

SERVICE MANUAL



POWERED SUBWOOFER

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PARTS LIST

**PRE AMP SECTION
PRINTED CIRCUIT BOARD ASSEMBLY**

QTY	PART NO	DESCRIPTION	LOCATION
12	150F-101K-5-IEA	CC 50V 100pF 10% RL 5X3	C1,2,3,6,7,8,9,10,20,33,36,81
3	150F-104M-N-FD	CC 50V 0.1U 20% RLF	C25,37,38
1	153H-104K-5-QUA	CM 100V 0.1U 10% RL 9x11 CENTRALAB	C42
2	153I-224J-9-NL	CM 63V 0.22U 5% RB 7.5x6.5	C26,41
1	153I-224J-9-NL	CM 63V 0.22U 5% RB 7.5x6.5	C41
5	153I-683K-9-NL	CM 63V 0.068U 10% RB 7.5x6.5	C27,34,35,39,40
4	153I-684K-5-IN	CM 63V 0.68U 10% RL 5X7.5	C43,44,45,46
4	153I-823J-9-NL	CM 63V 0.082U 5% RB 7.5X6.5	C14,15,17,18
1	157D-107M-5-KW	CE 16V 100U 20% RL 6x12	C23
2	157D-476M-5-IU	CE 16V 47U 20% RL 5x11	C24,2A
1	157D-477M-5-OVK	CE 16V 470U 20% RL 8X11.5 ELNA	C22
1	157E-106M-5-IU	CE 25V 10U 20% RL 5x11	C21
4	157F-225M-5-IU	CE 50V 2.2U 20% RL 5x11	C11,13,16,19
4	4701-102J-2	RCF 1/8W 1K 5% AT	R4,14,87,89
12	4701-103J-2	RCF 1/8W 10K 5% AT	R2, 6, 9, 12, 16, 19, 23, 27, 28, 77, 78, 86
8	4701-104J-2	RCF 1/8W 100K 5% AT	R65,66,69,70,140,141,142,143
3	4701-123J-2	RCF 1/8W 12K 5% AT	R54,60,73
2	4701-125J-C	RCF 1/8W 1.2M 5% ATS	R75,80
2	4701-153J-2	RCF 1/8W 15K 5% AT	R59,139
4	4701-163J-2	RCF 1/8W 16K 5% AT	R57,58,62,64
4	4701-202J-2	RCF 1/8W 2K 5% AT	R1,5,11,15
2	4701-203J-2	RCF 1/8W 20K 5% AT	R10,20
4	4701-222J-2	RCF 1/8W 2.2K 5% AT	R21,22,83,84
6	4701-223J-2	RCF 1/8W 22K 5% AT	R3,7,13,17, 55,61
1	4701-225J-2	RCF 1/8W 2.2M 5% AT	R81
1	4701-273J-2	RCF 1/8W 27K 5% AT	R71
2	4701-303J-2	RCF 1/8W 30K 5% AT	R8,18
1	4701-332J-2	RCF 1/8W 3.3K 5% AT	R25
1	4701-333J-2	RCF 1/8W 33K 5% AT	R72
1	4701-334J-2	RCF 1/8W 330K 5% AT	R26
1	4701-392J-2	RCF 1/8W 3.9K 5% AT	R24
2	4701-471J-2	RCF 1/8W 470R 5% AT	R79,90
2	4701-472J-2	RCF 1/8W 4.7K 5% AT	R85,88
1	4701-563J-2	RCF 1/8W 56K 5% AT	R76
1	4701-683J-2	RCF 1/8W 68K 5% AT	R82

PARTS LIST

**PRE AMP SECTION
PRINTED CIRCUIT BOARD ASSEMBLY
(CONTINUED)**

QTY	PART NO	DESCRIPTION	LOCATION
3	4701-752J-2	RCF 1/8W 7.5K 5% AT	R56,63,68
1	4701-753J-2	RCF 1/8W 75K 5% AT	R74
1	4701-822J-2	RCF 1/8W 8.2K 5% AT	R67
1	2101-9790-0	4RCA JACK HSP-204V-03 GP	RCA1
10	3131-6140-0	IC BA4560 ROHM	U1,2,3,4,5,6,7,8,9,15
1	3700-4536-RG	L-115W EGW/209EGW RED/GR ELE-LED02	LED1
1	4750-5520-0	VR 20KAX1 VR16N20K15A20K L=15MM	VR1
1	4751-0056-0	VR 50KBX2 VR16G20K15B50K L=15MM ALPHA	VR3
1	4751-0066-0	VR 100KBX4 10% ALPHA	VR2
1	4837-3V36-2	DZ 1/2W +-5% 3.3V TEMIC AT	Z1
2	4837-5V16-2	DZ 1/2W 5.1V "TEMIC" AT	Z2,3
10	4840-8060-2	DIODE 1N4148 NS	D1,2,3,4,5,6,7,8,9,20
3	4860-2250-5	TR 9012H MICRO	Q3,4,7
4	4860-8720-5	TR 9013H SAMSUNG	Q1,2,5,6
4	5200-3281-0-06	SW COMAX SK-22D01-SG6-T-NS-IK	SW1,2,3,4
1	7010-2221-0	3 PIN SHIELD WIRE ASSY L=130MM	CN1A
1	7010-2222-0	3 PIN FLAT CABLE ASSY L=100MM	CN2A
2	7011-4570-0	AMP108U AWG26 180MM BRWN NALX2 1-51-274	CN5,6
1	7012-6517-0	CONN WIRE UL1007 #20 L=170MM 3PIN	CN7
1	1725-653A-0000	PCB PRE PSW2500 D/S FR4 94V0 REV:B	

