

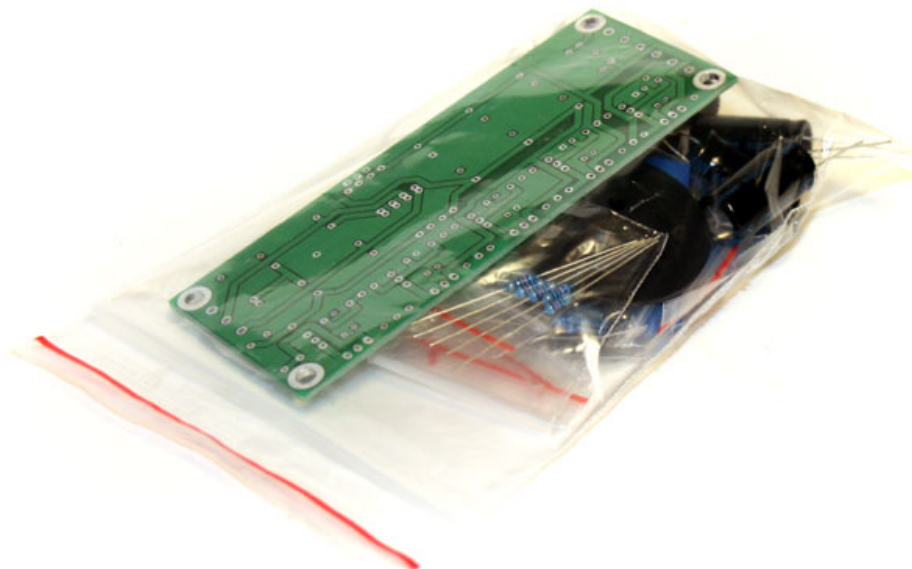
Universal Power Supply DIY KIT
for Mic Preamplifiers
(+12-37v, -12-37v, +48v)

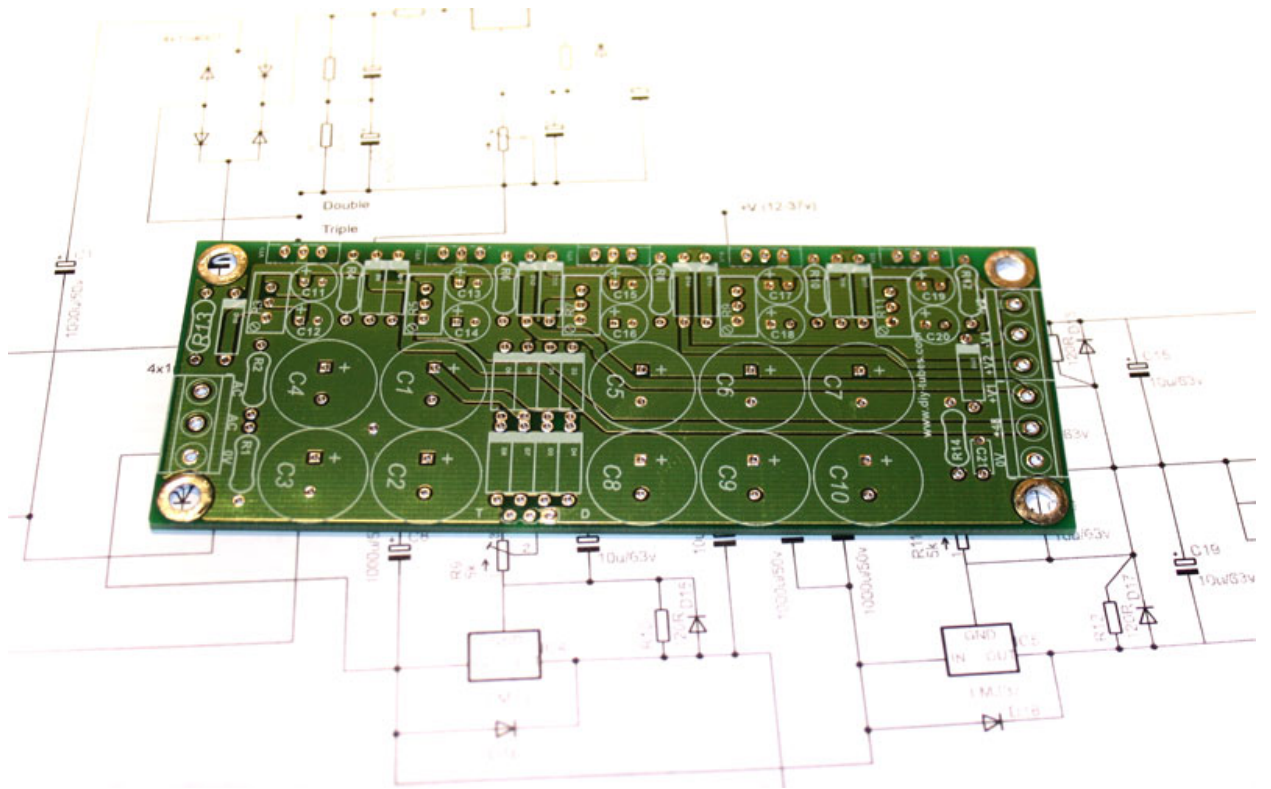
This DIY kit provides a universal power supply for the mic preamp (and other devices) that require bipolar power in the voltage range from 12 to 37 volts, and from 48 to 60 volts for phantom power. The required voltage is adjusted with trimmer potentiometers.

DIY Kit includes:

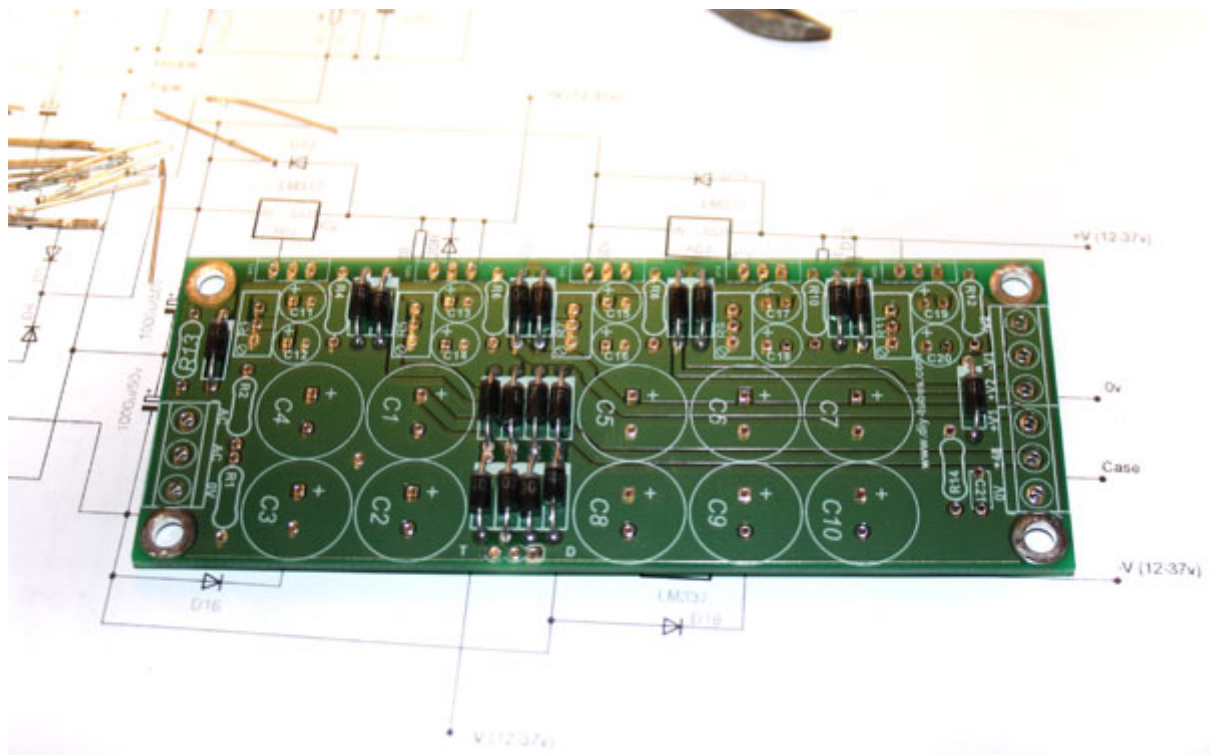
PCB – 1pc,
LM317 – 3pcs,
LM337 – 2pcs,
UF4007 (1N4007) – 18pcs,
5k trim – 5pcs,
Capacitors:
1000u/50v – 10pcs,
10u/63v – 10pcs,
0.1u (ceramic) – 1pc,
Resistors:
120R – 5pcs,
22k – 2pcs,
10R – 1pc,
47R (51R) 1W – 1pc
Sockets:
3 pin socket – 3pcs,
3 pin (jamper) – 1pcs,
Jamper – 1pc.

