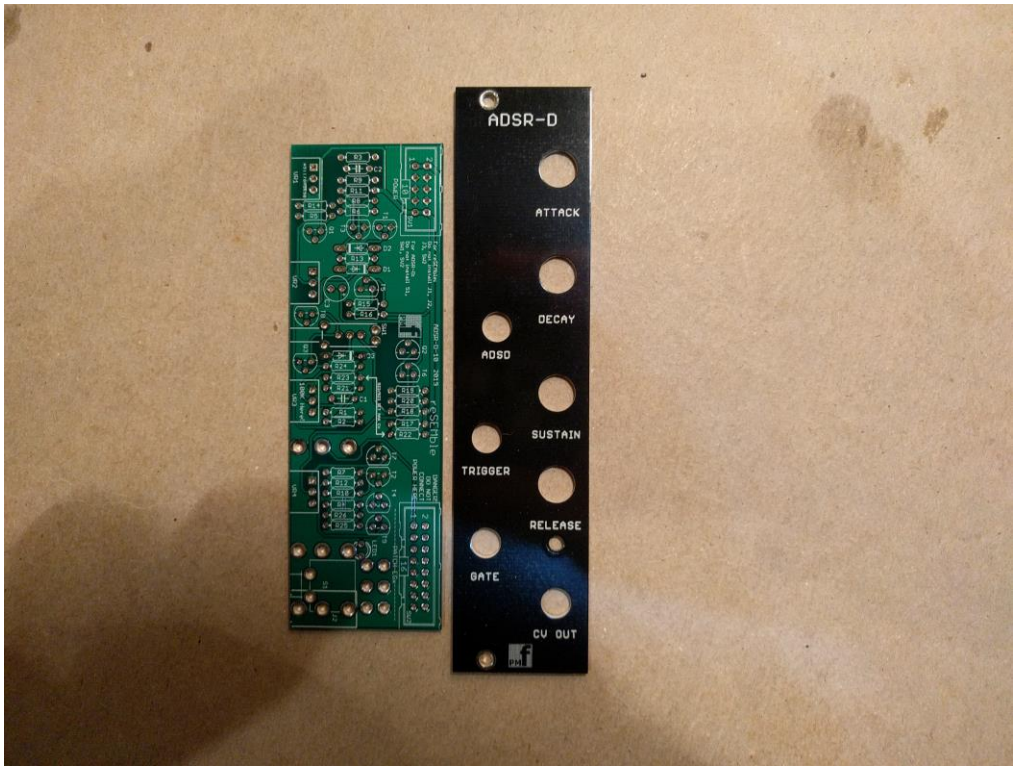
ADSR-D v1.0 – Assembly Guide

Thank you for purchasing this module! This is an easy build. Some of the pads are quite small and you will need a chisel tip or screwdriver tip soldering iron and the skill to solder these tiny joints.
This module is also used in the reSEMble semi-modular synth. YOU DO NOT NEED TO AND SHOULD NOT INSTALL THE PARTS that are specific to the reSEMble synth. These parts are not included in the BOM. These are the parts marked on the PCB that are not required:
SV1, SW1, S1



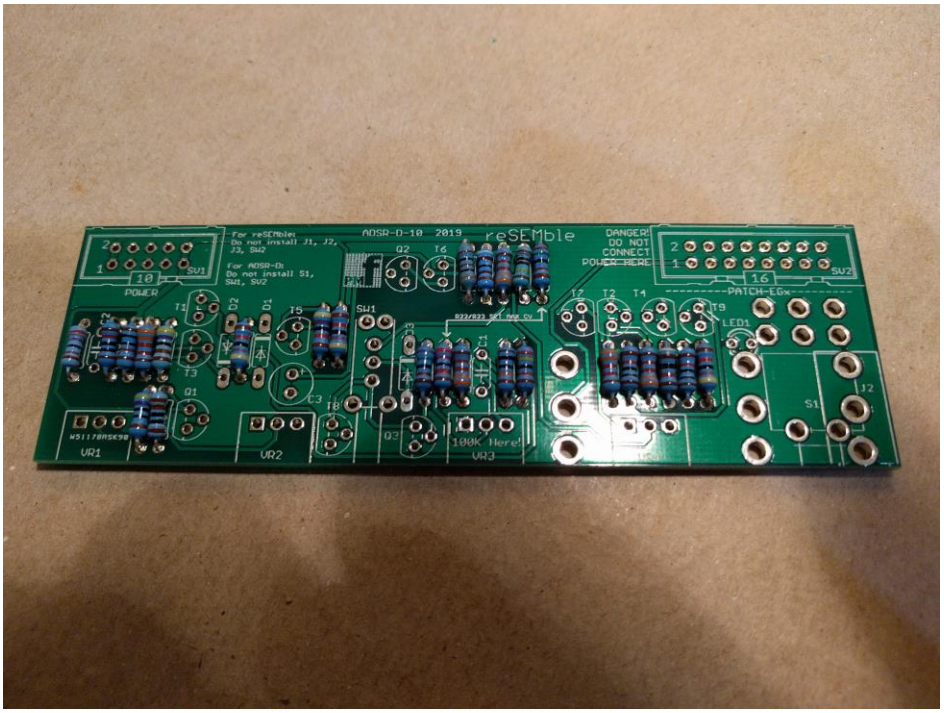
The module is designed and sized for **Eurorack** systems. You will need a 16-10 pin eurorack power ribbon connector with –12/0/+12 which is connected to a synth power supply.
Follow the parts lists, these instructions and the PCB silkscreen text to build the module.
The module consists of 1 PCB board and a front panel.
You must follow the order of assembly as described below since some components will be soldered underneath other components.

