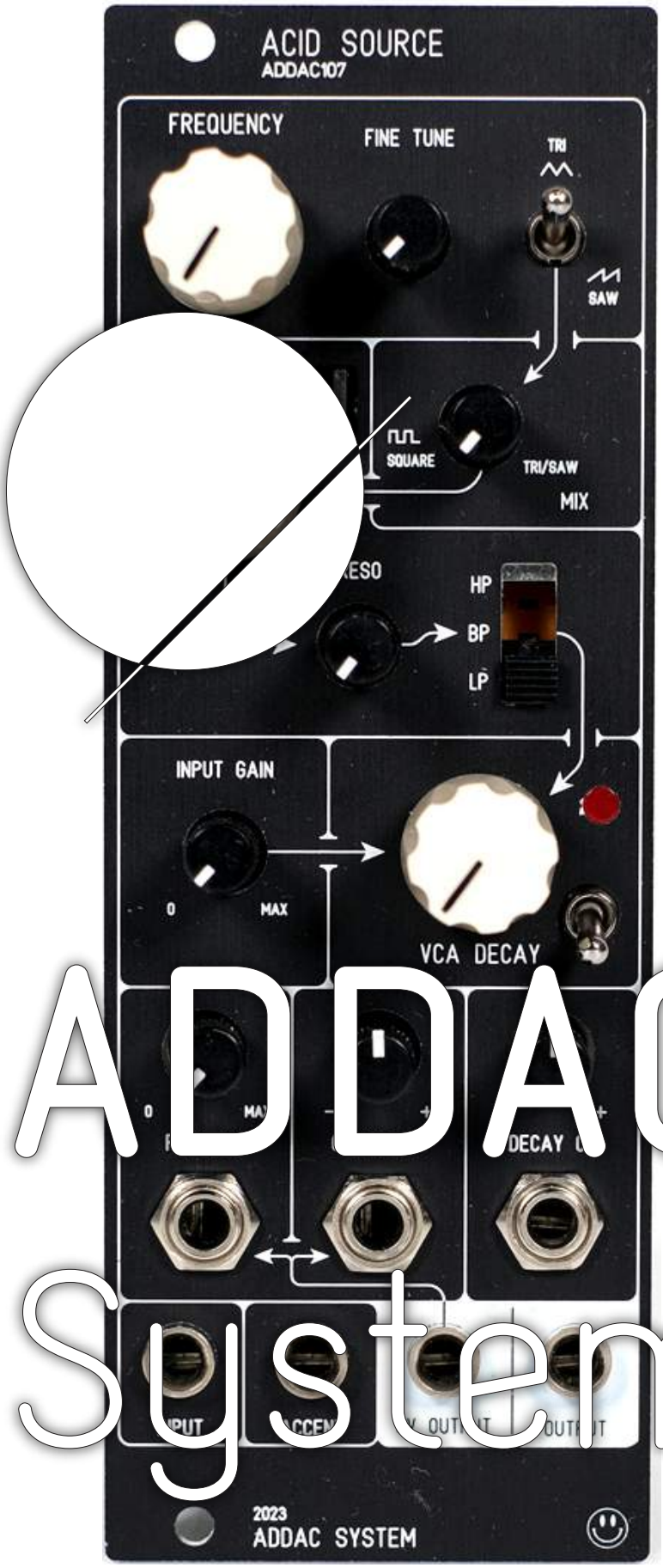


ADDAC System

ADDAC107 ACID SOURCE

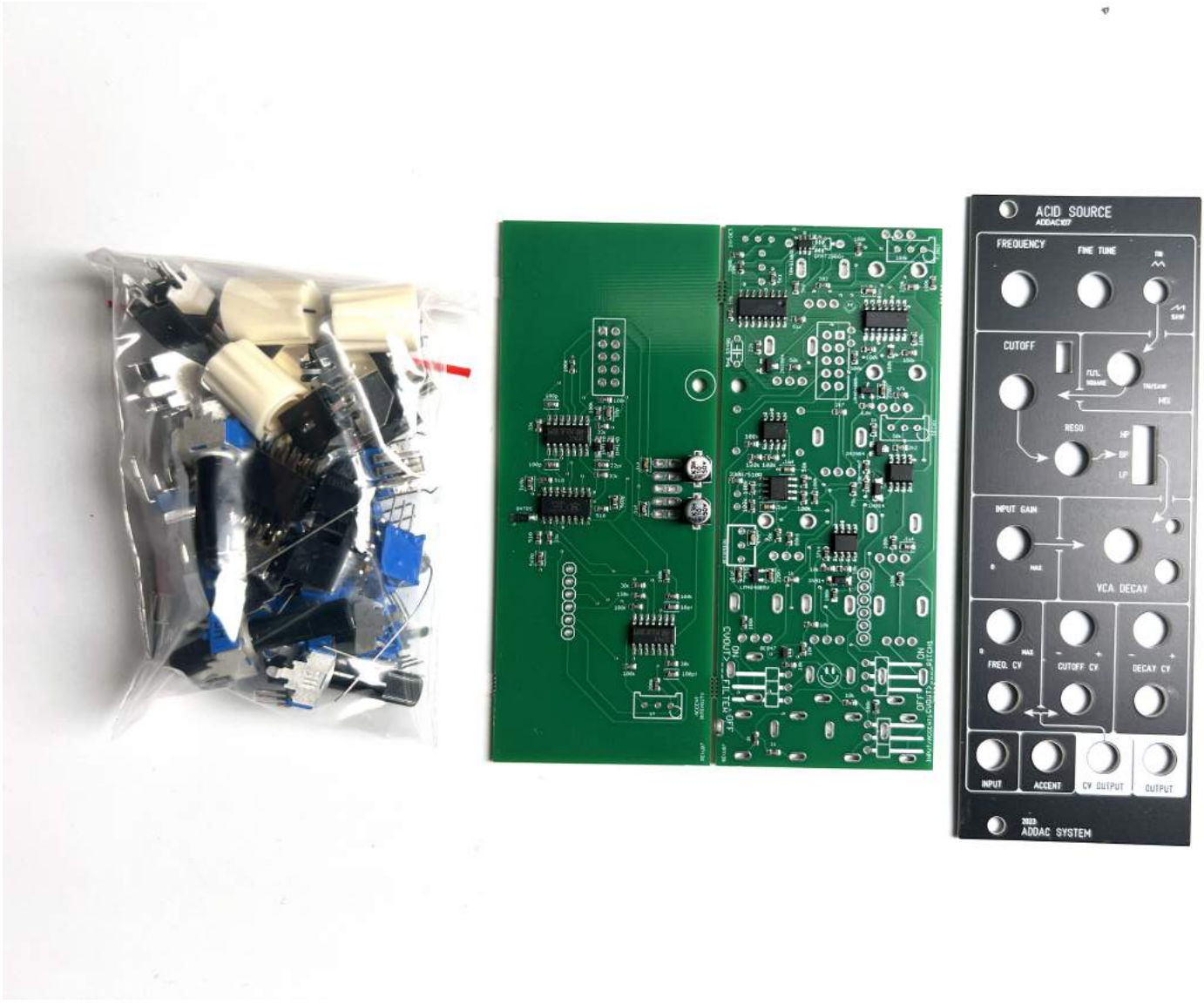
ASSEMBLY GUIDE

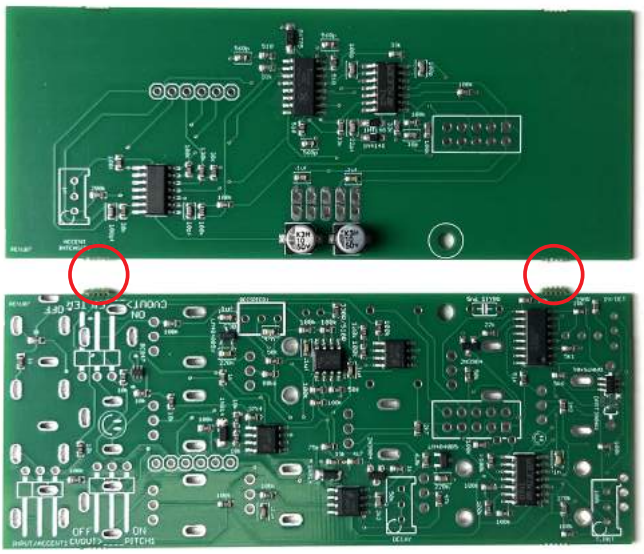
Revision.03 October.2023

ADDAC System

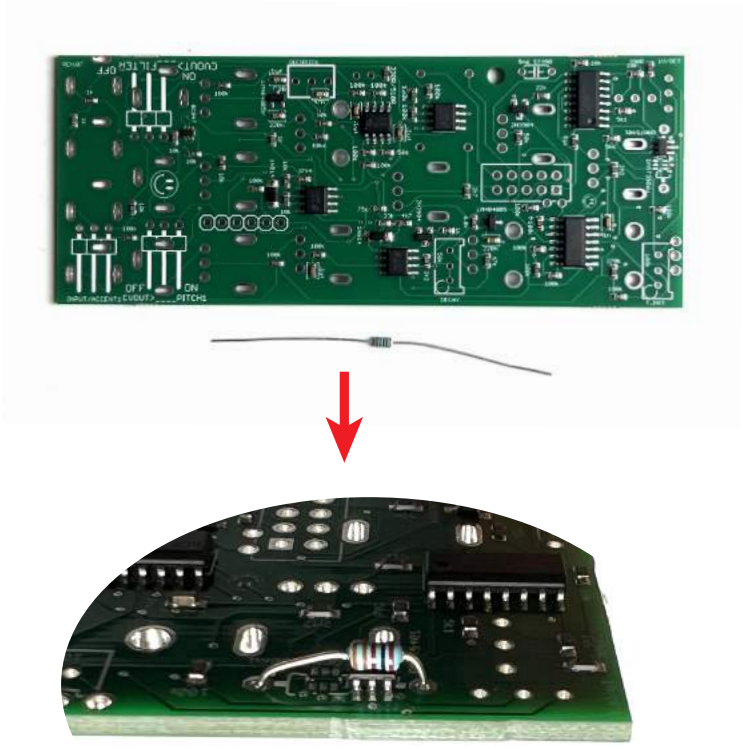
ADDAC107 Assembly Guide

July.2023

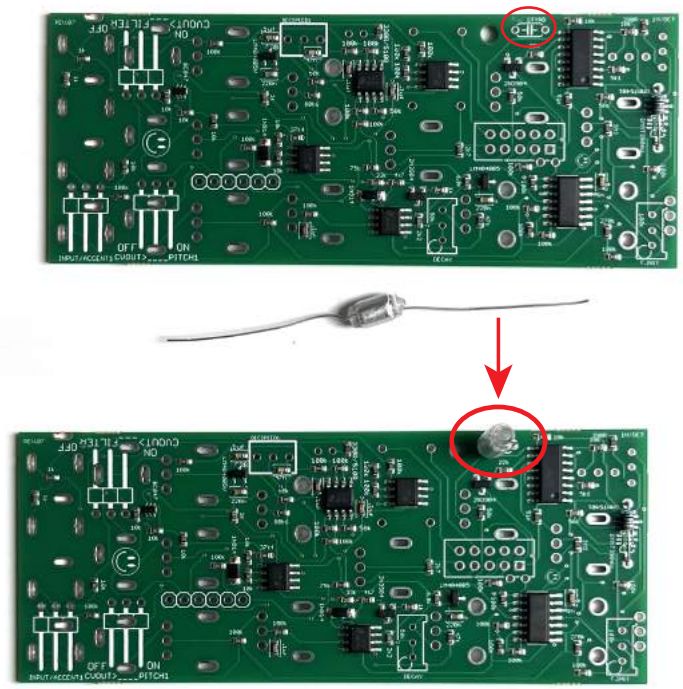




STEP 1:
