



ADDAC703  
ASSEMBLY GUIDE

DISCRETE MIXER

Revision.02 March.2021

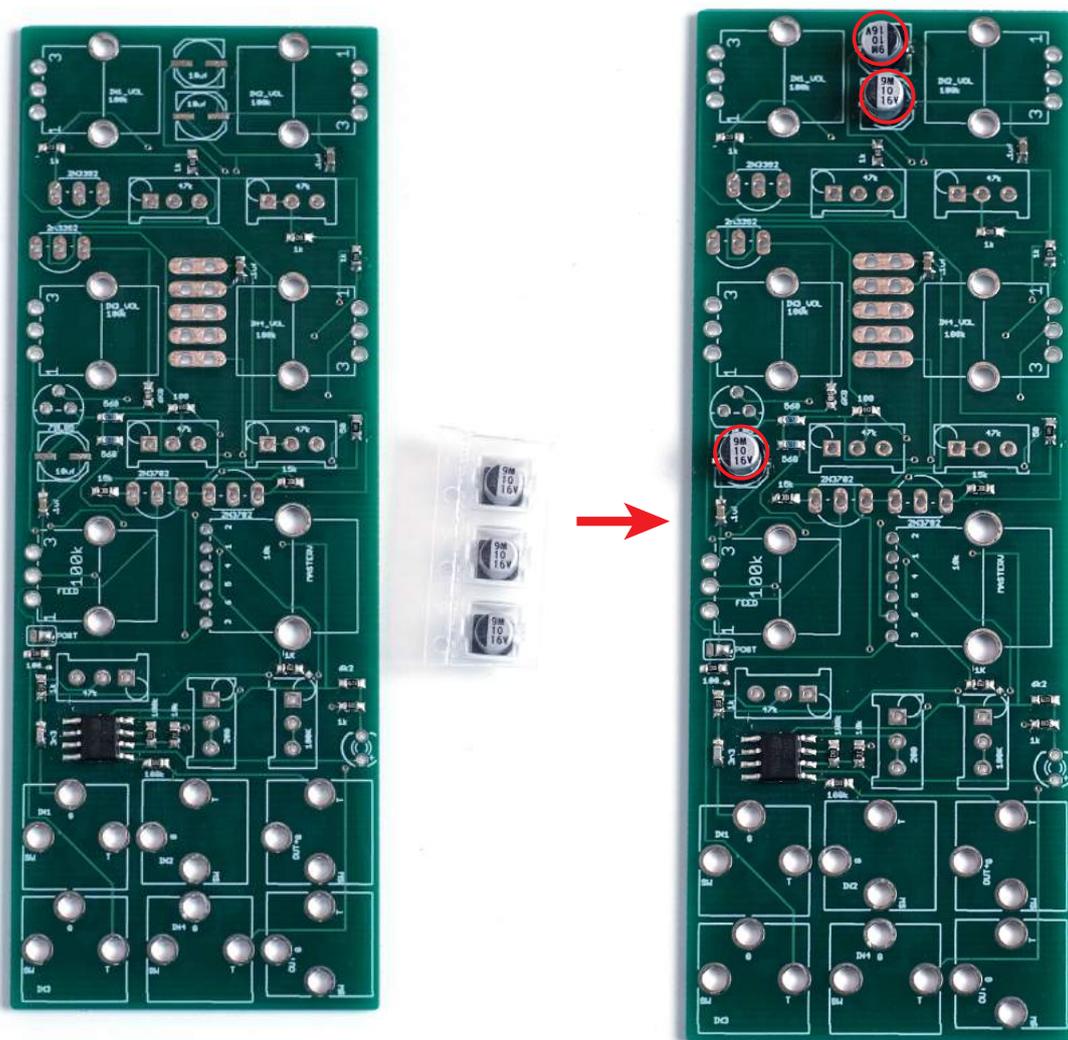


## ADDAC703 Assembly Guide

### STEP 1:

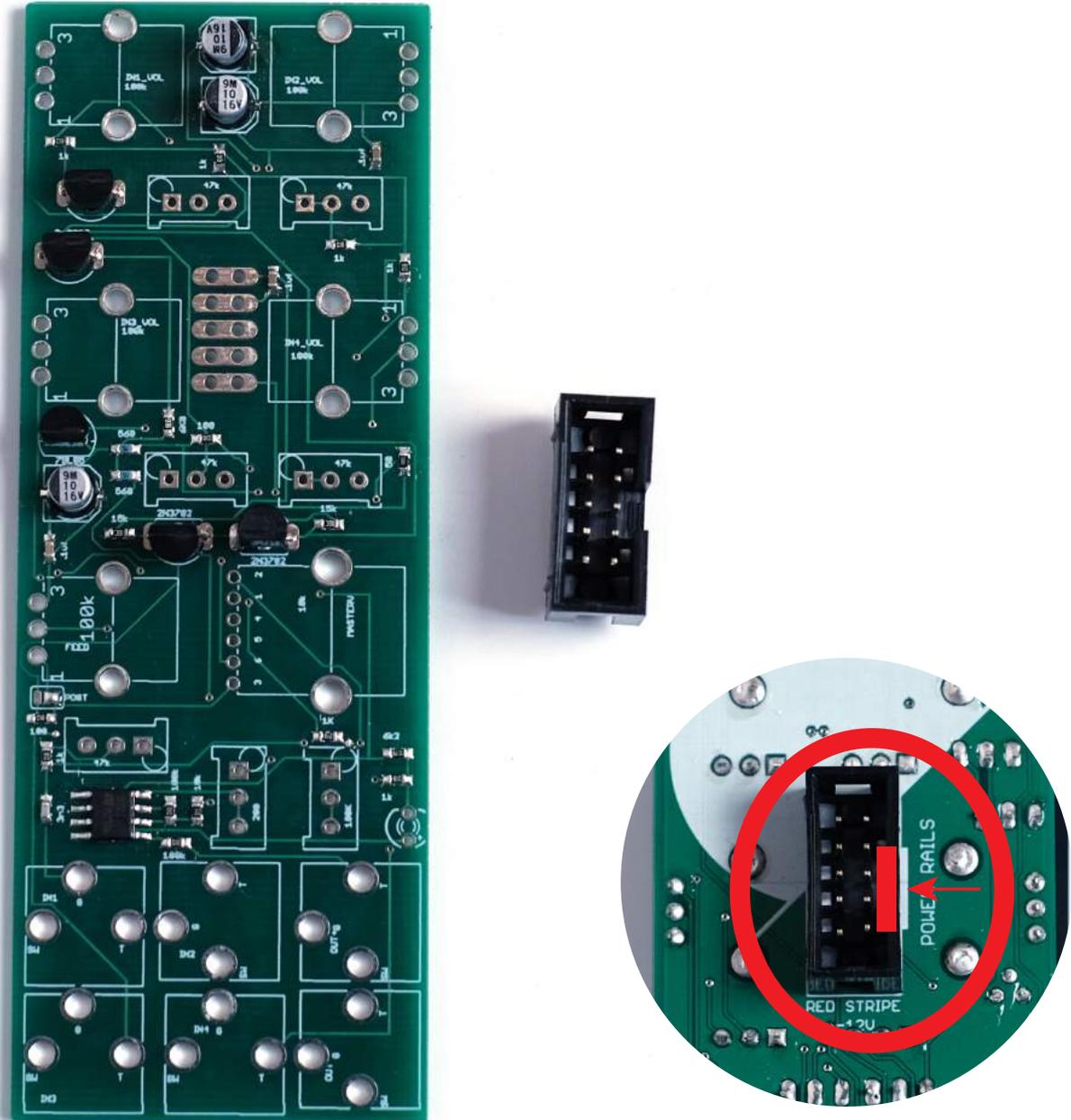
Grab the pcb and the capacitors, proceed to solder them, notice the orientation below.

Tip: soldering these caps is easy, just place a dab of solder on the pad on your right (left pad if you're left handed) and then, with the help of a tweezer, put the capacitor in place and reflow the pad to reflow the solder while pushing the capacitor down. Then solder the other pad.