Constructing the board

Resistors

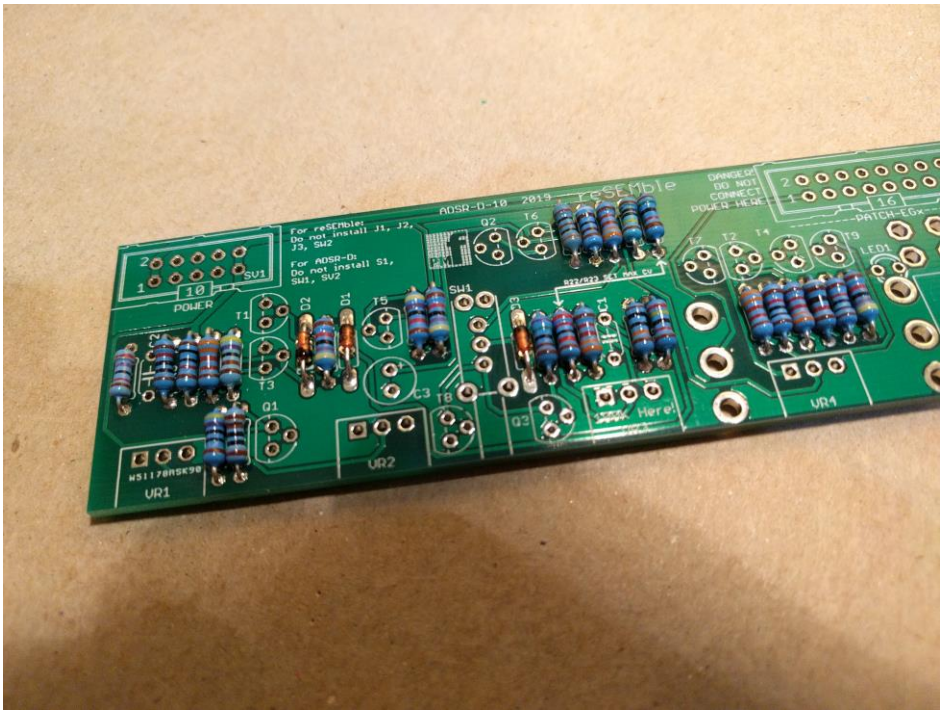
For a 5V envelope instead of a 10V envelope replace R22 with 27K and replace R23 with 4.7K.

Install the flat resistors on the TOP of the board. Solder and clip the leads.



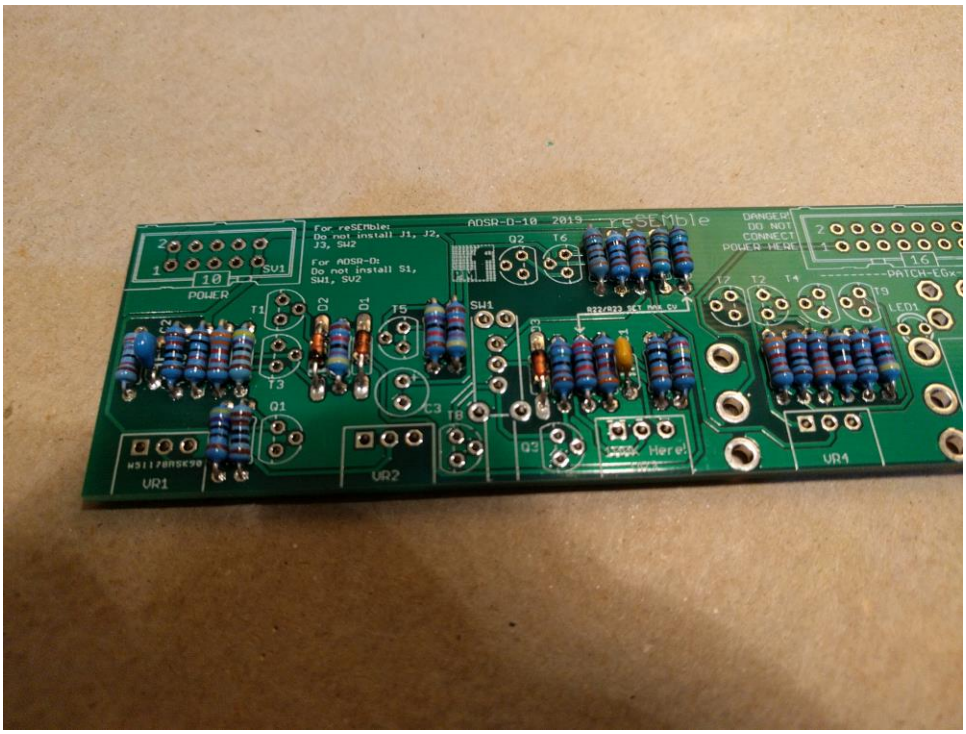
Diodes (but not LEDs)