Grab the pcb, gently brake it apart and trim the excess with a cutting plier.

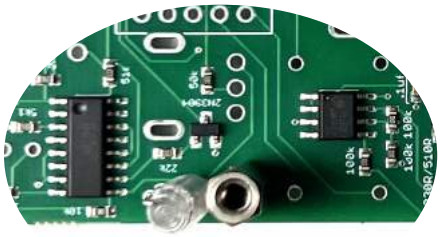


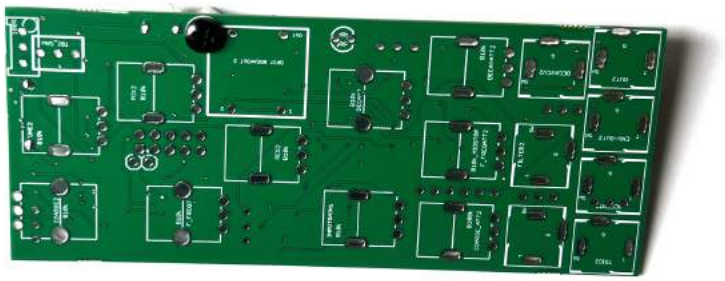
STEP 2:
Locate the resistor and place it on the top of the soldered transistor like shown here.
Once placed solder the resistor.
Trim and save the 2 resistors legs, it will be used later.

