

THANKS FOR CHOOSING ONE OF OUR KITS!

This manual has been written taking into account the common issues that we often find people experience in our workshops. The order in which the components are placed on the board is meant to make assembly as easy as possible.

Some steps are not obvious, so even if you're an experienced DIYer please read the steps thoroughly before starting.

If this is your first project, please read this article before you start assembling the kit:
www.befaco.org/howto/

GOOD LUCK!

LETS GET STARTED!

The Power Bus (V2) has fourteen active outputs. To improve the stability of the supply we take a +/- 15volts switched power supply (SMPS) and then regulate it to +/-12volts & +5volts (as per the Eurorack standard).

To improve current flow we use an extra thick copper layer on the PCB. As a trade-off, this requires more heat when soldering to the PCB, so be sure to use a powerful soldering iron (between 18 and 35w).

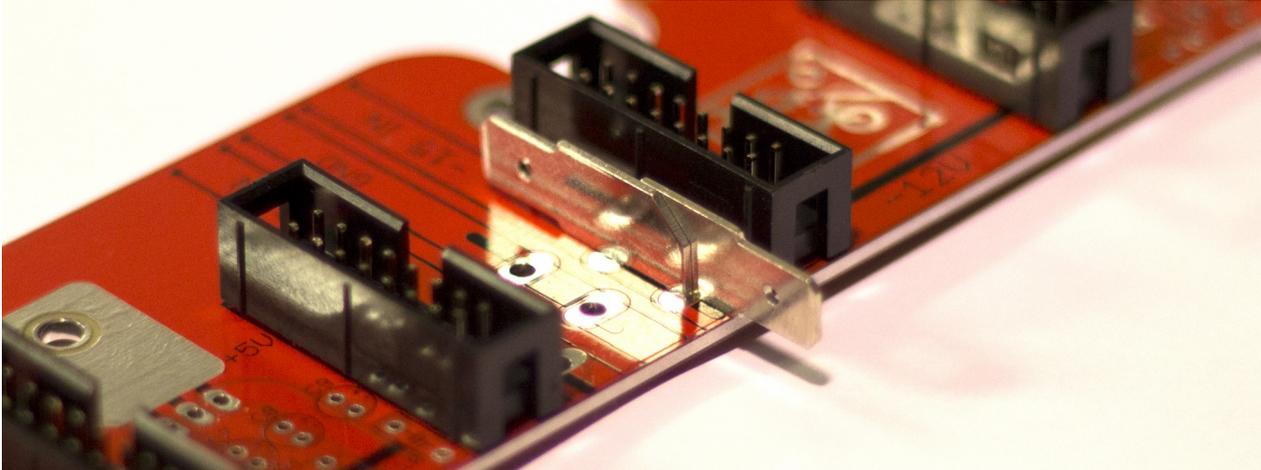


IDC CONNECTORS

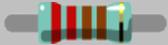
Solder the IDC connectors (the black boxes) X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14 to the PCB where the silkscreen indicates. Ensure the small black triangle on each connector matches the triangle image and thick black line on the silkscreen.

Blade connectors

Solder the 6 Blade connectors in pairs (with the blades in each pair facing in opposite directions - see below) at: “-15”, “GND” & “+15”.



OPEN BAG A



RESISTORS

Qty	Value	Code	Name on PCB
2	1k5	Brown, green, black, brown, brown	R2, R6
3	220	Red, red, black, black, brown	R1, R3, R5
1	680	Blue, grey, black, black, brown	R4

DIODES

Solder the diodes **observing their polarity**. The white line on the diode must match with the white line on the diode symbol on the PCB silkscreen.

Qty	Value	Name on PCB
3	1N4007	D1, D2, D3

CAPACITORS

Identifying capacitors can be quite tricky. Codes stated are indicative, please take a look at this guide for help identifying capacitors: <http://www.wikihow.com/Read-a-Capacitor>

Qty	Value	Code	Name on PCB
6	100n	104	C1, C5, C6, C10, C11, C13

POLARISED CAPACITORS

Values are written on the side of the capacitor. Mind their polarity (The long leg of the capacitor is the positive (+)).

Be **EXTRA** careful that you have the correct capacitor for the correct position on the PCB. Desoldering on this PCB is very difficult.

Qty	Value	Code	Name on PCB
6	10uf	10uf	C2, C3, C7, C8, C12, C14
3	1uf	105 (Tantalum)	C4, C9, C15

REGULATORS

Place them through the PCB and secure them with their screw and nuts before soldering. Ensure that you use pliers to bend *thinner* parts of the legs so that the hole of the heatsink matches up with the one on the PCB.

Qty	Value	Name on PCB
2	LM317	IC1, IC2
1	LM337	IC3

TRIMMERS

Solder the two 1k trimmers over the silkscreen at "+12TRIM" & "-12TRIM" on the PCB. Notice the position of the screw icon on the silkscreen.

ADJUSTMENT PROCEDURE

Measure the output voltages at the +12 and -12 rails' test points. Adjust their respective trimmers until you have the correct voltage at each rail (just to the right of the 3rd IDC connector).

ENJOY YOUR NEW BEFACO MODULE!