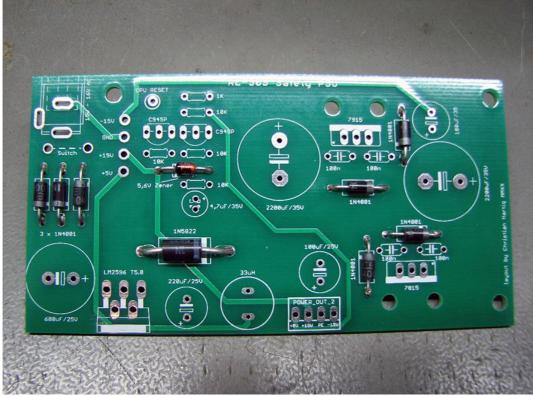
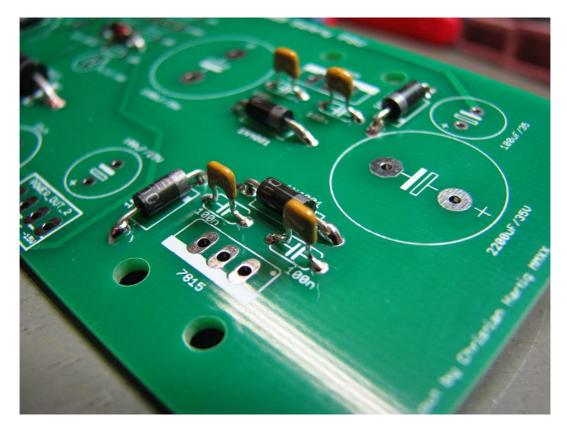
RE-909: The safety power supply

I would suggest starting with the safety power supply because the power will be needed later anyway. First solder in all diodes and always pay attention to the direction!

The ring on the diode meets the line in the component drawing! This also applies to the Zener diodes!



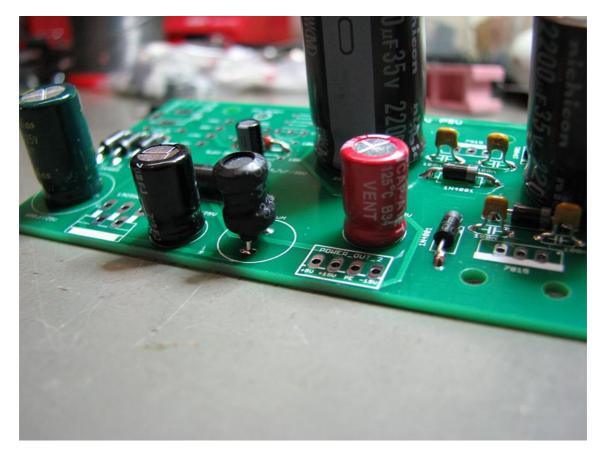
Then the four 100nF ceramic capacitors.



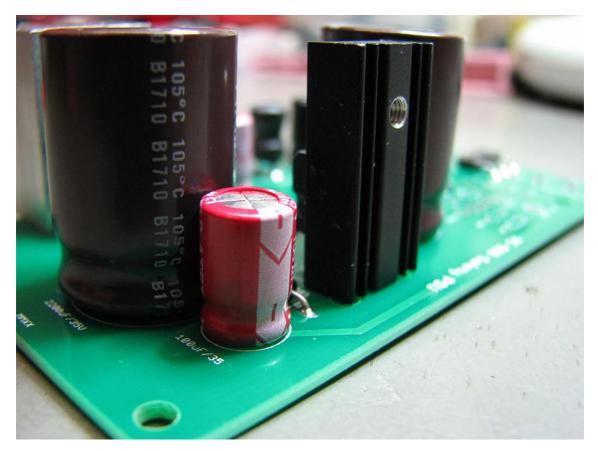
Next the electrolytic capacitors. Always pay attention to the direction! DO NOT confuse plus and minus! The light line on the component is usually MINUS!

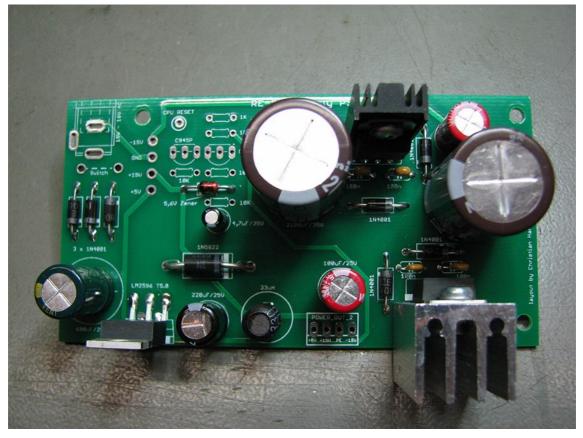


Now solder in the 33μ H inductance. There is no polarity here, the direction doesn't matter.