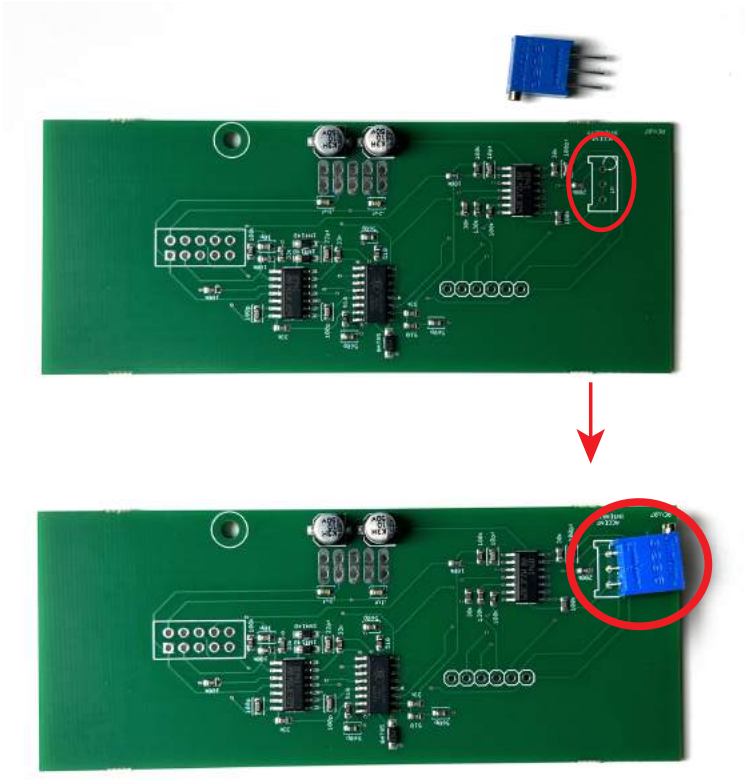


STEP 3:
Next place and solder the capacitor vertically like shown here.
Trim and save the 2 capacitor legs, it will be used later.

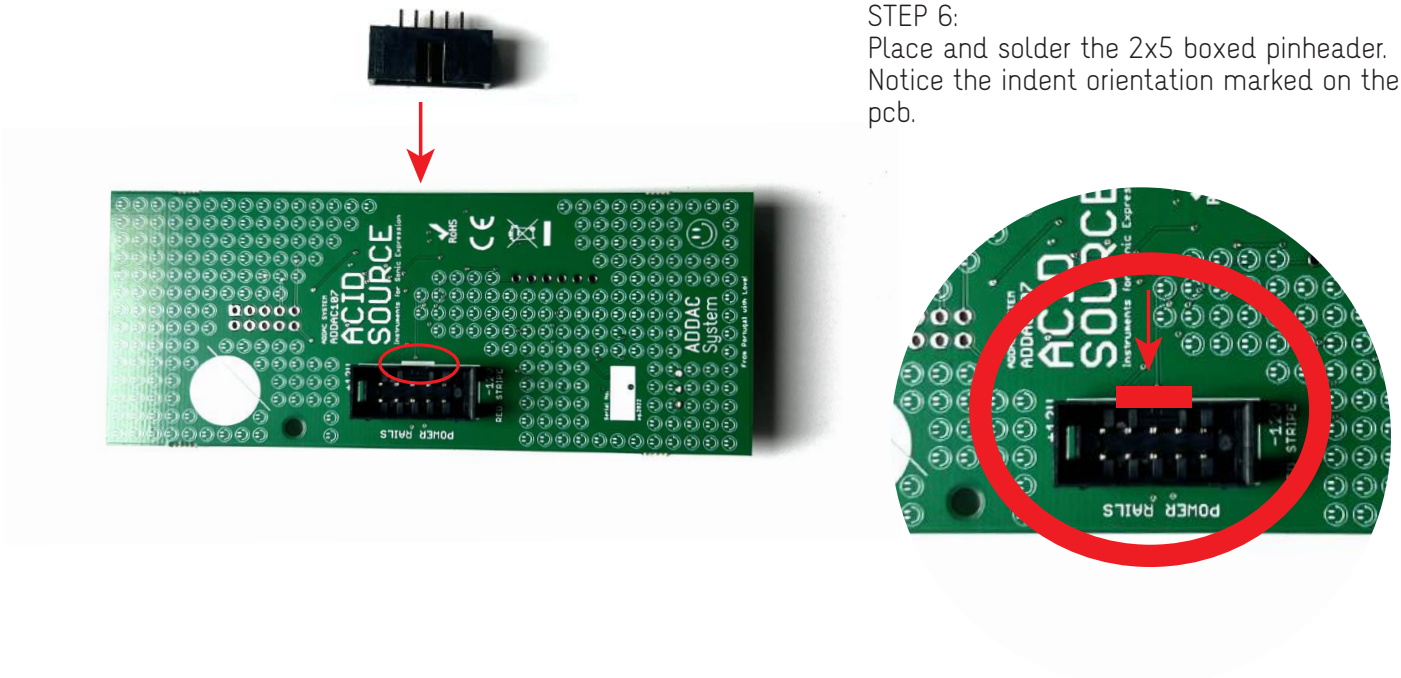
STEP 4:
Next place the spacer like shown here





