

THONK SYNTH T02 DOA

DUAL OFFSET ATTENUVERTER

Eurorack DIY Kit
Build Instructions



OVERVIEW

For the most recent version of this document please visit

<https://www.thonk.co.uk/shop/thonk-synth-t02-doa-kit/>

This document should be used in conjunction with the relevant user manual.

All Thonk kits are sold under our standard Terms and Conditions -

<http://www.thonk.co.uk/faq/>

DIY INSTRUCTIONS

This document gives detailed instructions that assume you have purchased a complete kit from www.thonk.co.uk. It also assumes no previous knowledge of electronics. To learn to solder try http://youtu.be/I_NU2ruzyc4 and the **Adafruit guide to excellent soldering** – <http://bit.ly/1l77tF4>

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.

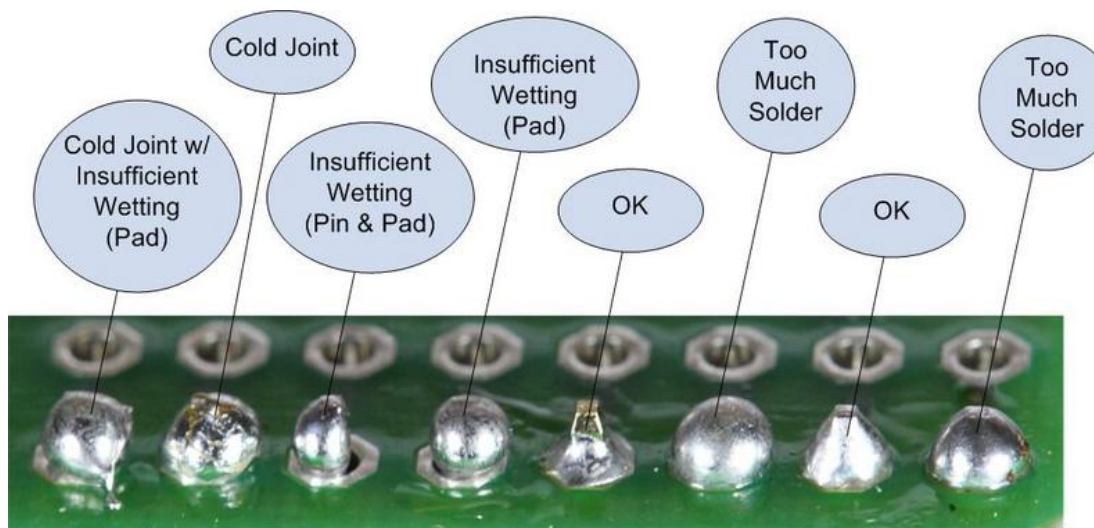
TOOLS REQUIRED

Soldering iron 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 - <http://bit.ly/1xqF3n>

SOLDER JOINTS

Your solder joints should look like those shown as 'OK' below, they should have that neat conical shape on **BOTH sides of the PCB**. If they don't look the same on both sides then stop! Work out why from the soldering guides linked and don't continue until you are getting those results.

This isn't just OCD talking, you are very likely to end up with a destroyed, damaged or defective unit if you're not hitting that standard.



This photo is from the [Adafruit guide to excellent soldering](http://adafruit.com/guides/adafruit_guide_to_excellent_soldering)- and is reproduced under an Attribution-Sharealike creative commons license - <http://creativecommons.org/licenses/by-sa/3.0/>

BUILD INSTRUCTIONS

1.

First take the PCB and solder the 2x5 power header to the rear of the board (the side without the SMD components).

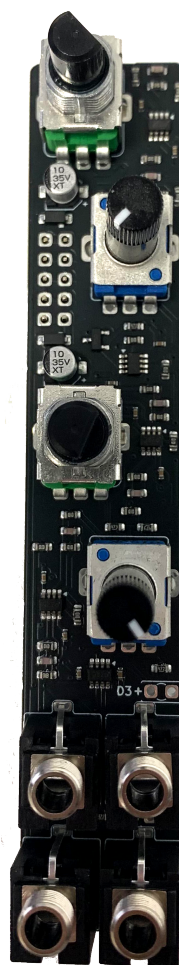
Check that this is soldered flush to the PCB by first soldering one joint and reflowing and adjusting where necessary.



2.

Take the PCB and after removing the jack nuts place the two Green pots, blue trimmers and four thonkiconn jacks on the board.