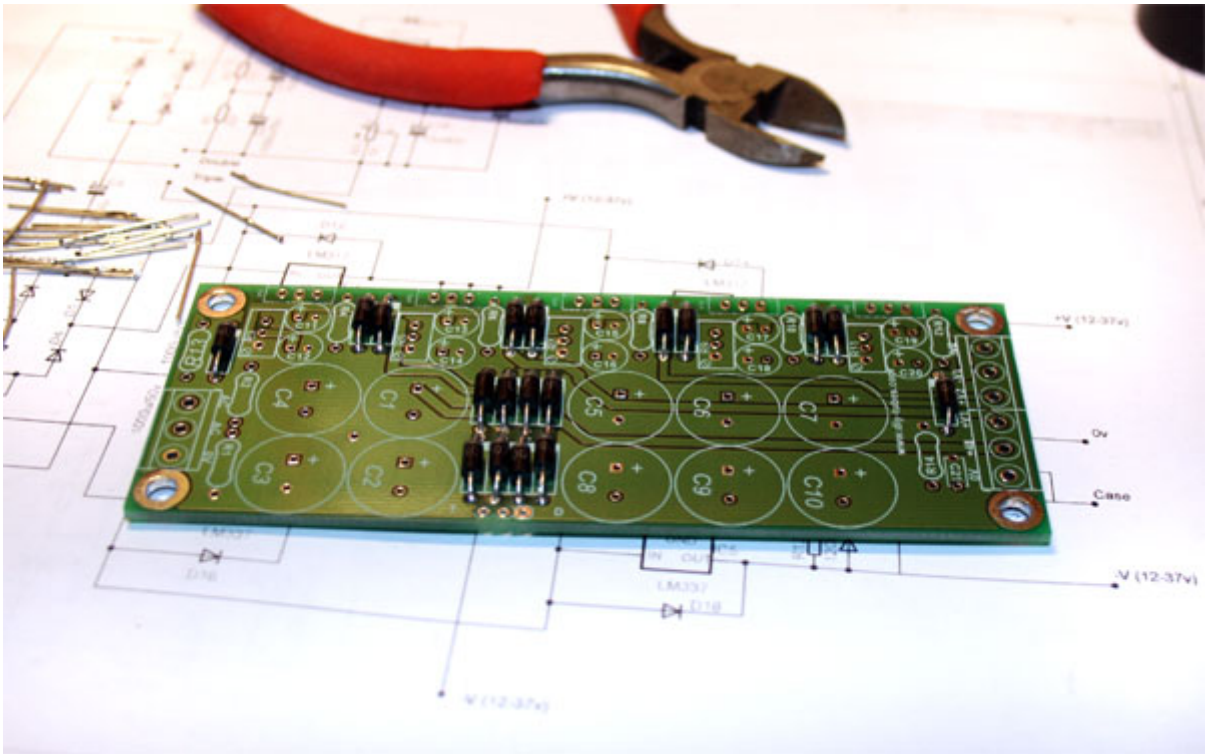
Bonus: Stands for PCB and toroid transformer mount (no screws!).



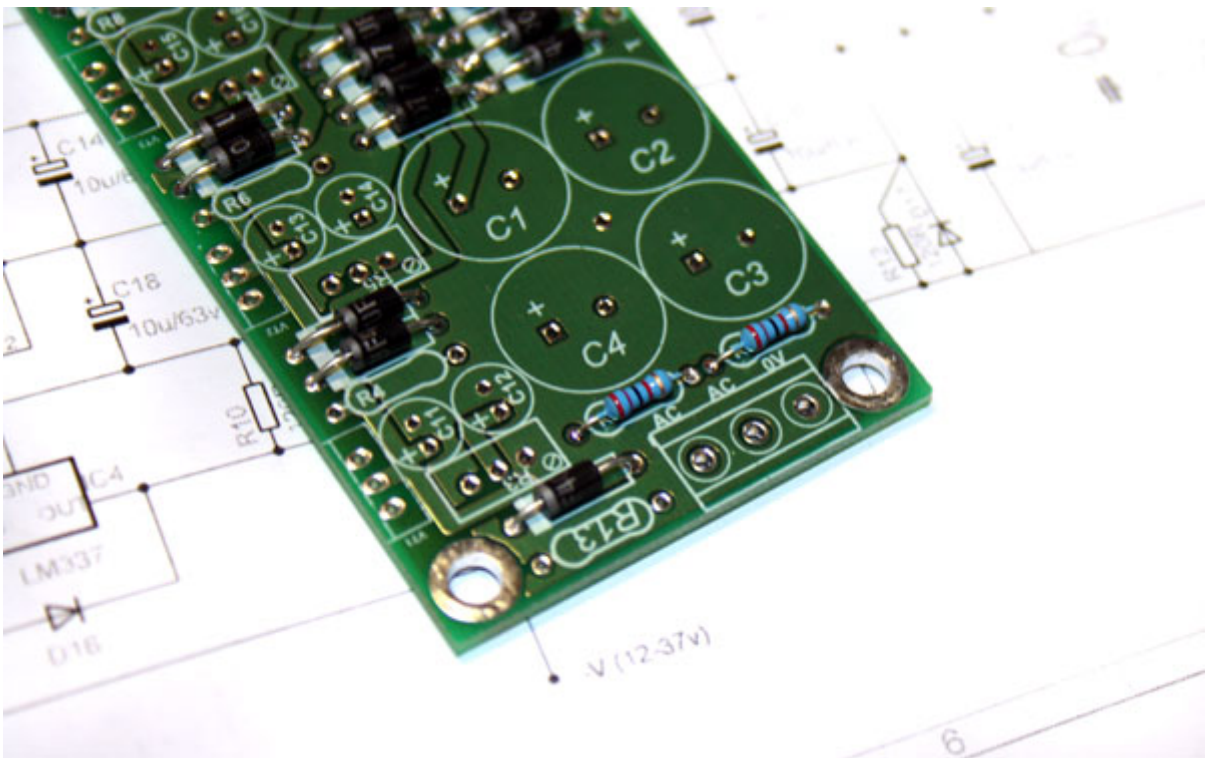


First. Soldering diodes. Pay attention to how the diodes are oriented.