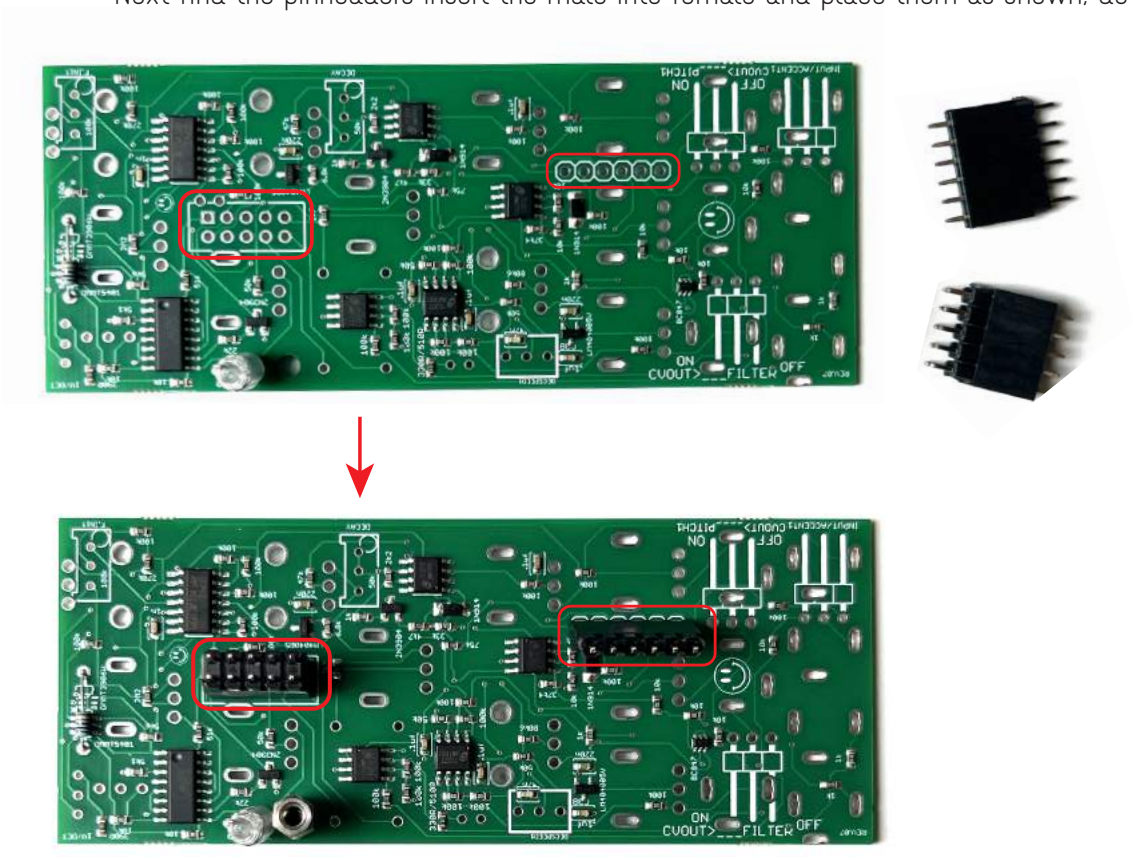


STEP 5:
Place and solder the 1M trimmer (marked 105 on the top)
Notice the trimmer is soldered at 90 degrees, flat against the pcb.

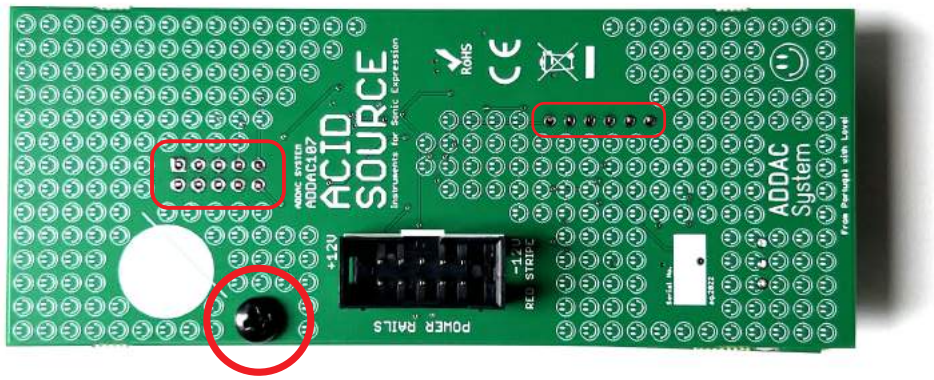


STEP 6:
Place and solder the 2x5 boxed pinheader.
Notice the indent orientation marked on the pcb.

STEP 7:
Next find the pinheaders insert the male into female and place them as shown, do not solder them yet.



STEP 8:
Once in place on front pcb place the back pcb on top and attach the back screw to keep pcbs parallel, proceed by soldering both pinheaders on top and bottom pcb.

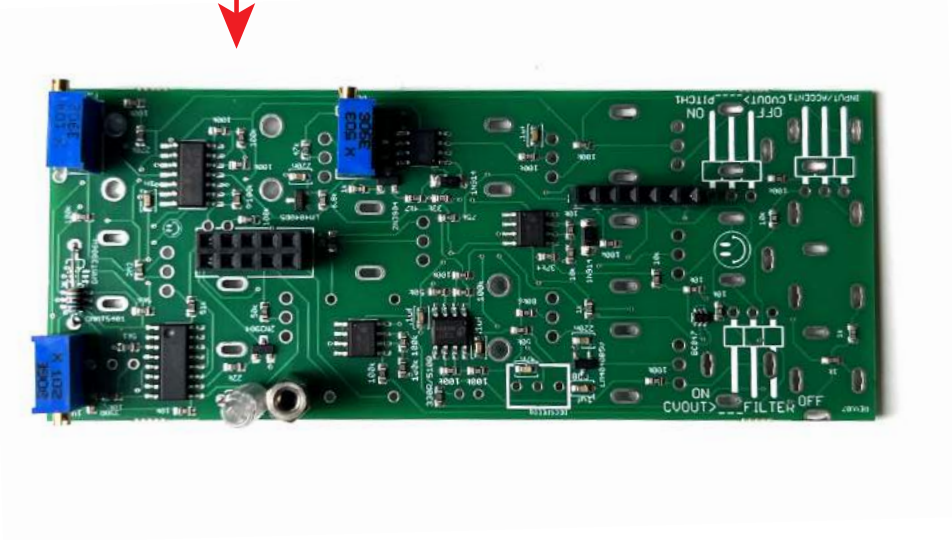


STEP 9:
Next we'll place the remaining trimmers like shown below.
After soldering make sure you trim the excess legs especially the one that will stay under the top pot.