Install the diodes on the TOP of the board. Align the stripe on each diode with the stripe marked on the board. Solder and clip the leads. Now go back and check the polarity against the silk screen for each diode.



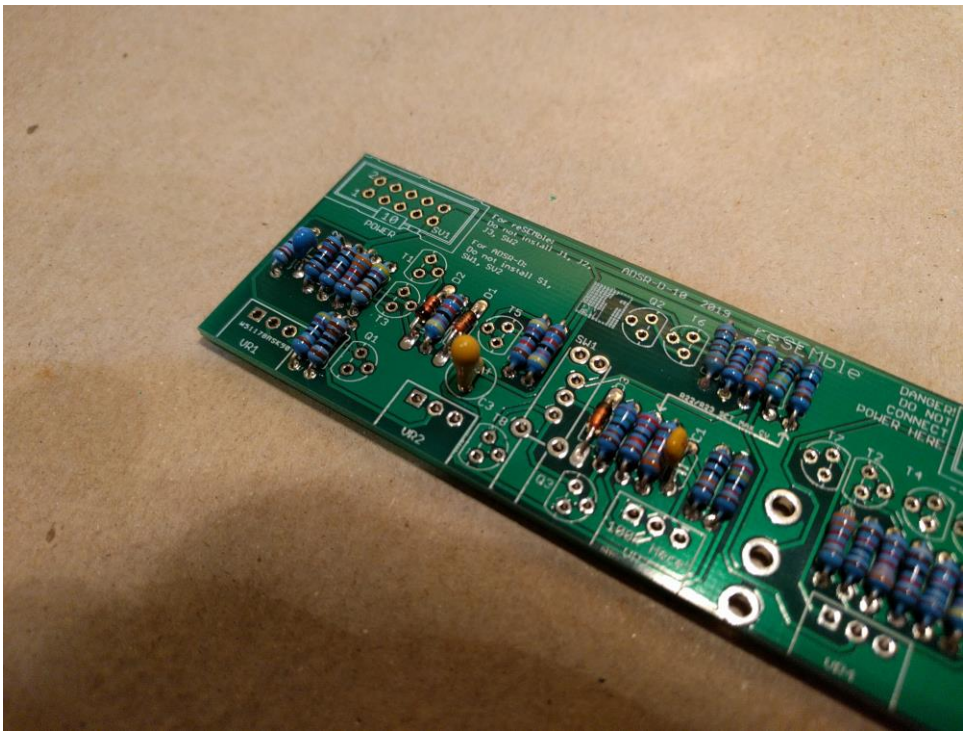
Ceramic/film capacitors

Install the ceramic/film capacitors on the TOP of the board. Solder and clip the leads.



