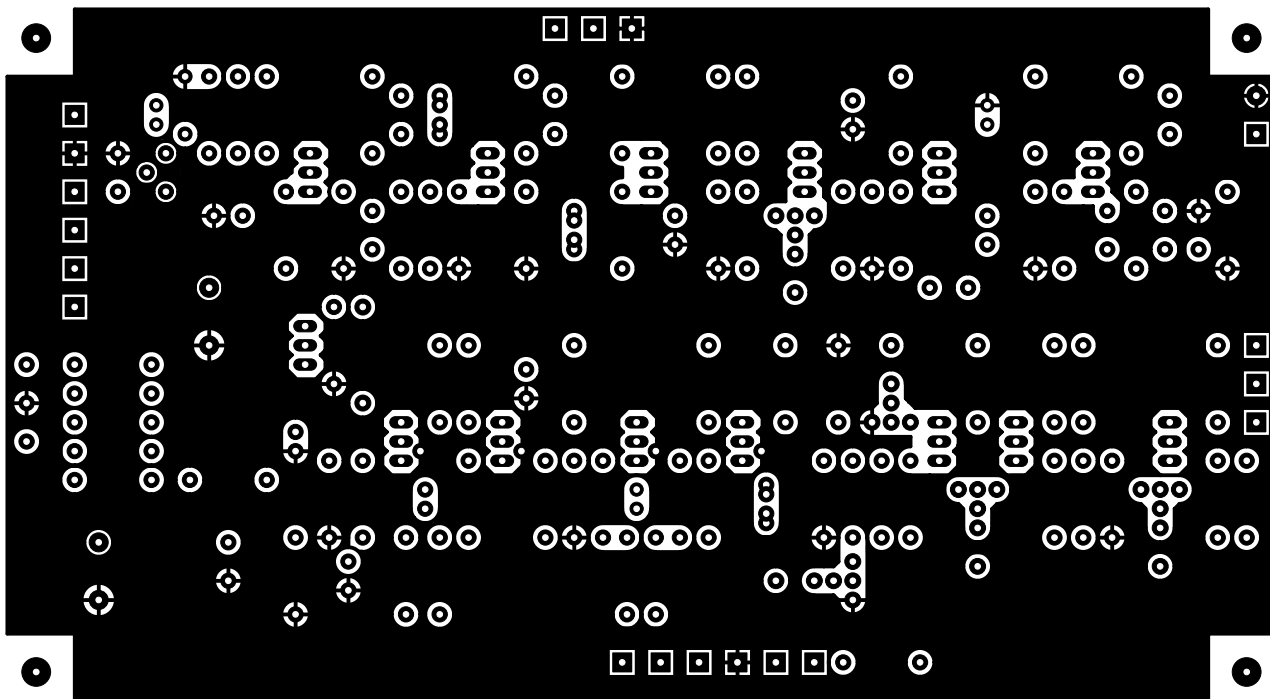
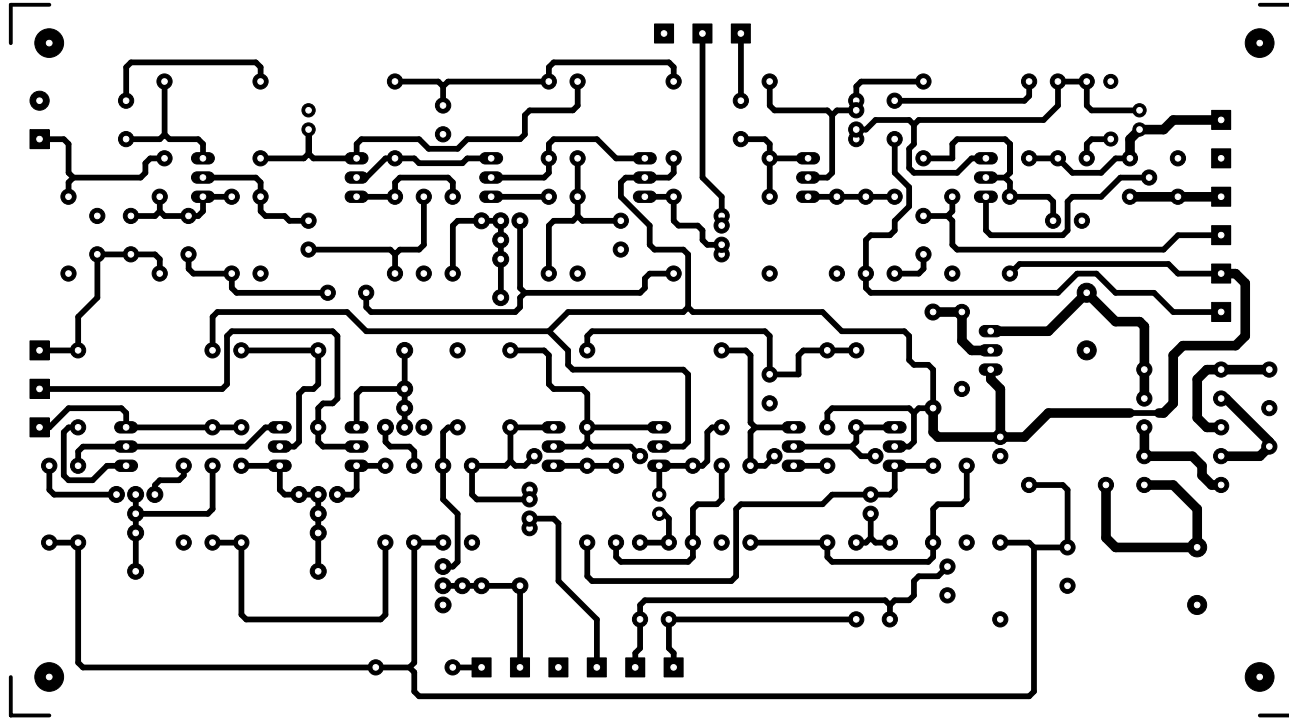
