Performance Series

PS1400

Powered Subwoofer

PRELIMINARY SERVICE MANUAL

JBL Consumer Products
250 Crossways Park Dr.
Woodbury, New York 11797

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PS1400 Powered Subwoofer

General specifications

Amplifier Power Output	400 Watts
Sensitivity (2.83V/1m)	91dB
Frequency Response (–6dB)	28Hz to 130Hz
(-3dB)	30Hz to 130Hz
Crossover Frequency	130Hz
Low-Frequency Transducer	LE14H-3 14" Aquaplas™-cone woofer
Dimensions (H x W x D)	19" x 20" x 15" (483mm x 508mm x 381mm)
	Plus grille and spike feet
Weight	80 lb (36kg)

JBL continually strives to update and improve existing products, as well as create new ones. The specifications and details in this and related JBL publications are therefore subject to change without notice.

PS1400 SUB Amplifier Detailed Specs

LINE VOLTAGE	Yes/No	Hi/Lo Line	Nom.	Unit	Notes
US 120vac/60Hz	Yes	108-132	120	Vrms	Normal Operation
EU 230vac/50-60Hz	Yes	207-264	230	Vrms	Normal operation, MOMS required

Parameter	Specification	Unit	QA Test Limits	Conditions	Notes
Type (Class AB, D, other)	D	n/a	D		Bridge amplifier, None of the speaker outputs must be connected to GND at any time.
Load Impedance (speaker)	6	Ohms	6		
Rated Output Power (120VAC	250	Watts	240		Nominal Input voltage , unit without limiter must be able to provide output power levels in the range of 350 Watts
THD @ Rated Power	0.3	%	1		
THD @ 1 Watt	0.1	%	0.3		
DC Offset	100	mV-DC	100		
Damping factor	>40	DF	23		200 Watts into 6 Ohms, measured at speaker
Input Sensitivity					
Input Frequency	60	Hz			
LFE input	1.50	Vrms	±2dB	250 Watts into rated impedance load	Normal Mode
SYSTEM INPUT	1.10	Vrms	±2dB	1 Watt output , LF level control FCW	Normal Mode
SYSTEM INPUT	3.47	Vrms	±2dB	1 Watt output , LF level control FCCV	Normal Mode
Signal to Noise					
SNR-No Filter	86	dBr	70	relative to rated power	No filter 500 KHz BW AP
SNR-A-Weighted	95	dBA	80	relative to rated power	A-Weighting filter
SNR-unweighted	95	dBr	80	relative to rated power	22k filter
SNR rel. 1W-unweighted	70	dBr	60	relative to 1W Output	22k filter
Residual Noise Floor	1	mVrms	2	Volume @max, using RMS reading DMM/VOM (or A/P) BW=20 Khz.	
Residual Noise Floor	1.5	mVrms(max)	2	Volume @max, w/ A/P Swept Bandpass Measurement (Line freq.+ harmonics) (BW=20 Khz)	
Input Impedance					
Low Level input(LFE)	20K	Ohms	n/a	Nominal	
Speaker/Hi Level Input	10K	Ohms	n/a	Nominal	
Filters					
Normal Mode LP 3rd Order -3dB Point	Fixed-selectable	Hz	100 ± 2	Front panel switch to Normal mode Reference level 0dB @ 60 Hz Normal mode	
Separated mode LP 3rd Order -3db Point	Fixed-selectable	Hz	280 ± 2	Front panel switch to Separated Reference level 0dB @ 60 Hz, when EQ switch in Normal mode	
Subsonic Filter -3dB point	Fixed	Hz	20.5 ± 2	Ref level 0dB ref at 60 Hz Normal mode	
Limiter					
THD at Max. Output Power	n/a	n/a	functional	Maximum Output Power	Maximum THD as a result of limiting. Must be lower than 10%
Signal Sensing (ATO)					
Auto-Turn-On (yes/no)	YES		functional		
ATO Input test frequency	60	Hz	functional	"	
ATO Level LFE Input	6	mV	functional	"	Maximum acceptable level.
ATO Level Speaker in	184	mV	functional	"	Maximum acceptable level.
ATO Turn-on time	1	sec.	functional	Amp connected and AC on, then input signal applied	
Auto Mute/ Turn-OFF Time	15	Minutes	15	T before muting, after signal is removed	Auto turn of time (T) must be 5 > T < 15 Minutes
Power on Delay time	3	sec.	4	AC Power Applied	
Transients/Pops					
ATO Transient	5	mV-peak	n/a	@ Speaker Outputs	
Turn-on Transient	50	mV-peak	2V-pp	@ Speaker Outputs	AC Line cycled from OFF to ON
Turn-off Transient	50	mV-peak	2V-pp	@ Speaker Outputs	AC Line cycled from ON to OFF
Efficiency	70	%	65		Nominal Line voltage 120 VAC
	15	Watts	18	@ nom. line voltage	
Power Cons. @ rated power	425	Watts	462	@ nom. line voltage	300 Watts @ 6 Ohms nominal line voltage
Protection					
Short Circuit Protection	YES		functional	Direct short at output	Amplifier should resume operation after short circuit condition removal
Thermal Protection	YES		functional	@1/8 max unclipped Power at 1.06 times the input voltage	Temperature rise should not exceed 35K rise for domestic version or 30K rise for European versions. PROTECTION IS SET FOR ABNORMAL OPERATING CONDITIONS
DC Offset Protection	YES		-	DC present at Speaker Out leads	
Line Fuse Rating					
USA-Domestic	4	Amps		Type-T or Slo Blo-250 V	
EU	2	Amps		Type-T or Slo Blo-250 V	External fuse with UL/SEMKO rated holder

Subwoofer Controls PS1400

❶ **On/Auto Switch** – When left in the "Auto" position, the PS1400 subwoofer will automatically turn on or go into standby mode, depending on whether it detects an audio signal. When no signal is being sent, the PS1400 will remain in standby mode. When it senses an audio signal, it will automatically turn itself on and begin playing. If the PS1400 does not sense a signal for about twenty minutes, it will switch itself into standby mode. When this switch is left in the "On" position, the PS1400 will remain on, whether or not program material is playing.

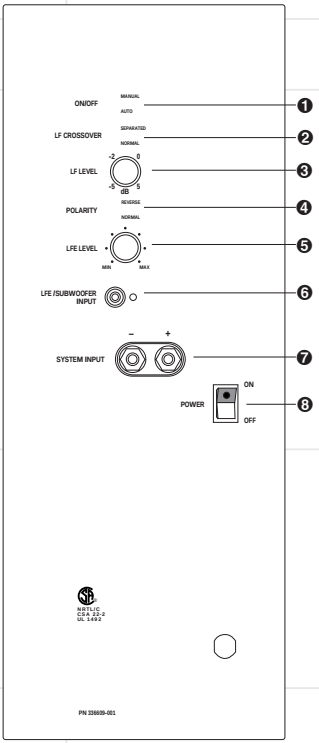
❷ **LF Crossover Switch** – This switch is used to engage the PS1400's internal crossover when it is stacked with the PT800 tower module, and when no external crossover is being used. In the "Normal" position, the internal crossover is engaged, and provides an electronic 130Hz crossover for the subwoofer which precisely matches the passive 130Hz crossover point of the output terminal to the PT800. The crossover is precision-designed to create a smooth, integrated floorstanding speaker system when the PS1400 and PT800 are stacked.