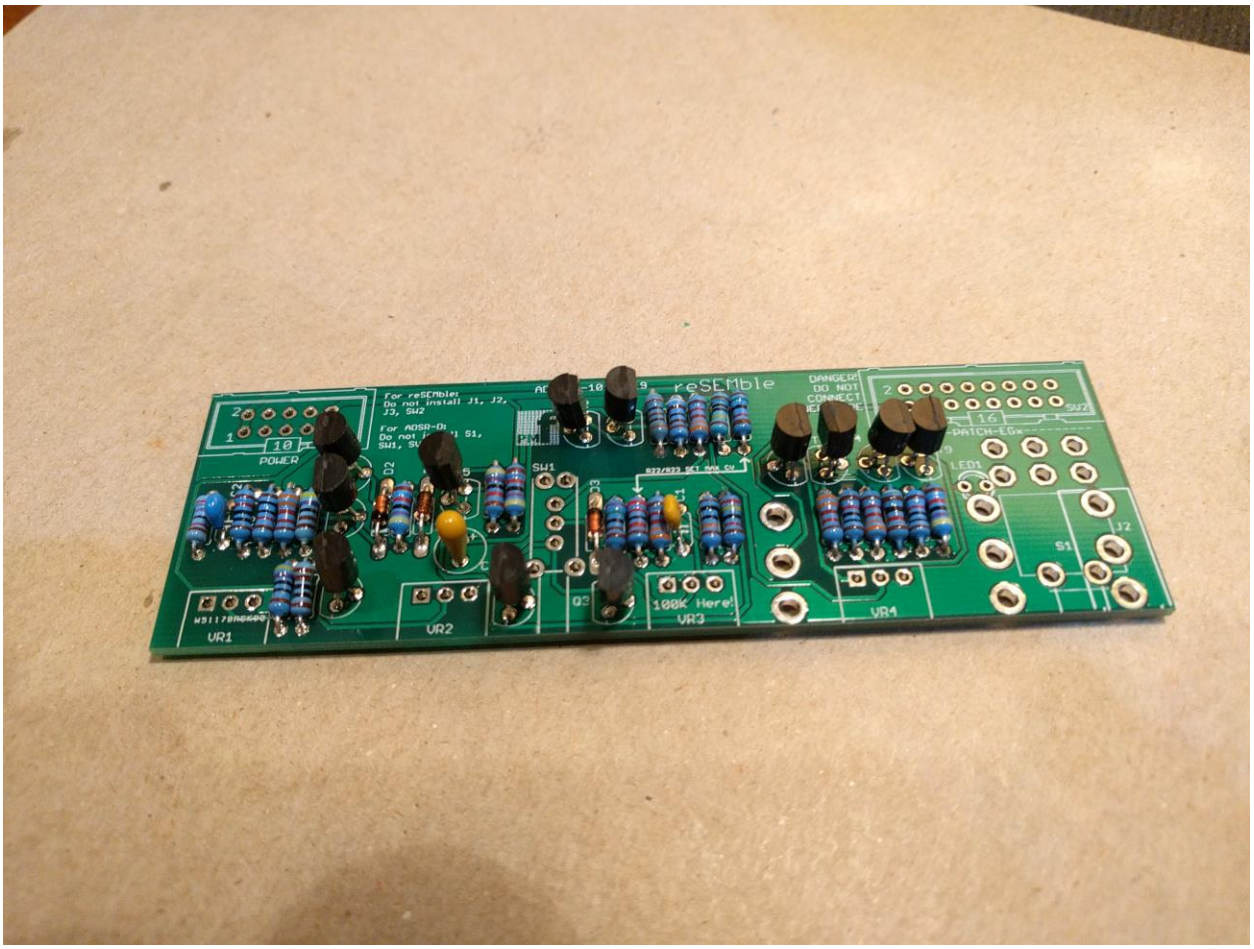
Tantalum capacitor

Install this on the TOP. Make sure you orient these capacitors correctly. The longer lead and/or the lead marked with a + needs to be inserted into the hole that has the “+” marking near it. Leads marked with “-“ go in the board hole WITHOUT the “+”. Solder and clip the leads.



Bipolar Transistors

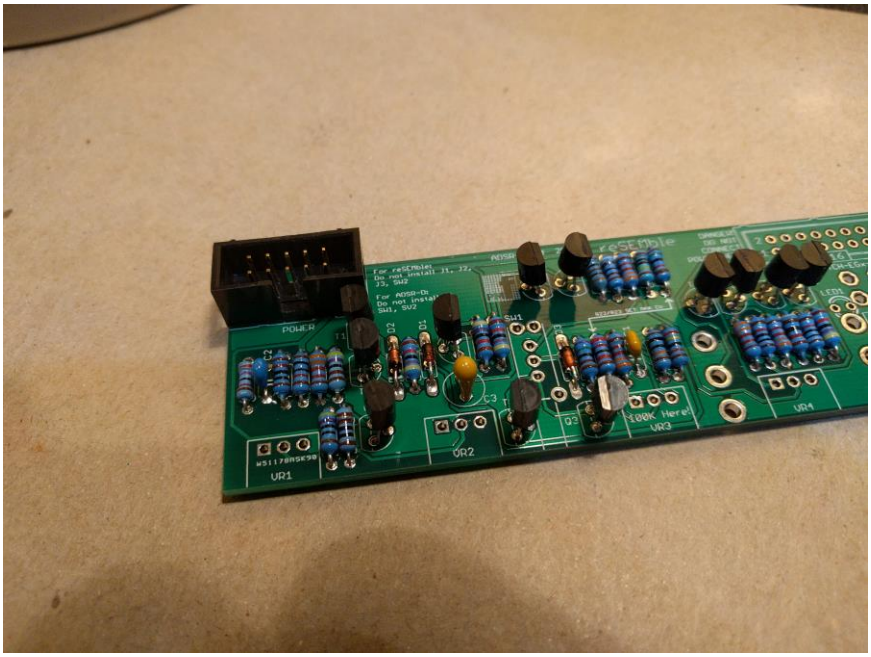
Install the transistors on the TOP of the board. Do not mix up the NPNs with the PNPs. These are polarized components. Align the outline with the outline on the board. They should be raised off the board surface slightly and at the same height. Solder and clip the leads.



