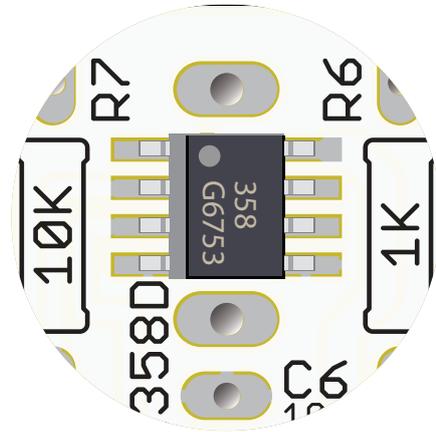
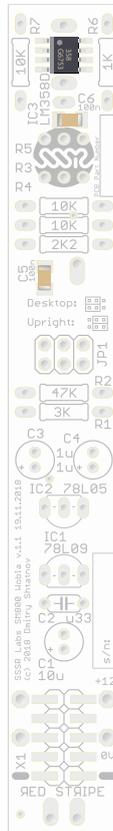


## Step 1: PCB

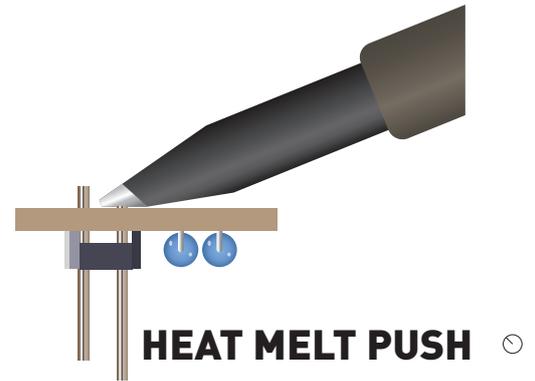
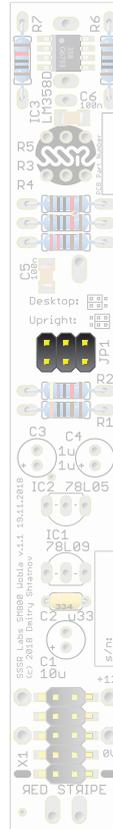
The SM800 DIY Kit contains only one board. Most of the components have to be installed on the REAR side. Short instructions: please assemble the module in the following order: Solder the SMD chip (as shown on the picture), SMD capacitors, resistors, 330 nF capacitor, power header, configuration header. Push all pins of the configuration header completely into the hole. Solder the electrolytic capacitors, voltage regulators. Important: Trim all pins sticking up inside the potentiometer footprint flush to the joints with a flush cutters! Clean the PCB. Solder the socket, the switch and the potentiometer. Wear one nut on the switch. Put two spacers on the pot's threaded holes. Install the panel. Gently tighten the potentiometer mounting screws through the spacers by 2-3 turns. Wear and firmly tighten the nuts on the socket and switch. Adjust the pot mounting screws tension. **If you need more details, the following pages will guide you through this process.**



## Step 2: SMD components

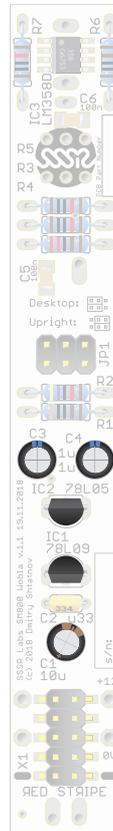
Start with soldering the LM358 chip. Place it as shown in the picture, accurately aligned to its footprint, then solder just the pin 1. Adjust the orientation of the chip with a pair of tweezers, keeping the solder melted, then let it cool down and solder the opposite pin 5. If orientation is alright, solder the remaining pins. Solder the SMD capacitors the similar way. These components are not polarized.





