SW SL SK23E01G6	2C3P 6mm	1.000	SW1
112	H-THM-150K--2	THERMISTOR 150K	"LUG"	1.000	TH1



PART LIST

NO	CODE	NAME	STAN	Q'TY	REMARK
113	H-TR-1023YT-1	TR KTA1023Y	TP TYPE	3.000	Q16, Q105, Q205
114	H-TR-1027YT-1	TR KTC1027Y	TP TYPE	2.000	Q106, Q206
115	H-TR-1266GT-1	TR KTA1266GR	TP TYPE	1.000	Q17
116	H-TR-1266YT-1	TR KTA1266Y	TP TYPE	6.000	Q1, Q2, Q102, Q104, Q202
117	H-TR-1266YT-1	TR KTA1266Y	TP TYPE	0.000	Q204
118	H-TR-3112B--1	TR KTC3112B		2.000	Q107, Q207
119	H-TR-3198YT-1	TR KTC3198Y	TP TYPE	10.000	Q15, Q18, Q19, Q101, Q103,
120	H-TR-3198YT-1	TR KTC3198Y	TP TYPE	0.000	Q121, Q201, Q203, Q221
121	H-TR-3198YT-1	TR KTC3198Y	TP TYPE	0.000	Q507
122	H-TR-600E---1	TR 2SD600E		2.000	Q108, Q208
123	H-TR-631E---1	TR 2SD631E		2.000	Q109, Q209
124	H-TR-688----1	TR KTB688-0		2.000	Q111, Q211
125	H-TR-718----1	TR KTD718-0		2.000	Q110, Q210
126	H-TR-K30AT--1	TR K30A	TP TYPE	3.000	Q501, Q502, Q506
127	H-VR953B20--1	RTVR 3B20K	RV095GBC015RS3B20K	1.000	VR1
128	H-VR953B500-1	RTVR 3B500K	RV095GBC015RS3B500K	1.000	VR5
129	H-VR9543B1001	RTVR 3B100K	RV0954GBC015RS3B100K	1.000	VR3
130	H-VR9543B50-1	RTVR 3B50K	RV0954GBC015RS3B50K	2.000	VR2, VR4
131	H-W16-RT100-1	RING TERMINAL 10	0.16/11 BK100 3.5	1.000	CH GND
132	H-W24-T050--2	WIRE #24 HANLIM 50MM	BR:T 9P LWL0640-09	1.000	CN1

