

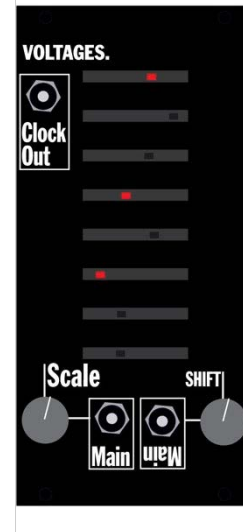


## OVERVIEW

For the most recent version of this document please visit

[www.thonk.co.uk](http://www.thonk.co.uk)

For all technical support email  
[support@thonk.co.uk](mailto:support@thonk.co.uk)



## DIY INSTRUCTIONS

This document gives detailed instructions that assume you have purchased a complete kit from [www.thonk.co.uk](http://www.thonk.co.uk). It also assumes no previous knowledge of electronics. To learn to solder try [http://youtu.be/I\\_NU2ruzyc4](http://youtu.be/I_NU2ruzyc4)

Watch and understand that whole YouTube video! If you're not achieving the results shown in the video then you need to buy new tools or seek advice.  
**You will not end up with a working module otherwise.**

## TOOLS REQUIRED

Soldering iron, pliers, wire strippers, small flat head screwdriver and diagonal cutters AKA snips AKA side-cutters. A Digital Multimeter is always helpful for checking for bad solder joints and continuity. Thonk sell a range of inexpensive tools [here](#).

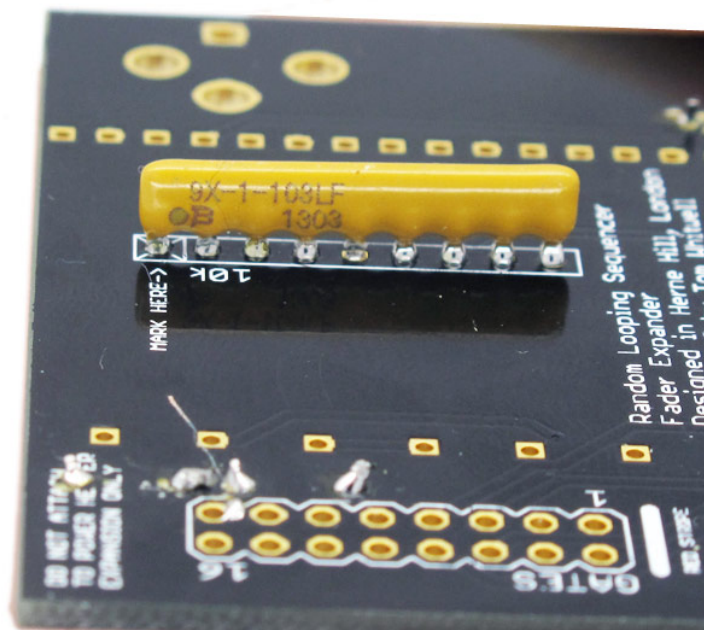
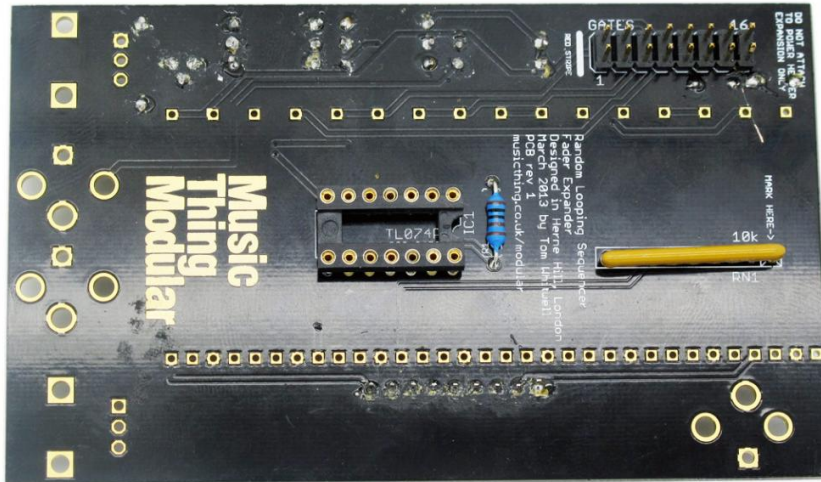