DON'T SOLDER YET – follow the remaining steps before resuming soldering at step 6.

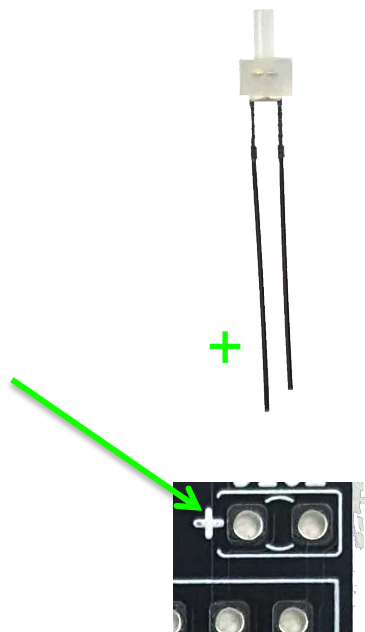




3.

Place the two clear bi colour LED's.

CHECK ORIENTATION – these components are polarized and must be placed as pictured with the long leg inserted into the pad marked with '+'.
DON'T SOLDER YET



4.

Place three of the provided silver washers onto each of the green pots.

These will help keep the components level between the panel and PCB.

DON'T SOLDER YET





5.

Place the panel and secure the pots and jacks with the remaining nuts, tighten firmly to hold all components in place but don't overtighten.

Use masking tape or similar placed over the LED holes to keep them flush against the panel whilst soldering.

DON'T SOLDER YET



6.

Solder all 36 joints on the control board checking that all components stay lined up between the panel and PCB during the process.

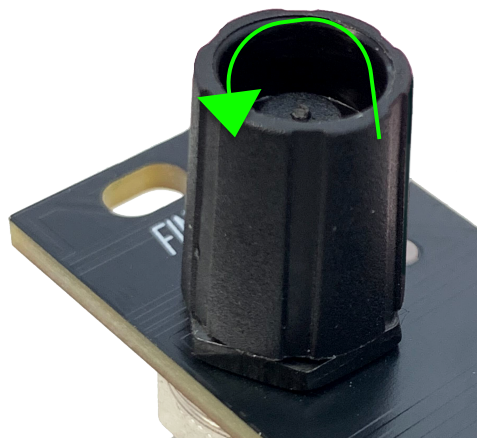




7.

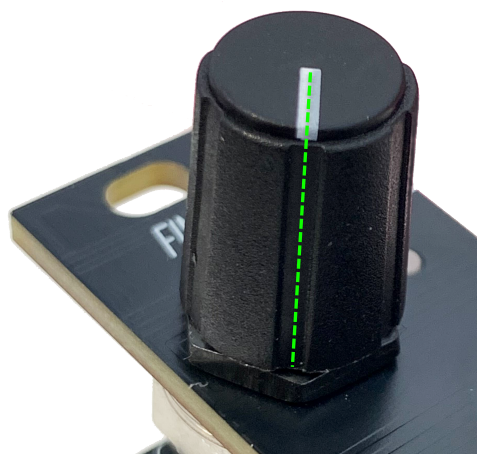
For the next step find the knob and knob cap which come as separate pieces.

First place the knob onto the pot, with the pot turned fully counter clockwise.



This is your 'zero' point for the knob.

From here you can clip on the cap – lining up the pointer and indent on the knob at the zero point.

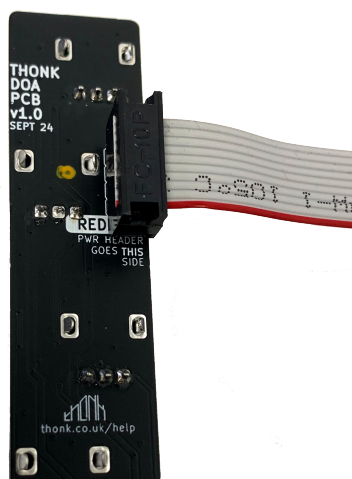


8.

Finally attach the power cable.

IMPORTANT

Be sure to follow the polarity by lining the red stripe on the cable up with the text on the PCB. You will not end up with a working module if you fail to do so. Picture shown for reference.





9.

The module is now complete – follow the user manual and the link to the Thonk website for general module info.

<https://www.thonk.co.uk/shop/thonk-synth-t02-doa-kit/>