Power socket

Install the 10 pin power socket on the TOP of the board. This must be installed with the correct orientation or the module will be damaged when the power is connected.

The cut-out in the socket should face the pots, aligning the cut-out with the "10" marking on the board as shown in the photo.

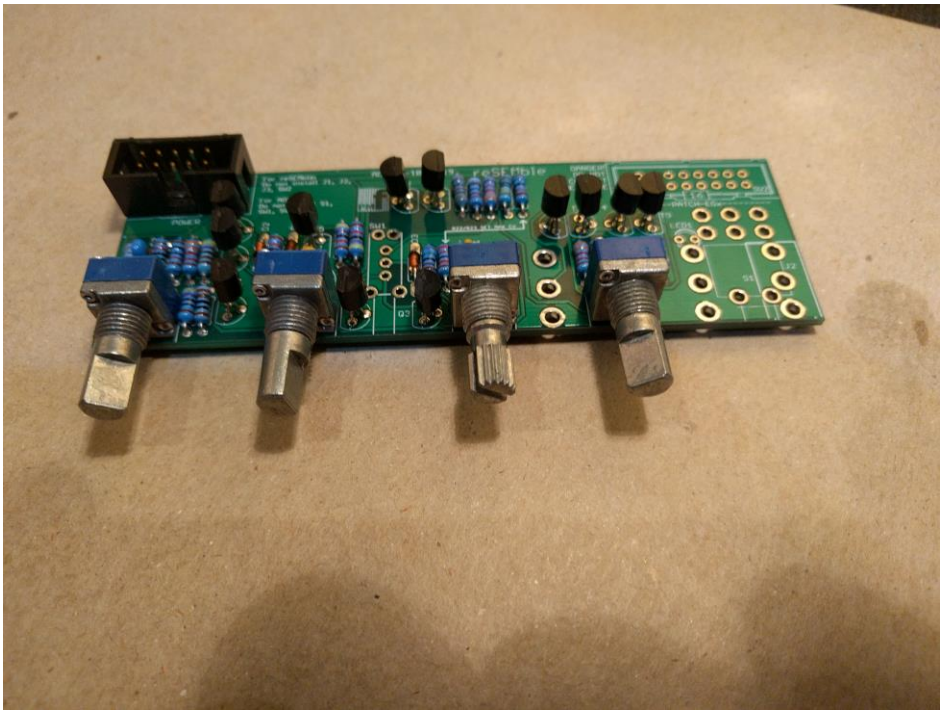


Potentiometers

If the pots have positioning lugs on the front, cut these off with a sharp pair of flush cutting pliers. The front of the pot (where the shaft protrudes) needs to be flat.