**POWER AMP SECTION
PRINTED CIRCUIT BOARD ASSEMBLY**

QTY	PART NO	DESCRIPTION	LOCATION
4	150F-101K-5-IEA	CC 50V 100pF 10% RL 5X3	C39,40,64,65
2	150F-104M-N-FD	CC 50V 0.1U 20% RLF	C53,54
1	150F-334M-N-JJA	CC 50V 0.33U 20% RLF MO NO	C36
1	150F-470K-5-GGA	CC 50V 47pF10% RL MONO	C38
2	150F-471K-5-IEA	CC 50V 470pF 10% RL 5x3	C32,33
2	150F-681J-5-OI	CC 50V 680pF 5% RL 8X5	C42,43
1	153H-102K-5-INA	CM 100V 0.001U 10% RL 5x7.5	C37
5	153H-104K-5-QUA	CM 100V 0.1U 10% RL 9x11 CENTRALAB	C57,58,61,62,68

PARTS LIST

**POWER AMP SECTION
PRINTED CIRCUIT BOARD ASSEMBLY
(CONTINUED)**

QTY	PART NO	DESCRIPTION	LOCATION
1	153I-105K-9-NL	CM 63V 1U 10% RB 7.5x6.5	C31
1	153I-224K-9-NOA	CM 63V 0.22U 10% RB 7.5X8	C47
2	157D-227M-5-KW	CE 16V 220U 20% RL 6x12	C55,56
1	157D-476M-5-IU	CE 16V 47U 20% RL 5x11	C50
2	157F-105M-5-IU	CE 50V 1U 20% RL 5x11	C34,48
2	157F-225M-5-IU	CE 50V 2.2U 20% RL 5x11	C41,66
1	157F-474M-5-IU	CE 50V 0.47U 20% RL 5x11	C51
2	157I-107M-5-SX	CE 63V 100U 20% RL 10x12.5	C44,45
1	157I-476M-5-OV	CE 63V 47U 20% RL 8x11.5	C52
1	157Q-476M-5-LUA	CE 35V 47U 20% RL 6.5X11 ELNA	C49
1	1806-2393-0	TT-9904 LE 1012A 1X12TX6 MM SPRING COIL	L1
3	2101-1231-0	SPADE TERMINAL 6.3X0.8 STRAIGHT	AC1,2,VO
1	2101-9140-0	WAFER JM24182-3P	CN3
2	2607-3009-0550	SPRING WASHER M3X0.9X5.5 MM ZNC	U14,15
2	2954-2606-0000	SCREWS BT 2.6X6	U14,15
1	2954-3008-3000	T3X8MM SELF TAPPING	U14
1	3130-3020-0	IC LM7915CT REGULATOR	U15
1	3130-3030-0	IC LM7815CT REGLATOR	U14
1	3130-3550-0	IC TA7317P	U13
1	3130-4080-0	IC TL072CP DUAL FET OP AMP TI	U12
1	3130-9150-0	IC LM3080N OTA NATIONAL	U9
2	3131-7220-0	IC TL062 LOW POWER JFET	U10,11
3	4132-1551-0	TERMINAL OUT PUT	R.GND,SPK+,SPK-
1	4500-8090-1	RELAY RUUH-SH-124D 15A GOOD SKY	RLY1
4	4718-100J-C-X	RMF 1W 10R 5% ATS METAL OXIDE	R112,113,127,128
4	4719-222J-1-X	RMF 2W 2.2K 5% AL METAL OXIDE	R141,142,148,149
4	474B-0R1J-1	RWR 5W 0.1 5% AL	R118,119,122,123
2	474B-271J-1	RWR 5W 270R 5% AL	R143,144
1	4756-2036-3-15	SVR B20K H3 VZ067TL7B 6.3X 6.8 HDK	TP1
1	4840-0720-0	BRIDGE 8A BR84 RECTRON	D11
1	485D-1390-5	TR BD139-10 HFE63-160	Q14
1	4860-1430-5	TR BD140-10 HFE 63-160	Q15
1	4860-2390-5	TR 2N3906 NS	Q9
2	4860-8890-0	TR MPS A06 VCE 80V NS	Q12,13
2	4860-8910-0	TR MPS A56 VCE 80V NS	Q11,20