### Step 4: Configuration header

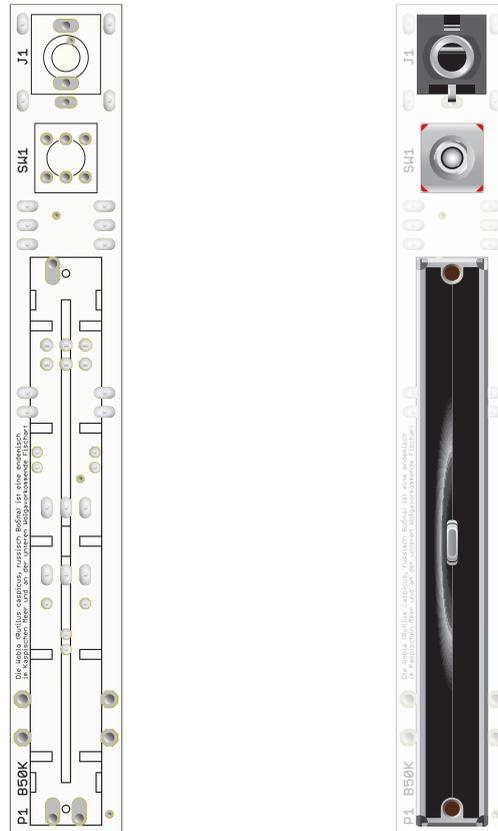
Solder the configuration header. You can put on the power cable to prevent the header pins from moving during soldering. The plastic base is tend to melt. After soldering all pins, you additionally need to push each pin completely into its hole in order to leave this area of the PCB a flat plane. It can be easily performed by forced pushing them with the tip of the soldering iron.



## Step 5: Electrolytic capacitors and power regulators

Install the electrolytic capacitors as shown on the picture, following the polarity. There is only one 10 uF capacitor and two 1 uF capacitors in the kit. Install the power regulators, 78L05 and 78L09.

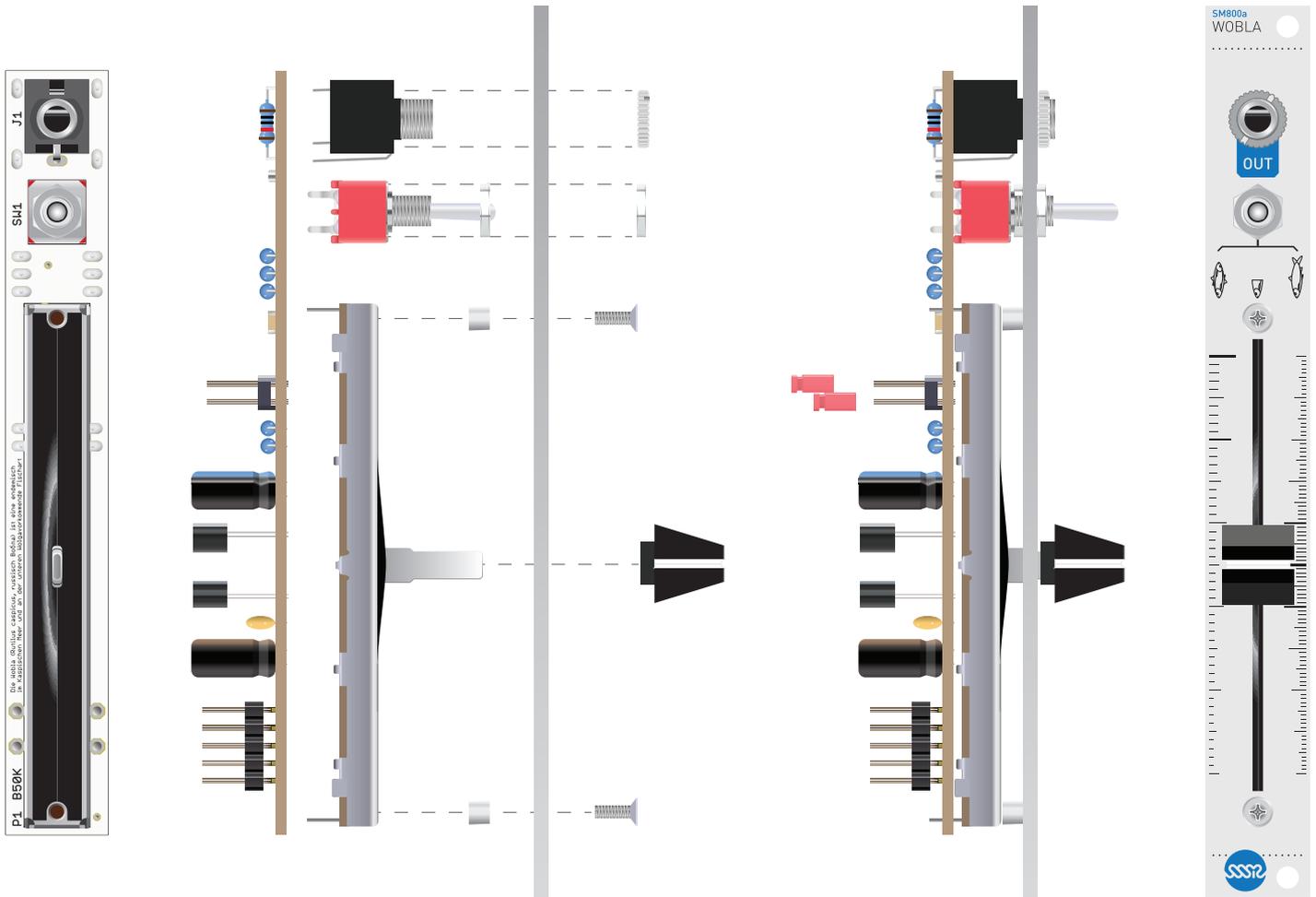
Now you can trim the pins sticking up from the PCB. The slider potentiometer has to be installed on the top side of the PCB and its base will be very close to the surface, so you need to flush trim all pins in potentiometer's area shown by the footprint. This can't be done with a symmetrical cutters, so please use the special flush cutters for this. If you do not have a flush cutters, trim the pins, then melt the joints and elevate the components to drag and hide the pins into its holes. Now you can clean the PCB your most preferred way, including complete immersion in cleaning solution.