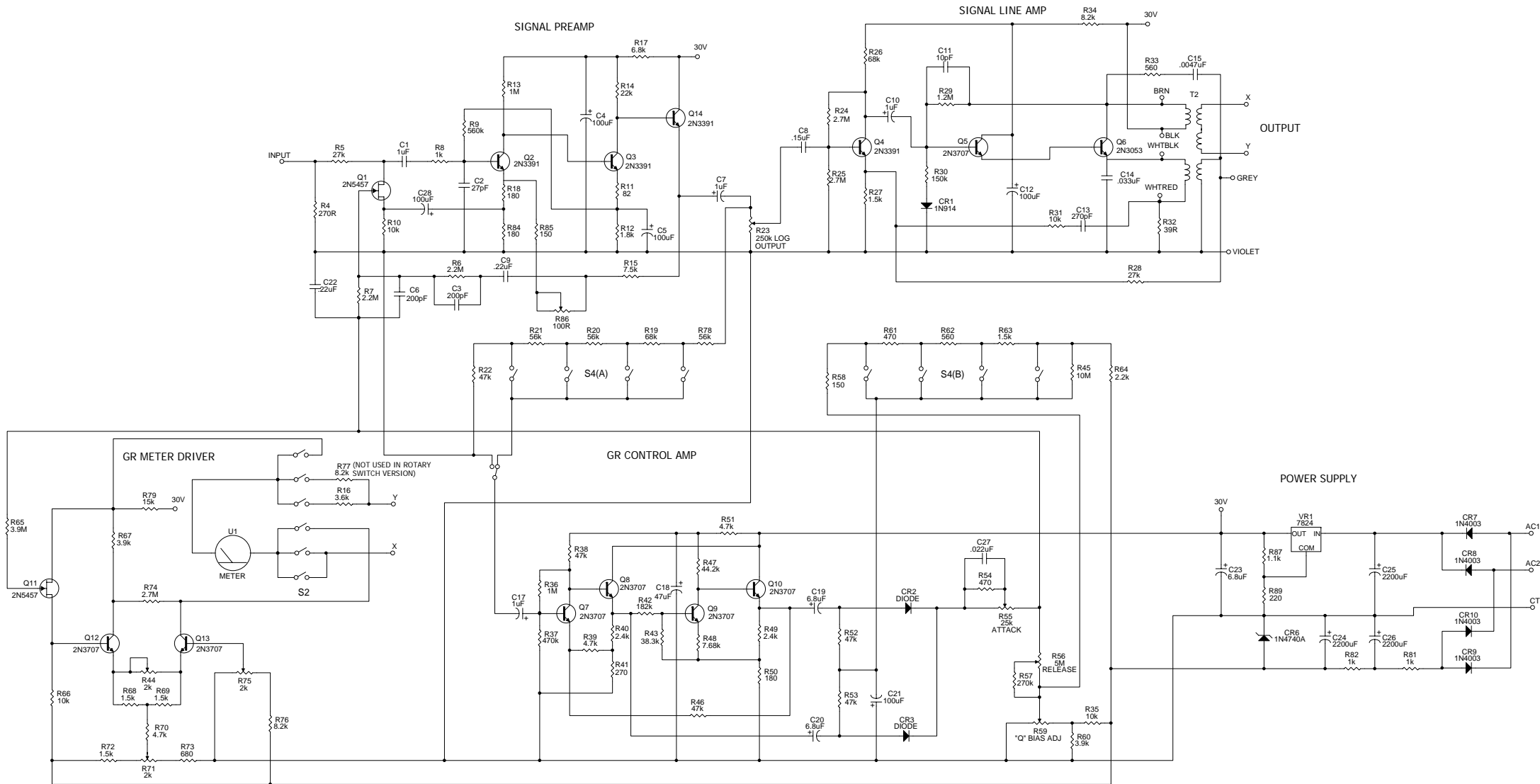


