



BILL OF MATERIALS FOR MNATS 1176 REV A VERSION 1.2.5 BOARD

MAIN BOARD				
Quantity	Value	Description	Designation	Notes
1	10pF	CAPACITOR, CERAMIC	C11	
1	33pF	CAPACITOR, CERAMIC	C16	
1	6.8pF	CAPACITOR, CERAMIC	C6	
1	1uF	CAPACITOR, ELECTROLYTIC	C17	
1	47uF	CAPACITOR, ELECTROLYTIC	C18	
1	2200uF/35V	CAPACITOR, ELECTROLYTIC	C24	
2	2200uF/50V	CAPACITOR, ELECTROLYTIC	C25,C26	
3	6.8uF	CAPACITOR, ELECTROLYTIC	C3, C23, C9	
4	100uF	CAPACITOR, ELECTROLYTIC	C4,C5,C12,C21	
2	1uF	CAPACITOR, ELECTROLYTIC	C7,C10	
2	0.15uF	CAPACITOR, FILM	C1,C2	
1	.001uF	CAPACITOR, FILM	C13	
1	.033uF	CAPACITOR, FILM	C14	
1	.0047uF	CAPACITOR, FILM	C15	
1	.22uF	CAPACITOR, FILM	C22	
1	.15uF	CAPACITOR, FILM	C8	
2	6.8uF	CAPACITOR, TANTALUM	C19,C20,	
1	1N914	DIODE	CR1	
2	FDH333	DIODE, LOW LEAKAGE	CR2,CR3	
1	1N4740A	DIODE, ZENER	CR6	
1	1k var	POTENTIOMETER, TRIMMER	R44	TRACKING ADJ
2	2k	POTENTIOMETER, TRIMMER	R71,R75,R59	"0" SET, NULL ADJ, "Q" BIAS FULL SIZED PANEL MOUNTED SCREWDRIVER SET POT MAY BE USED FOR "0" SET
4	1N4003	RECTIFIER	CR7,CR8,CR9,CR10	
1	9.1k	RESISTOR	R11	
2	2.2k	RESISTOR	R12,R64	
4	47k	RESISTOR	R13,R38,R52,R53	
2	22k	RESISTOR	R14,R46	
1	20k	RESISTOR	R15	
1	100k	RESISTOR	R16	
4	8.2k	RESISTOR	R17,R34,R35,R77	
1	15M	RESISTOR	R24	
1	3.3M	RESISTOR	R25	
1	33k	RESISTOR	R26	
1	12k	RESISTOR	R27	
1	560	RESISTOR	R28	
1	1.2M	RESISTOR	R29	
1	150k	RESISTOR	R30	
1	3.3k	RESISTOR	R31	
1	39R	RESISTOR	R32	
1	560R	RESISTOR	R33	
1	1M	RESISTOR	R36	
1	470k	RESISTOR	R37	
3	4.7k	RESISTOR	R39,R51,R70	
1	270R	RESISTOR	R4	
2	2.4k	RESISTOR	R40,R49	
1	270	RESISTOR	R41	
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	
3	2.2M	RESISTOR	R6,R7,R10	
2	3.9k	RESISTOR	R60,R67	
1	1.5k	RESISTOR	R72	
2	820	RESISTOR	R68,R69	
1	680	RESISTOR	R73	
3	1k	RESISTOR	R74,R81,R82	
1	18k	RESISTOR	R76	
1	15k	RESISTOR	R79	
3	10k	RESISTOR	R8,R66,R80	
1	1.1k/1W	RESISTOR	R87	
1	220	RESISTOR	R89	
2	3.9M	RESISTOR	R9,R65	
8	2N3707	TRANSISTOR	Q3,Q5,Q7,Q8,Q9,Q10,Q12,Q13	Q7-Q10 HFE 250 OR ABOVE
	OR			Q12,Q13 MATCH HFE
	2N5088			USE ALTERNATE BASE PAD FOR 2N5088
2	2N5457	TRANSISTOR, FET	Q1,Q11	
2	J309	TRANSISTOR, FET	Q2,Q4	
1	2N3053	TRANSISTOR, MED POWER	Q6	
1	7824	VOLTAGE REGULATOR	VR1	
SWITCH BOARDS/OFF-BOARD COMPONENTS				
1	250k	POTENTIOMETER	R23	OUTPUT
1	25k var	POTENTIOMETER	R55	ATTACK (MAY HAVE SPDT SWITCH FOR
1	3.6k	RESISTOR	R18	
1	5M var	POTENTIOMETER	R56	RELEASE
1	4 POLE	LORLIN ROTARY SWITCH	S2	ADJUST TO THREE POSITIONS
				OR USE PUSHBUTTONS FROM HAIRBALL
1	2 POLE	LORLIN ROTARY SWITCH	S4	ADJUST TO FOUR POSITIONS
				OR USE PUSHBUTTONS FROM HAIRBALL
1	.012uF	CAPACITOR, FILM	C27	
1	3.6k	RESISTOR	R18	
1	68k	RESISTOR	R19	
2	56k	RESISTOR	R20,R21	
1	47k	RESISTOR	R22,R78	
1	10M	RESISTOR	R45	
1	120	RESISTOR	R58	
2	470	RESISTOR	R61,R62	
1	1.5k	RESISTOR	R63	
1	1.2k	RESISTOR	R54	
1	270k	RESISTOR	R57	
1	600 OHM	"T" ATTENUATOR	R1	http://www.hairballaudio.com/shop/
1		ALTRAN C-3837-1	T1	HAIRBALL AUDIO
1		CM96731	T2	CINEMAG
		OR EA-5002		HAIRBALL AUDIO
1	50V CT	POWER TRANSFORMER		SELECT FOR LOCAL MAINS VOLTAGE
				DUAL SECONDARY OK
1	VU METER		U1	USE A TRUE VU METER WITH DIODE BRIDGE

The components listed here should not be construed as a complete list of parts to build a finished 1176 clone. You will need to supply an appropriate case, knobs etc to finish your clone.