In the "Separated" position, the PS1400 provides an electronic 300Hz rolloff for the subwoofer, which should be augmented by the low-pass crossover in the external audio/video receiver or processor. In this mode, the PT800, whether or not it is stacked with the PS1400, should be given only a high-passed amplifier signal. That signal should be crossed over at 80Hz.

❸ **LF Level Control** – This control allows you to adjust the level of the subwoofer within a range of +/– 5dB. Start with the control positioned at 0dB, which is flat (neutral bass level). If bass response is unsatisfactory, due to either your room acoustics or as a matter of taste, experiment with this control until the desired bass level is achieved. This control only affects all information being received by the speaker-level input.

❹ **Polarity (Phase) Switch** – Use the "Normal" position whenever the PS1400 and PT800 are stacked and the internal crossover is used. It should also be used when an external crossover is used and all amplifier channels are in phase.

The "Reverse" position may be used when the PS1400 and PT800 are separated, and due to wave cancellation, bass response is improved in this position. "Reverse" may also be selected when different amplifiers are used that have different polarity configurations.



❺ **LFE Level Control** – This control only affects the signal sent to the LFE input. Adjust the LFE level by starting with the level controls on both PS1400 modules in the Minimum position. With 5.1, 6.1 or 7.1 source material playing, advance the LFE Level controls on both PS1400s slowly until the desired amount of effects channel is present. The normal position for this control is full clockwise, with LFE adjustments being made via the level adjustments on your processor. We have provided this control because the LFE output level of AV receivers and processors can vary from manufacturer to manufacturer.

If you are using the third or fourth configurations, where the main speakers are configured as "Small" and all bass information is being sent to the LFE inputs of the PS1400s, the LFE Level control will operate on all low- frequency information, and not just for the .1 channel effects.

❻ **LFE/Subwoofer Input** – This jack accepts either an LFE or line-level output from the receiver or processor.

❼ **System Input** – These binding posts accept a full-range, amplified (speaker-level) output from the receiver or amplifier. This input should be used whenever the PS1400 and PT800 modules will be stacked and the internal crossover used to form an integrated floorstanding speaker system. This input should be used in that configuration even if the LFE input will also be used.

❽ **Power** – This is the main power switch, which must be turned on for the amplifier and electronic internal crossover to function. If you will be away from home for an extended period of time, or if the PS1400 will not be used, turn this switch off to conserve electricity.

TROUBLESHOOTING

If there is no sound:

- Check that receiver/amplifier is on and a source is playing.
- Check that the PS1400 is plugged in and its Power switch **(8)** is switched on.
- Check all wires and connections between receiver/amplifier and PS1400. Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.
- Review proper operation of your receiver/amplifier.

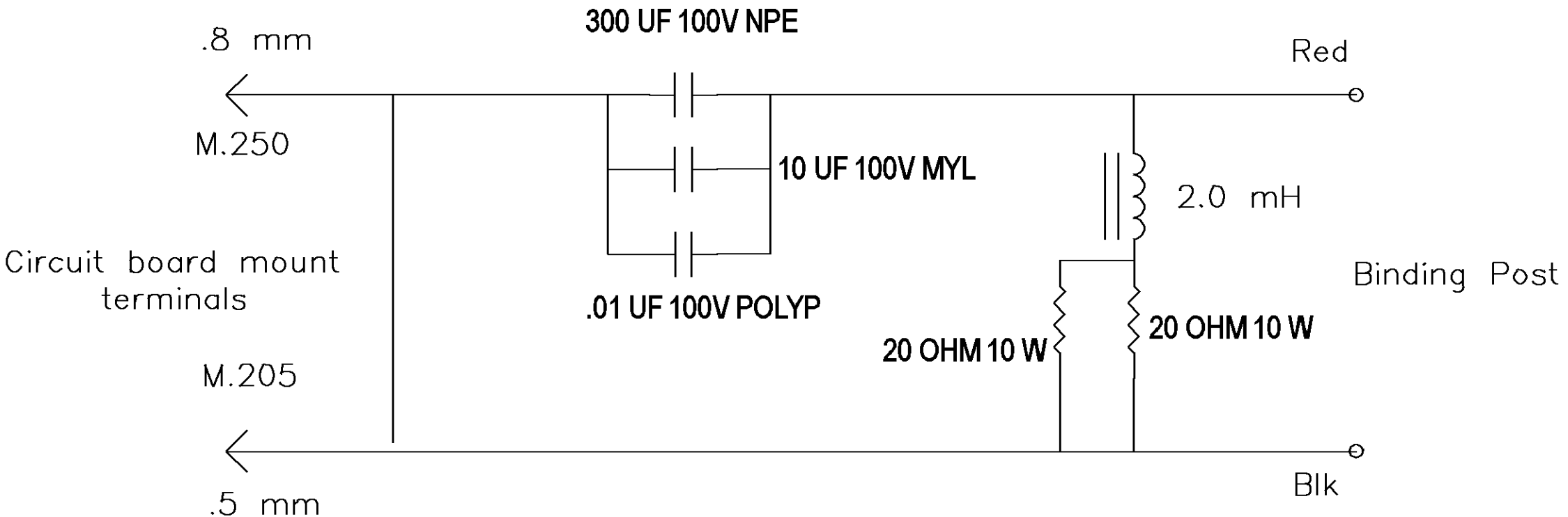
If there is low (or no) bass output:

- Make sure the connections to the left and right "Speaker Inputs" have the correct polarity (+ and –).
- Make sure the PS1400 is plugged into an active electrical outlet.
- Make sure the Power switch **(8)** is on.
- In Dolby Digital or DTS modes, make sure your receiver/processor is configured so that the subwoofer and LFE output are enabled.
- Adjust the Polarity switch **(4)** if the PS1400 and PT800 are not stacked, or if they are stacked but an external crossover is being used.
- Adjust the LF Level control **(3).**
- If the LFE input is in use, adjust the LFE Level control **(5).**