50k = 503

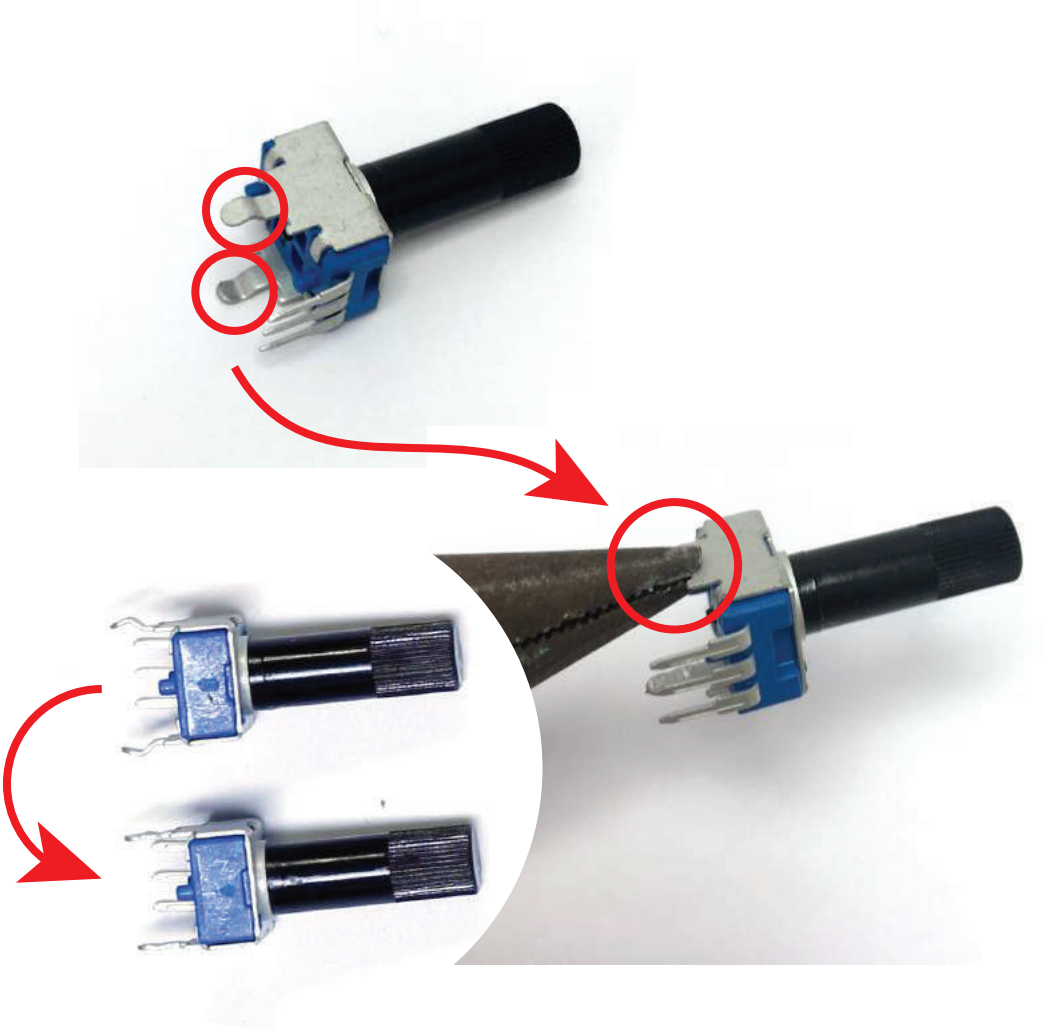
100k = 104

1k = 102

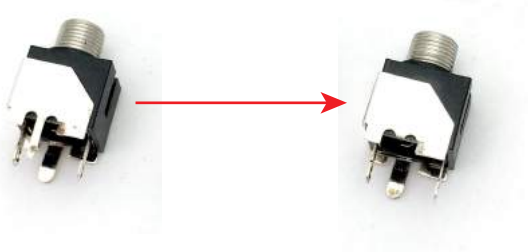


STEP 10:
Next we'll need to prepare some parts before placing them to the front panel.
locate the jumper pinheader and the tall jumper shunt and attach them together

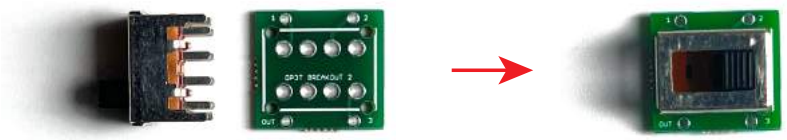
STEP 11:
Locate all trim pots and flatten out their legs with the help of some pliers, like shown below.



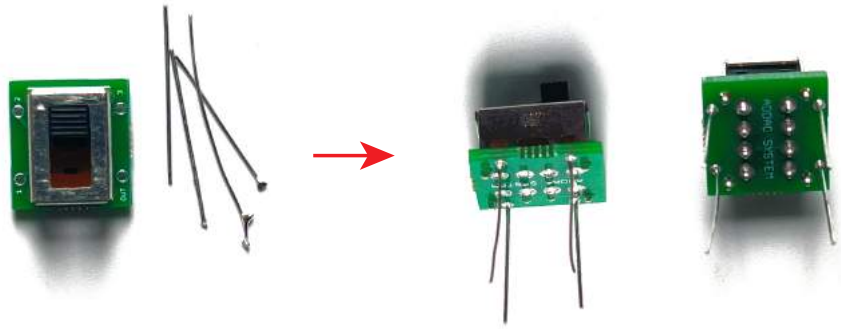
STEP 12:
Locate the jacks and cut the thinest leg like shown below.



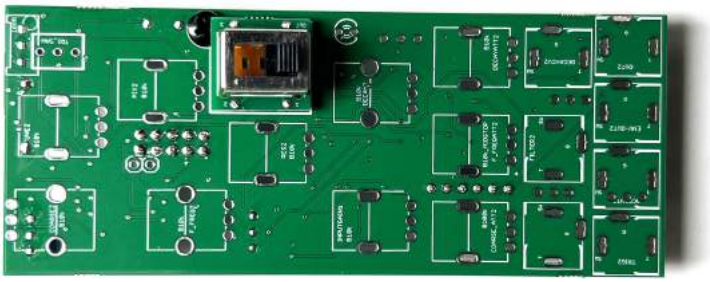
STEP 13:
Locate the small pcb and slider switch, place the switch and solder it.

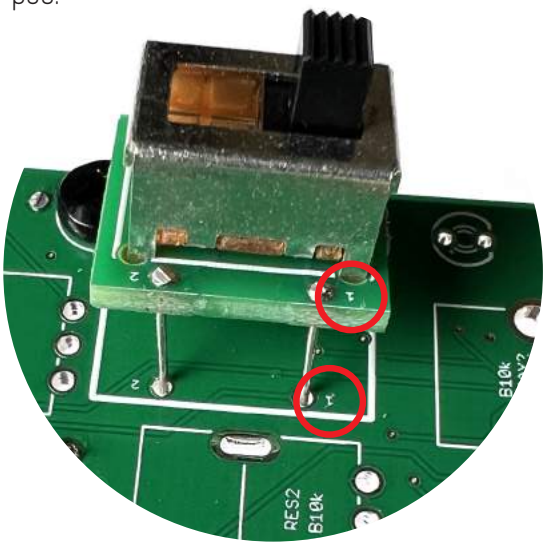


STEP 14:
Grab the pcb and solder the resistor and capacitor legs to its 4 points.



