MH UMIX

BOM

Designator	Notes	Quantity	Value
C1, C2, C3, C4, C5, C6	P2.50mm Ceramic (104)	6	100nF
C7, C8	Electrolytic Polarized P2.50mm	2	22uF
D1, D2	Vertical_Kathode Up	2	1N5818
J1, J2, J3, J5, J6, J7, J9, J10	Jack_3.5mm PJ398SM + jack nuts	8	Jack Socket
J11	IDC-Header_2x05_P2.54mm_Vertical	1	Power connector
J4	PinHeader_1x03_P2.54mm_Vertical	1	3 pin header
J8, J12	PinHeader_1x02_P2.54mm_Vertical	2	2 pin header
R1, R2 , R4, R5, R6, R9, R10, R12, R13, R14,	Vertical Resistor	10	100k
R3, R11, R17, R18	Vertical Resistor	4	50k
R15, R16	Vertical Resistor	2	1k
R7, R8	Vertical Resistor	2	10R
U1, U2	IC Socket	2	IC Socket
U1, U2	IC	2	TL072 BCP
	Jumper	3	
	MH UMIX PCB	1	PCB
	MH UMIX Panel	1	Panel
	Eurorack Power Cable	1	Ribbon Cable

Assembly guide

Starting on the front of the PCB (side without the MH logo):

Place and solder R5 and R13. All resistors and mounted vertically. Place the resistor (either way round) in the circled solder pad and bend the other leg over to go in the other solder pad.

Place and solder the IC sockets on the other side of the board (the side with the MH logo). The notch on the IC sockets should line up with the notch on the PCB.

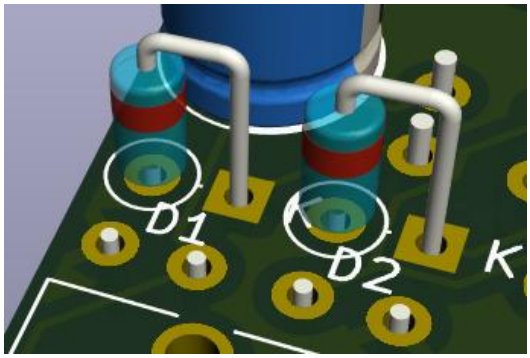
Place and solder C1 to C6 on the same side. Orientation does not matter with these.

Place and solder R7 and R8 again these are mounted vertically

Turning back to the other side of the board. Place and solder the remaining resistors (mounted vertically, resistor body in the circled solder pad). Note these are different

values – Check BOM. When placing R1, 2, 9 and 10 note that the square solder pads near these are for Jack sockets not resistor legs!

Place and solder the 2 diodes D1 and D2. These again are mounted vertically. Take care with orientation – the body of the diode should be soldered into the circled solder pad with the stripe on the diode uppermost (away from the PCB). The other leg needs to be bent over to go in the adjacent square solder pad.



See illustration.

Place and solder the two electrolytic capacitors, C7 and C8. Take care with orientation the long lead of the capacitor must go in the hole marked '+'. The capacitor will also have a '-' marking on the opposite side.

Solder all 3 pin headers in position on the side of the board with the MH logo making sure they sit flush to the PCB and stand vertically from it.

Place and solder the 10 pin Power connector on the side of the board with the MH logo. If you are using a shrouded header make sure the notch lines up with the notch marking on the PCB

Place all jack sockets on the PCB (Do not solder yet).

Put the front panel over the jack sockets. Secure with the jack nuts

Check that the jacks are still aligned to the PCB and have not been rotated by tightening the nuts. If any of them are out of place loosen the nut adjust and retighten.

Solder everything making sure there is no gap between the front panel components and the PCB.

Insert the ICs in the IC sockets making sure the notch on each IC lines up with the notch on the IC socket. If there is no notch on the IC there should be a dot or circle in one corner. In this case place the IC so that the dot/circle is nearest the notch on the IC socket and the PCB.

Make your selection for input b1 normalisation and input A3/B3 gain using jumpers. If you don't want any normalization or high gain, you can hang the jumpers from one pin on the headers in case you need them later.

Done! Power up and enjoy your new module.