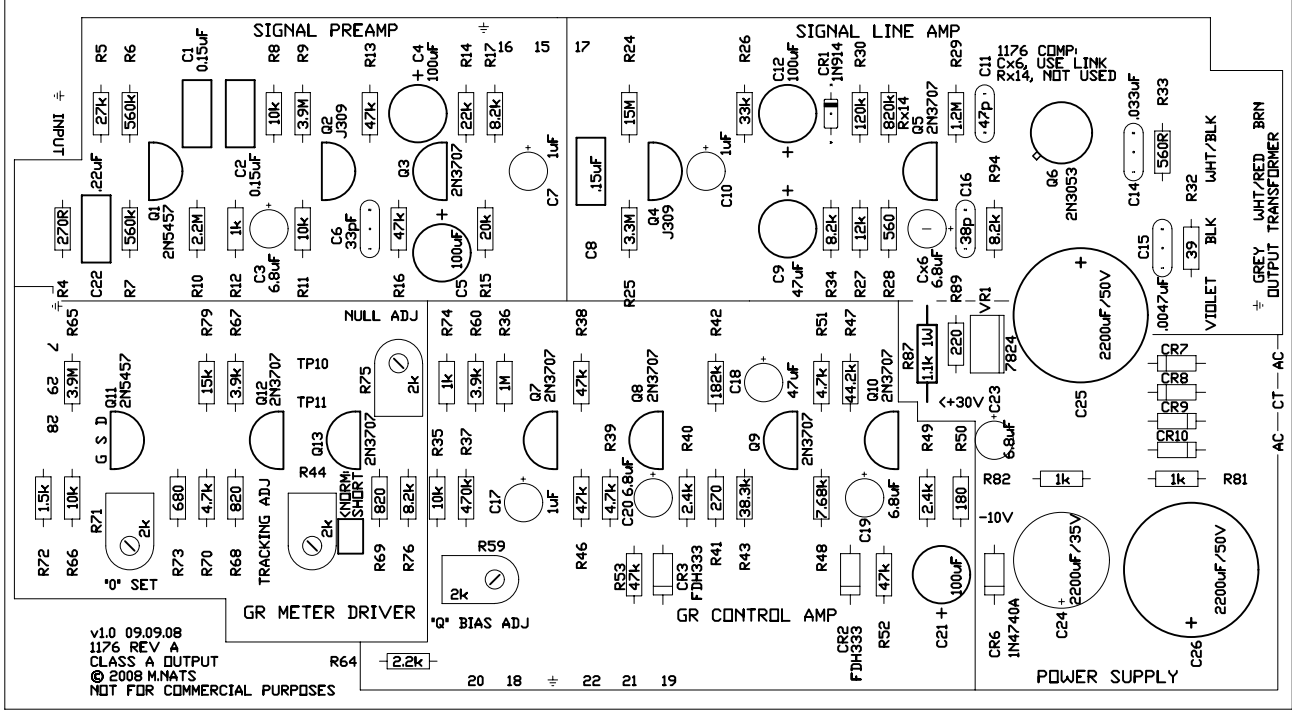
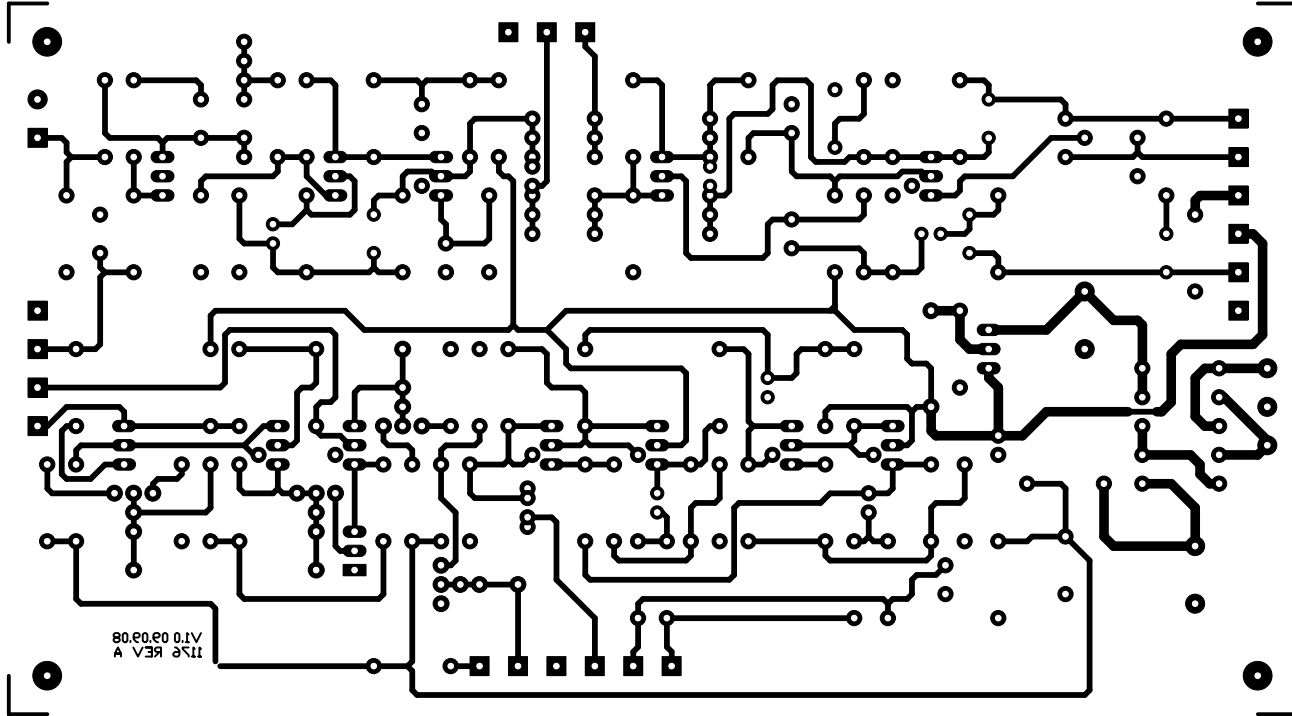