Install all hardware on the FRONT side of the PCB!

## Step 6: Panel hardware

Install and solder the jack socket, the mode switch and the sliding potentiometer. You do not yet need to install the front panel. Just make sure that all components are installed straight and firmly, and solder them. If you want to wipe the flux off the PCB, do this gently not letting your solution to get inside the mechanical parts.



## Step 7: Front panel

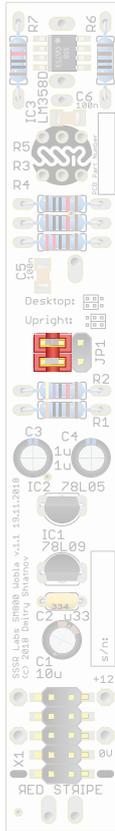
As you can see, all components have different heights. We need to compensate this by placing spacers between the front panel and too low parts.

Screw on and tighten the first nut on the switch. Now gently place two PVC spacers on the threaded holes of the potentiometer. If spacers have a bit different height, set the tallest one closer to the edge. Now gently put on the front panel. Holding the panel pressed down to the spacers, adjust position of the spacers if needed, and put the M2x7 screws through the panel and spacers and tighten them by 2-3 turns.

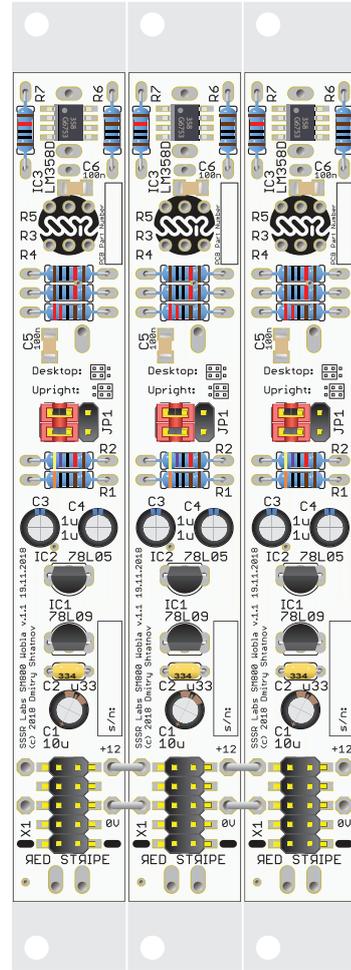
Now, put on and firmly tighten the remaining nuts. After that, adjust the tension of the potentiometer mounting screws to just pull the potentiometer to the panel and establish some friction, preventing screws from unscrewing. Put on the slider cap.



SM800a (Desktop)



SM800b (Upright)



If you would like to use an array of Wobla modules with a single power connector, you can connect them together with a jumper wires, using the holes next to the power connector. +12 goes to +12, GND goes to GND.

## Step 8: Installing the jumpers

The position of two jumpers depends on the panel type in your kit, and the desired orientation of the module. By default, configuration for SM800a is Desktop, and for SB800b is Upright. This way, the zero point of the slider will be at the bottom, with respect to the labels on the panel. You can reverse this by setting the jumpers to the opposite position.

That's all, folks! The module does not need any adjustment and ready to use. Thank you for reading the instructions and purchasing this SSSR Labs DIY kit!