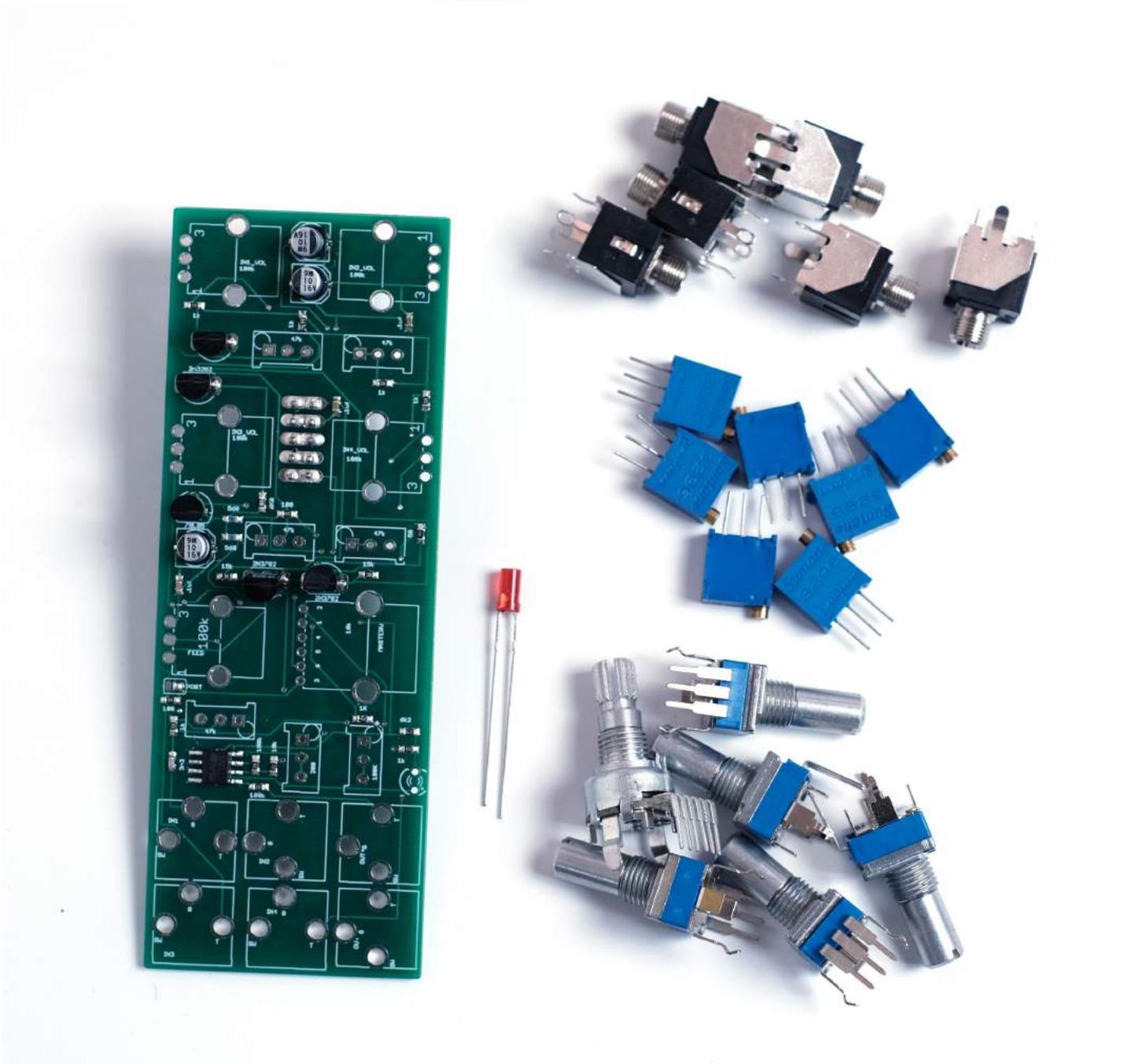
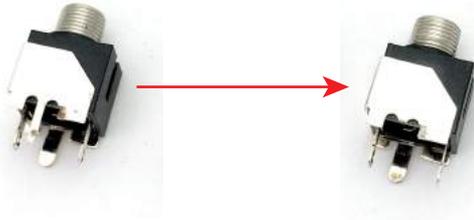


STEP 3:  
Next place the boxed power header.  
Notice the orientation marked on the pcb.