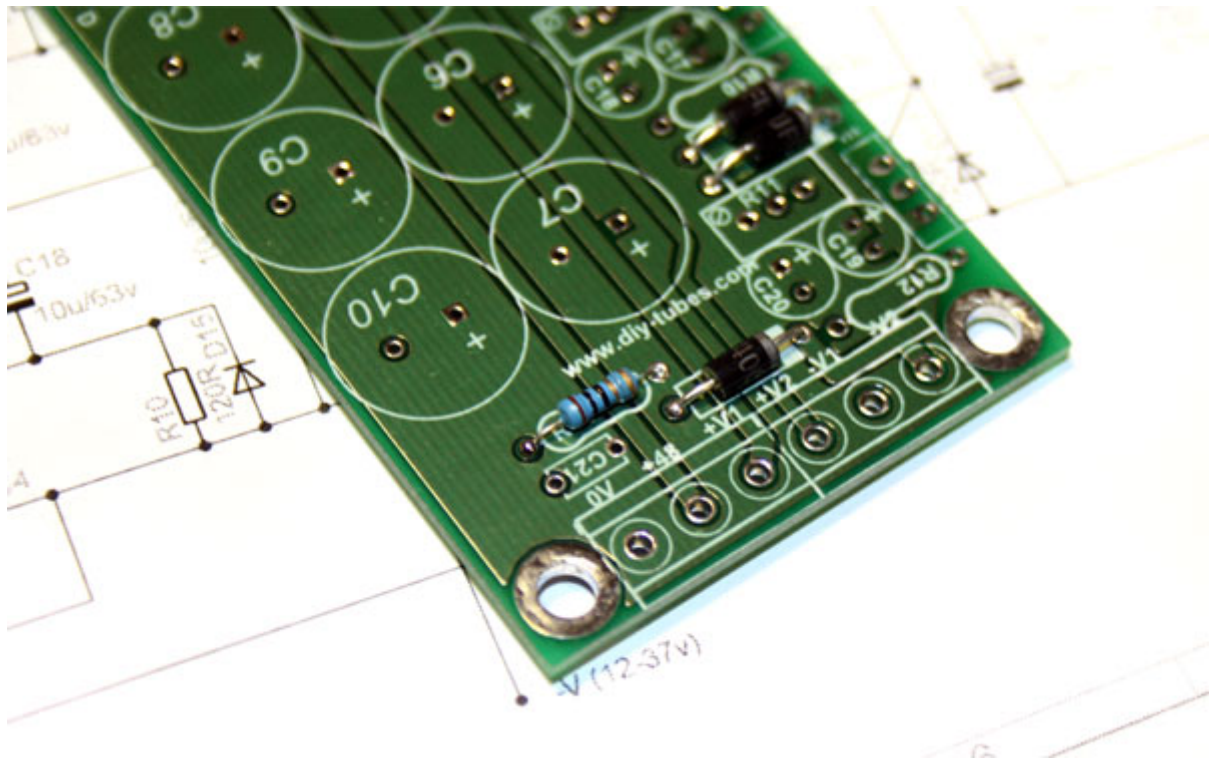




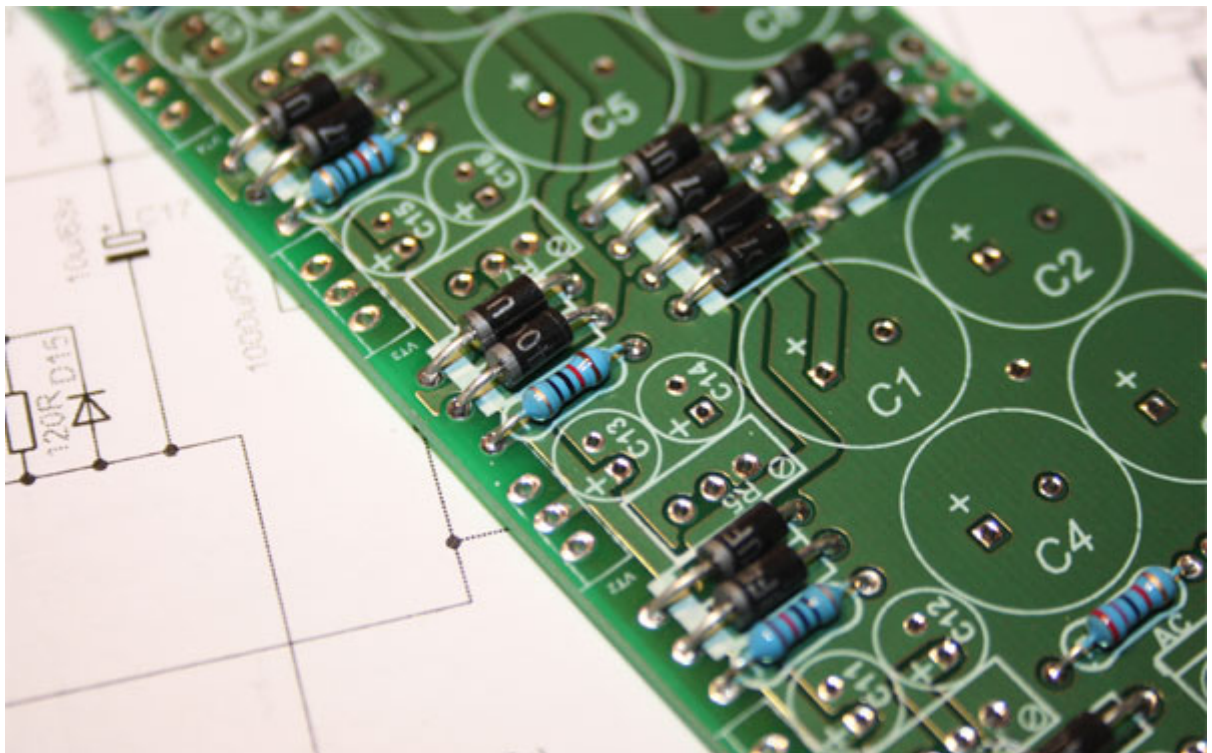
Now solder resistors. Two resistors 22k (R1, R2) are on the pic below.

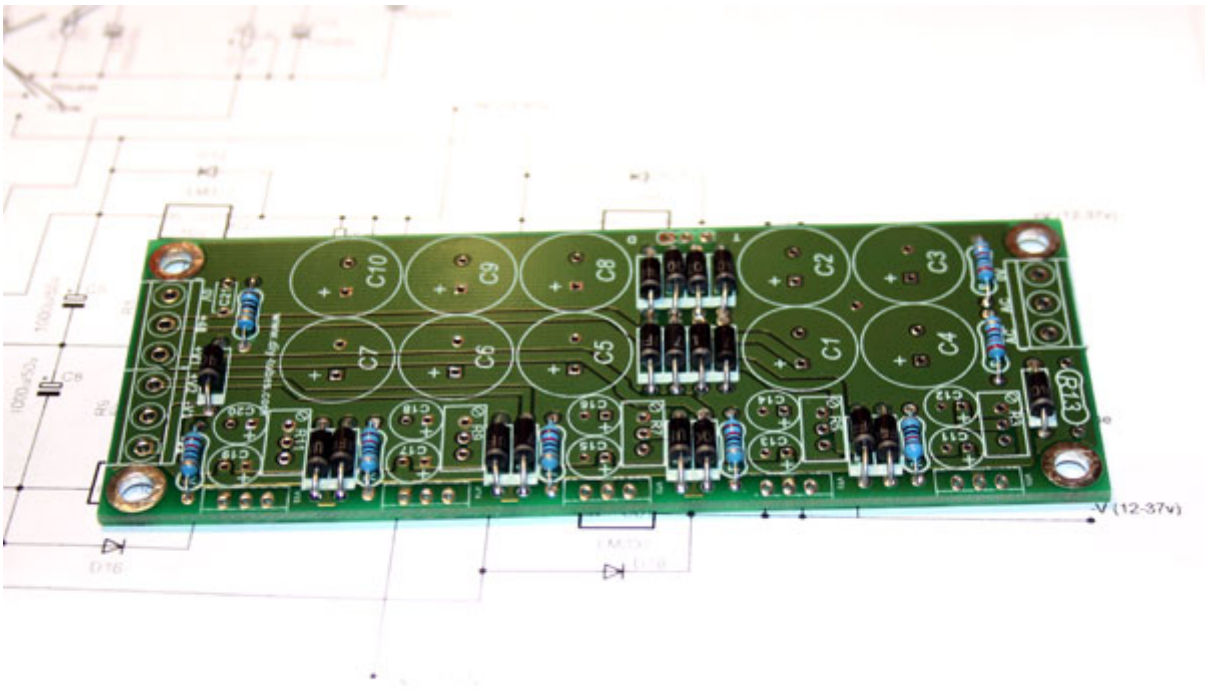
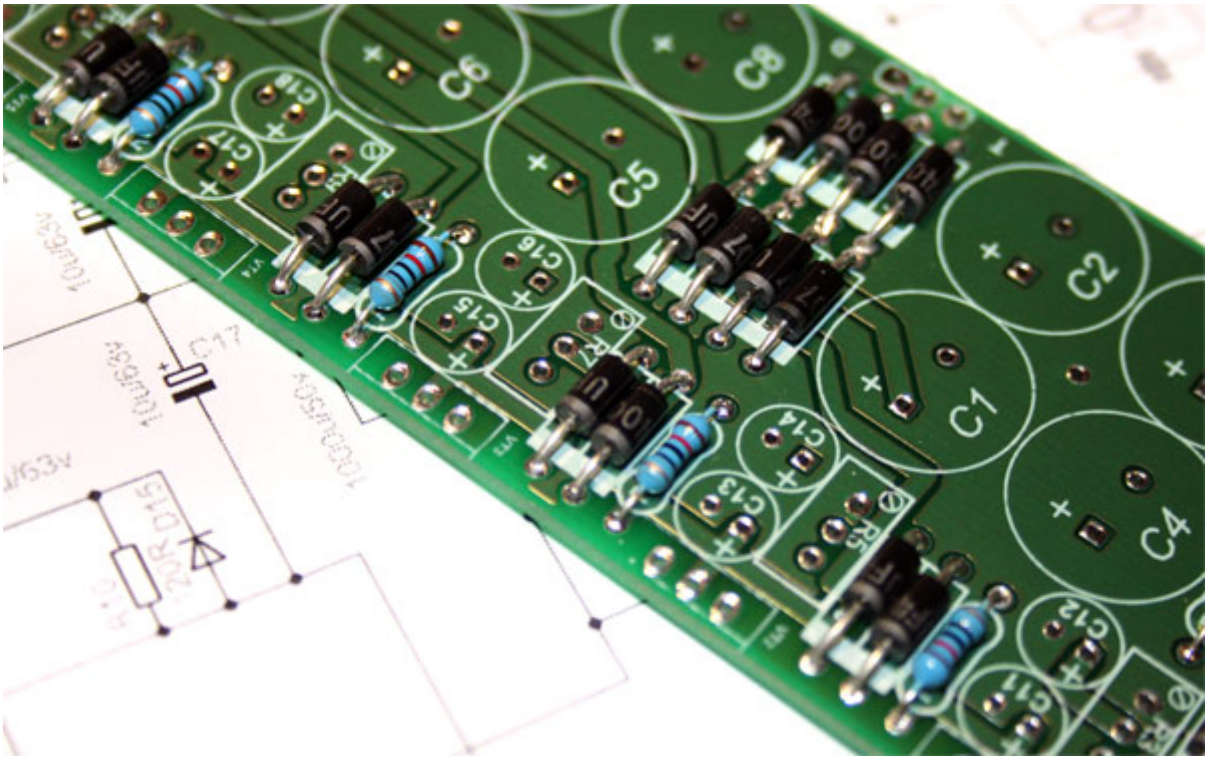


Next picture – 10R resistor.