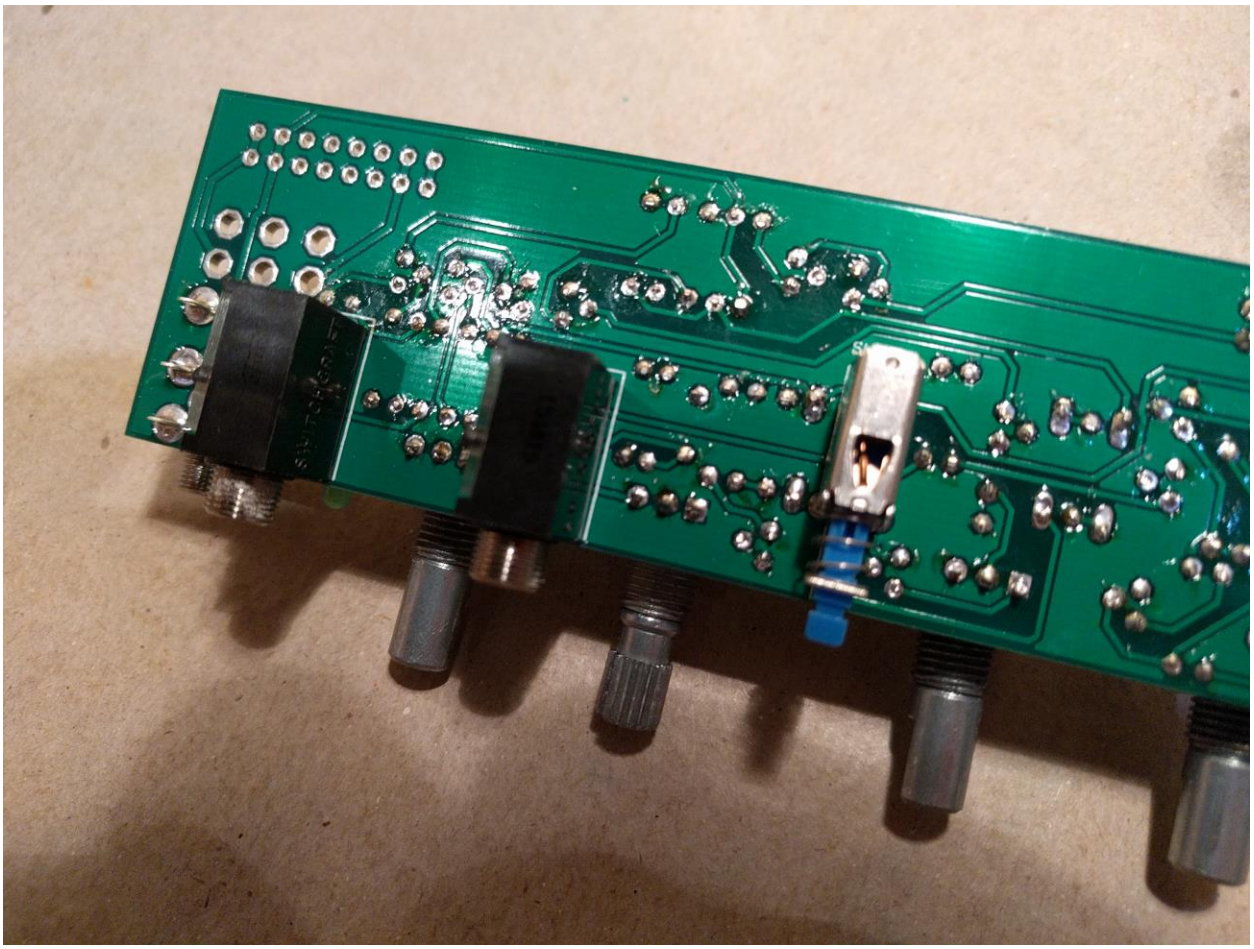
There are 1M and 100k puts. Do not mix these up.

Carefully align the pots so they are flush with the edge of the board and perfectly upright and tight to the board surface. They must be installed on the TOP of the board. Please ensure they are on the CORRECT SIDE OF THE BOARD before soldering otherwise PCB tracks and pads may be damaged if they are desoldered. See Photo.



Switch

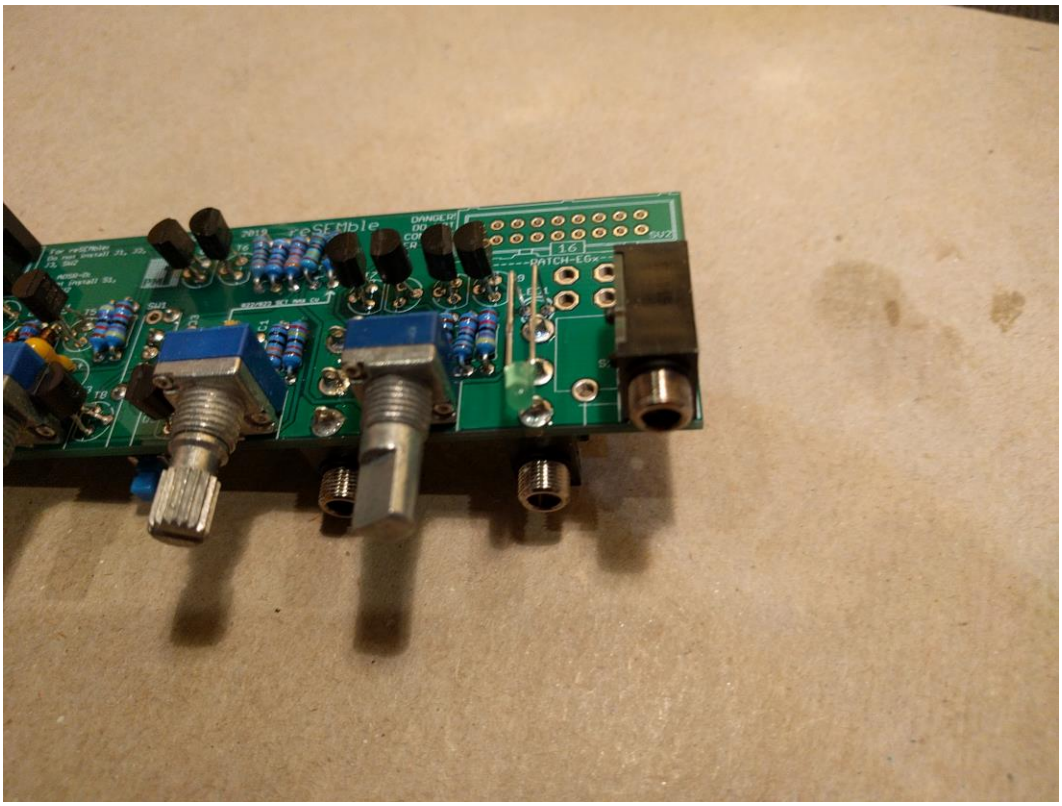
Insert the switch on the BOTTOM so that the plunger faces the front of the PCB. There are two unused location holes. Tack one pin of the switch, align with the front panel, then solder all the remaining pins and the locating lugs. The switch is on the BOTTOM. Do not bridge the contacts to nearby components.