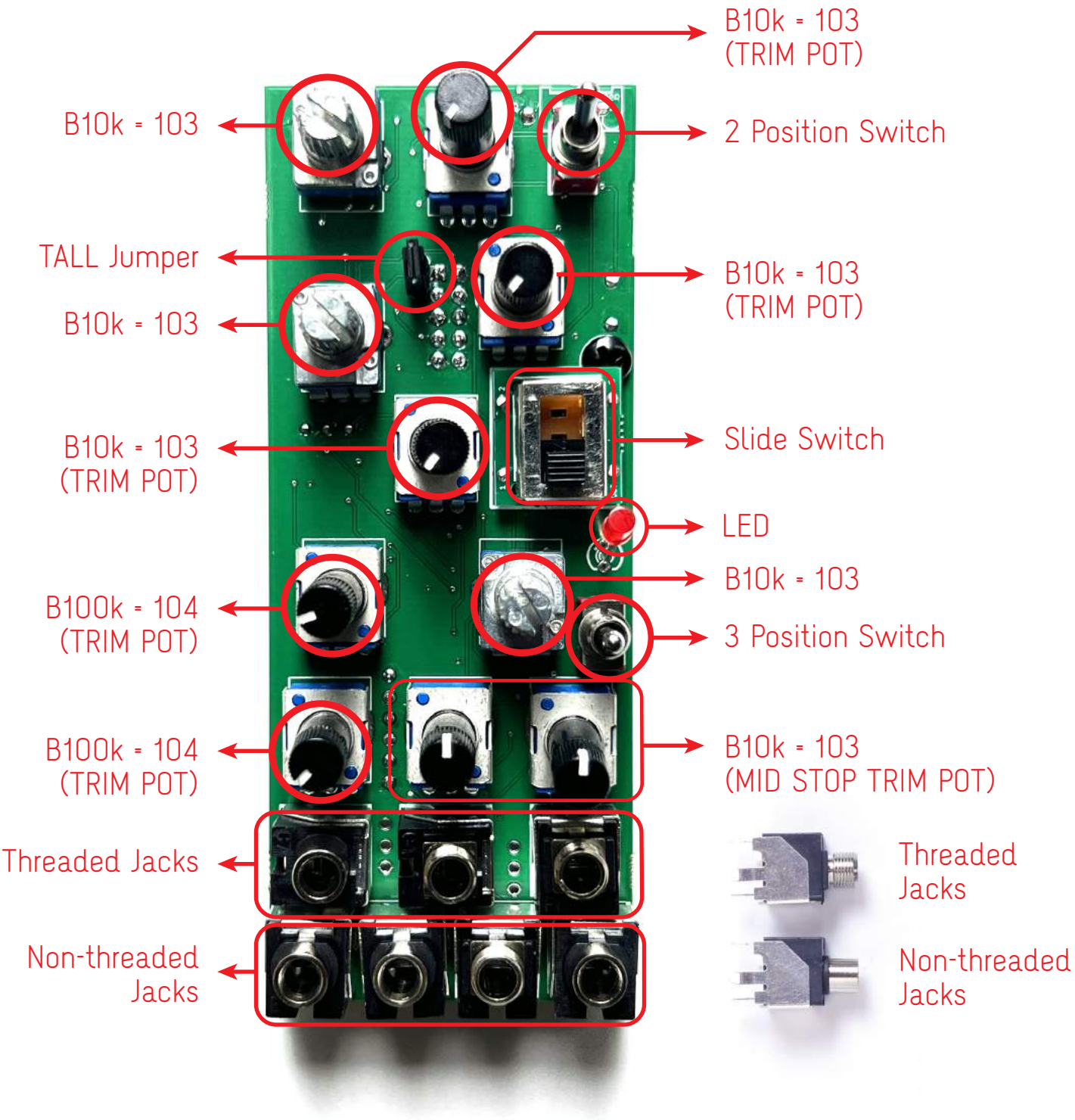
STEP 15:
Next we'll start to populate the pcb, place the slide switch pcb like shown below.
Notice the orientation numbers on the slide pcb and the bottom pcb.





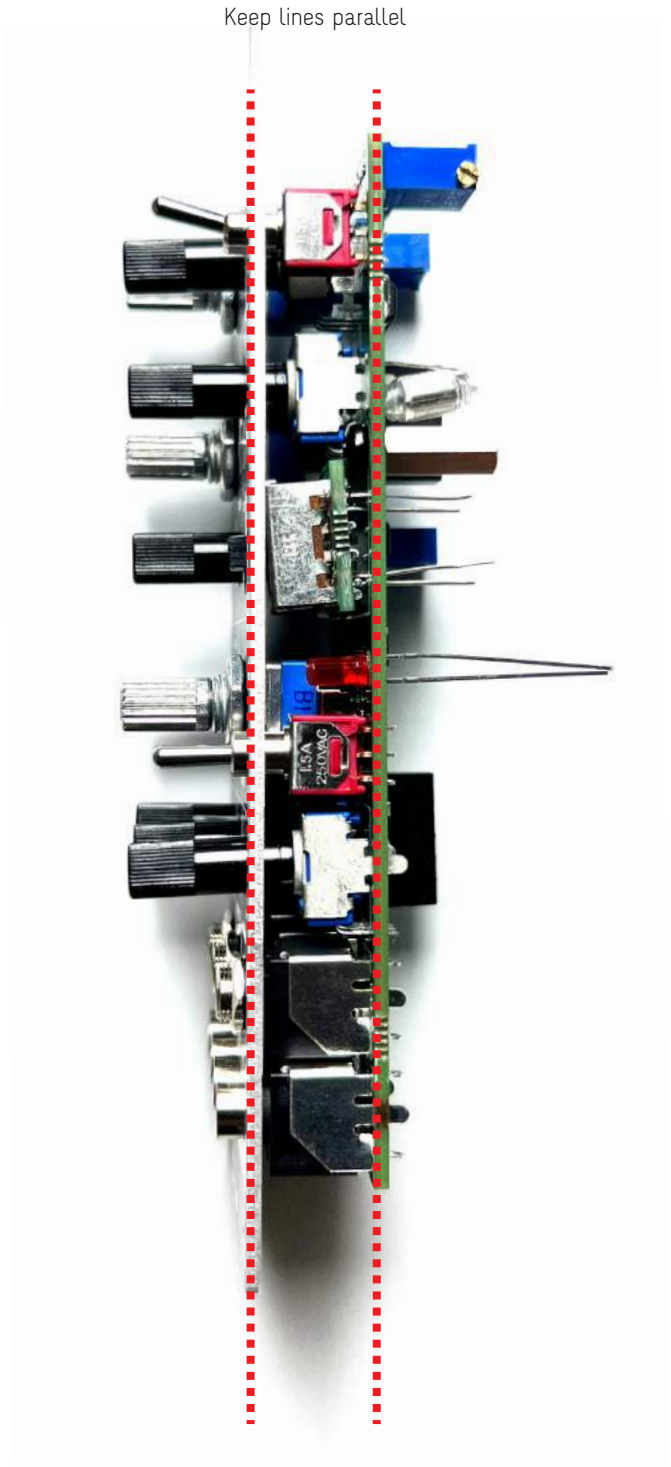
STEP 16:
Notice there's 1 trim pot that is 100k and 2 others have a Mid Stop indent.
Also Notice the 2 toggle switches are different.
Same for the jacks, some are threaded some aren't.
Find and separate these first in order to avoid any misplacement