TOP LAYER



BOTTOM LAYER





1176LN REVISION D*

*CHANGED R44 TO TRIMMER POT, ADDED R45,
CONTROL AMP RESISTOR VALUES FROM REVISION F,
USES REV G POWER SUPPLY

Rev	ID
	M.NATS

BILL OF MATERIALS FOR MNATS 1176 REV D BOARDS

QUANTITY	VALUE	DESCRIPTION	DESIGNATION	NOTES
1	10pF	CAPACITOR CERAMIC	C11	
1	270pF	CAPACITOR CERAMIC	C13	
1	27pF	CAPACITOR CERAMIC	C2	
2	200pF	CAPACITOR CERAMIC	C3 C6	
5	100uF	CAPACITOR ELECTROLYTIC	C12 C21 C28 C4 C5	
1	47uF	CAPACITOR ELECTROLYTIC	C18	
3	6.8uF	CAPACITOR ELECTROLYTIC	C19 C20 C23	C19 C20 TANT, LOW LEAKAGE
1	2200uF/35V	CAPACITOR ELECTROLYTIC	C24	
2	2200uF/50V	CAPACITOR ELECTROLYTIC	C25 C26	
3	1uF	CAPACITOR ELECTROLYTIC	C7 C10 C17	
1	1uF	CAPACITOR FILM	C1	
1	.033uF	CAPACITOR FILM	C14	
1	4.7nF	CAPACITOR FILM	C15	
2	.22uF	CAPACITOR FILM	C9 C22	
1	22nF	CAPACITOR FILM	C27	
1	.15uF	CAPACITOR FILM	C8	
1	1N914	DIODE	CR1	
1	1N4740A	DIODE 10V ZENER	CR6	
2	FDH333	DIODE LOW LEAKAGE	CR2 CR3	FAIRCHILD
4	1N4004	RECTIFIER	CR10 CR7 CR8 CR9	
4	10k	RESISTOR 1/4 WATT	R10 R31 R35 R66	
1	82	RESISTOR 1/4 WATT	R11	
1	1.8k	RESISTOR 1/4 WATT	R12	
2	1M	RESISTOR 1/4 WATT	R13 R36	
1	22k	RESISTOR 1/4 WATT	R14	
1	7.5k	RESISTOR 1/4 WATT	R15	
1	3.6k	RESISTOR 1/4 WATT	R16	
1	6.8k	RESISTOR 1/4 WATT	R17	
3	180	RESISTOR 1/4 WATT	R18 R50 R84	
2	68k	RESISTOR 1/4 WATT	R19 R26	
3	56k	RESISTOR 1/4 WATT	R20 R21 R78	
5	47k	RESISTOR 1/4 WATT	R22 R38 R46 R52 R53	
3	2.7M	RESISTOR 1/4 WATT	R24 R25 R74	
5	1.5k	RESISTOR 1/4 WATT	R27 R63 R68 R69 R72	