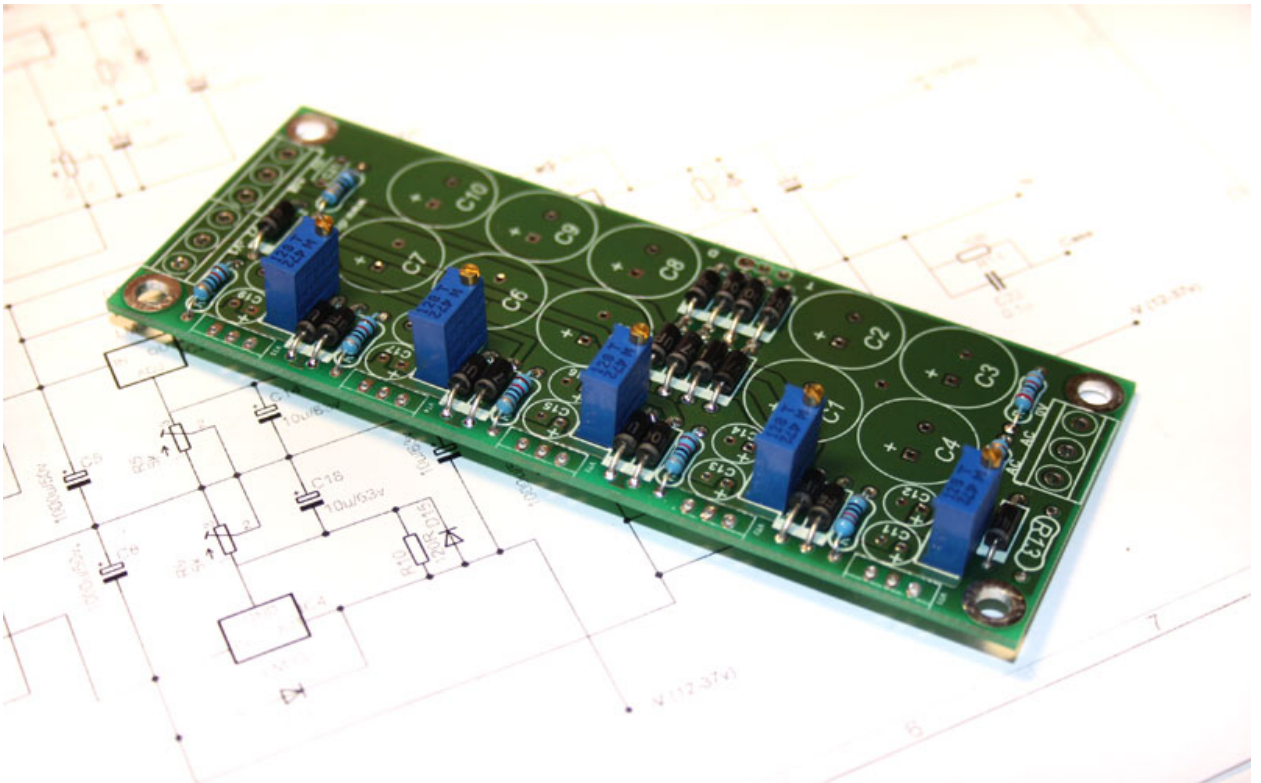


Next – solder 5pcs 120R (R4,R6,R8,R10,R12).

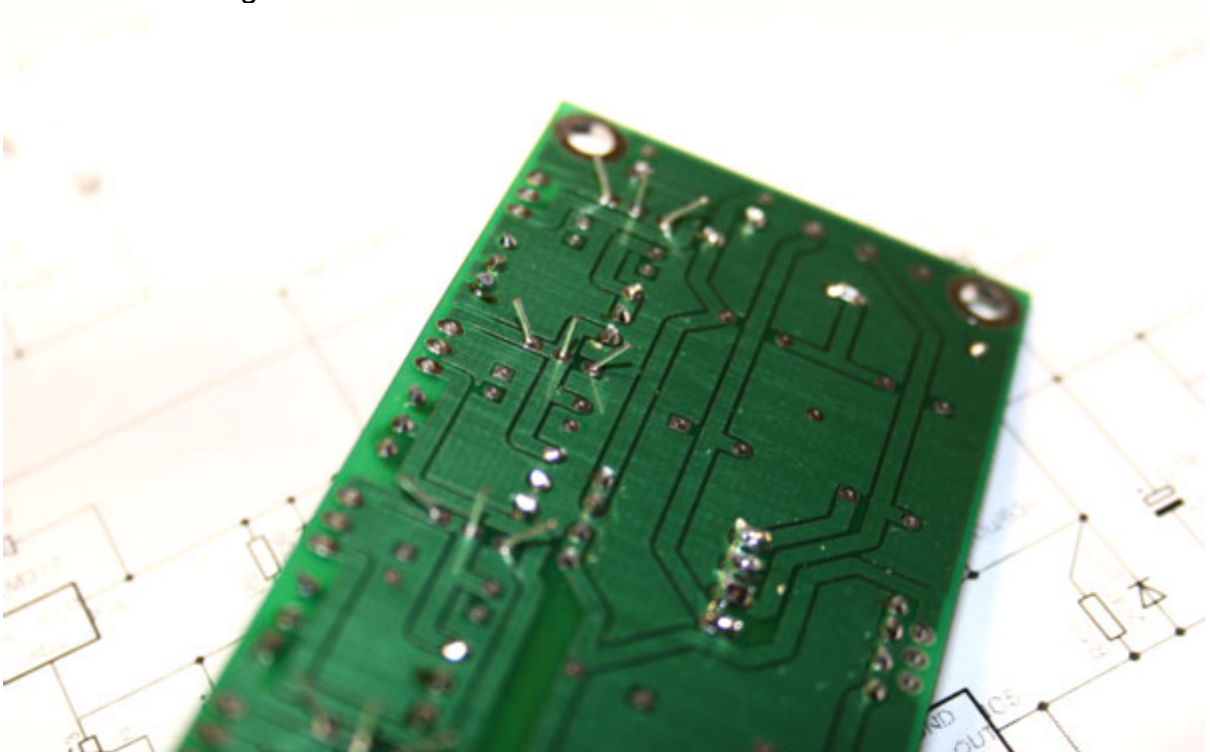


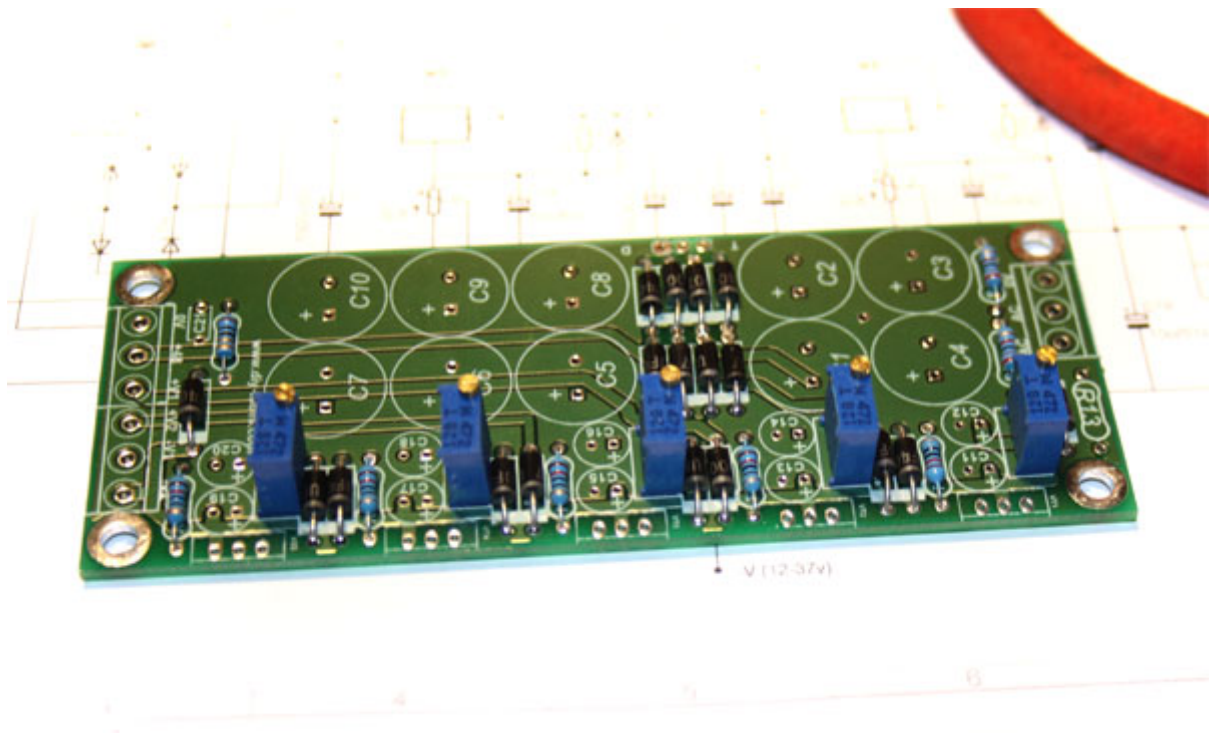


As we soldered components adjacent to the board, let's solder "higher" components. Place to the board 5 trimmers (4k7) – R3, R5,R7,R9,R11.

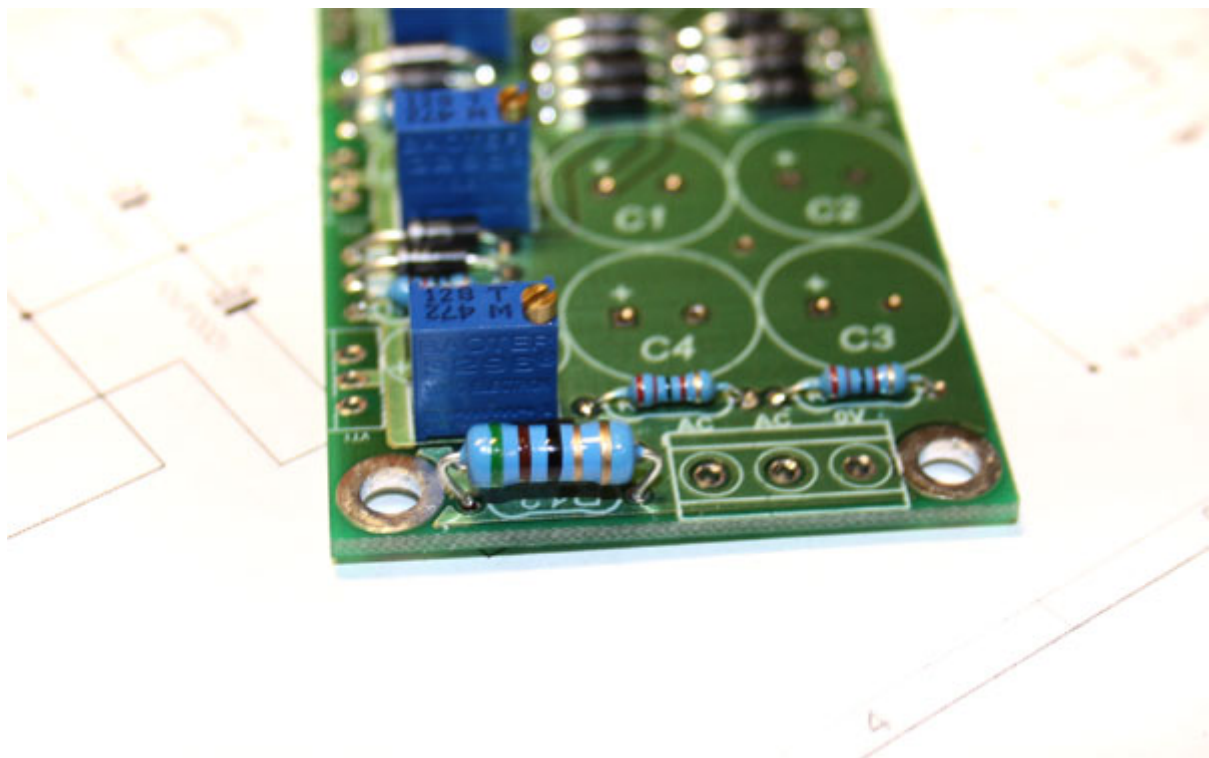


Push resistors legs aside to fix them on board. Solder.

