

- = [EZSQ] = -

manual V1.1

The EZSQ is easy... so, let's start building!

First of all get your desk ready and make sure you have the necessary tools:

- soldering iron
- soldering tin
- cutter (the one like in the picture are the best but a small nail clipper will do the job too)



Follow the next steps in this particular order

After each step flip the board and clip off the wires.
Start with the "back board".

Diodes

D1-D8/D10-D11 1N4148 (red with black stripe)

D9 1N4001 (black with white stripe)

Make sure you solder them in the right direction! There is a black marker on one side which should correspond with the marker on the PCB [like on the drawing](#)



Capacitors 1

C2 104 (100nF)

(The other cap will be soldered later)

IC socket

Mind the direction! Pin 1 is marked on the PCB and is marked on the IC with a small gap.

Place the IC sockets with the gap towards pin 1 (square pad).

Capacitors 2

C1 10uF

Mind that this cap has two sides (a + and - side) so it is important to check the direction before you solder! The - side is marked on the PCB with a small "-" and has a square pad. The - side is marked gray on the cap and a shorter lead.

BC547

There are 4 transistors on the board. This is the black thing with 3 leads. Mind the direction drawn on the PCB!

Resistors

Mind that all resistors are standing, this means the resistor is not laying flat on the PCB. Because it is crowded on the board it is not always easy to spot the right orientation. Therefore the instructions are written with the orientation. See reference drawing!

R1 (vertical, lead up)	1K (brown - black - red)	R9 (vertical, lead up)	10K (brown - black - orange)
R2 (horizontal, lead left)	1K (brown - black - red)	R10 (horizontal, lead left)	10K (brown - black - orange)
R3 (horizontal, lead right)	1K (brown - black - red)	R11 (horizontal, lead right)	10K (brown - black - orange)
R4 (horizontal, lead right)	1K (brown - black - red)	R12 (vertical, lead up)	10K (brown - black - orange)
R5 (horizontal, lead left)	1K (brown - black - red)	R13 (vertical, lead up)	10K (brown - black - orange)
R6 (horizontal, lead left)	1K (brown - black - red)	R14 (horizontal, lead left)	10K (brown - black - orange)
R7 (horizontal, lead left)	1K (brown - black - red)	R15 (horizontal, lead right)	10K (brown - black - orange)
R8 (horizontal, lead left)	1K (brown - black - red)	R16 (vertical, lead up)	10K (brown - black - orange)

Potentiometers

8x 50K inverted log (blue tall trimmer marked with C5-03 on the bottom)

* Don't solder anything yet

Jacks

Place all the jacks

* Don't solder anything yet

LEDs

Mind the direction! The long pin of the LED should be placed in the square pad.

Install the panel and keep it in place with some nuts. Check if all LEDs line up with the panel. If everything is in place start soldering.

Remove the frontpanel and and solder the last two parts.

Power header

It should be placed on the back.

Trimmer

The trimmer should be placed on the back, direction does not matter

Have fun with your EZSQ!