3.5mm Jack Sockets

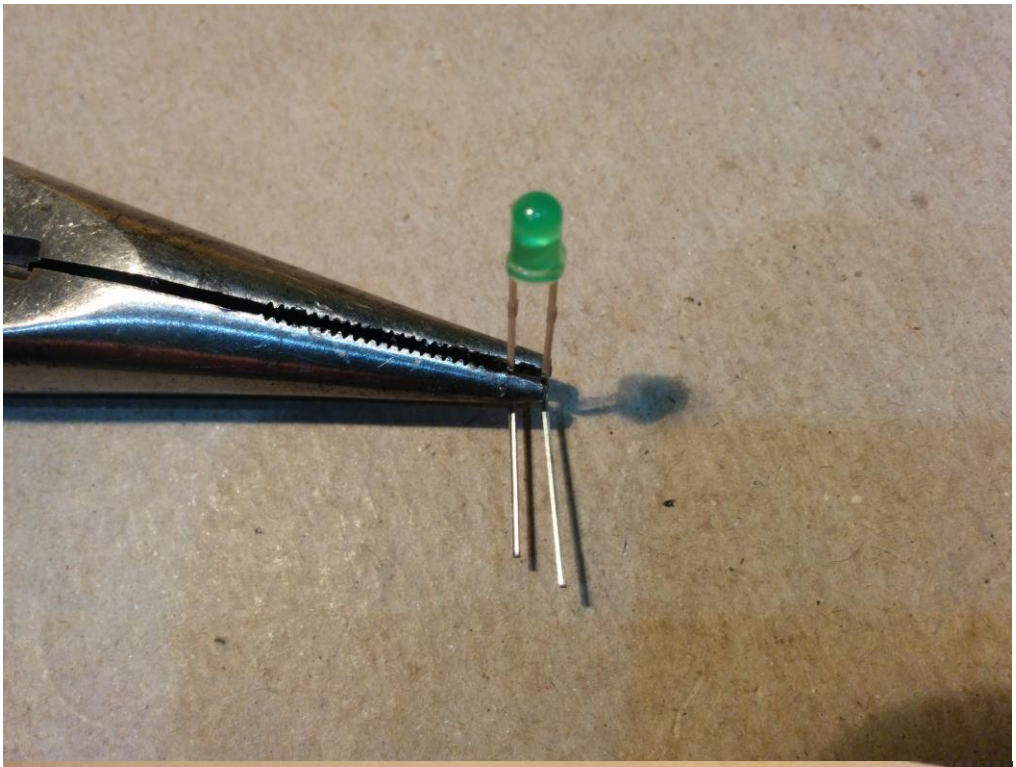
Install the jacks on the TOP and BOTTOM and fully solder each one as you install it. Make sure they are perfectly aligned and tight to the board. Please ensure they are on the CORRECT SIDE OF THE BOARD before soldering otherwise PCB tracks and pads may be damaged if they are desoldered.