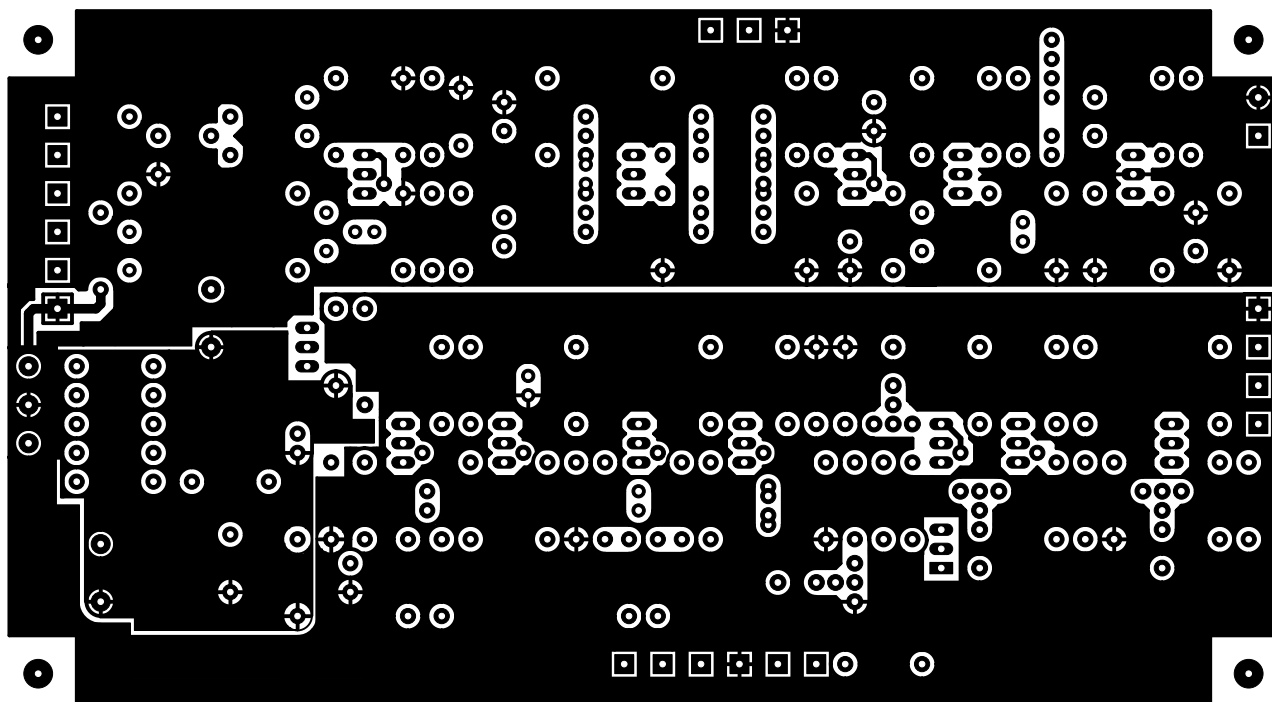


v1.0 09.09.08  
 1176 REV A  
 CLASS A OUTPUT  
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1156 REV A  
V1.0 03.03.08



