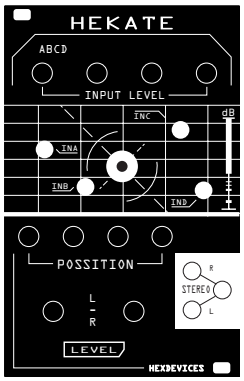
HEXDEVICES
HANDCRAFTED AUDIO EQUIPMENT



ASSEMBLY D.I.Y. MANUAL

LET'S START SOLDERING

Now it's time to build your mixer. Hekate is a stereo audio or CV mixer. In this section we guide you step by step to build it. Also useful videos can be found on Hexdevices Youtube channel.

Start

To build your diy Hekate mixer alongside with the tools you must have a basic knowledge of electronics and soldering. If not just have a look on some Youtube video tutorials they are really useful.

Find a nice place, a big clean desk and plenty of light. Choose a place close to the window in order to open it because nobody like to breath fumes. A small usb fan is also useful for this work. Then open your precious bag and take out the parts. Check the PCB board and try to figure out where your components goes.

Open the bag with the resistors and capacitors and separete them. The val- ues of the components are written on their lables, except of the electrolytic capacitors. Their value can be found on them. If you want to be precise with the components or you acci- dently mixed them you can use a multimeter to measure them. Note the -+ 5% for resistors +-10% for the capacitors tolerance.

A good idea that can help you with this project is to start solder- ing the lower height components such as resistors and ceramic capacitors. Start with the ceramic capacitors,

they are not as high as the resistors. Those are not polarised so you don't have to care about it. After placing and soldering them cut with your cutting tool the excessive leads. Keep those leads because they can be useful as **Jumpers*** (see Customise section in the end of the manual). Is time for the resistors. The resistors are in vertical position. Do not panic, is easy.

Place them and solder them by value groups, in order to not make any mistakes. In example first the 4.7K then the 1K etc. Now you are in a very good way. Flip the board and solder the electrolytic capacitors. They look ugly on the back side but we do it this way otherwise the front panel doesn't fit properly. If you have smaller at the exact same value, then place and solder your own on the top side of the pcb as the other components. Note that the electolytic capacitors are polarised so be careful where the plus and minus pin goes. We also have the (+) indication in the back side to avoid the confusion.

After the electrolytic cap's place and solder the power connector also in the back side. The minus rail is shown on the board. The side with the "clip cut" of the connector is facing right when you look the back side of the board. Keep a bit more time the tip of your soldering iron for the ground connec- tion pins to let the solder melt properly.

Now is time for the potentiometers! Flip the board again place and solder carefuly but only the three front pins not the side legs. You do that in case of mistake to be easier to take it out. Last but not least are the in/out sockets. Solder them and keep the green one last, thats the final stereo connector! You are almost there!

Place the stereo one and you are ready to rumble! Be fore powering up and placing the front panel, you must do a "fast check". Check your soldering connections for any short circuits from both sides. If you are not sure about some connections resolder and use your multimeters beeper to be 100% sure about your connection. If everything looks fine you can clean your board with pure alcohol and an old toothbrush.

Jumpers*= a small piece of wire

Here's a useful table:

Original:	**Agressive:**
R25 - 1k	R25 - Jump.
R26 - 1k	R26 - 1k
R28 - 1k	R28 - Jump.
R27 - 1k	R27 - Jump.
R33 - 1k	R33 - 1k
R30 - 1k	R30 - Jump.

Soft:	**Softer:**
R25 - 2k	R25 - 5k
R26 - 1k	R26 - 1k
R28 - Jump.	R28 - Jump.
	R30 - Jump.
R27 - 2k	
R33 - 1k	R27 - 5k
R30 - Jump.	R33 - 1k
	R30 - Jump.

As you can hear if you keep the 1k resistor at R26,R33 and the jumper at R28,R30 then by increasing the resistance at R25,R27 you lower the distortion. Feel free to experiment more with those values and creat your sound.

Now is time to put the front panel and knobs. Note that the two big knobs for R/L channel may need a bit of glue in order to keep them in place. Do not use a strong glue so its easier for you to take them out again without damaging the panel. clean your board with pure alcohol and an old toothbrush.

Plug it in!