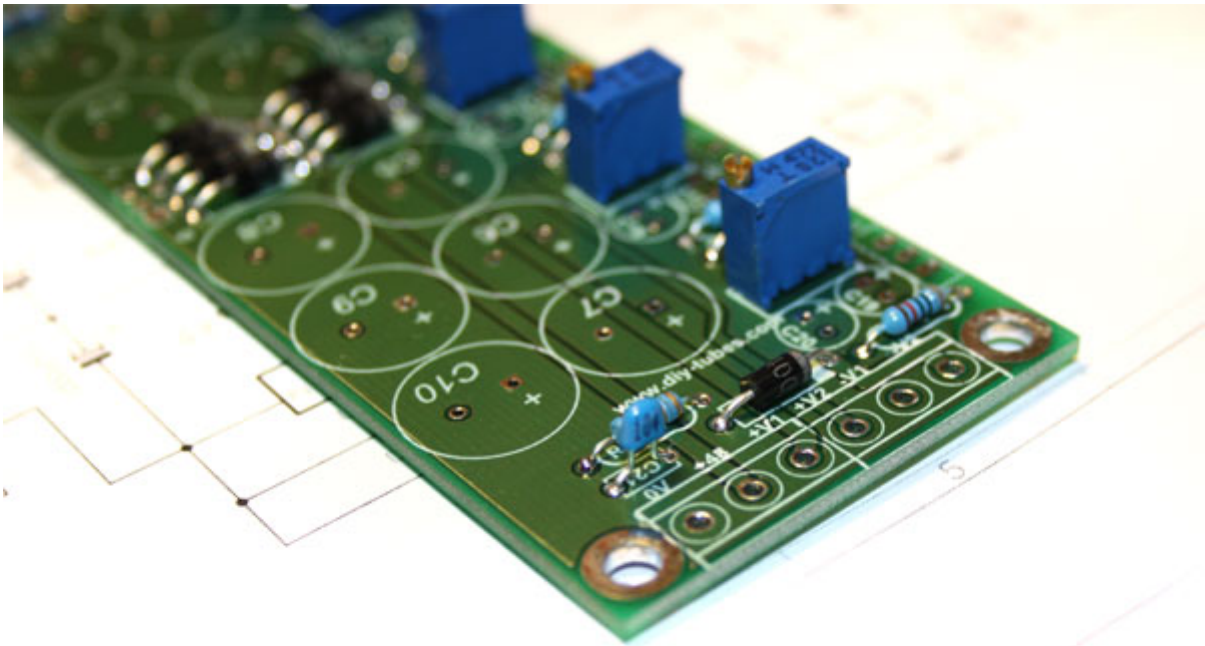




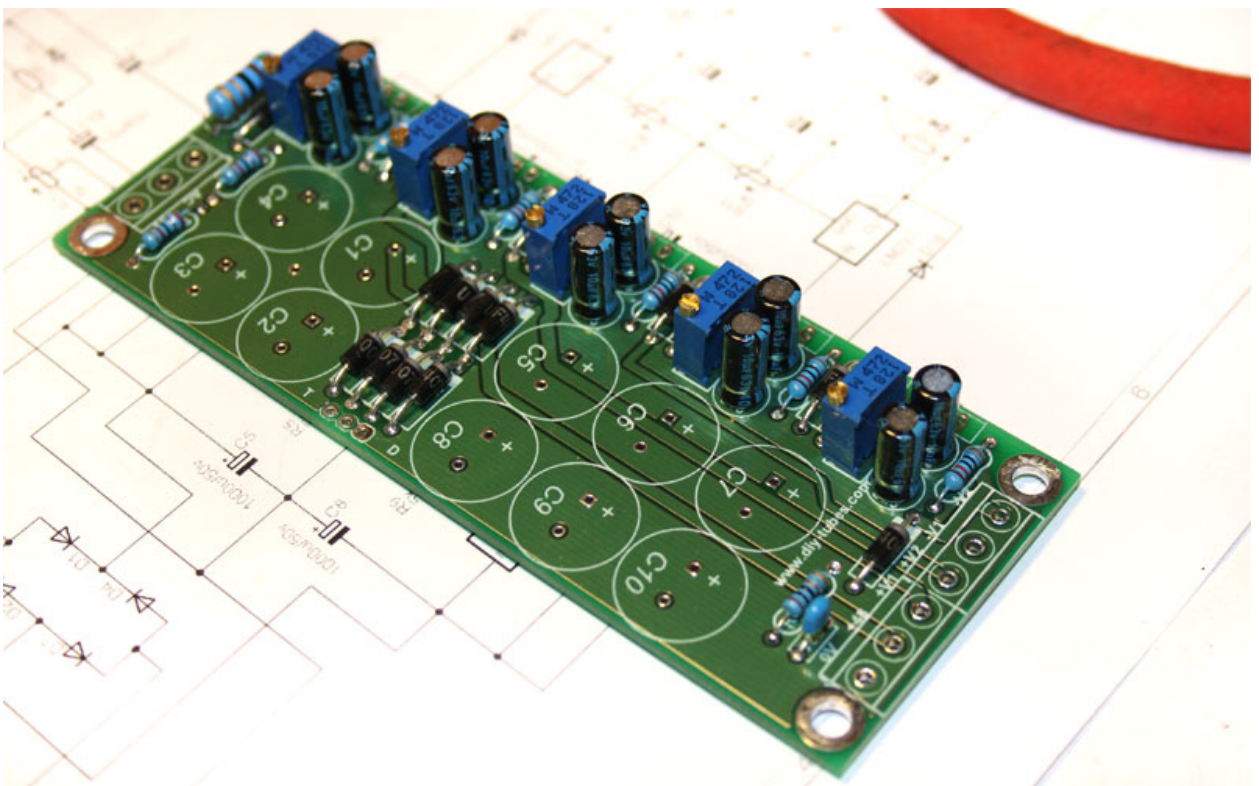
Next goes 47R(51R) 1W – R13.



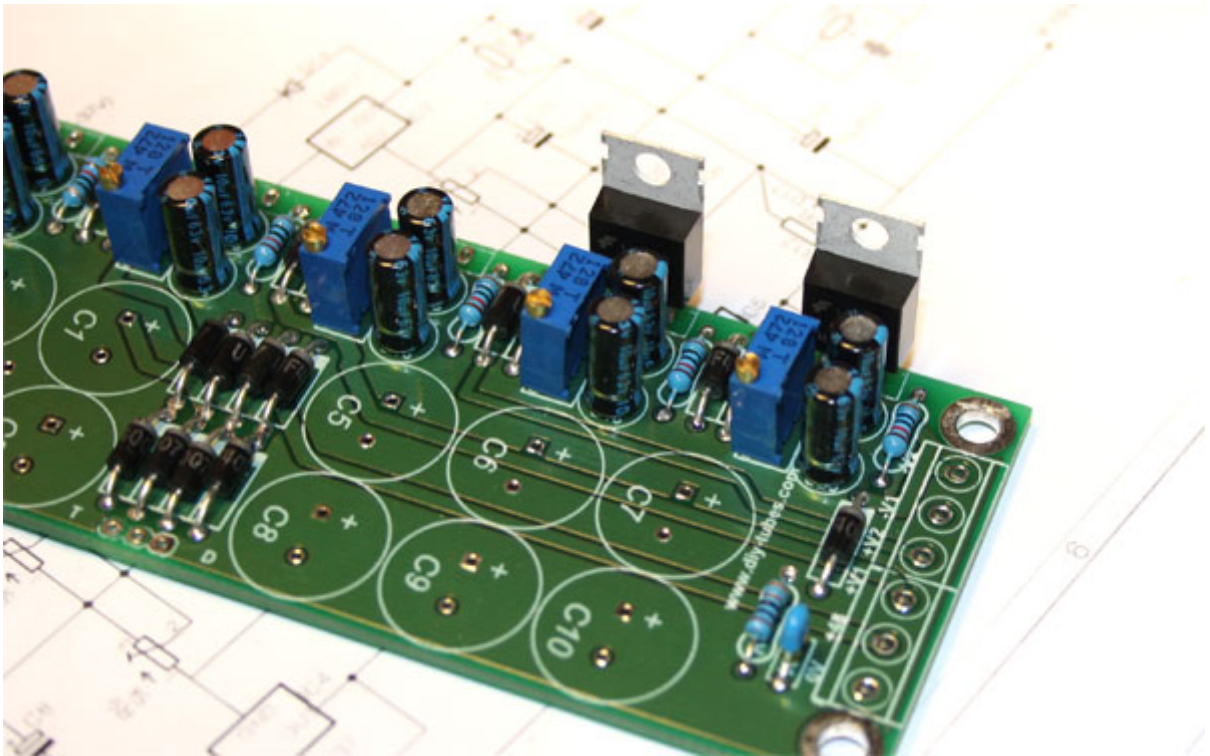
Solder ceramic capacitor C22 – 0.1u (100n).