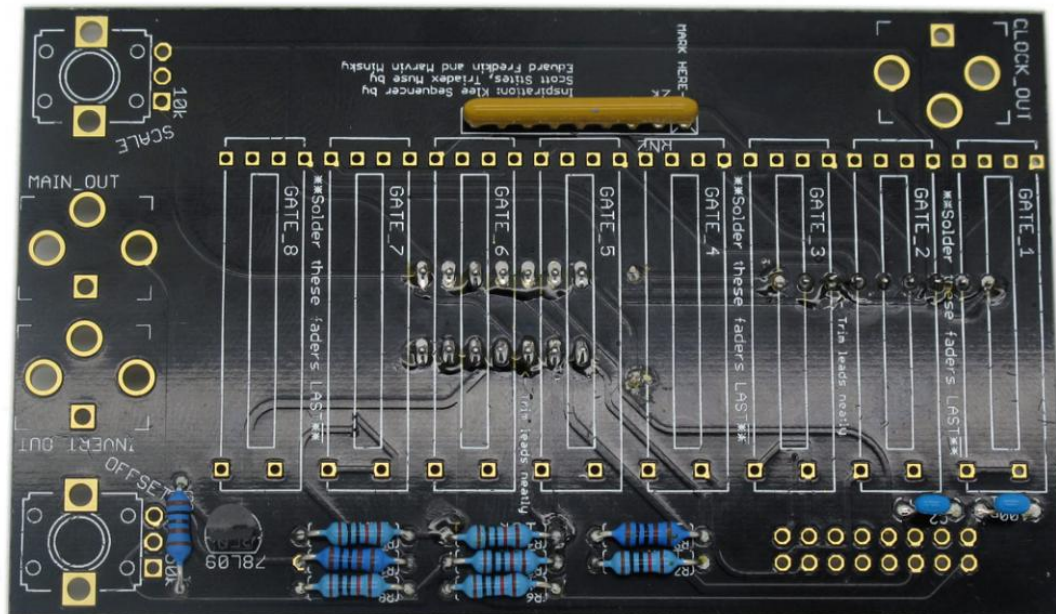
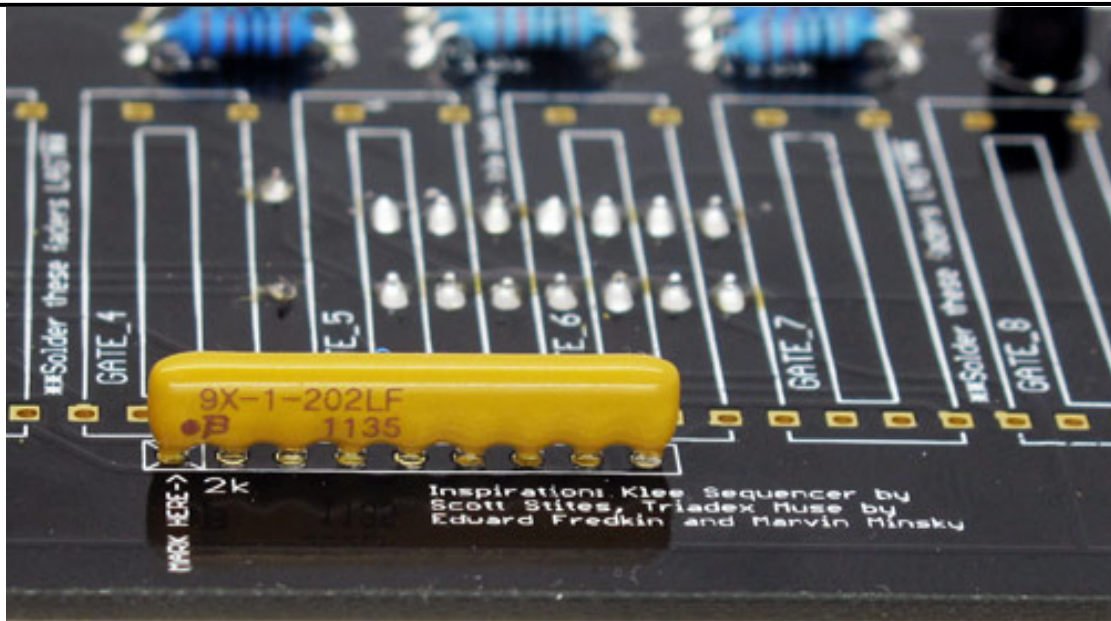
## **Voltages expander** (see photos after text)