POWERED SUBWOOFER
PARTS LIST
**POWER AMP SECTION
 PRINTED CIRCUIT BOARD ASSEMBLY
 (CONTINUED)**

QTY	PART NO	DESCRIPTION	LOCATION
2	5400-9130-0	HEAT SINK FOR 7805 2438- 17	U14,15
1	7012-6518-0	CONN WIRE UL1007 #18 BK W/SPADE	R.GND
1	8910-0196-0	THERMISTOR NTH4G 10K 1% MURATA	TH1
2	8910-0492-0	CE 63V 12000uF 20% RL 35X45	C59,60
10	4701-101J-2	RCF 1/8W 100R 5% AT	R81, 83, 110, 111, 114, 115, 116, 117, 120, 121
2	4701-102J-2	RCF 1/8W 1K 5% AT	R145,146
8	4701-103J-2	RCF 1/8W 10K 5% AT	R85,88,89,92,99,100,101,137
4	4701-104J-2	RCF 1/8W 100K 5% AT	R80,96,131, 132
2	4701-123J-2	RCF 1/8W 12K 5% AT	R95,109
3	4701-153J-2	RCF 1/8W 15K 5% AT	R82,104,105
1	4701-154J-2	RCF 1/8W 150K 5% AT	R90
2	4701-183J-2	RCF 1/8W 18K 5% AT	R134,135
2	4701-202J-2	RCF 1/8W 2K 5% AT	R98,147
2	4701-203J-2	RCF 1/8W 20K 5% AT	R84,93
1	4701-223J-2	RCF 1/8W 22K 5% AT	R87
1	4701-272J-1	RCF 1/8W 2.7K 5% AL	R108
2	4701-333J-2	RCF 1/8W 33K 5% AT	R136,138
1	4701-334J-1	RCF 1/8W 330K 5% AL	R102
2	4701-391J-2	RCF 1/8W 390R 5% AT	R106,107
1	4701-514J-2	RCF 1/8W 510K 5% AT	R91
3	4701-562J-2	RCF 1/8W 5.6K 5% AT	R124,125,126
4	4701-563J-2	RCF 1/8W 56K 5% AT	R129,130,133,139
1	4701-682J-2	RCF 1/8W 6.8K 5% AT	R103
1	4701-913J-2	RCF 1/8W 91K 5% AT	R94
1	4707-152J-2	RCF 1/2W 1.5K 5% AT	R140
1	4711-105A-2	RMF 1/8W 1M 1% AT	R86
1	4711-273A-2	RMF 1/8W 27K 1% AT	R97
2	4840-0010-2	DIODE 1N4001 ELE-DO002	D9,10
8	4840-8060-2	DIODE 1N4148 NS	D3,4,5,6,7,8,12,13
29	635N-0001-0	WJ #23 AT FOR AI MACHINE	JP37,38,39,40,41,42,43,44,45,46, 47,48,49,50,51,52,53,54,55,56, 57,58,59,60,61,62,63,64,65
1	1725-654A-0000	PCB POWER AMP PSW2500 S/S P/P 94V0 REV:B	

PARTS LIST

**VOLTAGE SELECTOR SECTION
PRINTED CIRCUIT BOARD ASSEMBLY**

QTY	PART NO	DESCRIPTION	LOCATION
2	153Z-103M-5-7T	CM 275V 0.01U 20% RL 18X10.5	C69,70
1	5200-3627-0	SL14-22AH (1A) SW 2P2T AC SELECTOR	SW2
1	635N-0001-0	WJ #23 AT FOR AI MACHINE	JP61
1	1723-780A-0000	PCB VOLT SELECTOR REV:C FC310C	

PRE AMP&POWER AMP ASSEMBLY

QTY	PART NO	DESCRIPTION	LOCATION
1	7011-5030-0	TC1490GP 3 CORE CORD 1/P 2M BK 1-51-320	
1	153Z-104M-5-7W	CM 275V 0.1U 20% RL	C63
11	2101-1231-0	SPADE TERMINAL 6.3X0.8 STRAIGHT	1,2,3,4,5,L,N,SW2-1/2/3/4/
3	2436-6501-1	VOL/FREQ KNOB	VR FREQ PHAS
1	3000-9430-0	LABEL FOR REAR PANEL	PANEL
4	3100-3171-0	MICA SHEET A (24X20)	Q16 17 18 19
1	3100-6041-0	FIBRE PAD 1.0MM THK	FREQUENCY VR
1	4149-0421-0	PAD FOR SELECT SWITCH	SWITCH
4	4153-1250-0	2209 SW COVER 1-41-112	SW1,2,3,4
1	4153-3331-0	EVA GASKET 5*500	SHIELD WIRE
1	4153-3800-1	POWER INLET SOCKET SC9F-21	IEC1
2	4860-5050-5	TR 2SC5200 T0-3P (L) TOSHIBA	Q17 Q19
2	4860-5060-5	TR 2SA1943 T0-3P (L) TOSHIBA	Q16 Q18
2	5120-0079-0	FUSE T3.15A 250V 5X20MM UR & SEMKO	IEC1
1	5200-4725-0	SWITCH ROCKER 2P1T	SW2
1	1403-4740-0	CABINET FOR PSW2500 BK (ELLIPSE)	
1	3000-5116-0	QC ACC LABEL	T1
1	1403-4740-0	CABINET FOR PSW2500 BK (ELLIPSE)	
4	2640-4070-1500	T-NUT M4 JIC003-00	
4	2904-5007-2000	SCREW M5*7 WHITE ZINC	
1	3000-7317-0	MODEL LABEL FOR 8900-6140-0	
1	3300-3821-0	POLE 49.7*39.5*20*46.5 FOR KHT-SUB	
1	3300-6560-0	WH122*55.8*6 4M5 76.5	
1	3300-9550-1	FRAME FOR PSW2500	
1	3800-5150-0	VC50.5KSV3.2*0.45*42	
3	4104-5031-0	MAGNET 120*60*15 Y30	
1	4134-4071-0	TML 0.5*205*110REV 90DEG JD8003	