2	27k	RESISTOR 1/4 WATT	R28 R5	
1	1.2M	RESISTOR 1/4 WATT	R29	
1	150k	RESISTOR 1/4 WATT	R30	
1	39	RESISTOR 1/4 WATT	R32	
2	560	RESISTOR 1/4 WATT	R33 R62	
2	8.2k	RESISTOR 1/4 WATT	R34 R76	
1	470k	RESISTOR 1/4 WATT	R37	
3	4.7k	RESISTOR 1/4 WATT	R39 R51 R70	
2	270	RESISTOR 1/4 WATT	R4 R41	
2	2.4k	RESISTOR 1/4 WATT	R40 R49	
1	182k	RESISTOR 1/4 WATT	R42	
1	38.3k	RESISTOR 1/4 WATT	R43	
4	1k	RESISTOR 1/4 WATT	R8 R44 R81 R82	
1	10M	RESISTOR 1/4 WATT	R45	
1	44.2k	RESISTOR 1/4 WATT	R47	
1	7.68k	RESISTOR 1/4 WATT	R48	
2	470	RESISTOR 1/4 WATT	R54 R61	
1	270k	RESISTOR 1/4 WATT	R57	
2	150	RESISTOR 1/4 WATT	R58 R85	
2	2.2M	RESISTOR 1/4 WATT	R6 R7	
2	3.9k	RESISTOR 1/4 WATT	R60 R67	
1	2.2k	RESISTOR 1/4 WATT	R64	
1	3.9M	RESISTOR 1/4 WATT	R65	
1	680	RESISTOR 1/4 WATT	R73	
1	15k	RESISTOR 1/4 WATT	R79	
1	220	RESISTOR 1/4 WATT	R89	
1	560k	RESISTOR 1/4 WATT	R9	
1	1.1k	RESISTOR 1WATT	R87	
1	4 POLE 3 POS	SWITCH ROTARY	S2	LORLIN OR ALPHA
1	2 POLE 6 POS	SWITCH ROTARY	S4	LORLIN OR ALPHA
2	2N5457	TRANSISTOR FET	Q1 Q11	FAIRCHILD
7	2N3707	TRANSISTOR	Q5 Q7 Q8 Q9 Q10 Q12 Q13	CENTRAL

4	2N3391	TRANSISTOR	Q2 Q3 Q4 Q14	CENTRAL
1	2N3053	TRANSISTOR MEDIUM POWER	Q6	CENTRAL
3	2k	TRIM POT	R59 R71 R75	
1	100R	TRIM POT	R86	
1	7824	VOLTAGE REGULATOR	VR1	

OFF-BOARD COMPONENTS

1	600 OHM	"T" ATTENUATOR		
1		INPUT TRANSFORMER		
1	CM96731	OUTPUT TRANSFORMER	T2	CINEMAG
1	250k	POTENTIOMETER AUDIO TAPER	R23	
1	25k	POTENTIOMETER	R55	
1	5M	POTENTIOMETER	R56	
1		VU METER	U1	
1	50V CT (2 x 25V)	POWER TRANSFORMER		