1. This is a very quick, straightforward build, so long as you do everything in the right order!
2. Start on the back of the board, the side with the large 'Music Thing Modular' logo. Mount the IC socket, power header and R1.
3. Two important notes about resistor networks:
  - a. Unlike normal resistors, they have a polarity. They have a mark at one end, usually a spot. Ensure the mark lines up with the cross on the silkscreen.
  - b. The two networks in this module look the same but are NOT interchangeable.

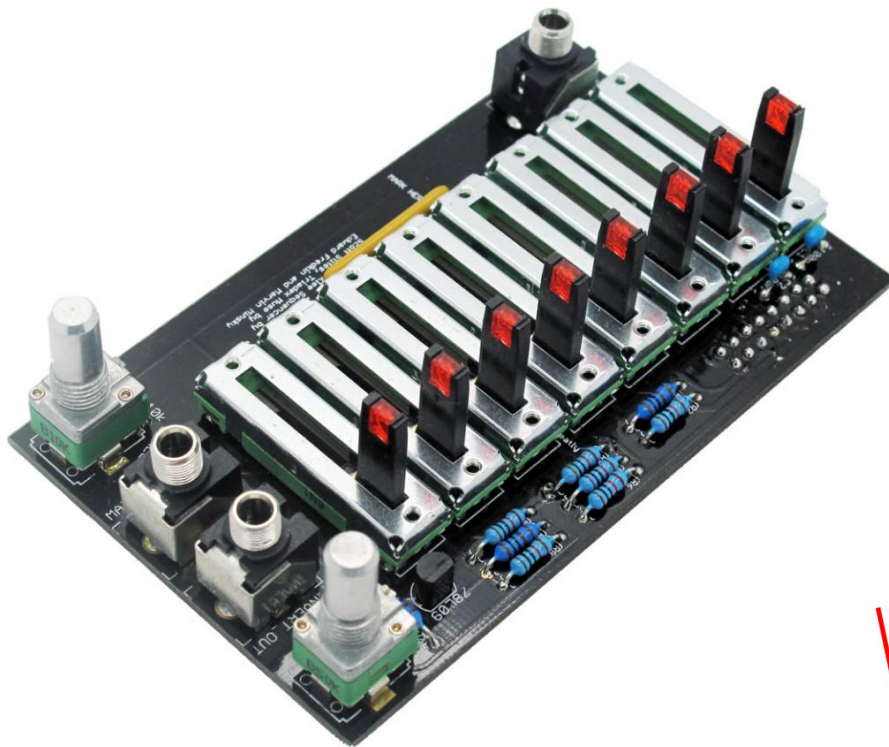
103LF = 10k = back of board, close to the power header

202LF = 2k = front of board, next to 'Inspiration'
4. Once the back of the board is populated, carefully trim the leads as neatly as you can. If they stick up too far, they'll make it hard to get the faders in straight.
5. Attach the other components on the front of the board, around the faders; resistors, capacitors, the 78L09 voltage reference, sockets, and the 2k resistor network.
6. Be careful with the potentiometers. again, they look similar, but are different. Scale, on the left as you look at the faders, is 10k. Offset, on the right, is 50k.
7. Finally, install the faders. They will slot neatly into place. Push them in firmly, ensure all the pins are through the holes and that the plastic 'feet' of the fader are flush against the PCB, then solder.









**TAKE CARE TO  
IDENTIFY THE  
POTS CORRECTLY!**

**B503 = B50K**

**B103 = B10K**

