



AT-AT-AT Triple Passive Attenuator OVERVIEW

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<https://www.thonk.co.uk/shop/at-at-at/>

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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 <https://youtu.be/lpkkfK937mU> and the **Adafruit guide to excellent soldering** – 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

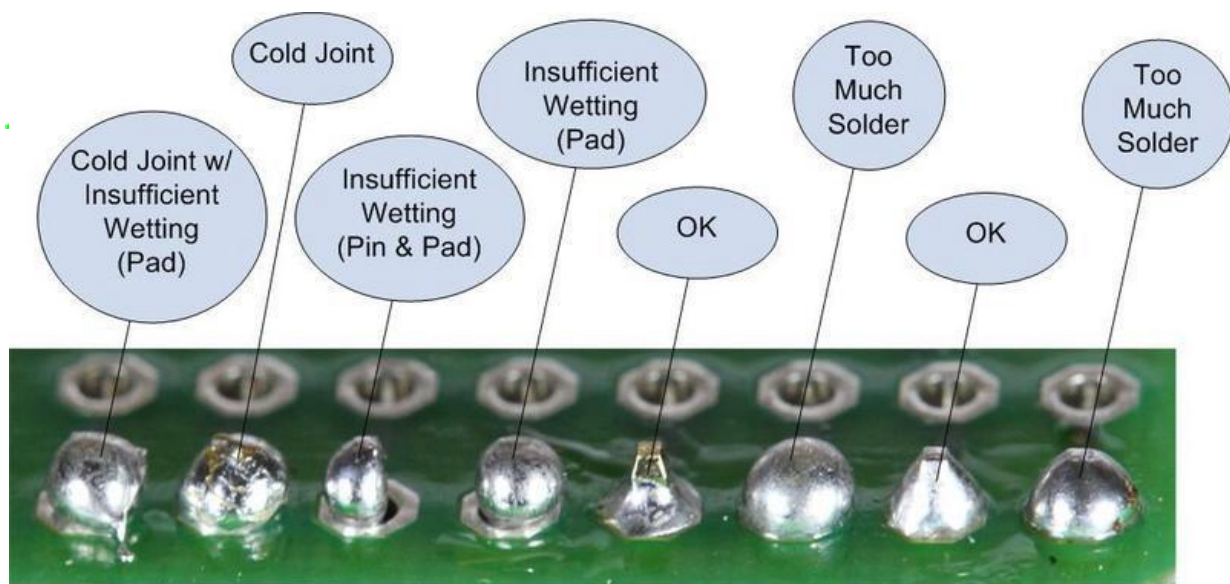
Soldering iron, snipe nose pliers, wire strippers, small flat head screwdriver and diagonal cutters AKA snips AKA side-cutters. A Digital Multimeter is always helpful for checking for bad solder joints and continuity. Thonk sell a range of inexpensive tools here - <http://bit.ly/1jxqF3n>



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://bit.ly/1jxqF3n> and is reproduced under an Attribution-Sharealike creative commons license - <http://creativecommons.org/licenses/by-sa/3.0/>



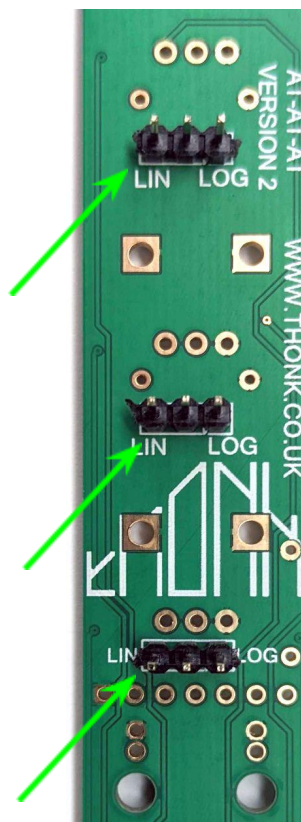
AT-AT-AT BUILD INSTRUCTIONS

1.

Start by finding the single 10-pin header and break this into three separate 3-pin headers.

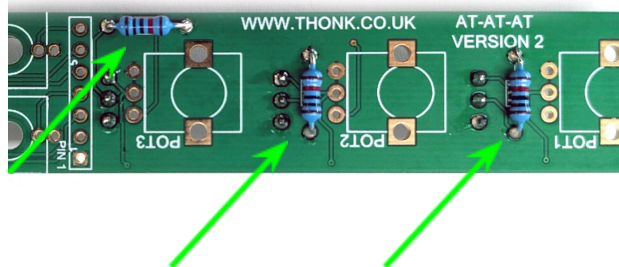
Place and solder each header so they sit on the back of the PCB in the LIN/LOG positions as shown.