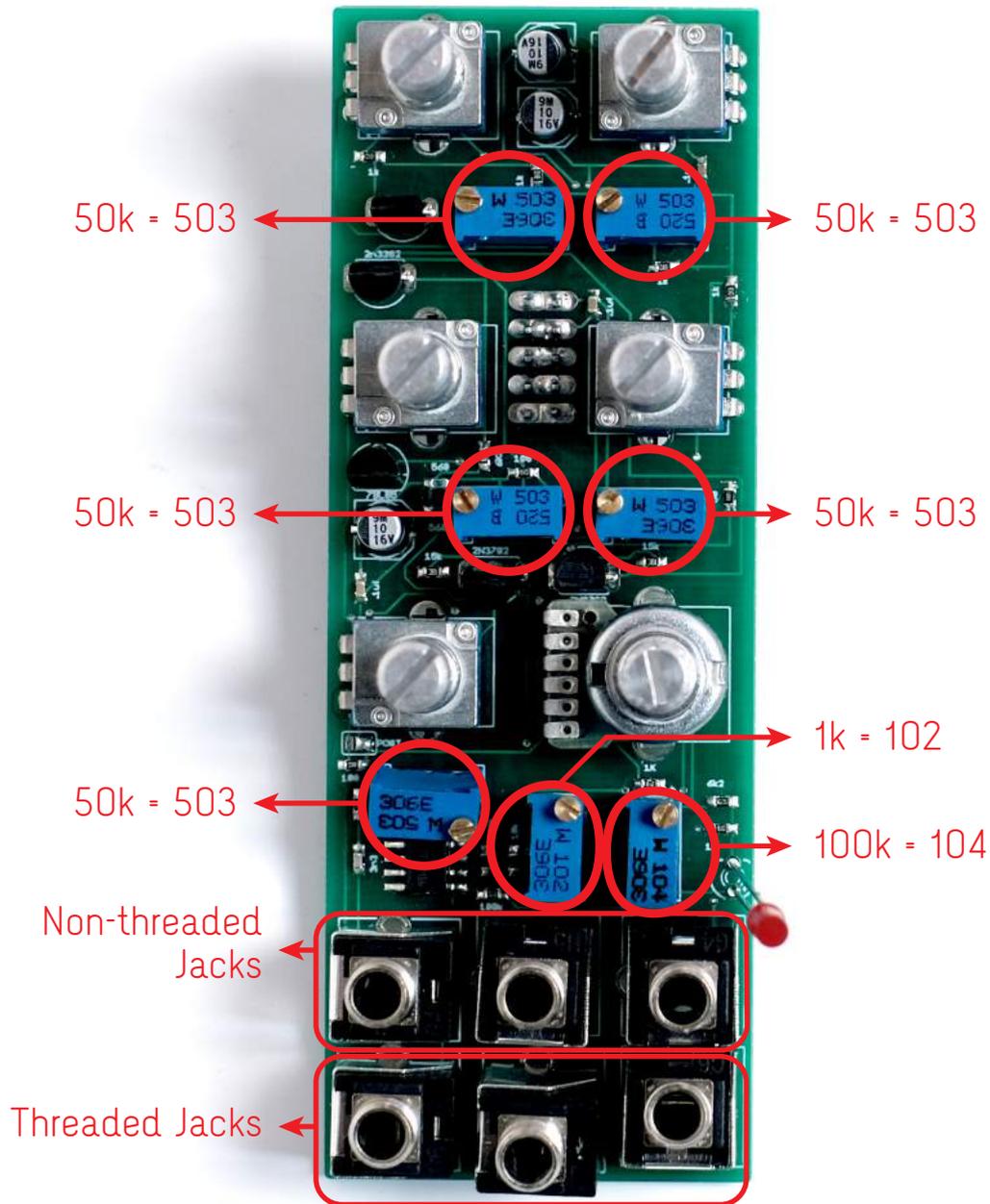


STEP 4:

