

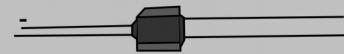
## THANKS FOR CHOOSING ONE OF OUR SEMI KITS!

What you have here is a semi kit, where all components are soldered in the boards and you will be doing the final assembly of mechanical components, testing and calibration.

This is a quite complex build. If you are not an experienced DIYer you might find yourself in trouble. Some steps are not obvious, and some components tricky to solder, so even if you're an experienced DIYer please read the steps thoroughly before starting.

Also, even if this is a semi kit, **TROUBLESHOOTING SKILLS ARE MANDATORY** and you should be an **experienced DIYer with basic schematics reading skills.**  
**This semi kit is not suitable for beginners.**

## HAVE FUN!



### VACTROLS

Mind polarity when placing the Vactrol. Short leg for negative in silkscreen

VTL5C10	LDR1, LDR2, LDR3, LDR4, LDR5, LDR6
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### DIP SWITCH

Solder the DIP switch at S100. This switch will set levels for both channels of output.



### POWER CONNECTOR

Place the power connector at "POWER" at silkscreen side, ensuring it is facing out from the edge of the PCB.



### COMMUNICATION PORTS

Solder **X100** and **X101** IDC connectors, ensuring the position is correct: they must be soldered at silkscreen side, same side as the rest of components and facing out of the board. Longest connector is in Pots bag.



### VCA EXTENSION CONNECTOR

Solder the VCA expander connector at VCA\_CON. ensuring it is facing out from the edge of the PCB.

**You're nearly at the end, but the next part is critical and takes a good bit of concentration. If you're feeling a bit strained, a break would definitely help. Mechanical parts are really delicate and will need your full attention. Please read all steps carefully: A MISTAKE FROM HERE WILL UNLEASH A DESOLDERING MAYHEM ON YOU. YOU ARE WARNED.**

**FRONT PANEL COMPONENTS MOUNTING TIPS:**

Now we will proceed to mount the jacks, potentiometer, switches and LEDs. This part of the assembly is CRITICAL. Please take your time and read the following instructions carefully.

These components must **NOT** be soldered until they are placed on the PCB and fully attached to the front panel.

There are two reasons for this:

- The height of the panel components are not all the same. Because of this, if not attached properly before soldering, they will not stay properly seated against the panel. This might cause mechanical stress reducing their life expectancy and in the worst case cause them to break.
- The second reason is that it is very difficult to align the components to the holes if the panel is not positioned prior to soldering. In the case of the LEDs, they are almost impossible to set to the correct height without reference to the front panel.

**MINI-JACKS & MASTER POT**

Place the mini-jacks and the Master Pot ( GAIN\_M) on the PCB ensuring they are on the side with the silkscreen. Screw the nuts on all those components placing the front panel as reference but **don't solder them**. Now check the height of all the parts and be sure that the front panel is perfectly parallel with the PCB. **Now you can solder all**. Unscrew the components again and lets continue with the next step.

**SWITCHES**

Remove washers and nuts from the switches.  
Place them at **MUTE1, MUTE2, MUTE3, MUTE4, MUTE5, MUTE6**. These switches have orientation, make sure the momentary action is facing down. Place the panel and screw all the components placed before. Now screw the switches, check the height of all the parts again and be sure that the front panel is parallel with the PCB. **Finally solder the switches and unsure the panel one last time.**

**POTENTIOMETERS**

Pick the potentiometers bag and flat the side legs of each pot with the help of a small plier. That step will make easier to put the pots at their correct height. Now place the potentiometers on the PCB. Do not place them all the way down, leave them loose and... **don't solder them yet!**

Qty	Type	Name on PCB
24	Single (3pin) B100k	HPF1, HPF2, HPF3, HPF4, HPF5, HPF6, LPF1, LPF2, LPF3, LPF4, LPF5, LPF6, MPF1, MPF2, MPF3, MPF4, MPF5, MPF6, GAIN_1, GAIN_2, GAIN_3, GAIN_4, GAIN_5, GAIN6
10	Dual (6pin) B10k	PAN1, PAN2, PAN3, PAN4, PAN5, PAN6, GAIN_M, HPF_M, LPF_M, MPF_M



**LEDs**

Place the LED onto the LED silkscreen side of the PCB, minding its polarity (see next paragraph), but **don't solder them** until the front panel is in place. This is the only way to solder them the right position. On the silkscreen and the image you will see the letters L and S to show right orientation.

Qty	Type	Name on PCB
8	Duo_LED	LED1, LED2, LED3, LED4, LED5, LED6, LED7, LED8

**FRONT PANEL**

At this point we have all mechanical components in place and ready to attach front panel. Before doing so, fill this check list (DO IT! We are watching you):

<b>x</b>	
	Are all LEDs properly oriented? (flat side facing left)
	Did you removed nuts and washers from the switches?
	Do all switches have momentary action facing down? (slot in neck, facing down)
	Are all pot legs straight and properly in place? (no legs bent or whatsoever)

If all check items have been marked let's attach the front panel now following the next steps. Be patient and extra careful, fitting all those components is hard and need your full attention:

- 1) Screw the minijacks and the Master Pot that we already solder before. Those parts will mark the right height.
- 2) Screw carefully the rest of the potentiometers and switches ensuring that all have the same height marked by the Master Pot and the minijacks.
- 3) Let's solder all. Take a look to the next picture. It shows the most delicated points on the PCB, be extremely careful when you solder the pads closer to those points
- 4) Place the LEDs at their right height and **solder them**.
- 5) Doublecheck all the soldering and pay special attention to the solder points near SMD parts. Just in case.
- 6) Put the **knobs** on the potentiometers.

*- Please read user manual carefully before connecting your module.*

**ENJOY YOUR NEW BEFACO MODULE!**