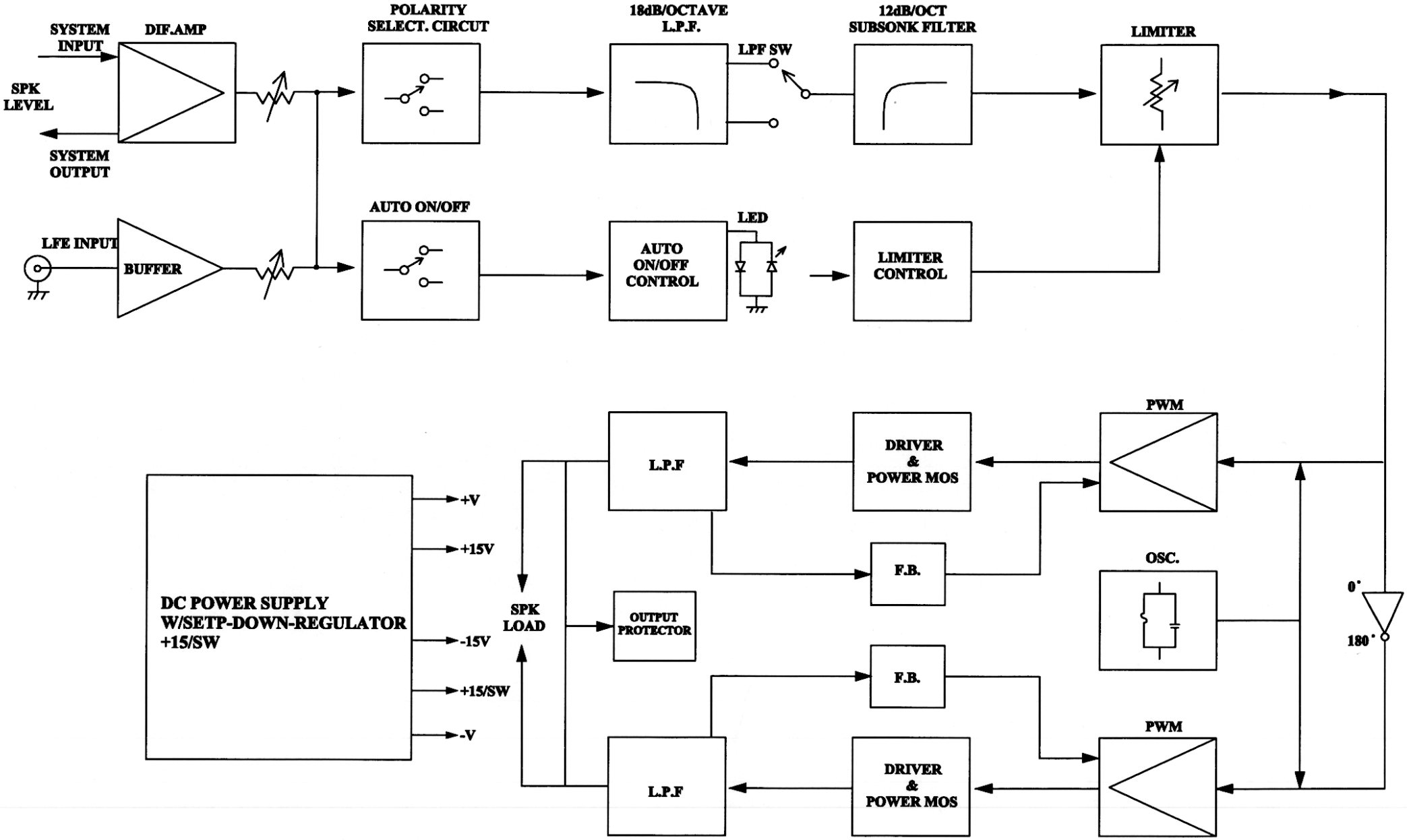
JBL PS1400 MECHANICAL/PACKAGING PARTS LIST

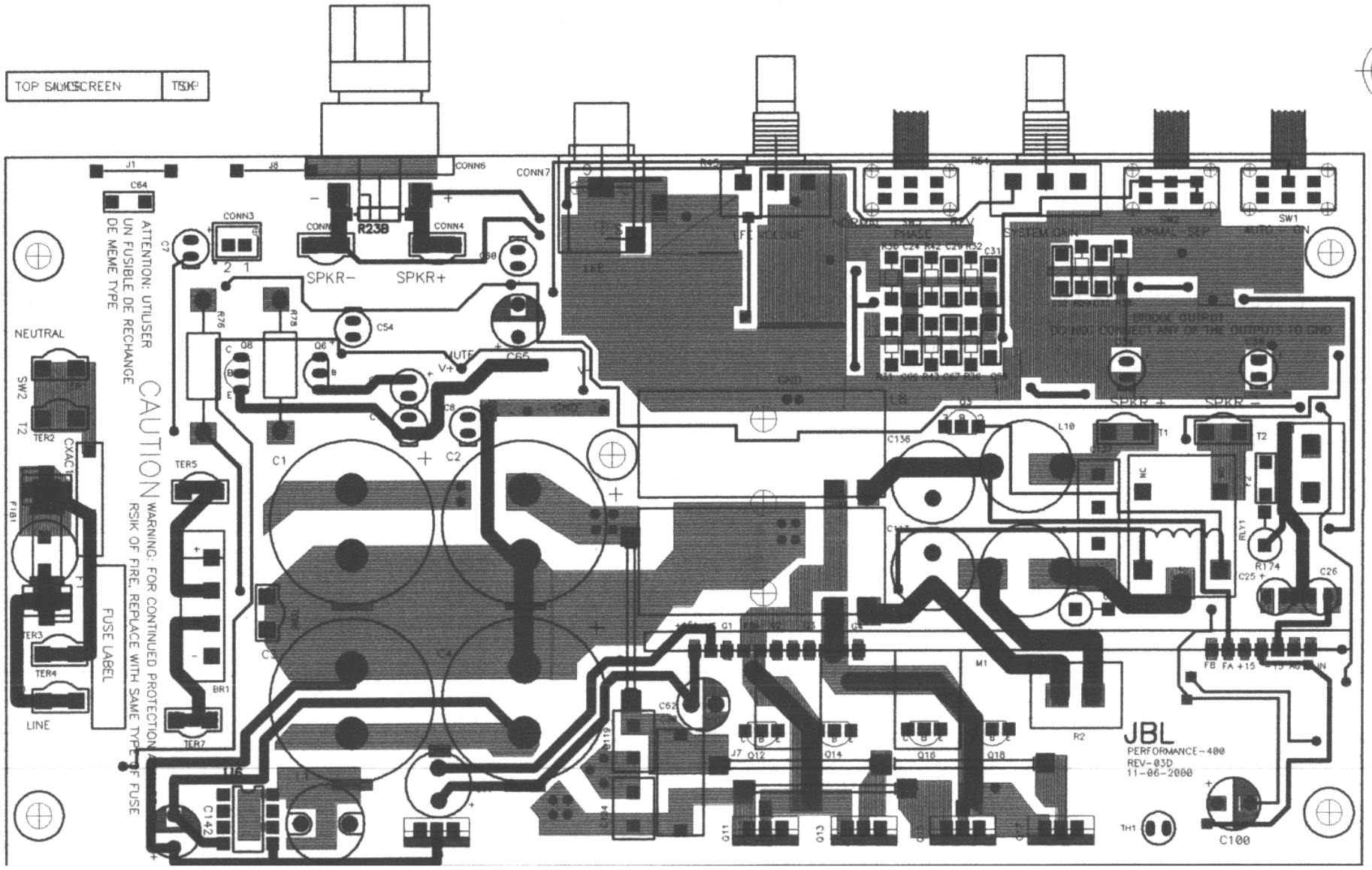
Description	Part Number	Qty
PS1400 CABINET (Black, Beech, Cherry)	Not For Sale	1
AMPLIFIER ASSEMBLY	Not For Sale	1
FRONT GRILLE	336605-001	1
14” WOOFER LE14-H, DCR = 6.0 Ω ±10%	336321-001	1
WOOFER GASKET	335651-001	1
PORT TUBE	335652-001	2
GRILLE CUP	333249-001	4
TRIM RING	335696-001	1
TRIM RING GASKET	336594-001	1
COVER PLATE	336597-001	1
COVER PLATE GASKET	336598-001	1
LOGO	335470-002	1
LOGO PLATE	336599-001	1
CROSSOVER NETWORK	336603-001	1
LED ASSEMBLY	335650-001	1
ALLEN WRENCH	336602-001	1
MOUNTING PILLAR	336596-001	2
SHORTING STRAP	336617-001	2
FOOT	301612-001	4
OUTER CARTON	336606-001	1
END PAD, TOP/BOTTOM	336607-001	2
OWNER’S MANUAL	336608-001	1
SAFETY SHEET	337344-001	1
FOOT INSTRUCTION SHEET	337546-001	1
SURVEY CARD	331384-001	1
WARRANTY CARD	331993-001	1