Proceed by placing all parts on the pcb, notice the values, orientation and jack types shown below.

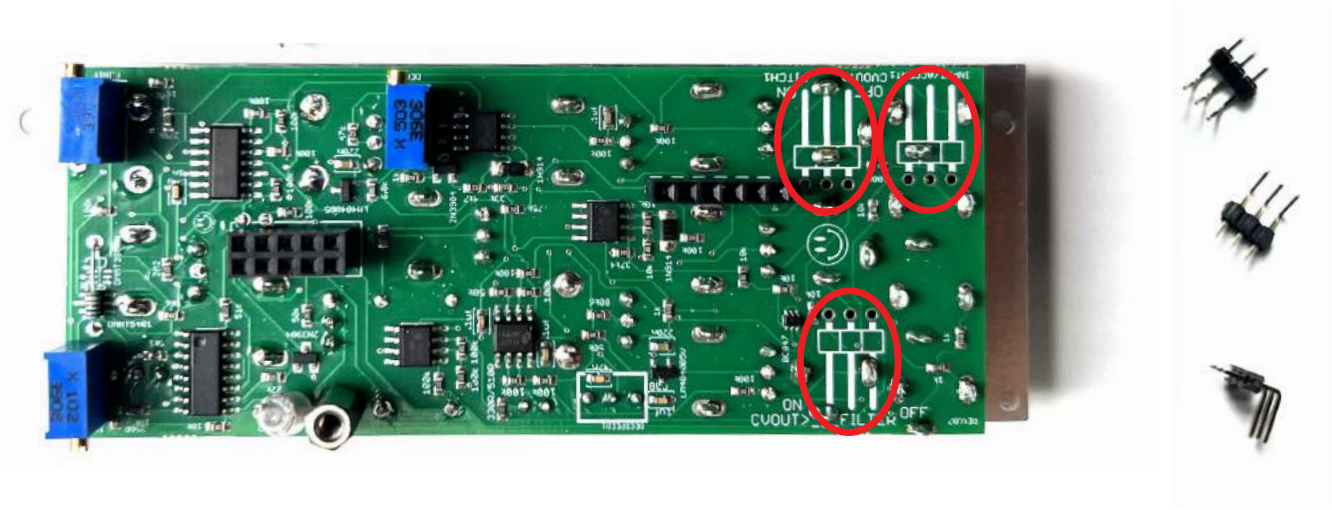


STEP 17:
Next, place the frontpanel and tighten all nuts.
Notice the bigger metal shaft pots do not stand flush with the pcb, they will be slightly pulled up from it once you tighten the nut on the front panel, this is the correct way to assemble it.

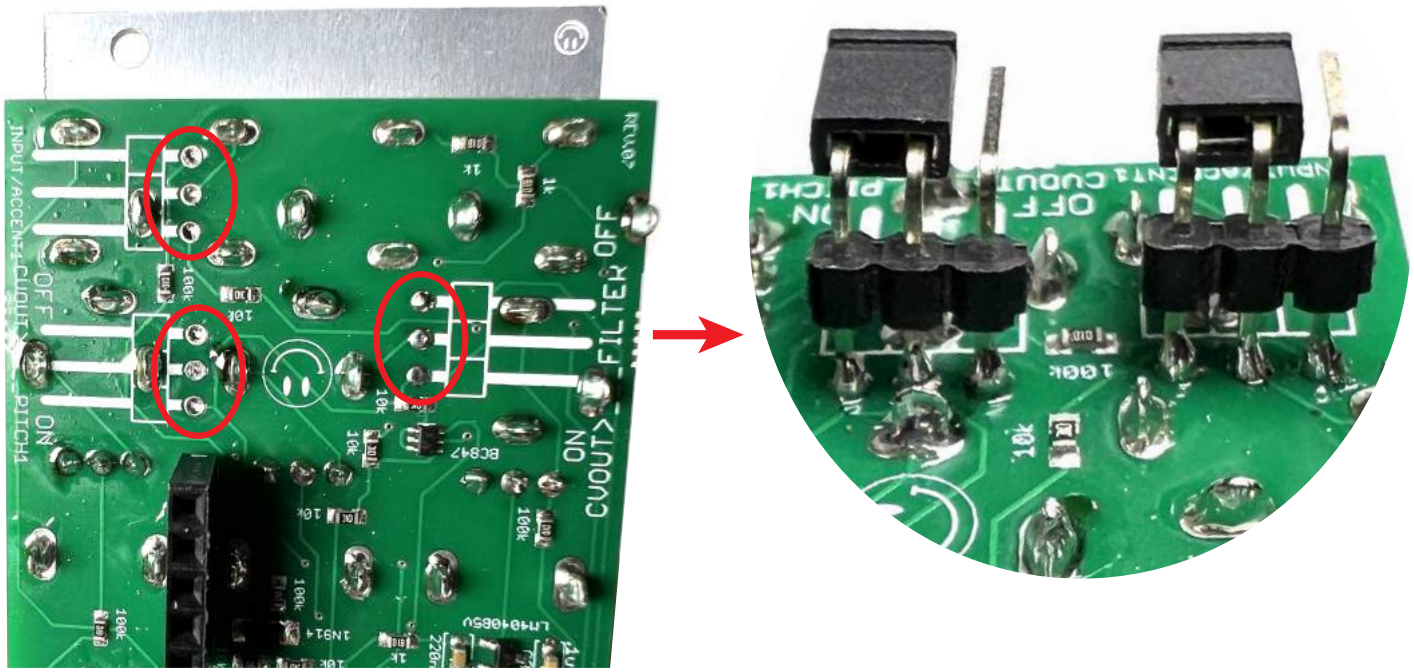
STEP 18:
Adjust the height of the pcb keeping it parallel to the front panel and proceed to solder all parts.
Also make sure the Slide Switch is flat against the frontpanel when soldered.