POWERED SUBWOOFER

PARTS LIST

**PRE AMP&POWER AMP ASSEMBLY
(CONTINUED)**

QTY	PART NO	DESCRIPTION	LOCATION
1	4200-5261-0	DUST CUP FOR KHT-SUB	
1	4200-8810-0	CONE FOR KHT-SUB 10" WF	
1	8700-1770-0	DPR 115*51.8*5 0.4/50G	
1	DUM-1403-4740-0	DUMMY 1403-4740-0	
1	4154-2662-1	ABS MOULDING FOR PSW2500 BLACK	
1	1403-8202-0	SEAL CAN FOR KHT-SUB (ELLIPSE)	
1	1403-8202-1	SEAL COVER FOR PSW2500	
1	145A-9470-0	M.BOX FOR ELLIPSE	
2	1490-7913-0	P.FOAM FOR ELLIPSE	
4	2900-4015-3000	MA SCREW 4*15 6.8MM BK/R JG1856-01	
8	2910-4020-3000	SCREW T4.0X20MM TAPPING	
2	3000-4447-0	LABEL, BARCODE BLANK	
1	3000-6333-0	BARCODE S/N LABEL SP8387	
1	3000-7333-0	UPC LABEL FOR PSW2500 BLACK (UK)	
1	3000-8902-0	MADE IN CHINA LABEL	
2	4153-0341-0	KAM83 ACOUSTIC MATERIAL MMC028-00	
4	4153-3341-0	NITRILE RUBBER GASKET 15*1.5	
2	4153-3431-0	GRILLE GASKET FOR QBASS	
1	4154-2352-0	LENS DISPLAY FOR PSW2500 BLACK	
1	4301-5224-0	MANUAL FOR PSW2500	
1	4301-6037-1	W.CARD FOR KEF (1 YEAR)	
1	7012-0390-0	#18AWG TWIN RED #205*2 & RED/BK	