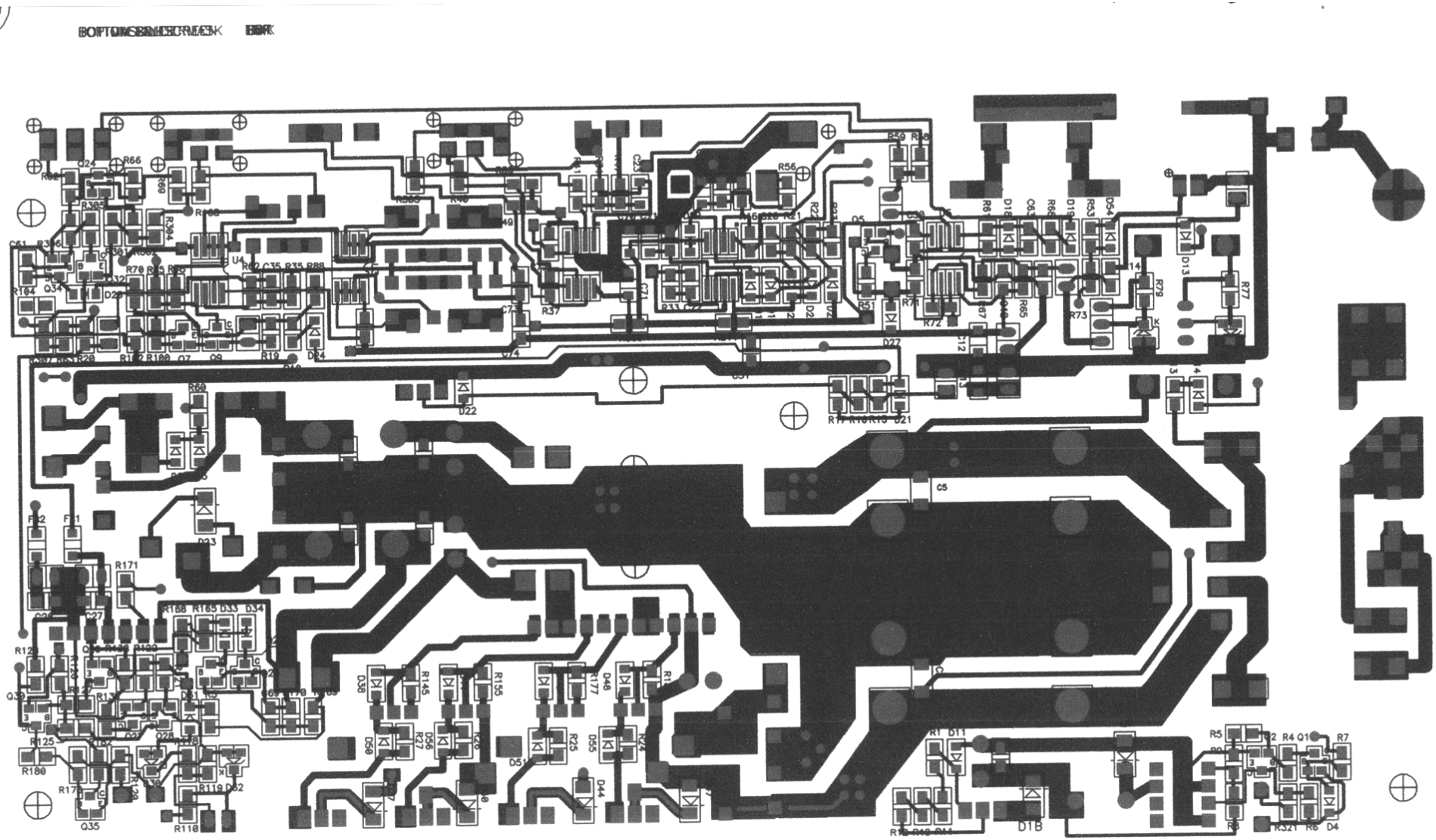
PS1400 PASSIVE NETWORK

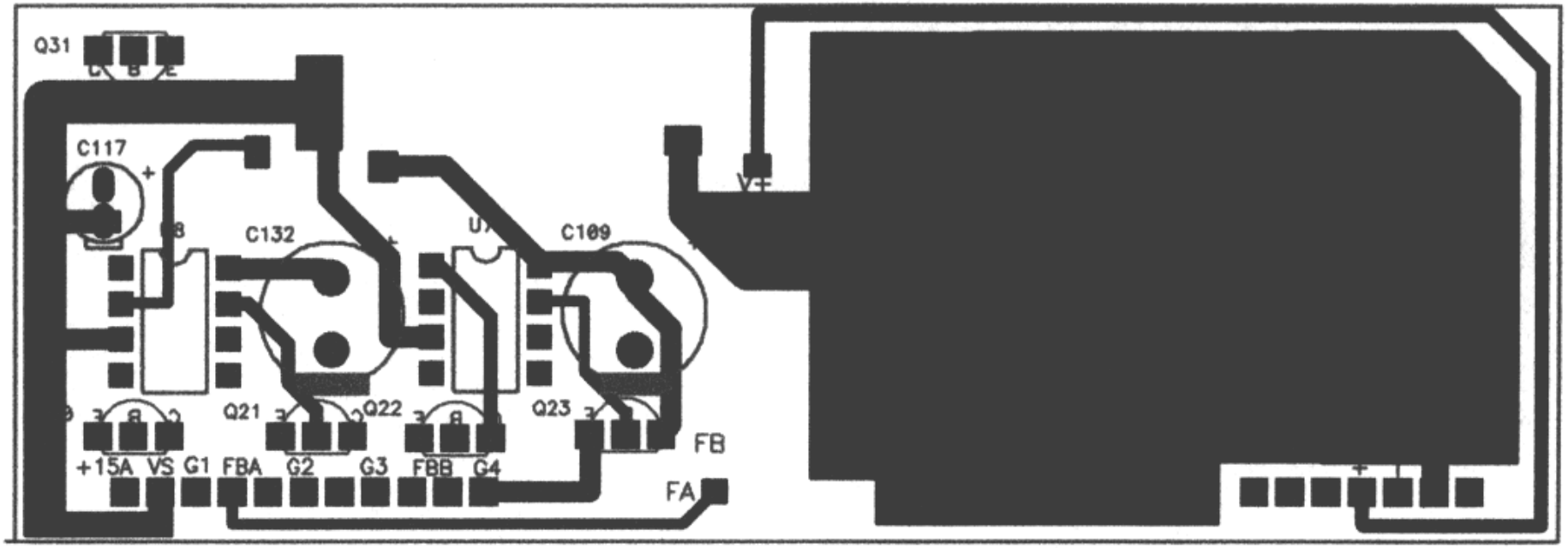


PS1400 BLOCK DIAGRAM




TOP SILKSCREEN
CONN6
CONN7
CONN3
CONN4
R238
SPKR-
SPKR+
NEUTRAL
LINE
FUSE LABEL
ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE
CAUTION
WARNING: FOR CONTINUED PROTECTION RSIK OF FIRE, REPLACE WITH SAME TYPE OF FUSE
MUTE
V+
GND
BRIDGE OUTPUT
DO NOT CONNECT ANY OF THE OUTPUTS TO GND
JBL
PERFORMANCE-400
REV-03D
11-06-2000