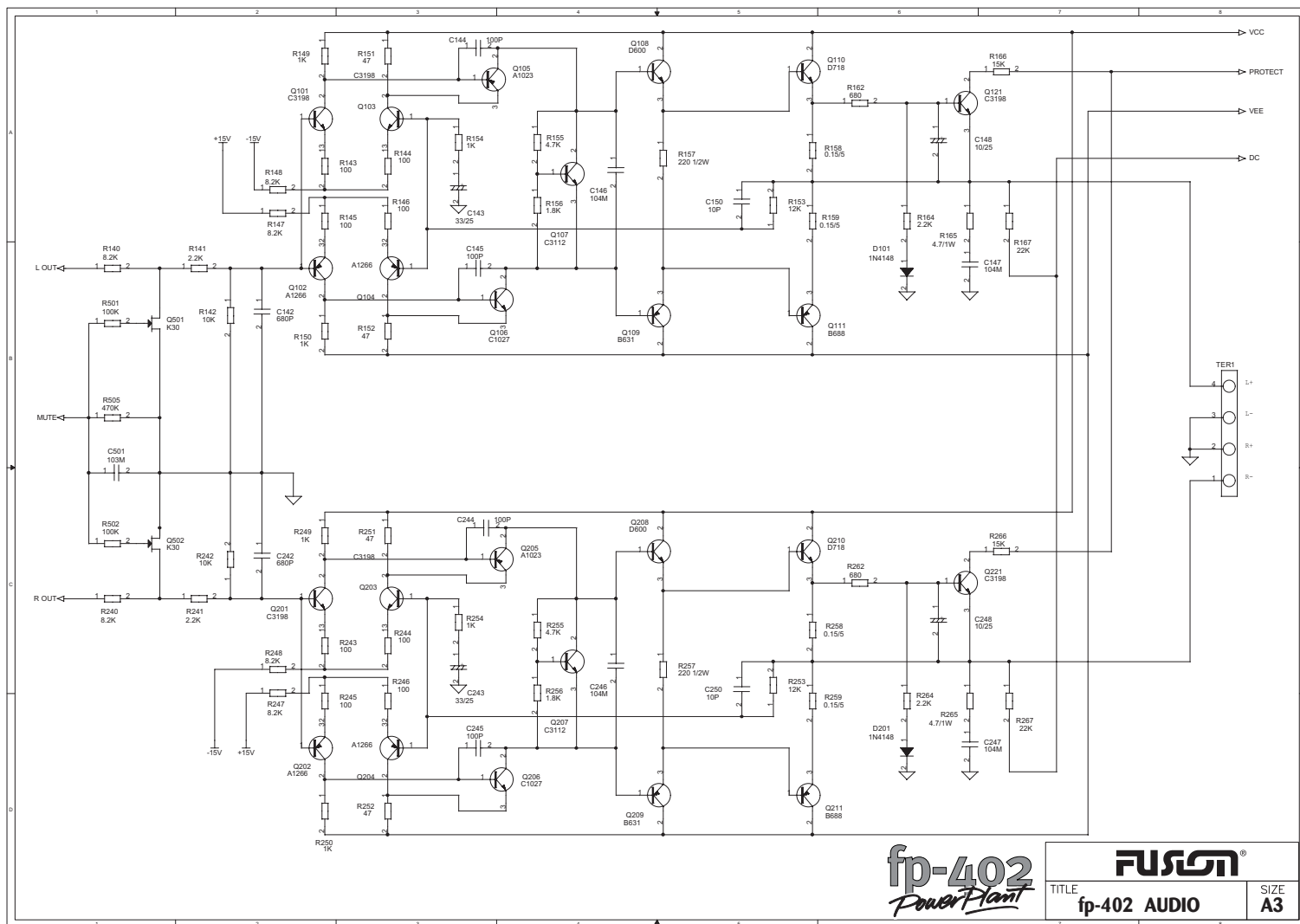


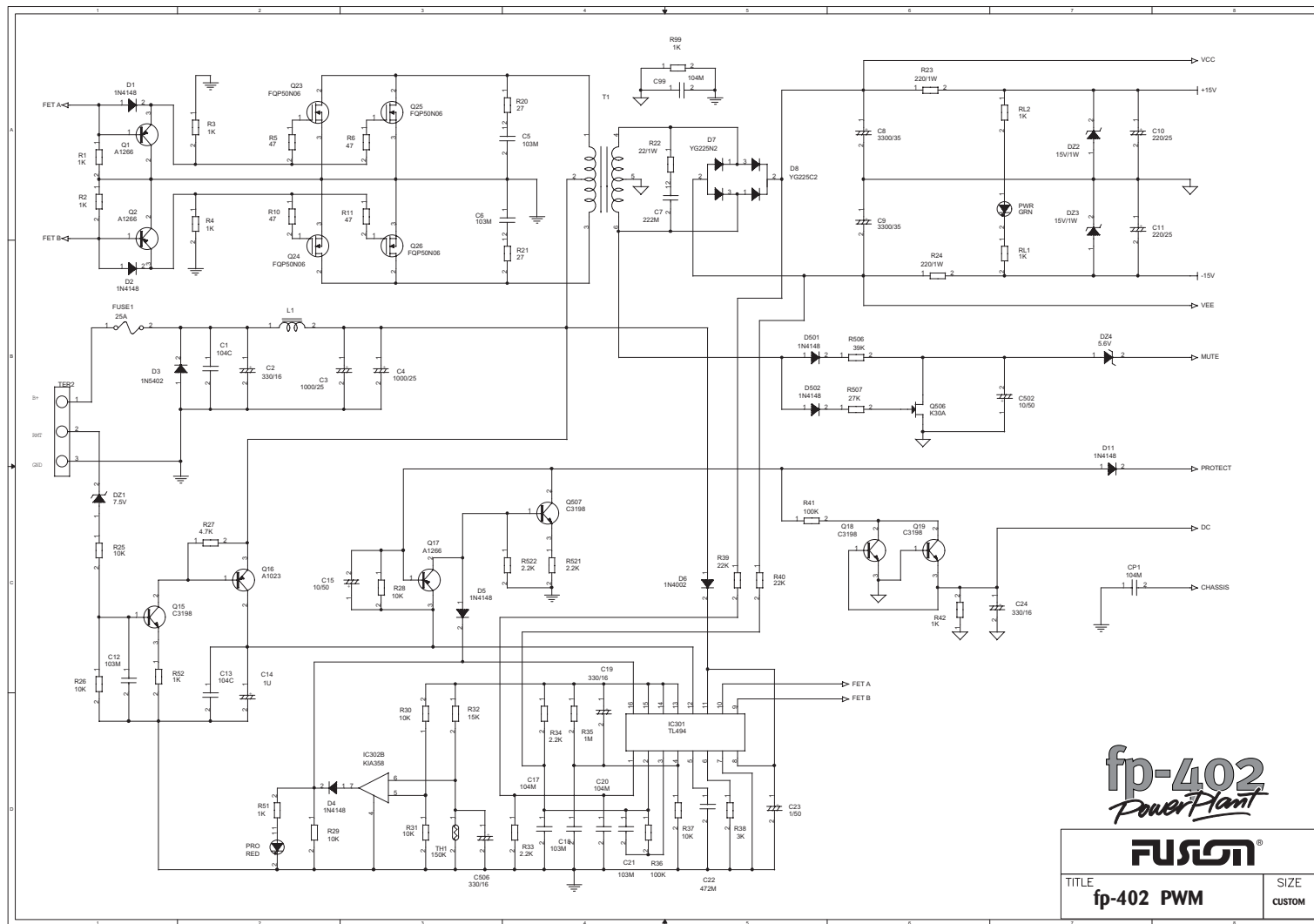
fp-402
Power Plant

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