TIP: Solder 1 pin of each header first, then check that the header is sitting flush to the PCB surface. You can reflow the joint while pushing the header flat if needed before moving on to solder the rest of the pins.



2.

Next turn the PCB over and solder the three 10K resistors into the positions marked R1, R2, and R3 on the PCB (all resistors are the same value).



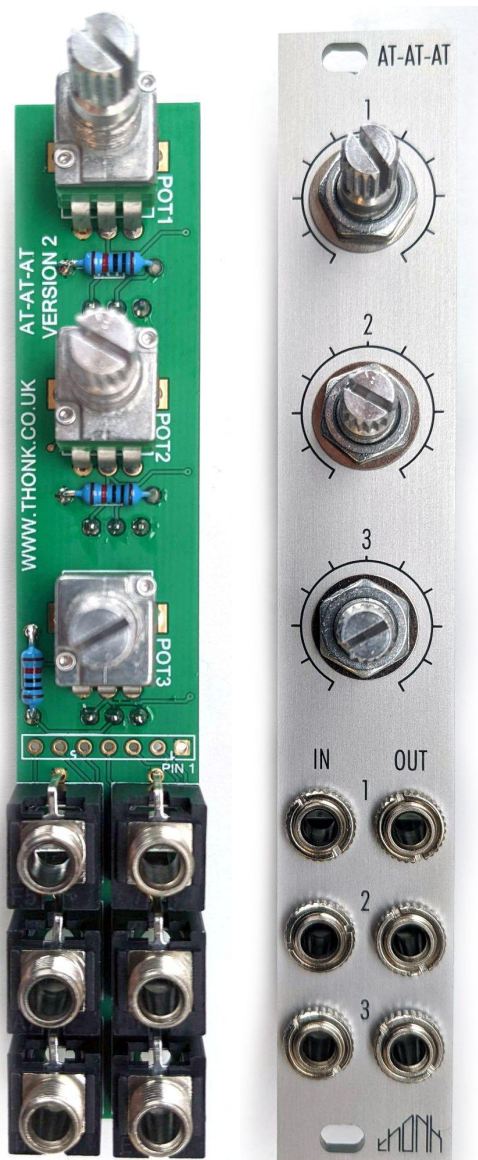


3.

For the next step place the three B100K pots and six jack sockets into position as shown but **DON'T SOLDER ANYTHING YET.**

4.

Place the panel on the front of the module and then add the nuts and washers to all pots and jacks to hold everything in place.





5.

Check the components are sitting flush between the panel and PCB, and then flip the module over and solder all the pins for the pots and jacks on the back of the PCB.

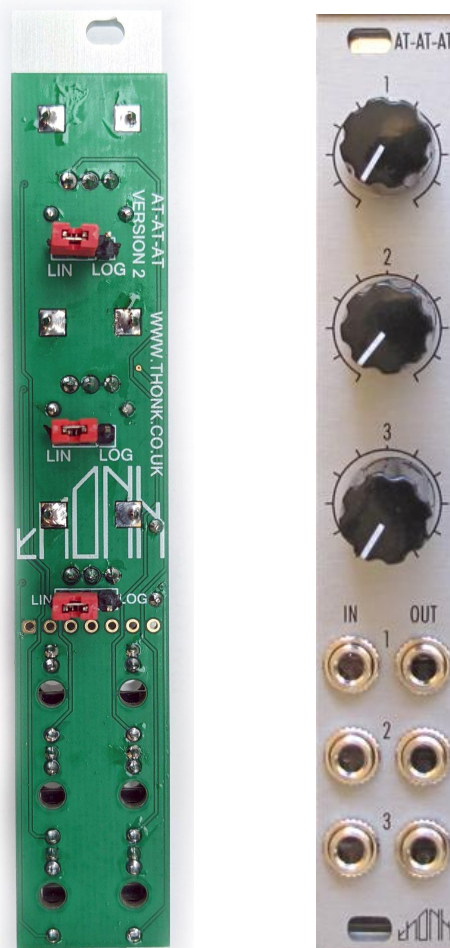


6.

Finally attach the knobs onto the pots and the three red jumpers onto the headers on the back of the PCB.

Before attaching the knobs, be sure to turn the pots fully counterclockwise and line the knob pointer with the notch on the panel before pushing on firmly.

Place the red jumpers in the LIN position as shown if you're attenuating CV signals, or the LOG position if you're mainly attenuating audio signals.



7.

The module is now complete and ready to mount in the rack (this module doesn't require any power).