Q31
C117
C132
C109
Q21
Q22
Q23
+15A
VS
G1
FBA
G2
G3
FBB
G4
FB
FA

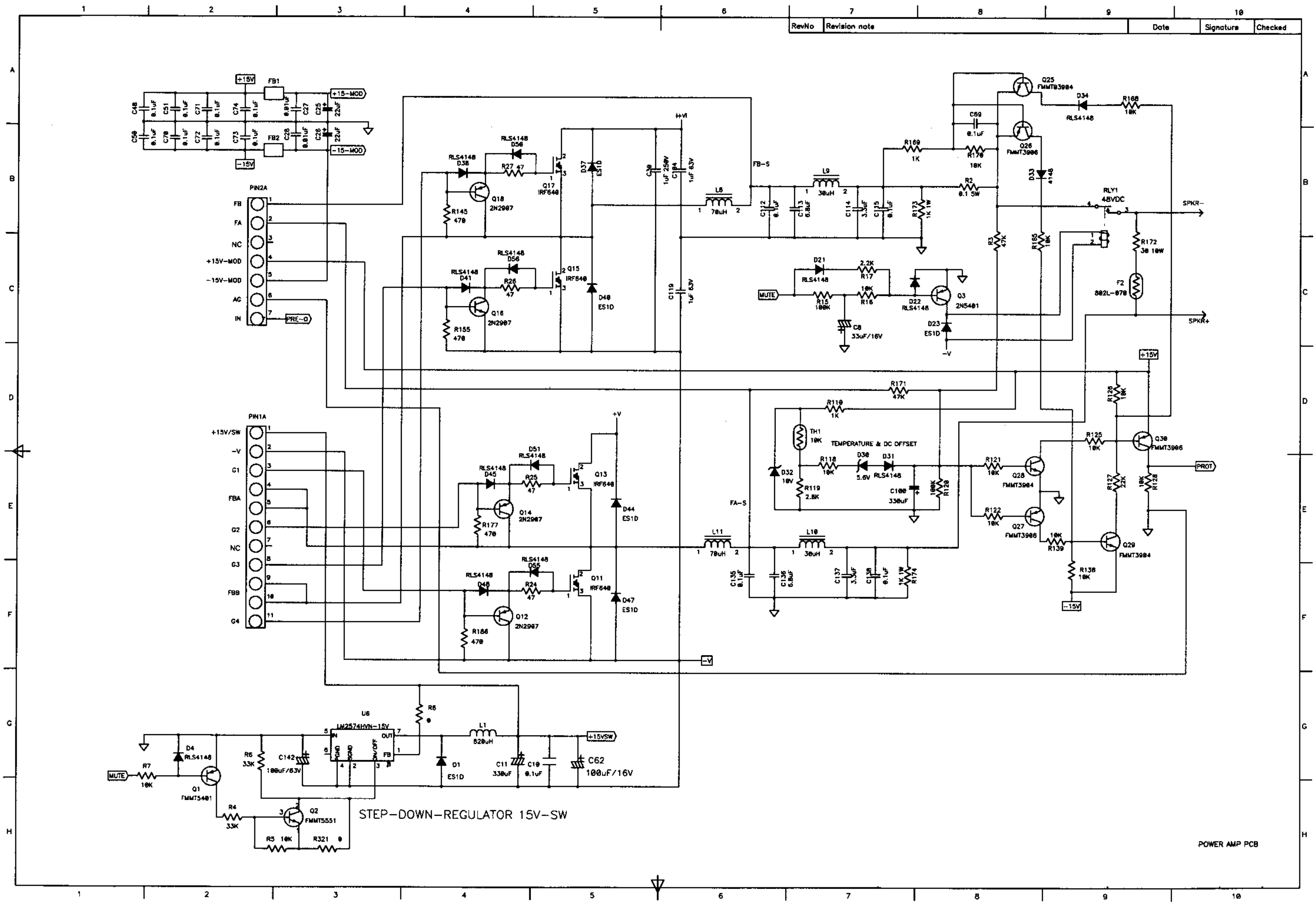
PS1400 ELECTRICAL PARTS LIST

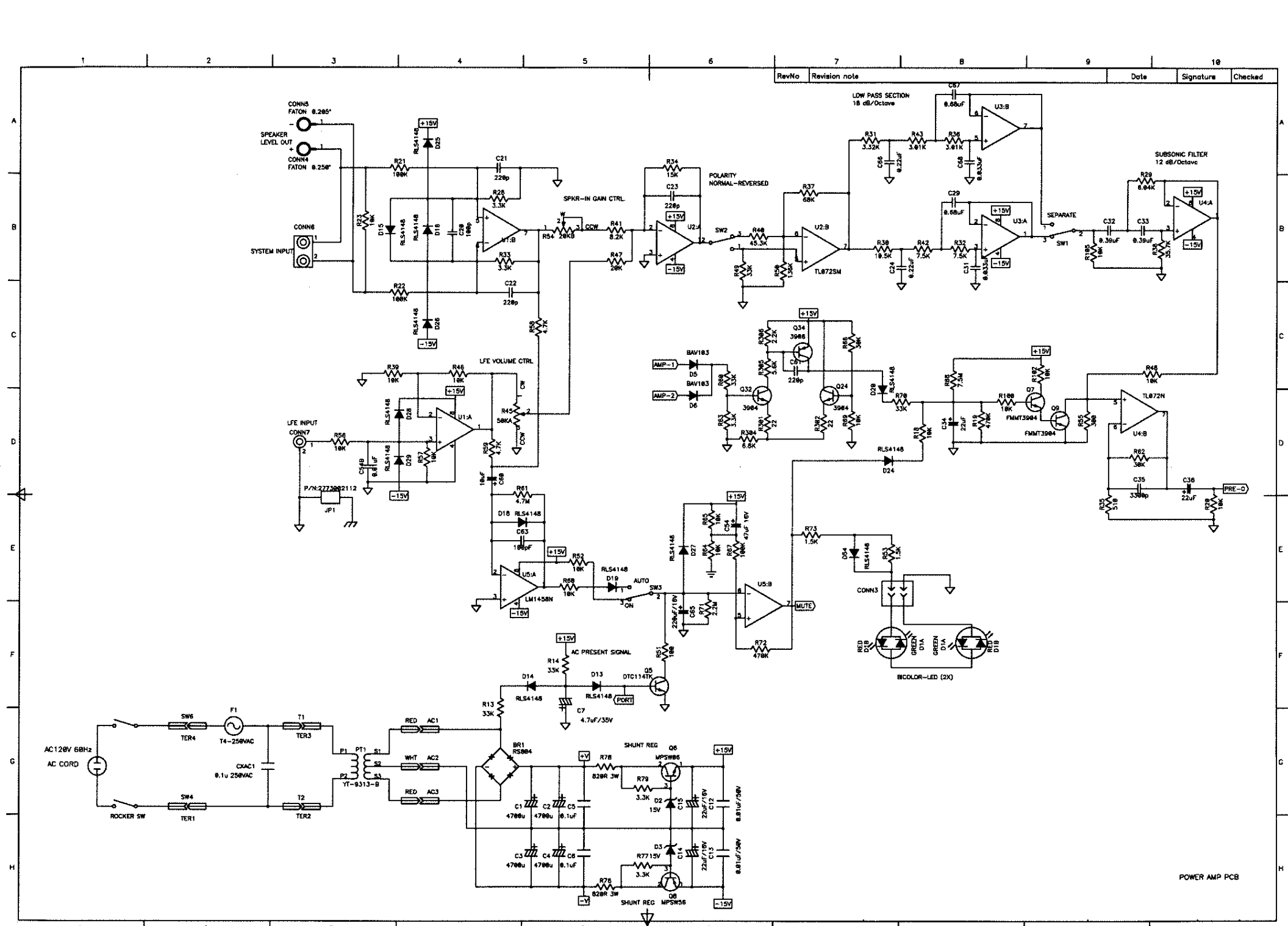
PART #	Q'TY	DESCRIPTION		REFERENCE DESIGNATOR
Main Amp. board				
052-000400-000	1	Bridge Rectifier	P/N RS804 8A/400V	BR1
032-100493-300	2	END Plastic Capacitor	1uF/63V J P:5	C104,119
034-330615-300	2	Electyl Capacitor TAPING	330uF/16V M (R)0812 P:5	C11,100
033-680464-270	2	NPE Capacitor	6u8/100V K10 (R)1020 GNE	C113,136
033-470444-270	2	NPE Capacitor	4u7/50V K10 (R)8x13 SBE	C114,137
031-100244-100	5	SMD Ceramic Capacitor	0u01/50V K 0805 X7R	C12,13,27,28,54B
034-470763-301	4	Electyl Capacitor	4700uF/63V M (R) 25*40	C1-4
034-220525-300	6	Electyl Capacitor TAPING	22uF/25V M (R) 5x11 P:2.5	C14,15,25,26,34,36
034-100695-300	1	Electyl Capacitor	100uF/63V M (R)1012 P:5	C142
031-100343-100	2	SMD Capacitor	100pF/50V J 0805 NPO	C20,63
031-220344-100	4	SMD Capacitor	220pF/50V J 0805 NPO	C21,22,23,61
038-220393-300	2	MPE Capacitor	0u22/63V J	C24,66
032-680353-300	2	END Plastic Capacitor	0u68/63V J P:5	C29,67
032-100484-200	1	END Plastic Capacitor	1uF/250V K P:15mm	C30
038-330263-300	2	MPE Capacitor	0u033/100V J	C31,68
032-390344-100	2	END Plastic Capacitor	0u39/63V J P:5	C32,33
031-330444-300	1	SMD Capacitor	3300pF/50V K 0805 X7R	C35