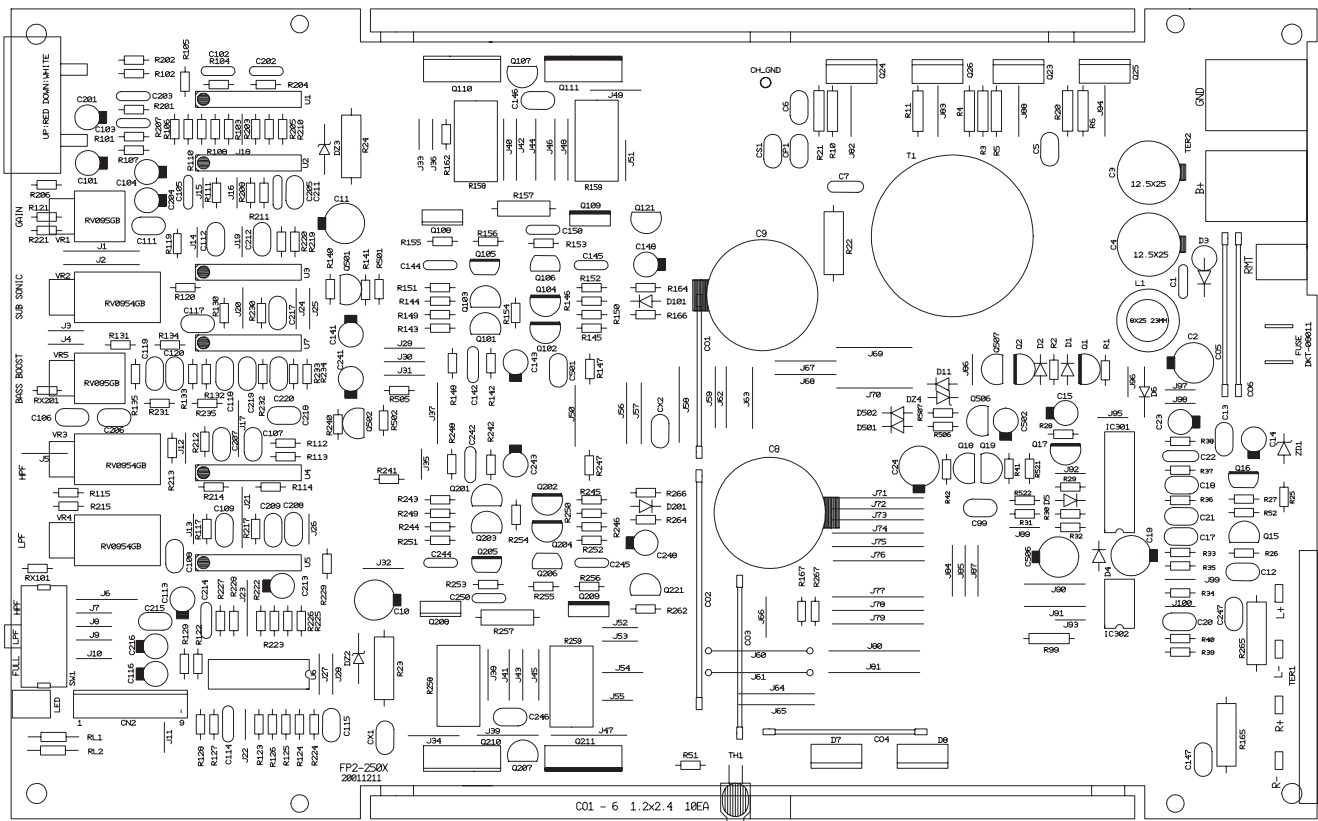
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fp-402 BLOCK DIAGRAM