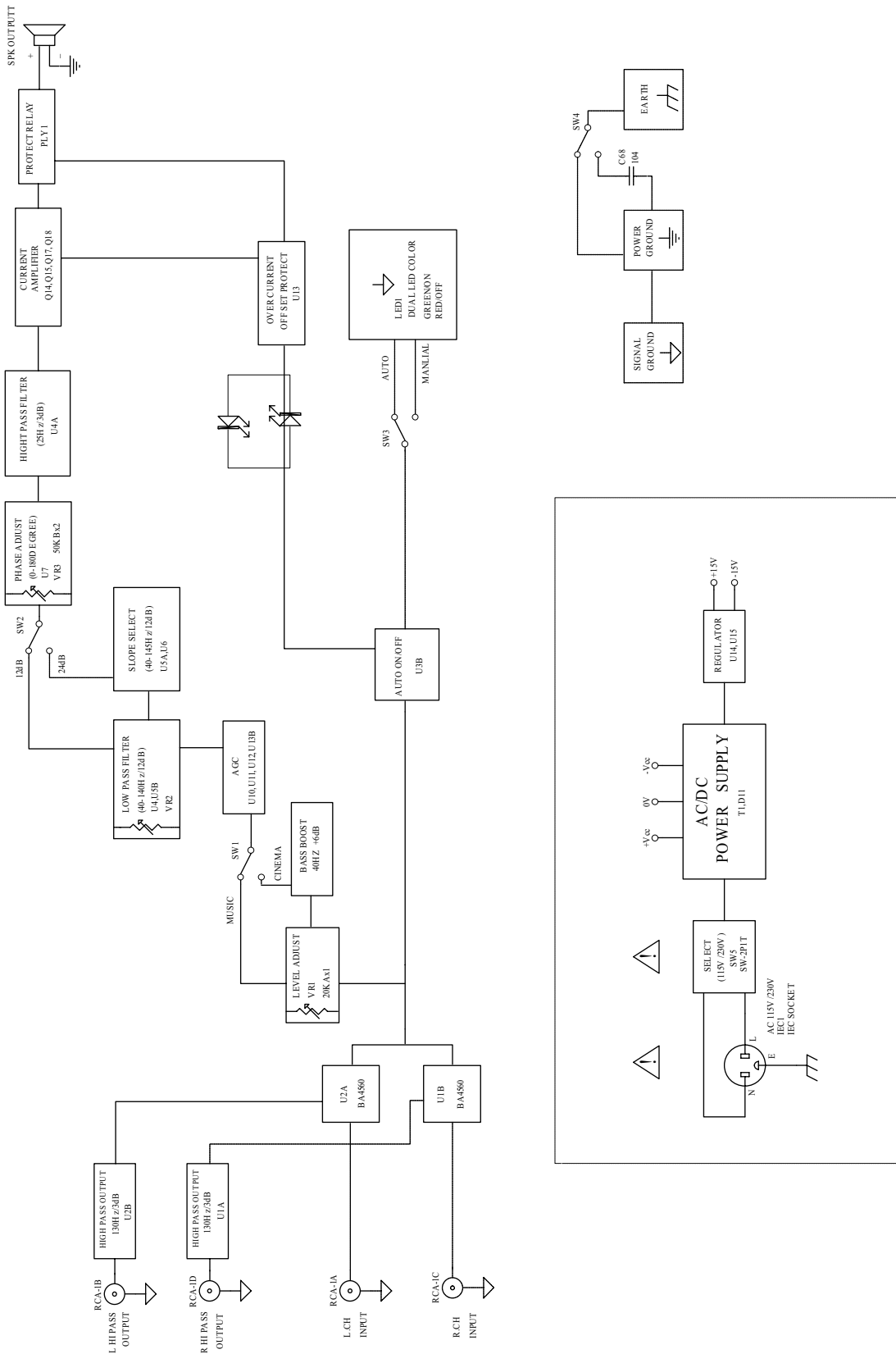
10" SPEAKER ASSEMBLY

QTY	PART NO	DESCRIPTION	LOCATION
1	8900-6140-0	10" WF FOR FC8D0C-EU/UK/ US	

POWER CORD CABLE ASSEMBLY

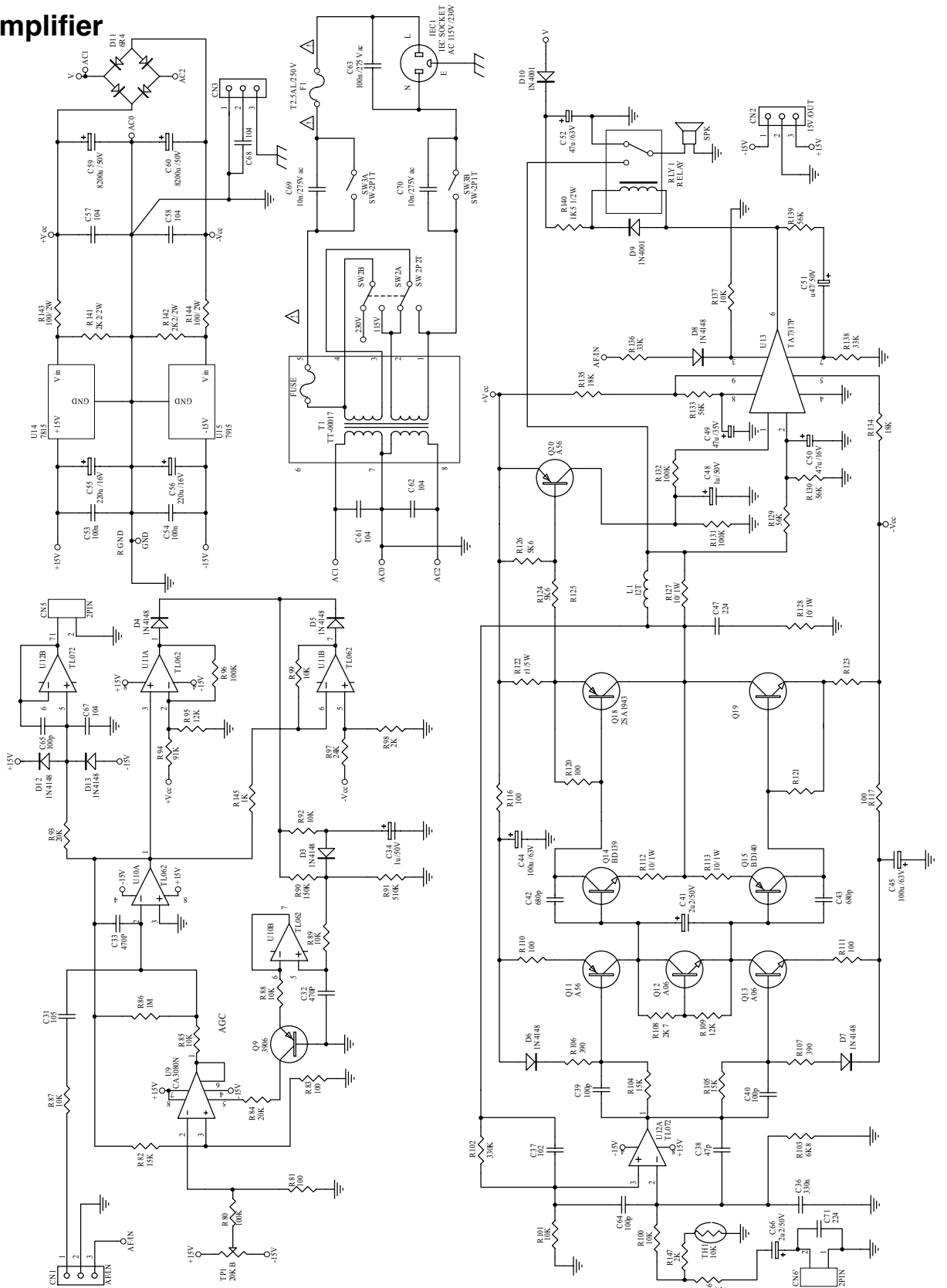
QTY	PART NO	DESCRIPTION	LOCATION
1	7011-6220-0	HO5VV-F 0.75MM/3C 2M BLK	*EU
1	7011-5030-0	TC1490GP 3CORE 1/P	*UK
1	7011-6210-0	SJT#18 /3C 2M BLK POWER	*US