031-100364-100	2	SMD Capacitor	0.1uF/100V K 1206 X7R	C5,6
034-470515-300	1	Electyl Capacitor TAPING	47uF/16V M (R)0511 P:2.0	C54
034-100515-300	1	Electyl Capacitor TAPING	10uF/16V M (R)0511 P:2	C60
034-100625-301	1	Electyl Capacitor TAPING	100uF/25V M (R) P:2.5 ? ?	C62
034-220625-300	1	Electyl Capacitor	220uF/25V M (R)0812 P:5	C65
031-100344-100	14	SMD Capacitor	0u1/50V K 0805 X7R	C69,112,115,135,138,10,48,50,51,70-74
034-470415-300	1	Electyl Capacitor TAPING	4u7/50V M (R)0511 P:2.0	C7
034-330525-301	1	Electyl Capacitor TAPING	33uF/25V M (R)0511 P:2.5	C8
072-040169-000	1	CONNECTOR	2 PIN JS-1001-2 P:2.5mm	CONN3
072-010088-000	1	RCA JACK	PN:DTR-0390B-E-G	CONN7
039-100280-100	1	UL Capacitor	10NP/250V P/N:XG275M103VS04	CXAC1
054-000100-100	6	SMD DIODE	ES1D 200V,1A,35ns	D1,37,40,44,47,23
054-414802-100	28	SMD DIODE	LS4148	D4,13-16,18,19-22,24-29,31,33, 34,38,41,45,48,50,51,54,55,56
054-001501-100	2	SMD ZENER DIODE	15V SOT-23 BZX84C15	D2,3
054-050601-100	1	SMD ZENER DIODE	5.6V SOT-23 BZX84C5V6	D30
054-001002-100	1	SMD ZENER DIODE	10V SOT-23 BZX84C10	D32
054-010300-100	2	SMD DIODE	BAV103 SOD80C	D5,6
073-050001-000	2	FUSE CLIP	P/N:CFFH1206	For F1
091-000128-000	1	FUSE	T4A/250V f 5x20m/m	F1
057-000027-000	1	THERMAL BREAKER	P/N:802L-070	F2
044-100100-000	2	SMD FERRITE BEAD	P/N:321611 100mHz 600R 1206	FB1,FB2
041-115000-000	1	BEAD COIL 115 OHM	P/N:2773002112	J1

