

Klasmata Build Notes

Please refer to KlasmataLayout.pdf at all times

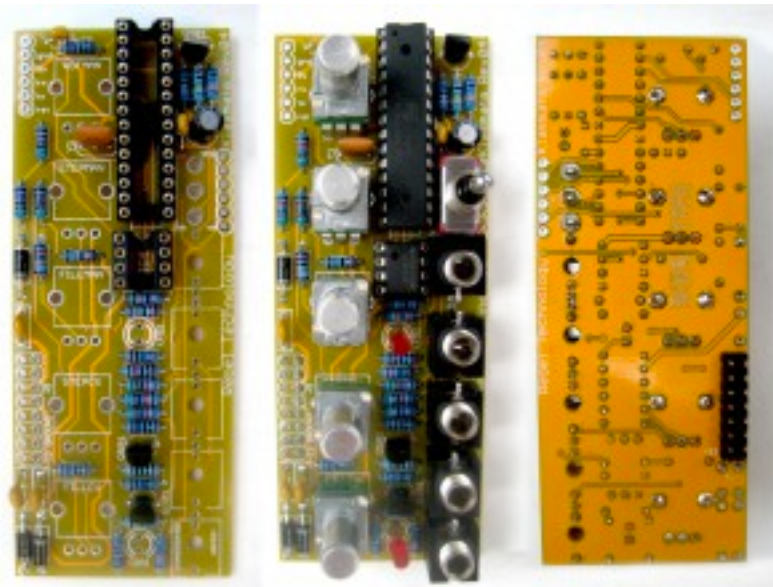
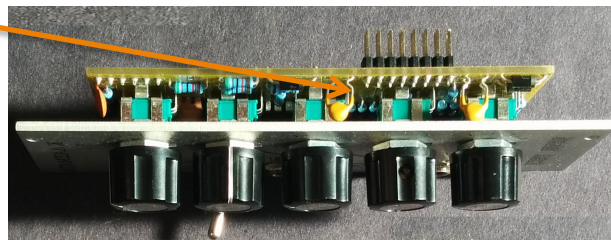
<http://www.thonk.co.uk/documents/rebeltech/klasmata/>

NOTE: This module requires **+5v power** on your busboard to run. There are several solutions to this (if you have a Doepfer case for example) including the Mutable Instruments VOLTS:

<http://www.thonk.co.uk/shop/mutable-instruments-volts-5v-source/>

Doepfer cases show +5v on the busboard, but do not have it fitted as standard!

The components are listed **in the order they should be soldered** in the layout PDF and are colour coded to show where they go. Note that all components go on the same side of the board EXCEPT the 16 pin Eurorack power header.



FULL SIZE BUILD PIC:

http://www.thonk.co.uk/wp-content/uploads/2015/07/Klasmata_BUILD.jpg

BUILD ORDER

1. All resistors are labelled by value.
2. The 1N4004 diodes are black and silver, **the silver line should align with the line on the silkscreen**, D1 and D3 have the silver line facing away from the long 28 pin IC2 chip. D2 has the silver line facing towards IC2.

3. Note that two high quality 14 Pin DIL sockets have been provided in place of a single 28 pin DIL socket. They should be soldered side by side. **MAKE SURE THE IC SOCKET NOTCHES MATCH THE NOTCHES ON THE PCB.**
4. The three 2N3904 transistors are in the silver ESD packed with yellow sticker. **Make sure the curved and flat faces on the component body are aligned with the graphic on the silkscreen.**
5. The two 100n ceramic caps C1 and C3 are small mustard coloured caps **on a cardboard strip** (see bag label). They can be fitted in either orientation.
6. The 10uF Electrolytic cap C2 should be aligned so the grey stripe on the cylindrical body is **not** by the pad with the + symbol next to it.
7. The Resonator orientation is also not important, this is the darker orange component with three leads.
8. M06x1 refers to the two six pin programming headers – **THESE ARE NOT REQUIRED.** (if you have an extra 2x3 pin header provided you can discard it)

9. M08x2 refers to the 16 pin eurorack power header. **THIS IS SOLDERED TO THE OTHER SIDE OF THE BOARD.**

10. The Resettable fuses are larger mustard yellow components in the bag with the diodes and caps, these are loose and not on a cardboard strip. Orientation doesn't matter.
11. IC1 – TL072 should be fitted so that circular indentation in the top of the chip is **at the same end as the notch in the IC socket silkscreen.**
12. IC2 – ATMEGA168 should be fitted so the notch in the end of the chip body is **at the same end as the notch in the IC socket silkscreen.**
13. Fit all jacks, pots, toggles and the LEDs **(but don't solder yet!)**
14. The LEDs should be fitted so the longer lead goes into the round pad on the PCB and the shorter lead goes to the square pad.
15. Rebel Technology recommend putting a little piece of masking tape over each LED hole on the front of the panel.
16. Fit the panel and secure the lock nuts on the pots, switches and jacks.
17. Push the LEDs up to meet the masking tape.
18. Solder remaining components on the back of the PCB.
19. Attach power cable, make sure the red stripe is aligned to -12v on the PCB!
20. Power up, you're finished.