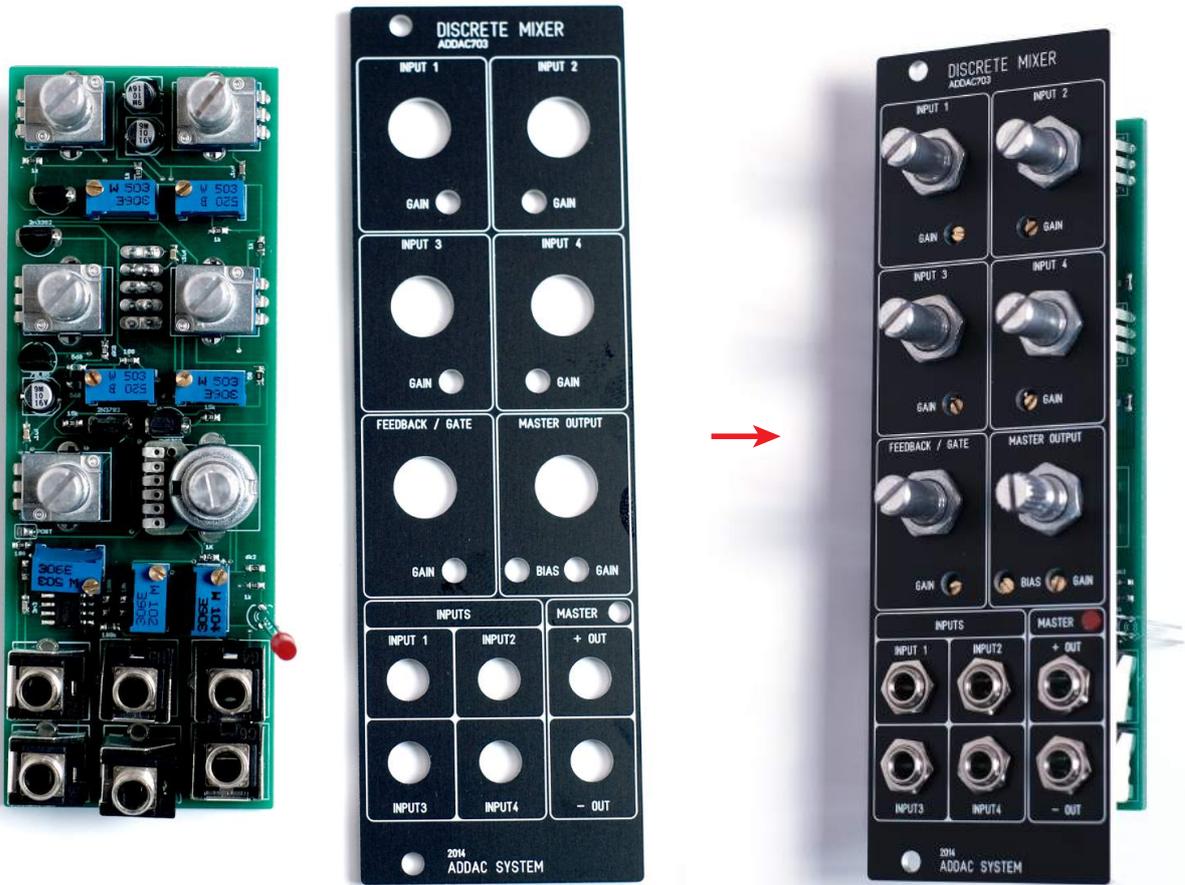
Next we'll need to prepare some parts before adding them to the front panel. Locate the jacks and cut the smallest legs like shown below.



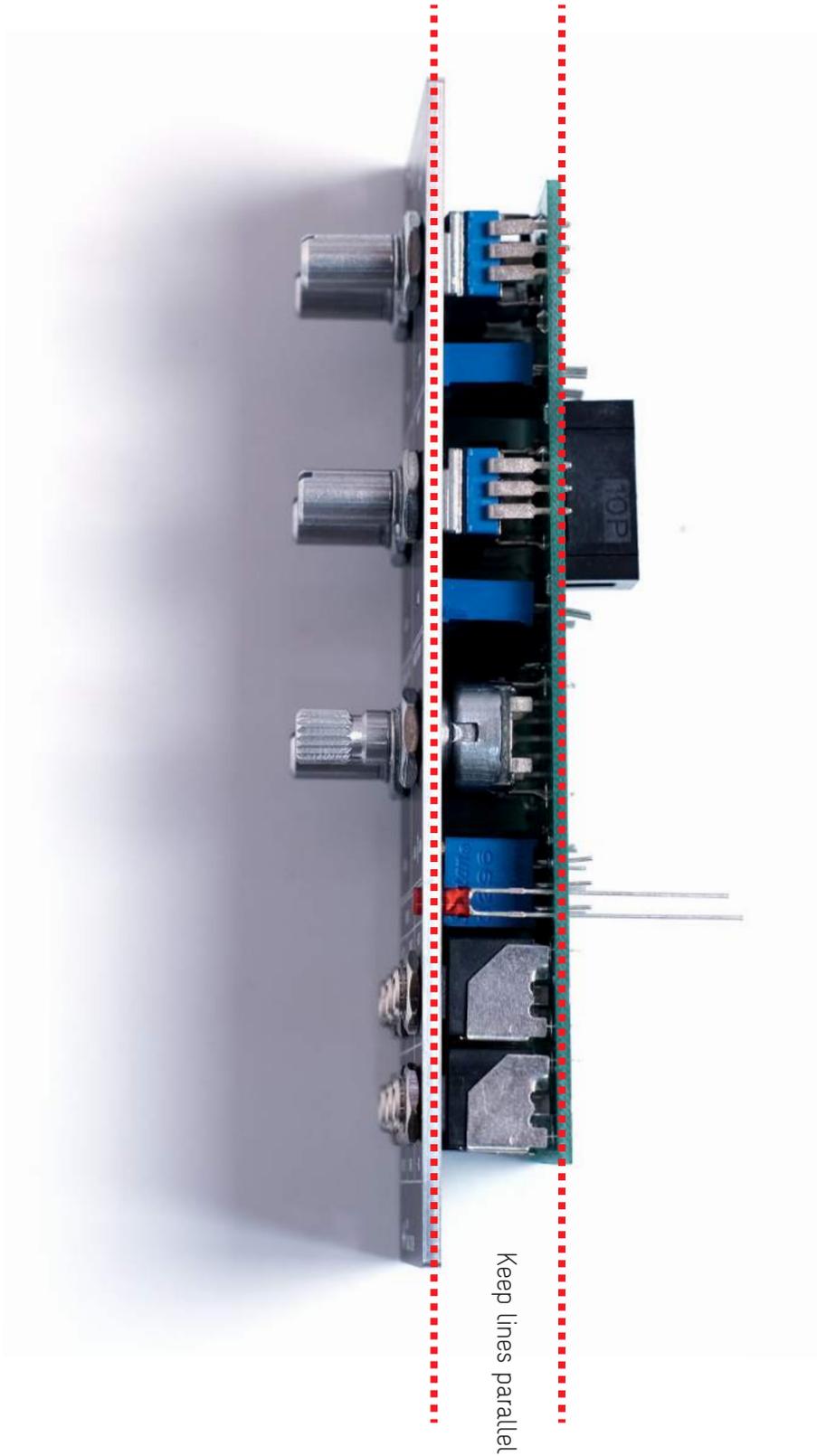
STEP 5:  
Place all parts on the pcb, notice the values, orientation and jack types like shown below.