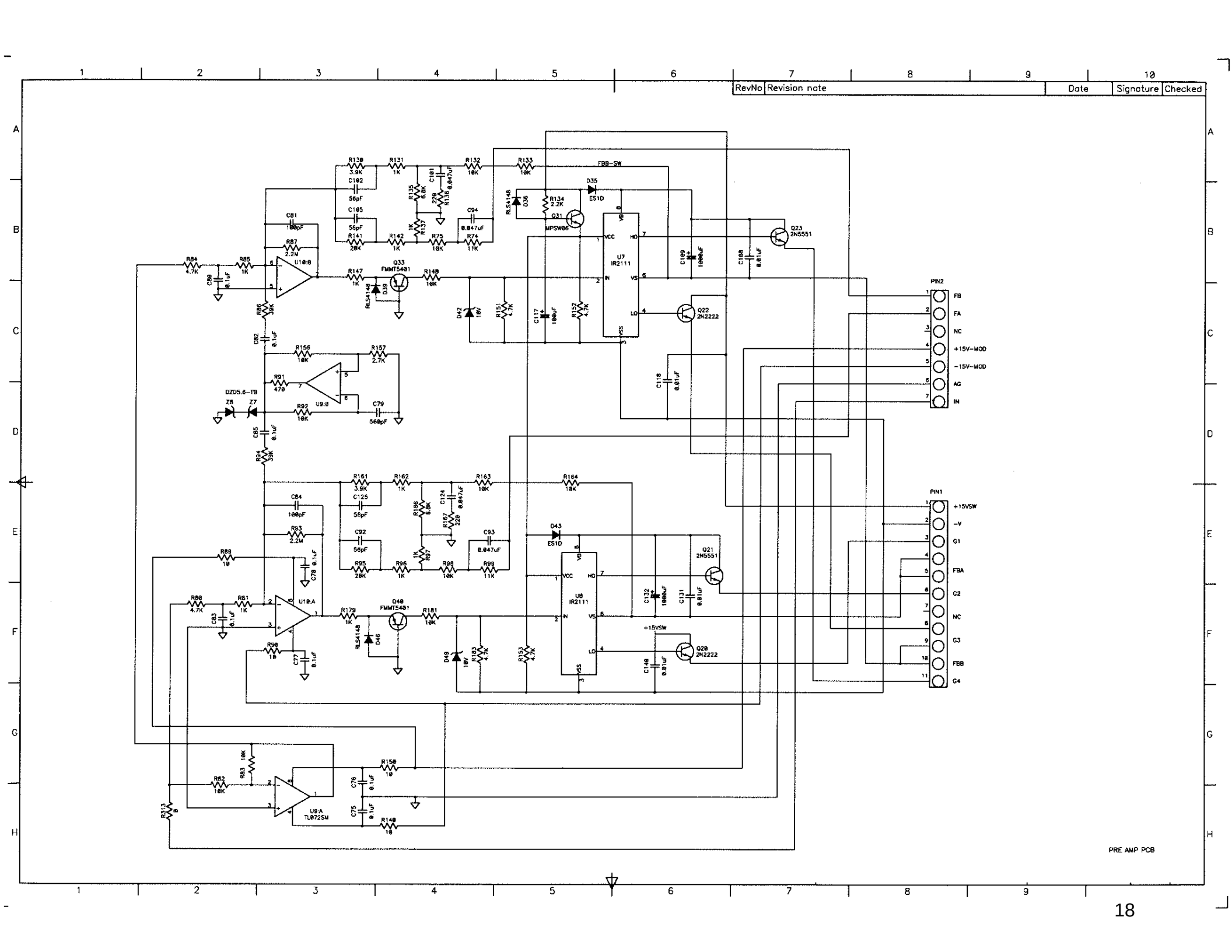
043-820300-000	1	INDUCTOR	820uH YT-10034	L1
043-700100-000	1	INDUCTOR	70uHx2 YT-10024	L8
043-300101-000	2	INDUCTOR	30uH YT-10033	L9,10
054-540100-100	1	SMD PNP Transistor	MMBT5401 LT1	Q1
051-640000-100	4	MOSFET N-Channel	IRF640 TO-220	Q11,13,15,17
051-290700-100	4	Transistor	P2N2907A TO-92	Q12,14,16,18
054-555100-100	1	SMD NPN Transistor	MMBT5551 LT1	Q2
054-033906-100	4	SMD TR (MOTOROLA)	MMBT3906LT1 SOT23	Q26,27,30,34
051-540101-000	1	Transistor PNP	2N5401 TO-92	Q3
054-211400-100	1	SMD NPN Transistor	DTC114EK SMT3	Q5
051-000600-100	1	NPN Transistor	MPSW06RLRA TO-92	Q6
054-033904-100	7	SMD TR (MOTOROLA)	MMBT3904LT1 SOT23	Q7,9,24,25,28,29,32
051-005600-100	1	NPN Transistor	MPSW56RLRA MPQ TO-92	Q8
024-820398-120	4	SMD Resistor	820R 1/8W J 0805	R1,10,11,12
024-100498-120	2	SMD Resistor	1K 1/8W J 0805	R110,169
024-100598-120	28	SMD Resistor	10K 1/8W J 0805	R5,16,18,20,23,39,46,4852,56,57,58,64,65,69 ,100,102,105,118,121,122,125,126,128, 138,139,168,170
024-280498-100	1	SMDResistor	2K8 1/8W F 0805	R119
024-220598-120	1	SMD Resistor	22K 1/8W J 0805	R127
024-470398-120	4	SMD Resistor	470R 1/8W J 0805	R145,177,186,155
024-100698-120	5	SMD Resistor	100K 1/8W J 0805	R15,120,21,22,67
024-220498-121	2	SMD Resistor	2K2 1/8W J 0805	R17,306
022-300210-021	1	Cement Resistor	30R 10WS J SQM 35x16	R172
021-100401-020	2	Metal Oxide Resistor	1K 1W J FK TYPE	R173,174
024-470698-120	2	SMD Resistor	470K 1/8W J 0805	R19,72
022-100005-020	1	Cement Resistor	0R1 5W J P/N:SQM 25x13	R2
024-470298-120	4	SMD Resistor	47R 1/8W J 0805	R24-27
024-330498-120	5	SMD Resistor	3K3 1/8W J 0805	R28,33,63,77,79
021-604498-100	1	Metal Film Resistor	6K04 1/8W F	R29
024-470598-120	2	SMD Resistor	47K 1/8W J 0805	R3,171
021-105598-100	1	Metal Film Resistor	10K5 1/8W F	R30
024-220298-120	2	SMD Resistor	22R 1/8W J 0805	R301,302
024-680498-120	1	SMD Resistor	6.8K 1/8W J 0805	R304
024-560498-120	1	SMD Resistor	5K6 1/8W J 0805	R305
021-332498-100	1	Metal Film Resistor	3.32K 1/8W F	R31
021-750498-100	2	Metal Film Resistor	7K5 1/8W F	R32,42
024-150598-120	1	SMD Resistor	15K 1/8W J 0805	R34
024-510398-120	1	SMD Resistor	510R 1/8W J 0805	R35
021-301498-100	2	Metal Film Resistor	3K01 1/8W F	R36,43
024-680598-120	1	SMD Resistor	68K 1/8W J 0805	R37
021-357598-100	1	Metal Film Resistor	35K7 1/8W F	R38
024-453598-100	1	SMD Resistor	45K3 1/8W F 0805	R40
024-820498-120	1	SMD Resistor	8K2 1/8W J 0805	R41
026-500595-254	1	VR 50KA	LFE LEVEL CONTROL	R45
024-200598-120	1	SMD Resistor	20K 1/8W J 0805	R47
024-330598-120	7	SMD Resistor	33K 1/8W J 0805	R49,60,70,4,6,13,14

024-137698-100	1	SMD Resistor	137K 1/8W F 0805	R50
024-100398-120	1	SMD Resistor	100R 1/8W J 0805	R51
024-150498-120	2	SMD Resistor	1K5 1/8W J 0805	R53,73
026-200595-265	1	VR 20KB	LEVEL CONTROL	R54
024-300398-120	1	SMDResistor	300R 1/8W J 0805	R55
024-470498-120	2	SMD Resistor	4K7 1/8W J 0805	R58,59
024-470798-120	1	SMD Resistor	4.7M 1/8W J 0805	R61
024-300598-120	2	SMDResistor	30K 1/8W J 0805	R62,66
024-220798-120	1	SMD Resistor	2M2 1/8W J 0805	R71
021-820303-020	2	Metal Oxide Resistor	820R 3WS J 8x20	R76,78
024-000098-120	7	SMD Resistor	0R 1/8W J 0805	R8,321,303,307,309,311,316
024-750798-120	1	SMD Resistor	7M5 1/8W J 0805	R88
074-300018-000	1	RELAY	P/N:943-1C-48D	RLY1
074-001006-000	3	SLIDE SW	P/N SHC-22P-09	SW1-3
072-040064-000	2	Terminal (PCB TYPE)	PC250(t=0.8),T250MA	TER6,TER4
025-010300-000	1	THERMAL SENSOR	TSE-103 K L:50mm	TH1
054-007200-100	5	SMD IC	TL072CDR SO-8 (TI) DUAL OP-AMP	U1-5
053-257400-100	1	IC;DIP 8P	LM2574 HVN-15V 0.5A Step-Down Voltage Regulator	U6
PREAMP PCB ASS'Y				
031-100244-100	4	SMDCeramic Capacitor	0u01/50V K 0805 X7R	C108,118,131,140
034-100715-202	2	Electyl Capacitor	1000uF/16V M (R) 10x17 P:5	C109,132
034-100625-303	1	Electyl Capacitor	100uF/25V M (R) P:2.5	C117
031-100344-100	8	SMDCapacitor	0u1/50V K 0805 X7R	C75-78,80,82,83,85
031-560343-102	1	SMDCapacitor	560pF/50V J 0805 NPO	C79
031-100343-100	2	SMDCapacitor	100pF/50V J 0805 NPO	C81,84
031-560263-101	4	SMDCapacitor	56pF/100V J 0805 NPO	C92,102,105,125
031-470244-102	4	SMDCapacitor	0u047/50V K 0805 X7R	C93,94,101,124
054-000100-100	2	SMD DIODE	ES1D 200V,1A,35ns	D35,43
054-414802-100	3	SMD DIODE	LS4148	D36,39,46
054-001002-100	2	SMD ZENER DIODE	10V SOT-23 BZX84C10	D42,49
072-040230-000	1	HEADER Right Angle	11PIN P/N:211-111-000-400	Pin1
072-040229-000	1	HEADER Right Angle	7PIN P/N:211-107-000-400	Pin2
051-222200-100	2	NPN Transistor	MPS2222ARLRA TO-92	Q20,22
051-555100-000	2	Transistor NPN	2N5551 TO-92	Q21,23
051-000600-100	1	NPN Transistor	MPSW06RLRA TO-92	Q31
054-540100-100	2	SMD PNP Transistor	MMBT5401 LT1	Q33,40
024-390498-120	2	SMDResistor	3K9 1/8W J 0805	R130,161
024-220498-121	1	SMDResistor	2K2 1/8W J 0805	R134
024-680498-120	2	SMDResistor	6.8K 1/8W J 0805	R135,166
024-220398-120	2	SMDResistor	220R 1/8W J 0805	R136,167
024-270498-120	1	SMDResistor	2K7 1/8W J 0805	R157
024-000098-120	4	SMDResistor	0R 1/8W J 0805	R313,314,318,320
024-110598-120	2	SMDResistor	11K 1/8W J 0805	R74,99