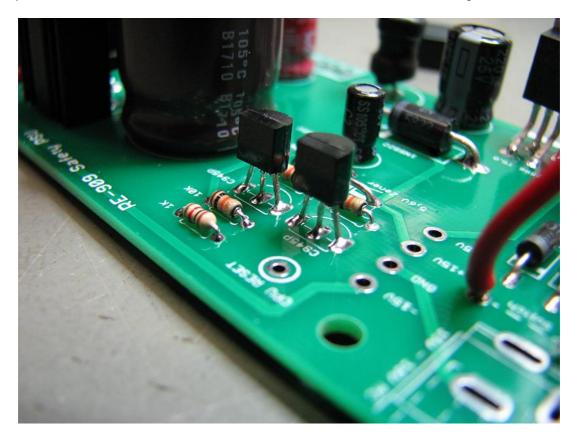


Then we solder the voltage regulators: 7815 (+ 15V), 7915 (-15V) and the LM2596 stepdown for + 5V. The stepdown does NOT require a heat sink. When soldering the other two regulators, it is advisable to screw on the heat sink beforehand, firstly because there is little space for screwing and secondly the regulators do not overheat when soldering in.

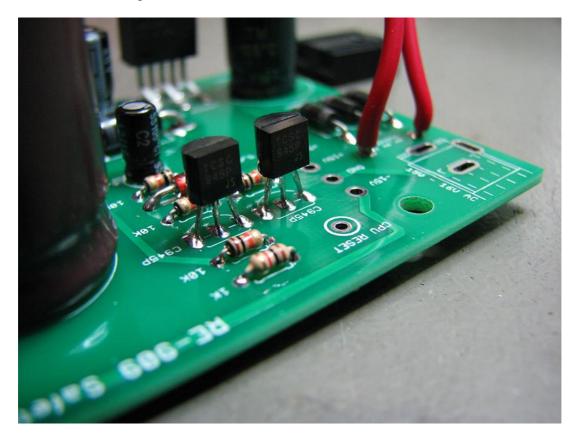




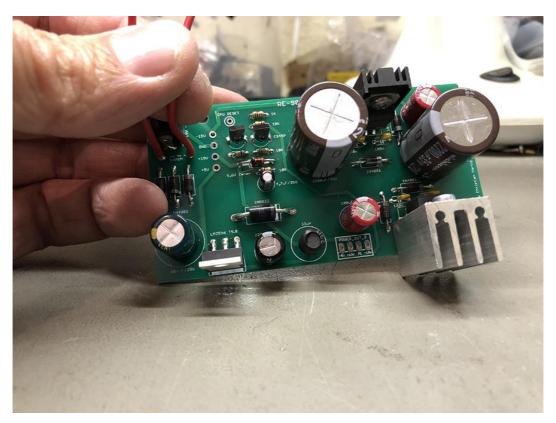
Finally solder the five resistors and the two transistors. Make sure the transistors do not get too hot!



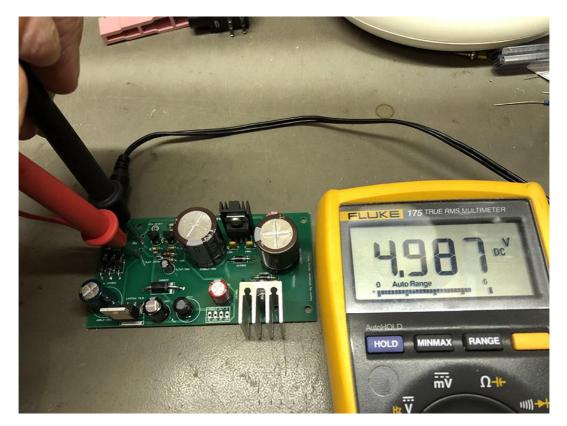
Solder a wire bridge (approx. 8cm long) to the poles with the dashed line for the switch. Do not cut the cable until later, when the housing with the switch is available. Now solder in the DC socket.



If the power supply looks like the picture below, then you can connect the power and see if everything works properly. Take an external 15V AC power supply and connect it. Check the voltages immediately after powering up!



A value between 4.9V and 5.0V should be present at the output for + 5V. The same voltage must also be measurable at the RESET pin!



Measure all other voltages such as + 15V and -15V. Slight deviations up or down are normal and no reason for panic. ⁽²⁾