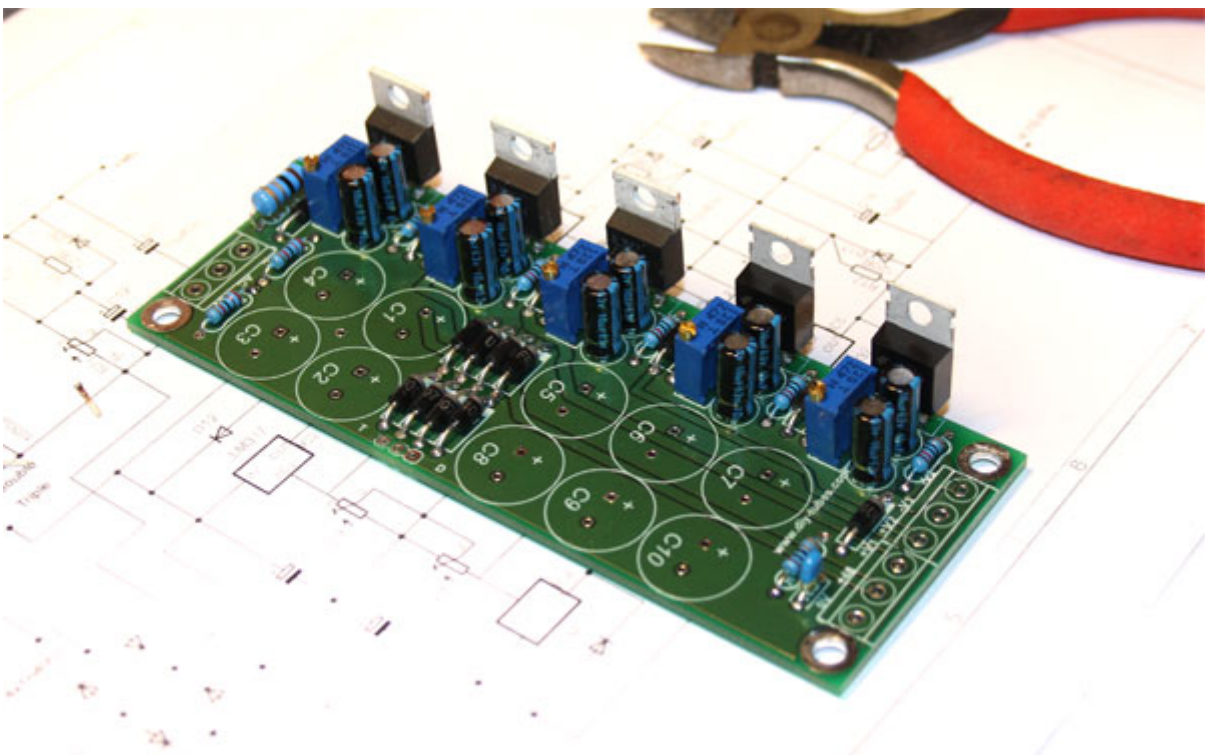
Solder 10 electrolytic caps 10u/63v (C11,C12,C14,C18,C13,C17,C16,C20,C15,C19). Pay attention to how the capacitors are oriented – negative is marked with white line.



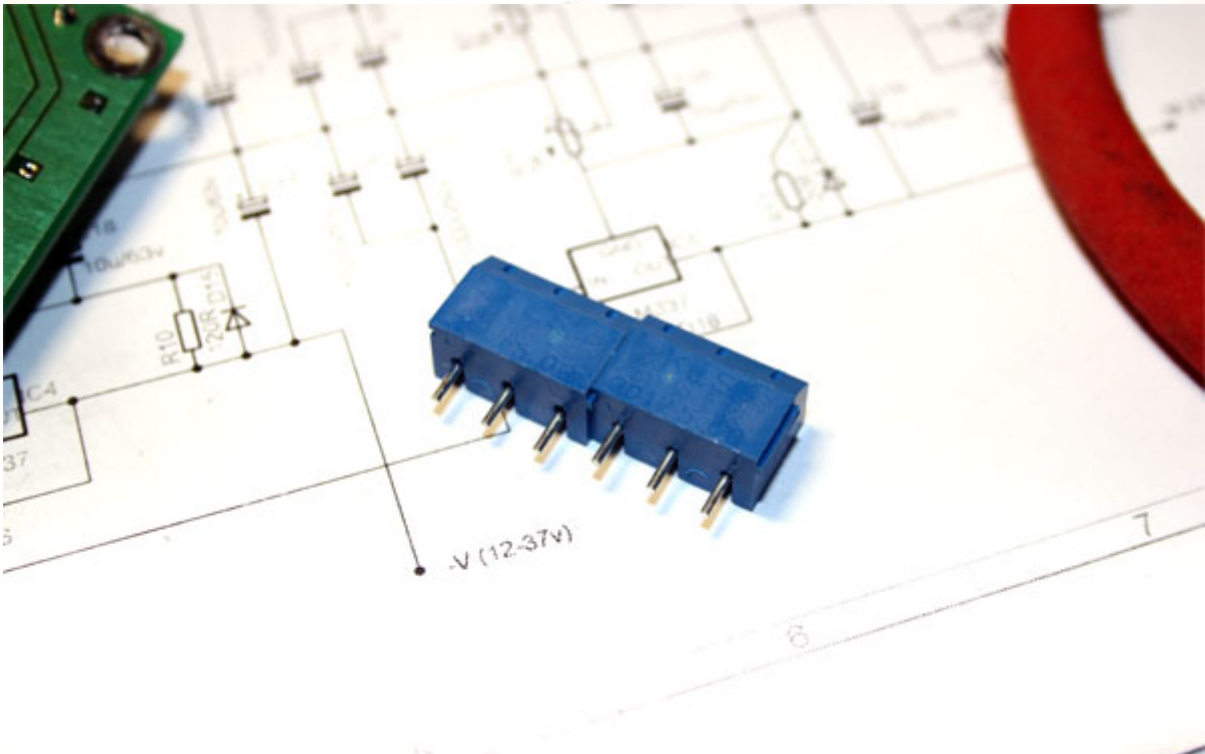
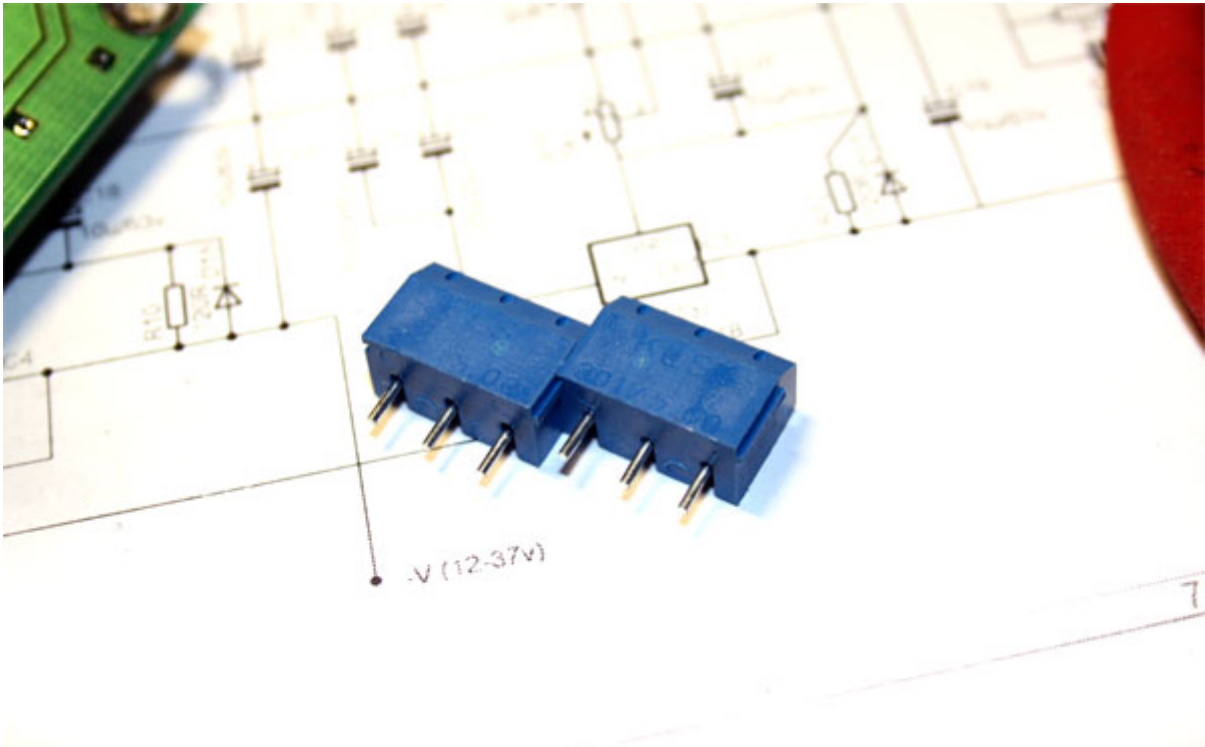
Now solder ICs – LM337 (IC4, IC5).