fp-402 PowerPlant

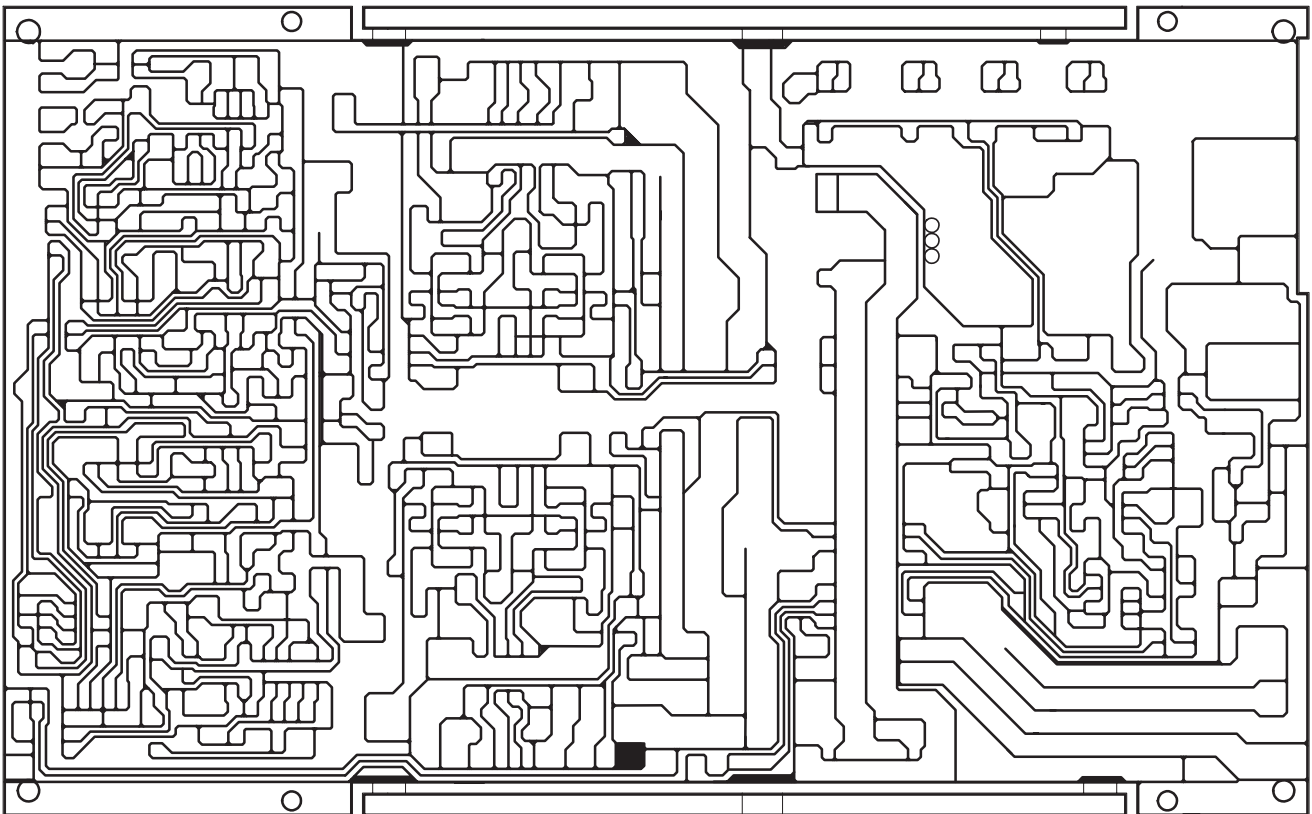


FUSION

TITLE
fp-402 PCB BOARD

SIZE
A3

fp-402
PowerPlant

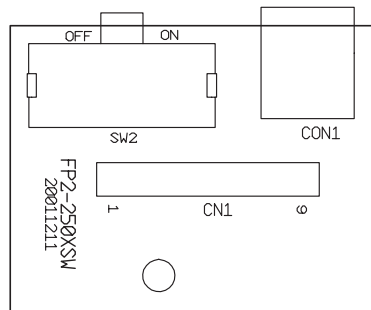


FUSION®

TITLE
fp-402 PCB BOARD

SIZE
A3

fp-402 *PowerPlant*

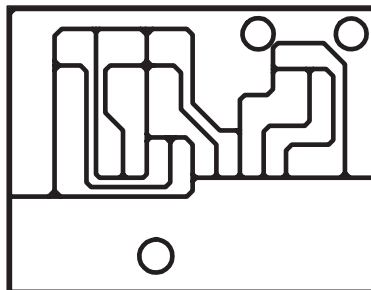


FUSION[®]

TITLE
fp-bass PCB BOARD -RMT

SIZE
A4

fp-402
PowerPlant



FUSION[®]

TITLE
fp-bass PCB BOARD -RMT

SIZE
A4