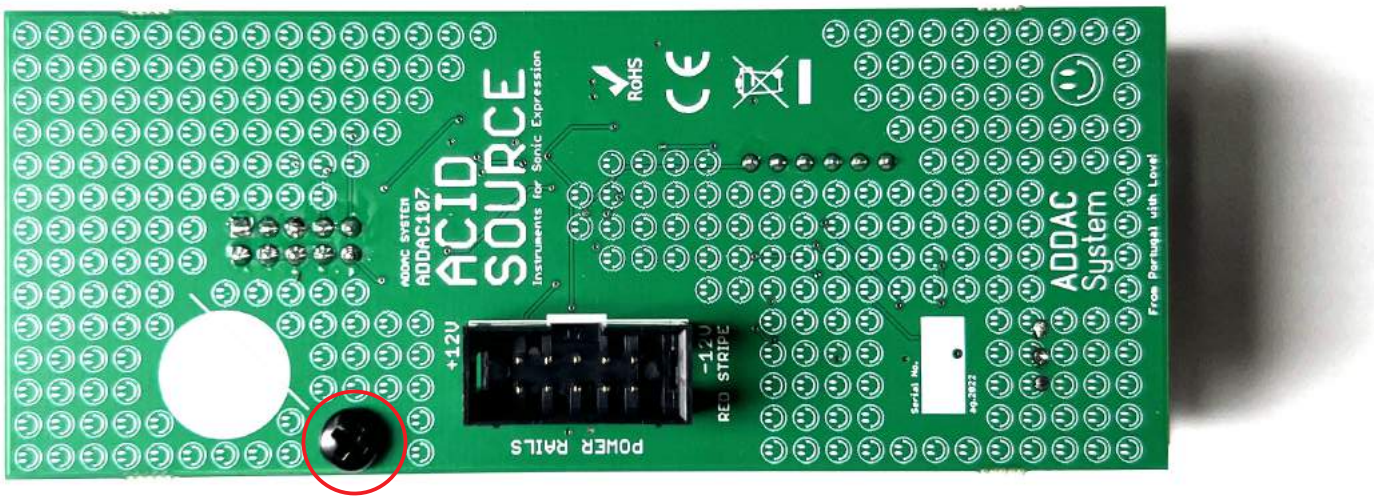
Next start the procedure for soldering the jumpers, these will not follow the standard thru hole method, and will be soldered from the top and flush with the top of the pcb.



STEP 19:
Start by adding solder to the open holes.
Next hold the jumper close to the soldered holes and solder the center pin, once in place solder the other two. Notice they do not go in the hole they stand flush to the top of the pcb avoiding shorts with the jacks below.



STEP 20:
Place the back screw.

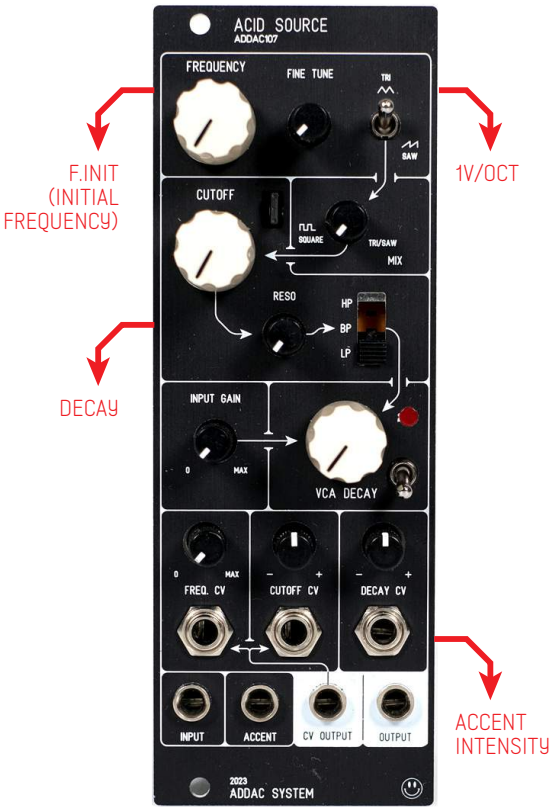


Finish it by placing the knobs and you've finished the assembly process!

Proceed to the calibration method.

Calibration

TRIMMER LOCATIONS



TUNING THE DECAY

1. Set the [VCA Decay] knob fully CCW
2. Send a trigger to the [Input] jack
3. Set Input Gain knob to 12 o'clock
4. Adjust the trimmer until there's a very short decay
5. Set the [VCA Decay] knob fully CW and compare the decay time
6. Re-adjust the trimmer if longer times are prefered.

TUNING THE ACCENT

1. Patch a 5v signal into the [Input] jack
2. Adjust the [Input Gain] to a level prior to distorting
3. Patch a gate signal into the [Accent] jack
   notice the difference in volume when this gate is on
4. Adjust the Accent Intensity trimmer to a level of your choice

TUNING THE 1V/OCTAVE:

Turn on the 107 and wait 20 to 30 mins for the VCO to heat up.

1. Set the VCO to Triangle mode.
2. Set the Frequency knob to full CCW.
3. Center the Fine Tune knob.
4. Turn the Freq.CV knob to full CW.
5. Center the Input Gain knob.
6. Turn the 1V/OCT trimmer all the way full CW.
7. Feed a steady CV source of around 5 Volts to the ACCENT Input.
8. Feed a C3 CV signal (3 Volts) to the FREQ CV input and tune the F.INIT trimmer to C3.
9. Feed a C1 CV signal (1 Volt) to the FREQ CV input and tune the 1V/OCT trimmer to C1.
10. Repeat step 8 and 9 until C1 and C3 are in tune when you change between 1 Volt and 3 Volts.

Extra tips:
-Be sure the tall jumper on the panel is installed!
-The Filter should be set to LP mode, Cutoff knob full CW and the Resonance knob full CCW.
-Notice that some CV inputs might be normalized internally, depending on your back jumpers configuration and can interact with the filter section etc.
-Tune the VCO with your windows closed and turn off any fans/AC. This VCO is sensitive to sudden temperature changes so a stable room temperature while you're tuning the VCO will help the process.

For feedback, comments or problems please contact us at:
addac@addacsystem.com

ADDAC107 ASSEMBLY GUIDE

Revision.03October.2023