BLOCK DIAGRAM



SCHEMATIC DIAGRAM

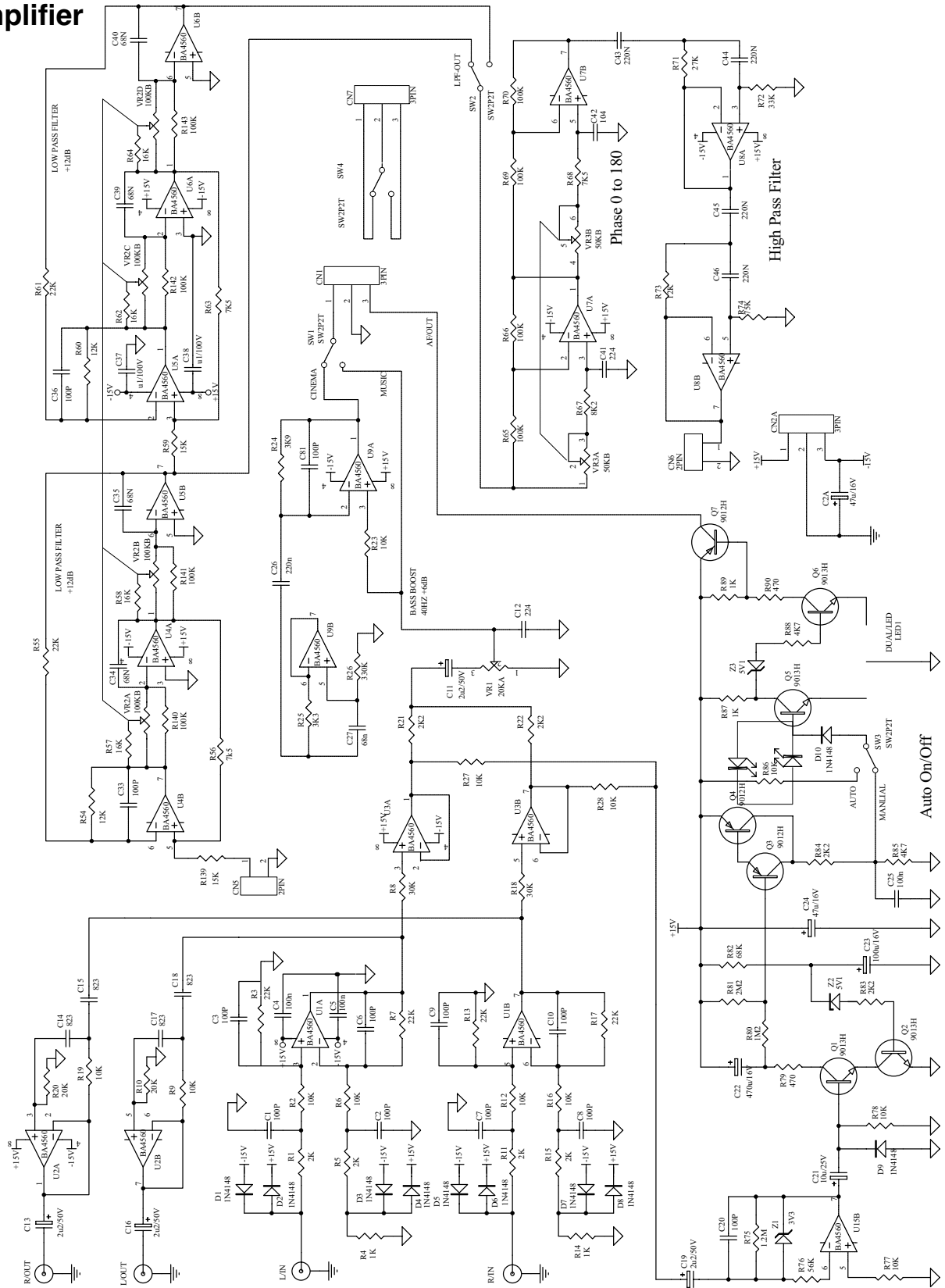
Power Amplifier



POWERED SUBWOOFER

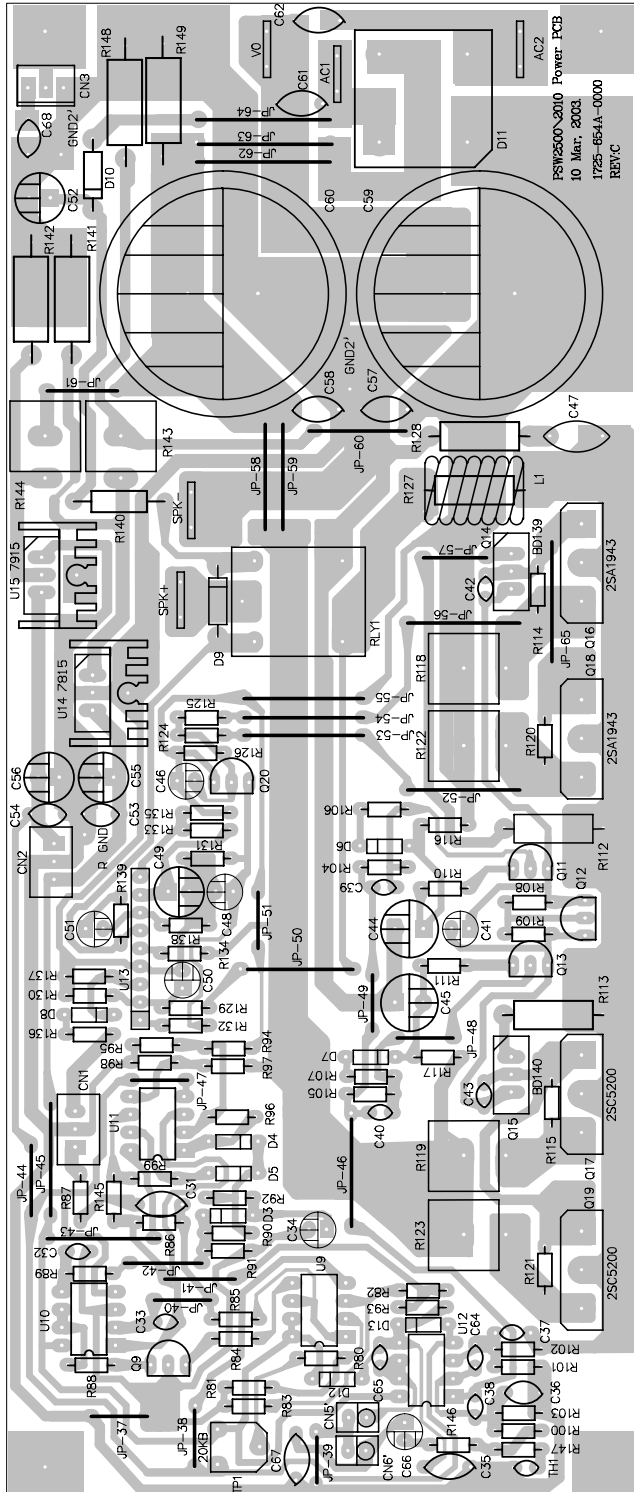
SCHEMATIC DIAGRAM

Pre Amplifier

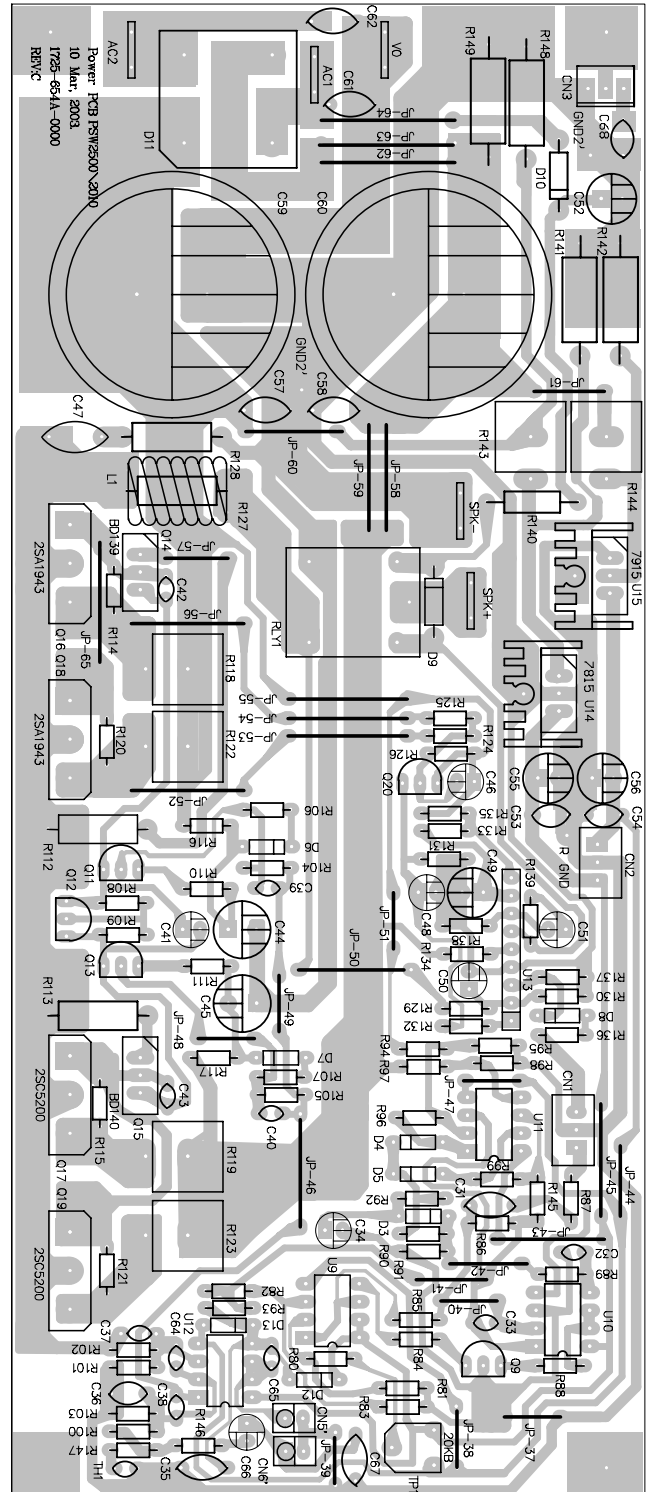


POWERED SUBWOOFER

PCB LAYOUT

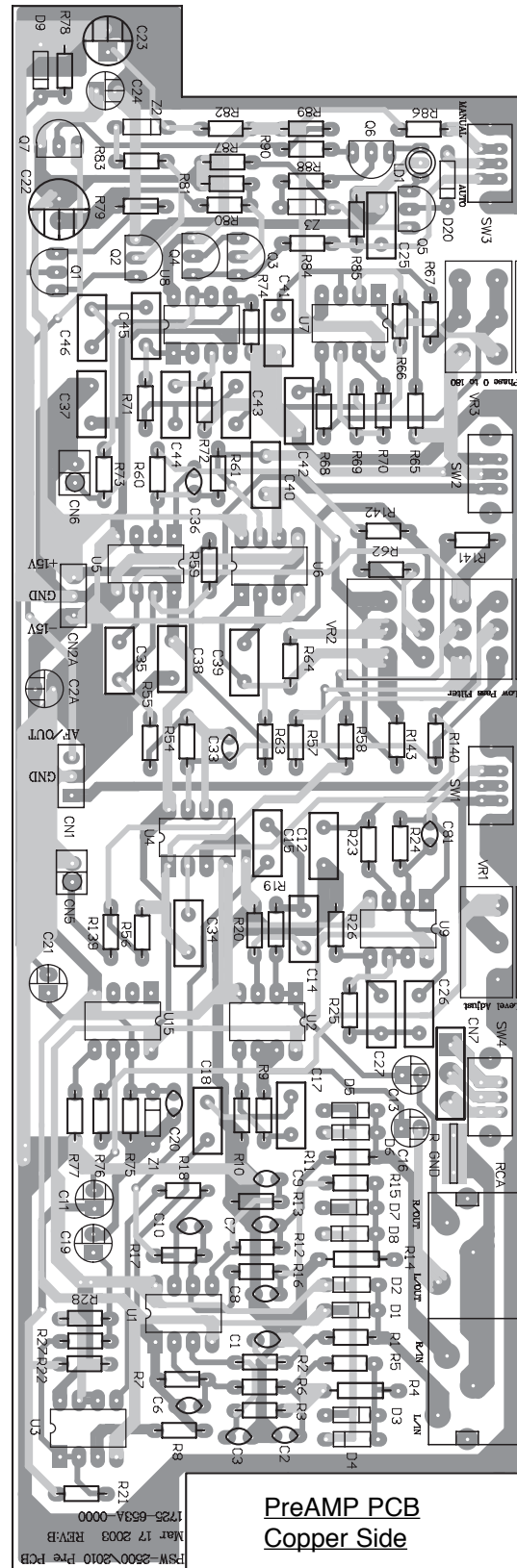
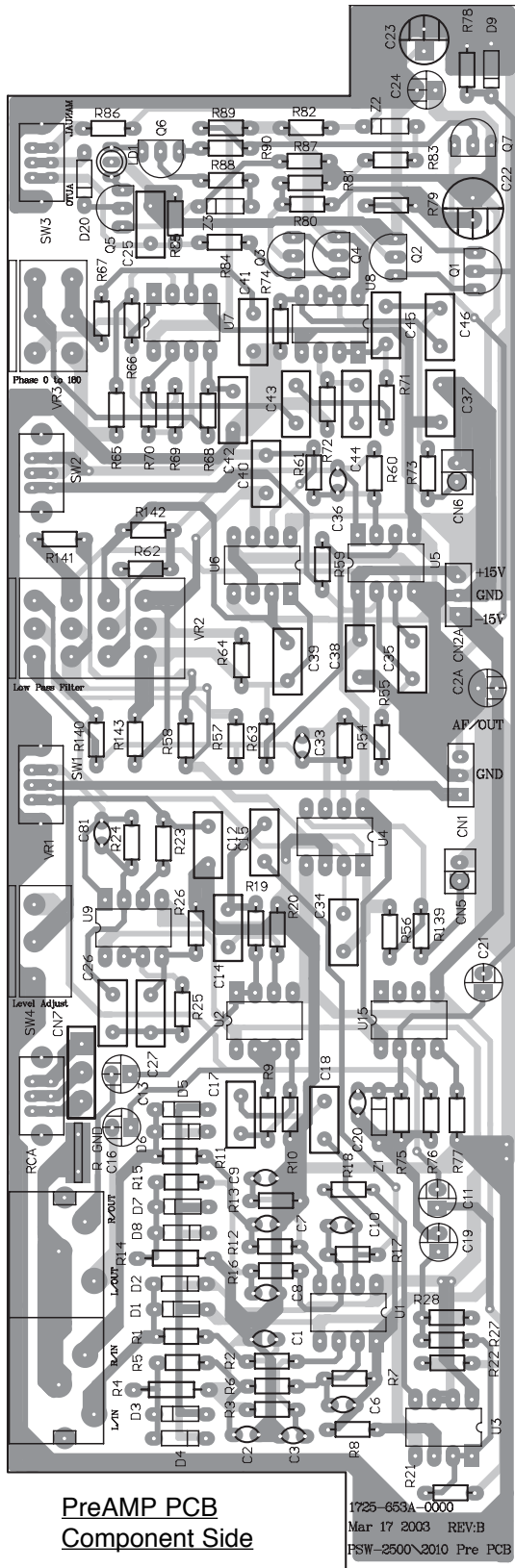


Power PCB Component Side



Power PCB Copper Side

PCB LAYOUT



EXPLODED VIEW DIAGRAMS

REF	DESCRIPTION	PARTS NO.	QTY	REF	DESCRIPTION	PARTS NO.	QTY