STEP 6:  
Place the frontpanel and tighten all nuts.



STEP 7:  
Adjust the height of the pcb keeping it parallel to the front panel.



STEP 8:  
Solder all parts.



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

Proceed to the calibration method.



# Calibration

## TUNING THE BIAS:

1. Start by turning all inputs and the Feedback/Gate knobs fully counter-clockwise and the Master Output fully clockwise.
2. Turn the master output Gain trimmer fully clockwise.
3. Turn Bias trimmer anti-clockwise until the Master led lights up (If led is already On proceed to the next step).
4. Slowly turn the Bias trimmer clockwise until the led turns off. The Bias is now centered.

## TUNING INDIVIDUAL INPUTS GAIN

Well, this one is subjective to your taste. We usually trim the Input Gain trimmer full clockwise (maximum gain) to take advantage of the warm transistor saturation/distortion. Trim the Inputs Gain to you taste with saturation or without it. You can turn your 703 Mixer to a polite/well behaved mixer, a transistor fuzz/distortion mixer or somewhere in between.

Note: When tuning each individual Input all other inputs and Feed-back/Gate knobs should be set to 0.

1. Feed a -5/+5 sine wave to the input.
2. Turn the Input to maximum setting and turn the Gain trimmer clockwise until you can ear the sine wave distort (If sine is already distorting skip to next step).
3. If you gently turn the trimmer anti-clockwise until you can't ear any distortion you trimmed the channel to a 1:1 gain factor (polite/well behaved mixer).
4. To take advantage of the transistor saturation keep turning the Gain trimmer clockwise and let your ears decide your desired maximum saturation configuration

## TUNING MASTER GAIN

- This one is also subjective to your taste.
1. Feed a +5/-5 sine wave to the input 1 and set it to maximum level.
  2. Turn the Master Output to maximum level and turn the Gain trimmer clockwise until you feel it's a good master level.

## TUNING FEEDBACK/GATE

1. Set all Input knobs fully counter-clockwise with the exception of Input 1.
2. Feed a +5/-5 waveform to Input 1, turn knob to maximum setting and trim the gain knob fully clockwise.
3. Turn the Feedback/Gate pot to the maximum setting and plug your 703 Mixer to your sound system (be VERY careful with your sound system level).
4. Turn Feedback/Gate Gain trimmer clockwise until the sound disappears.
5. Gently turn the trimmer back (anti-clockwise) until the sound comes back again. Your Feedback/Gate knob is now tuned.

## TRIMMER LOCATIONS



For feedback, comments or problems please contact us at:  
[addac@addacsystem.com](mailto:addac@addacsystem.com)