024-100598-120	12	SMDResistor	10K 1/8W J 0805	R75,82,83,92,98,132,133,148,163,164,181,156
024-470498-120	6	SMDResistor	4K7 1/8W J 0805	R80,84,151-153,183
024-100498-120	11	SMDResistor	1K 1/8W J 0805	R81,85,96,97,99,131,137,142,147,162,179
024-390598-120	2	SMDResistor	39K 1/8W J 0805	R86,94
024-220798-120	2	SMDResistor	2M2 1/8W J 0805	R87,93
024-100298-120	4	SMDResistor	10R 1/8W J 0805	R89,90,140,150
024-470398-120	1	SMDResistor	470R 1/8W J 0805	R91
024-200598-120	2	SMDResistor	20K 1/8W J 0805	R95,141
053-211100-000	2	IC;DIP	IR2111 HALF-BRIDGE DRIVER	U7,8
054-007200-100	2	SMD IC	TL072CDR SO-8 (TI) DUAL OP-AMP	U9,10
054-050601-100	2	SMD ZENER DIODE	5.6V SOT-23 BZX84C5V6	Z7,8


RevNo
Revision note
Date
Signature
Checked
+15V
FB1
+15-MOD
-15V
FB2
-15-MOD
C48 0.1uF
C51 0.1uF
C71 0.1uF
C74 0.1uF
C27 0.01uF
C25 22uF
C50 0.1uF
C70 0.1uF
C72 0.1uF
C73 0.1uF
C28 0.01uF
C26 22uF
PIN2A
FB
FA
NC
+15V-MOD
-15V-MOD
AC
IN
PRE-O
RLS4148
D38
D36
R27 47
Q17
IRF640
D37
ES1D
Q18
2N2907
R145
470
D41
D56
R26 47
Q15
IRF640
D40
ES1D
Q16
2N2907
R155
470
+VI
C30
1uF 250V
C184
1uF 63V
C119
1uF 63V
L8
70uH
FB-S
L9
30uH
C112 0.1uF
C113 6.8uF
C114 3.3uF
C115 0.1uF
R173 1K 1W
R169
1K
C69
0.1uF
R170
10K
R2
0.1 5W
Q25
FMMT3904
Q26
FMMT3906
D34
RLS4148
R168
10K
D33
4148
RLY1
48VDC
SPKR-
R3
47K
R165
10K
R172
30 10W
F2
882L-070
SPKR+
D21
RLS4148
2.2K
R17
R15
100K
10K
R16
D22
RLS4148
Q3
2N5401
MUTE
C8
33uF/16V
D23
ES1D
-V
+15V
R171
47K
R126
10K
R110
1K
TH1
10K
TEMPERATURE & DC OFFSET
D32
10V
R118
10K
D30
5.6V
D31
RLS4148
R119
2.8K
C100
330uF
100K
R120
R125
10K
Q30
FMMT3906
PROT
R121
10K
Q28
FMMT3904
R122
10K
Q27
FMMT3906
R127
22K
10K
R128
10K
R139
Q29
FMMT3904
R138
10K
-15V
PIN1A
+15V/SW
-V
G1
FBA
G2
NC
G3
FBB
G4
+V
D51
RLS4148
R25
47
D45
Q13
IRF640
Q14
2N2907
R177
470
D44
ES1D
FA-S
L11
70uH
L10
30uH
C135 0.1uF
C136 6.8uF
C137 3.3uF
C138 0.1uF
1K 1W
R174
D55
D46
R24
47
Q11
IRF640
Q12
2N2907
R186
470
D47
ES1D
U6
LM2574HVN-15V
IN
OUT
PGND
SGND
ON/OFF
FB
R8
0
L1
820uH
+15VSW
D4
RLS4148
R6
33K
C142
100uF/63V
D1
ES1D
C11
330uF
C10
0.1uF
C62
100uF/16V
MUTE
R7
10K
Q1
FMMT5401
Q2
FMMT5551
R4
33K
R5 10K
R321 0
STEP-DOWN-REGULATOR 15V-SW
POWER AMP PCB


RevNo
Revision note
Date
Signature
Checked
LOW PASS SECTION
18 dB/Octave
SUBSONIC FILTER
12 dB/Octave
SPEAKER LEVEL OUT
CONN5 FATON 0.205"
CONN4 FATON 0.250"
CONN6
SYSTEM INPUT
SPKR-IN GAIN CTRL
POLARITY NORMAL-REVERSED
SEPARATE
LFE VOLUME CTRL
LFE INPUT
CONN7
P/N:2273002112
JP1
BAV103
AMP-1
AMP-2
AUTO
ON
MUTE
AC PRESENT SIGNAL
PORT
CONN3
BICOLOR-LED (2X)
AC120V 60Hz
AC CORD
ROCKER SW
CXAC1
0.1u 250VAC
T4-250VAC
YT-9313-B
SHUNT REG
LM1458N
TL072SM
TL072N
FMMT3904
POWER AMP PCB


RevNo
Revision note
Date
Signature
Checked
FBB-SW
U7
IR2111
U8
IR2111
U10:B
U10:A
U9:B
U9:A
TL072SM
MPSW06
FMMT5401
ES1D
RLS4148
DZD5.6-TB
2N5551
2N2222
PIN2
FB
FA
NC
+15V-MOD
-15V-MOD
AG
IN
PIN1
+15VSW
-V
G1
FBA
G2
NC
G3
FBB
G4
PRE AMP PCB