1	REAR PANEL	1404-7001-0	1	21	INT TOOTH WASHER M4*0.8*8.5MM	2606-4008-0853	1
2	TRANSFORMER BRACKET	1402-3070-0	1	22	SPRING WASHER M4*1*7MM NI	2607-4010-0704	5
3	BRASS TUBE 6*M3*12	4135-0271-0	4	23	M3 NUT	2640-3022-0540	2
4	VOLTAGE PCB	1723-780A-0000	1	24	SCREW M3*8 BINDING BLK	2904-3008-3000	8
5	PRE AMP PCB	1725-653A-0000	1	25	PCB BRACKET	4135-0901-0	2
6	POWER AMP PCB	1725-654A-0000	1	26	PAD FOR SLIDE SWITCH	4149-0391-0	4
7	T3*8MM SELF TAPPING	2954-3008-3000	5	27	TRANSFORMER	1806-2415-0	1
8	SPRING WASHER M3*0.9*5.5MM	2607-3009-0550	18				
9	METAL WASHER M3*0.5*8MM	2600-3005-0800	8				
10	M3*14MM B-TITE (BLK.Zn)	2954-3014-3000	8				
11	HEATSINK	5400-3351-0	1				
12	HEATSINK PLATE	5400-3361-0	1				
13	INSULATION PCB-3	1725-327A-0000	1				
14	INT TEETH WASHER M3*0.5*6.4MM	2606-3005-0643	1				
15	B-TITE 3*10MM (BLK.Zn)	2954-3010-3000	4				
16	VOL/FREQ KNOB	2436-6501-1	3				
17	SCREW M4*10 (BLK)	2904-4010-3000	5				
18	SCREW M3*6 BINDING (BLK)	2904-3006-3000	8				
19	SCREW M3*10 (BLK)	2904-3010-3000	2				
20	NUT HEX M4	2640-4030-0704	5				