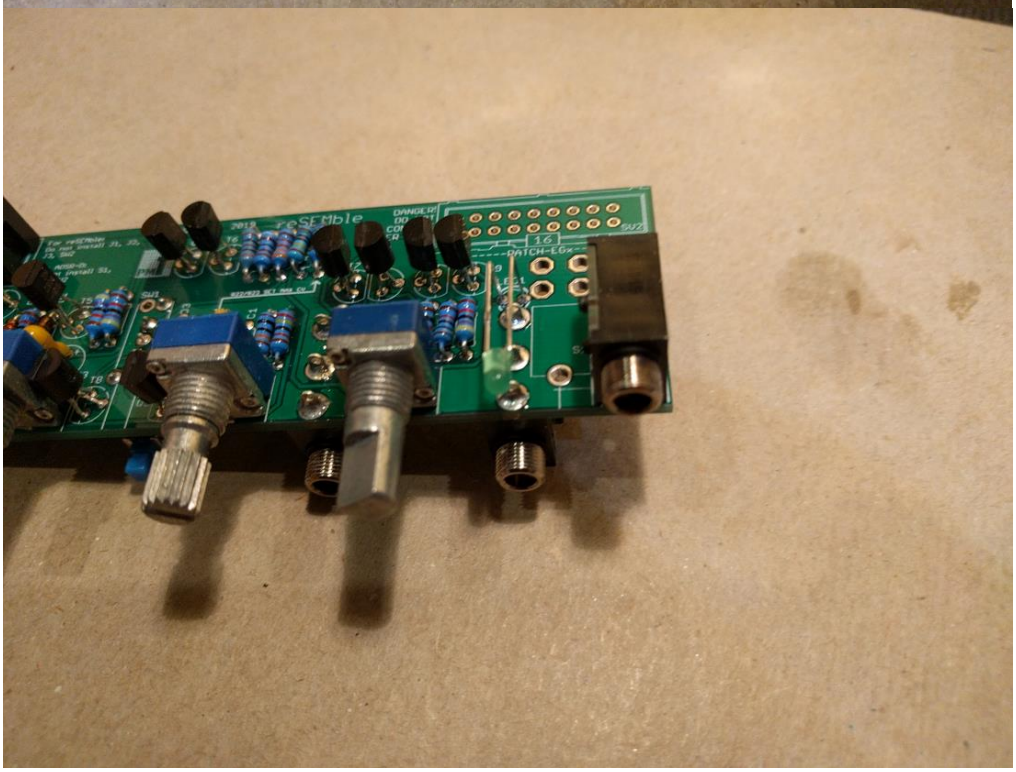
Do not bridge the contacts to nearby components.



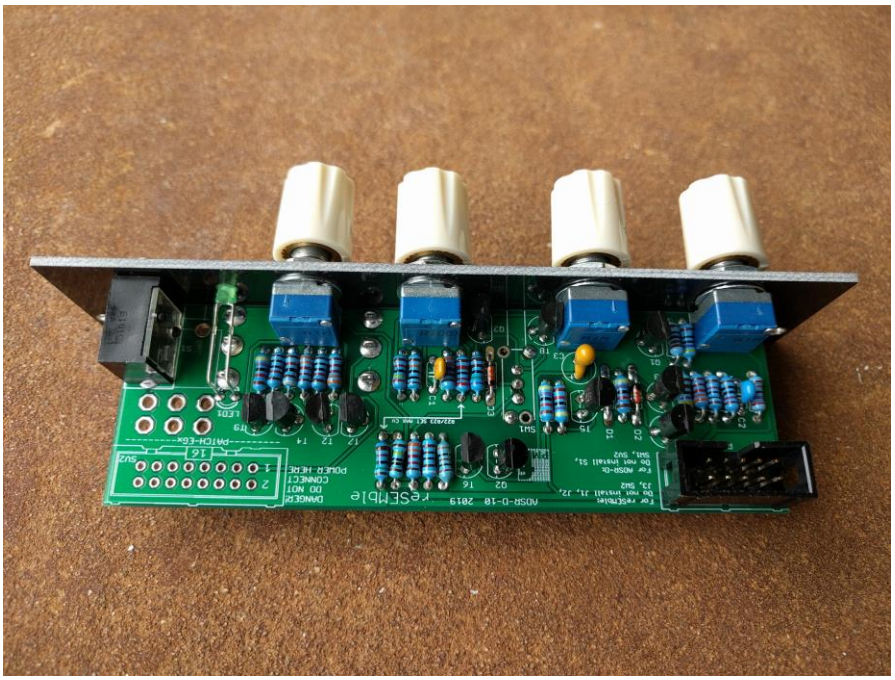
LED

Bend the leads as shown in the photo. The bend is at 14mm from the base of the LED lens. Insert in the TOP of the board with the long lead in the hole marked + and use the panel to align the LED. Solder the LED and clip the leads.





Final assembly

Put washers on the pot shafts.

Place the front panel over the boards so that the jacks, pots, and LED align with the holes in the panel. Put nuts on the jacks and pots. Install the knobs and the switch cap.