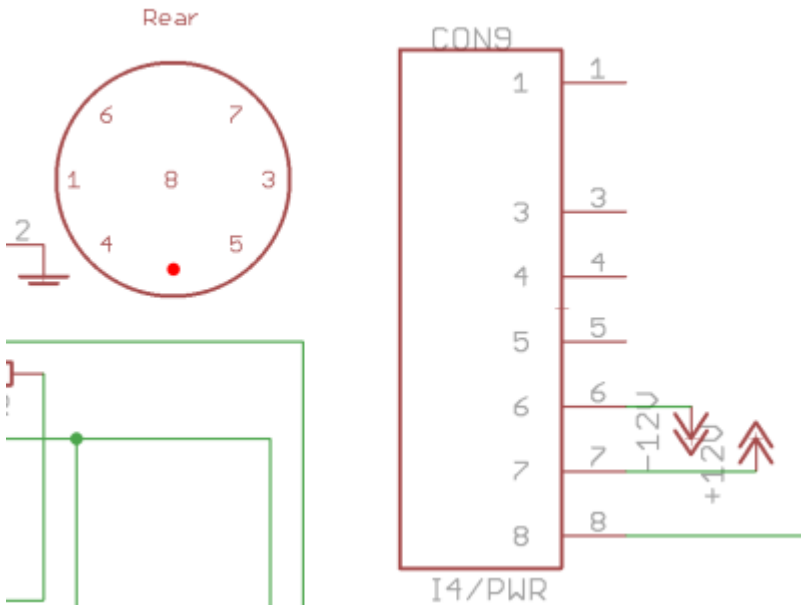




There is provision to use two normally unconnected pins of the DIN8 in the “I4” position to provide bipolar supply rails, e.g. +/-12V. These are connected to the left-hand Eurorack-style 2\*5 header (red stripe down).



Connector I4. Pin 8 can be connected to +5V or to a higher voltage for downstream regulation.

If I4 is used as a power input and/or a BLM is connected, the following should be considered:

- to connect the BLM +5V to the USB +5V, solder a jumper wire below J3 as indicated.
- for other BLM power options, leave J3 open.
- +5V for the BLM can also be supplied on header J3. For instance, by wiring directly to the [wcore\\_usb](#) headers rather than relying on thin ribbon cable and IDCs.
- +5V for the BLM (or a higher voltage to be later regulated) can come in on connector I4, pin 8 (the middle pin of the plug). If I4 is used in this way, ensure solder jumper SJ1 on the rear of the board is closed.
- I4 can be used to supply (bipolar) power into the case on pins 6 and 7 as indicated. This supply is also forwarded to the same pins on the BLM port (O4). Close SJ1 too.
- If I4 is used as a normal DIN5 MIDI input, leave SJ1 open (MIDI inputs do not have 0V/ground connected).

## BOM v1.0

| Type              | Qty | Value   | Package | Parts | Mouser | Reichelt | Conrad | Other | Notes |
|-------------------|-----|---------|---------|-------|--------|----------|--------|-------|-------|
| <b>Resistors</b>  |     |         |         |       |        |          |        |       |       |
|                   | 12  | 220R 5% | THT     |       |        |          |        |       |       |
|                   | 4   | 1k 5%   | THT     |       |        |          |        |       |       |
|                   | 4   | 4k7 5%  | THT     |       |        |          |        |       |       |
| <b>Diodes</b>     |     |         |         |       |        |          |        |       |       |
|                   | 4   | 1N4148  | THT     |       |        |          |        |       |       |
| <b>ICs</b>        |     |         |         |       |        |          |        |       |       |
|                   | 4   | 6N138   | DIP 8   |       |        |          |        |       |       |
| <b>IC sockets</b> |     |         |         |       |        |          |        |       |       |

| Type             | Qty   | Value        | Package | Parts     | Mouser            | Reichelt | Conrad | Other | Notes                            |
|------------------|-------|--------------|---------|-----------|-------------------|----------|--------|-------|----------------------------------|
| <b>Resistors</b> |       |              |         |           |                   |          |        |       |                                  |
|                  | 4     |              | DIP8    |           |                   |          |        |       |                                  |
| <b>Headers</b>   |       |              |         |           |                   |          |        |       |                                  |
|                  | 1     | 1*3          | male    | J3        |                   |          |        |       |                                  |
|                  | 4     | 2*5          | male    | J1, J2    |                   |          |        |       |                                  |
| <b>Sockets</b>   |       |              |         |           |                   |          |        |       |                                  |
|                  | 8 (6) | DIN5         | female  | CON1-6(8) | 806-KCDX-5S-S2    |          |        |       |                                  |
|                  | 0 (2) | DIN8         | female  | (CON9-10) | 806-KCDX-8S-S2-PS |          |        |       |                                  |
| <b>Hardware</b>  |       |              |         |           |                   |          |        |       |                                  |
|                  | 3     | M3 spacer    |         |           |                   |          |        |       | optional, suggest to panel mount |
|                  | 2     | M3 PCB mount |         |           | 534-7695          |          |        |       |                                  |

## Versions

v1.0: first release.

## Assembly

Building is straightforward with all part values indicated. Start with the flattest components (resistors and diodes, IC sockets) and work up to the higher ones. Ensure the DIN sockets are snug against the PCB before soldering all of the pins!

## License

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