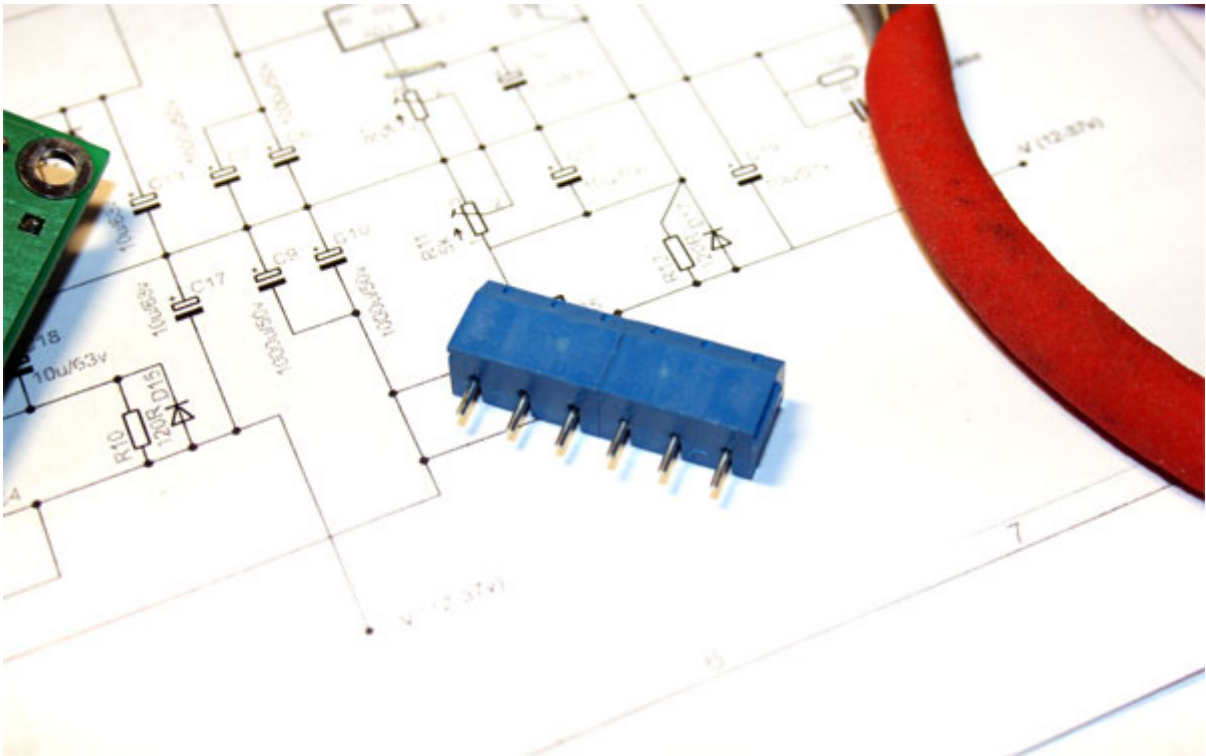


And LM317 (IC1,IC2,IC3).

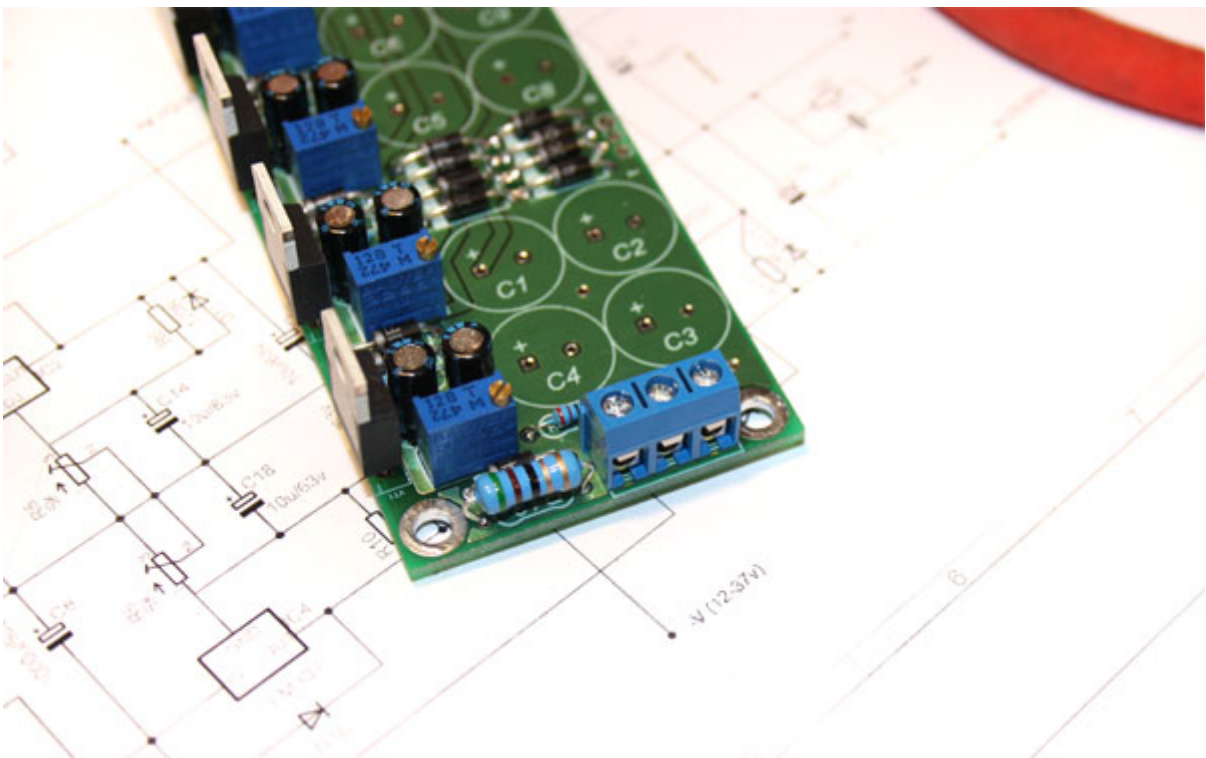


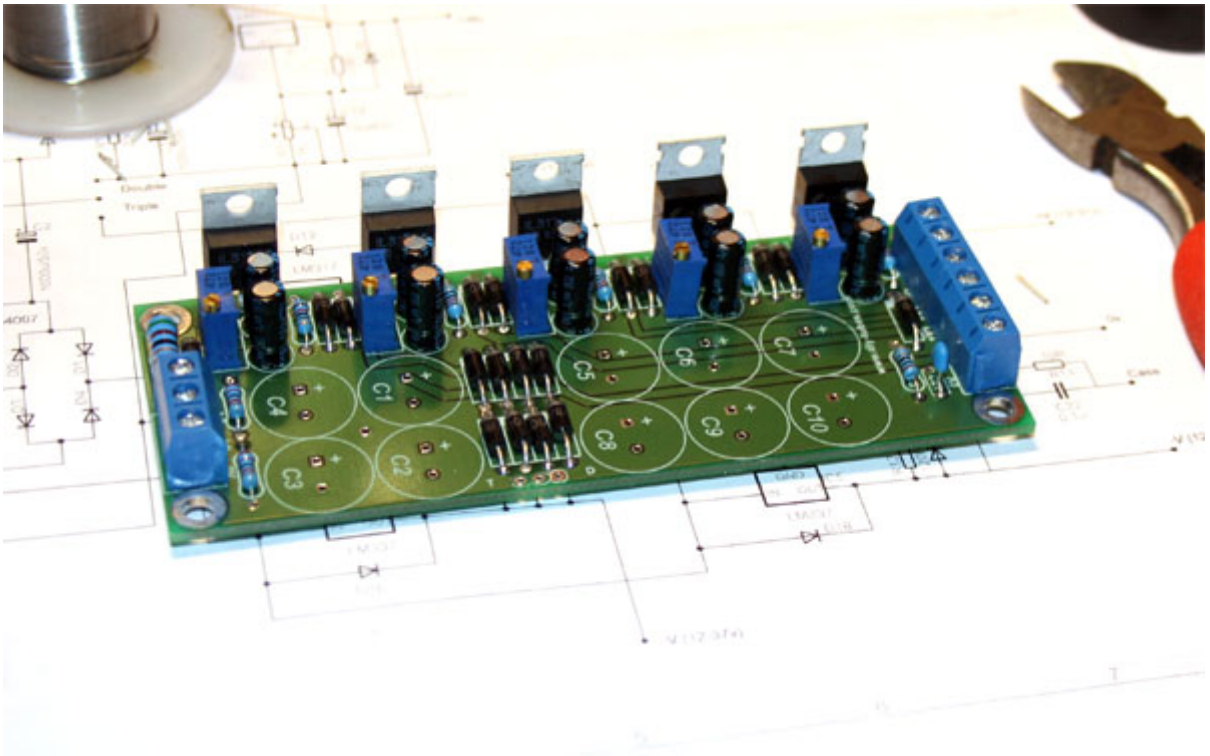
Now all connectors. Combine two sockets - notch and comb can get one of the two connectors into a single 6-pin.