## BILL OF MATERIALS FOR MNATS 1176 REV A VERSION 1.0 BOARD

MAIN BOARD				
QUANTITY	VALUE	DESCRIPTION	DESIGNATION	NOTES
3	0.15uF	CAPACITOR	C1 C2 C8	
3	1uF	CAPACITOR	C10 C17 C7	
1	47p	CAPACITOR	C11	
4	100uF	CAPACITOR	C12 C21 C4 C5	
1	.033uF	CAPACITOR	C14	
1	.0047uF	CAPACITOR	C15	
1	38p	CAPACITOR	C16	
2	47uF	CAPACITOR	C18 C9	
5	6.8uF	CAPACITOR	C19 C20 C23 C3 Cx6	Replace Cx6 with link for 1176
1	.22uF	CAPACITOR	C22	
1	2200uF/35V	CAPACITOR	C24	
2	2200uF/50V	CAPACITOR	C25 C26	
1	33pF	CAPACITOR	C6	
1	1N914	DIODE	CR1	
2	FDH333	DIODE LOW LEAKAGE	CR2 CR3	
1	1N4740A	DIODE ZENER	CR6	
4	1N4004	RECTIFIER	CR10 CR7 CR8 CR9	
1	2.2M	RESISTOR	R10	
4	10k	RESISTOR	R11 R35 R66 R8	
4	1k	RESISTOR	R12 R74 R81 R82	
6	47k	RESISTOR	R13 R16 R38 R46 R52 R53	
1	22k	RESISTOR	R14	
1	20k	RESISTOR	R15	
4	8.2k	RESISTOR	R17 R34 R76 R94	
1	15M	RESISTOR	R24	
1	3.3M	RESISTOR	R25	
1	33k	RESISTOR	R26	
1	12k	RESISTOR	R27	
2	560	RESISTOR	R28 R33	
1	1.2M	RESISTOR	R29	
1	120k	RESISTOR	R30	
1	39	RESISTOR	R32	
1	1M	RESISTOR	R36	
1	470k	RESISTOR	R37	
3	4.7k	RESISTOR	R39 R51 R70	
2	270	RESISTOR	R4 R41	
2	2.4k	RESISTOR	R40 R49	
1	182k	RESISTOR	R42	
1	38.3k	RESISTOR	R43	
1	44.2k	RESISTOR	R47	
1	7.68k	RESISTOR	R48	
1	27k	RESISTOR	R5	
1	180	RESISTOR	R50	
2	560k	RESISTOR	R6 R7	
2	3.9k	RESISTOR	R60 R67	
1	2.2k	RESISTOR	R64	
2	3.9M	RESISTOR	R65 R9	
2	820	RESISTOR	R68 R69	
1	1.5k	RESISTOR	R72	
1	680	RESISTOR	R73	
1	15k	RESISTOR	R79	
1	1.1k 1Watt	RESISTOR	R87	
1	220	RESISTOR	R89	
1	820k	RESISTOR	Rx14	Not used for 1176
2	2N5457	TRANSISTOR FET	Q1 Q11	
8	2N3707 OR 2N5088	TRANSISTOR	Q10 Q12 Q13 Q3 Q5 Q7 Q8 Q9	Q7-Q10 HFE 250 OR ABOVE Q12,Q13 MATCH HFE USE ALTERNATE BASE PAD FOR 2N5088
2	J309	TRANSISTOR FET	Q2 Q4	
1	2N3053	TRANSISTOR MEDIUM POWER	Q6	
1	5k	TRIMMER POTENTIOMETER	R44	MULTI TURN TYPE
3	2k	TRIMMER POTENTIOMETER	R59 R71 R75	PREFERRED
1	7824	VOLTAGE REGULATOR	VR1	

**ROTARY SWITCH BOARDS**

<b>QUANTITY</b>	<b>VALUE</b>	<b>DESCRIPTION</b>	<b>DESIGNATION</b>	<b>NOTES</b>
1	4 POLE	LORLIN ROTARY SWITCH	S2	
2	2 POLE	LORLIN ROTARY SWITCH	S4	
1	22nF	CAPACITOR	C27	
1	3.6k	RESISTOR	R16	
1	130k	RESISTOR	R19	
3	56k	RESISTOR	R20 R21 R22	
1	10M	RESISTOR	R45	
2	470	RESISTOR	R54 R61	
1	270k	RESISTOR	R57	
1	180	RESISTOR	R58	
1	560	RESISTOR	R62	
1	1.5k	RESISTOR	R63	

**ADDITIONAL COMPONENTS**

1	600 OHM	"T" ATTENUATOR		
1	UTC O-12 OR ALTRAN C-3837-1	INPUT TRANSFORMER		THESE ITEMS AVAILABLE FROM
1	CM96731 OR EA-5002	OUTPUT TRANSFORMER		<a href="http://hairballaudio.com/shop/">http://hairballaudio.com/shop/</a>
1	50V CT	POWER TRANSFORMER		SELECT FOR LOCAL MAINS VOLTAGE