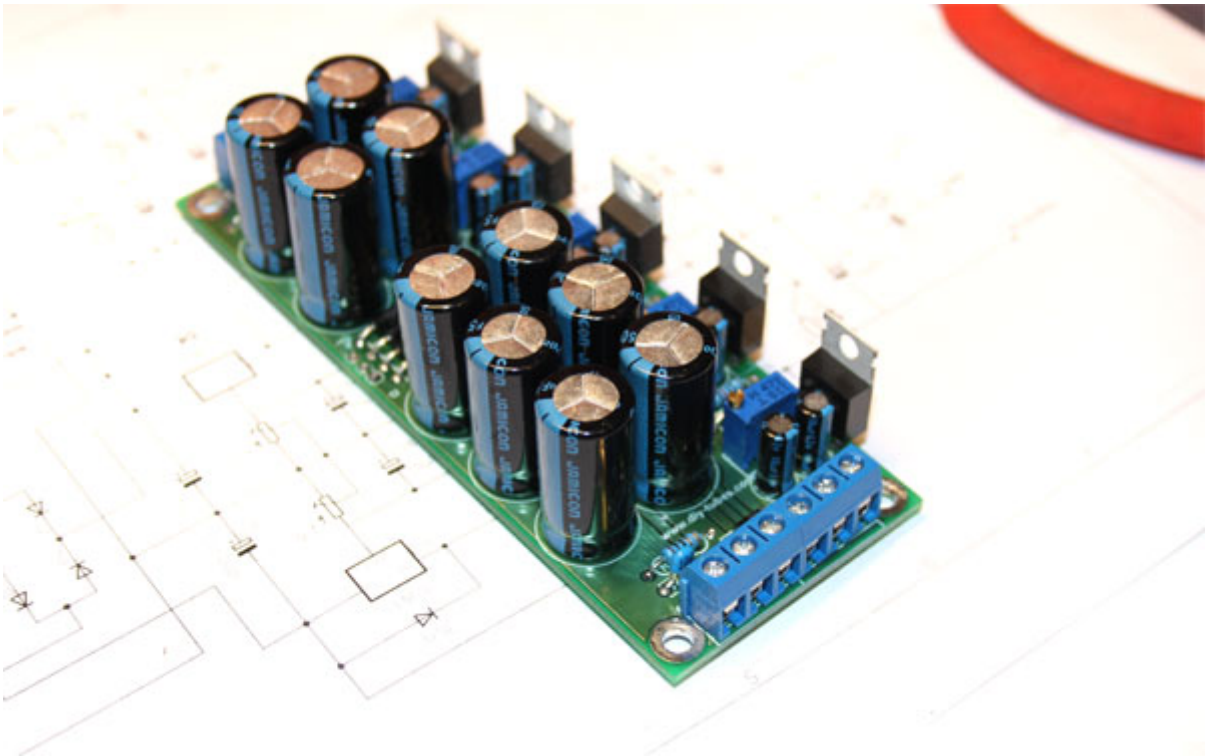


And one is on the other side.

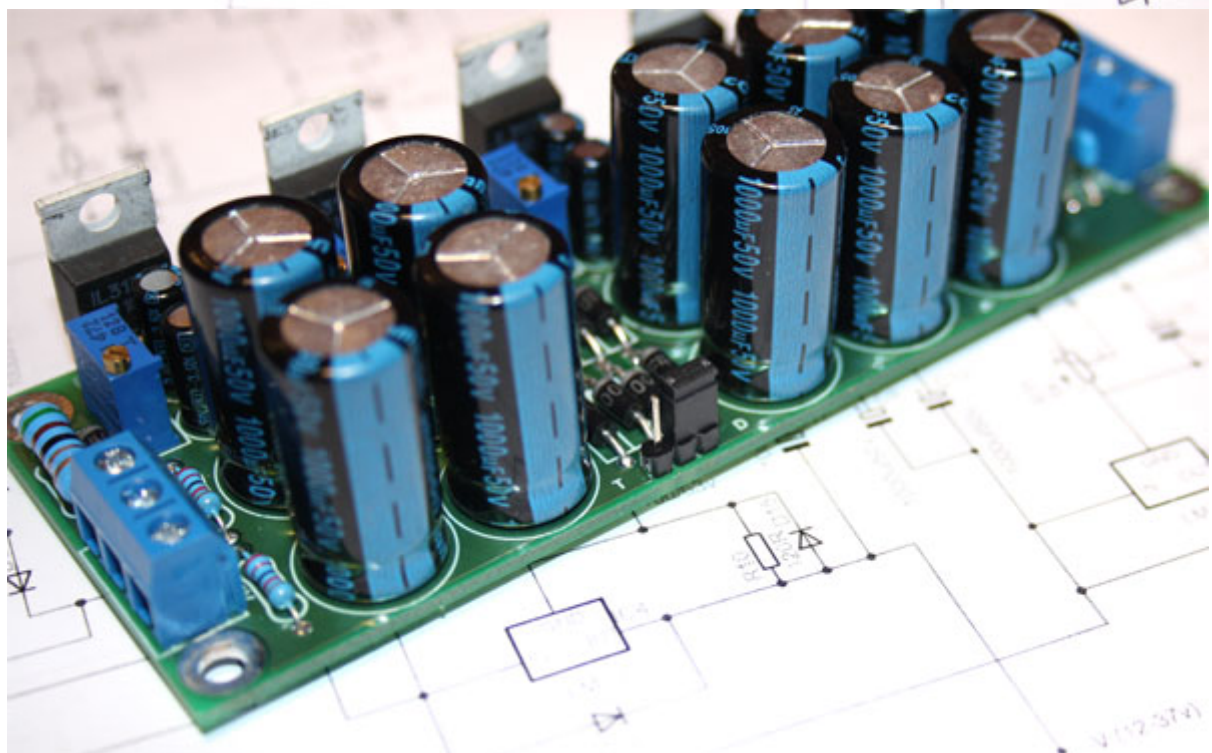
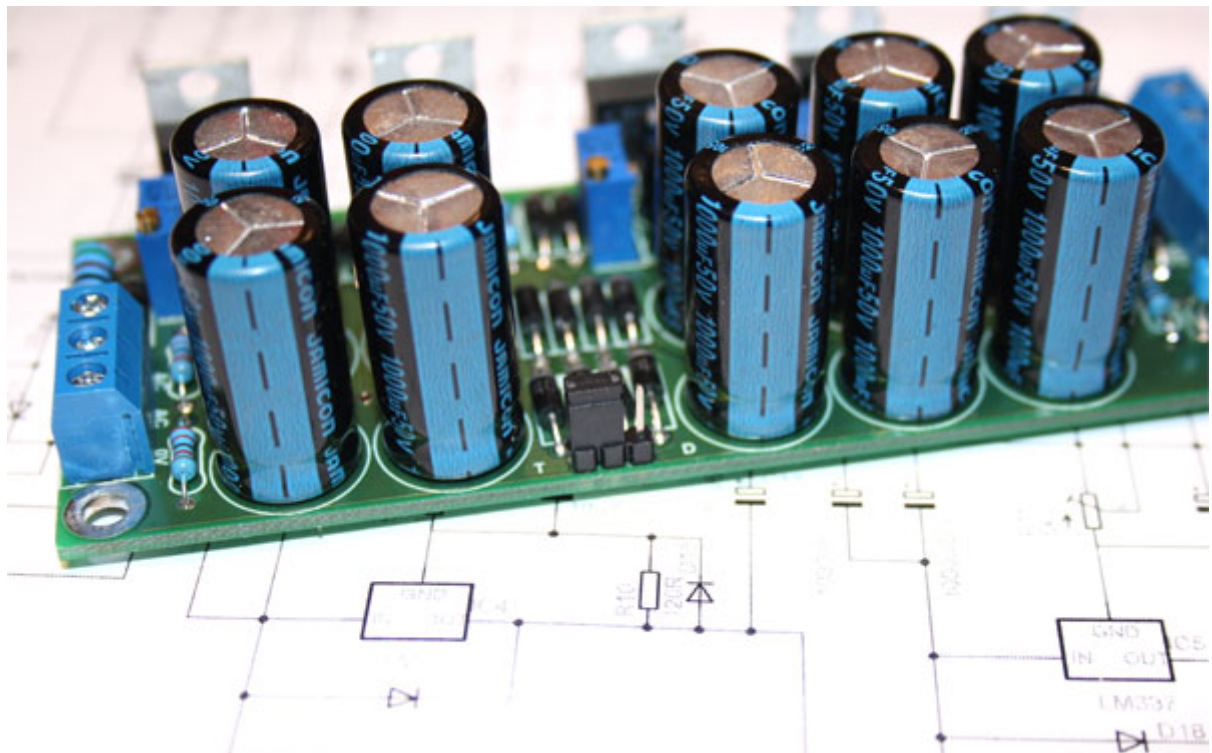




Solder 10 electrolytic caps 1000u/50v (C1,C2,C3,C4,C5,C8,C7,C9,C6,C10). Pay attention to how the capacitors are oriented – negative is marked with white line.







It remains to add a jumper connector, which allows us to obtain the necessary voltage for phantom power supply (+48 V). If we use a transformer with a secondary winding 15 to 18 volts - the jumper is set to T (tripler). If we have more voltage on the secondary windings of the transformer (22-28 volts) - put a jumper in position D (doubler).



The scheme of the power supply and the example of interconnection for dual mic preamps are shown in the following pages.

Universal PSU two mic preamp connection

-  +48v
-  -12-37v
-  0v (ground)
-  +12-37v

