

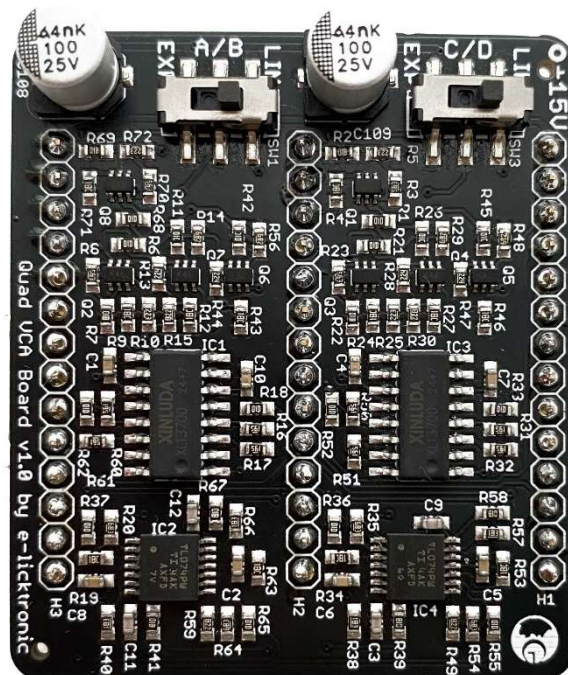
Attention | [disclaimer](#)

This project is presented as artwork, and is solely intended as such.

build at your own risk

this pdf is for information purposes only

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What skills are needed?

Meticulous care is the first skill you will need to build one of those kits. One single component that is not in the right place, in the right direction, one single solder joint that is deficient and the whole thing won't work! So, the secret to success is simple: follow the assembly guide down to the letter and **triple check all your moves**.

Good soldering practice is also needed. Your boards will be as weak as your weakest solder joint. So, this is very important. But it is easy to learn. If you have no soldering experience, start practicing with a piece of Veroboard and a handful of resistors. You should be perfectly operational after half an hour. Please have a look on those tutorials:

[EEVblog #180 - Soldering Tutorial Part 1 - Tools](#)

[EEVblog #183 - Soldering Tutorial Part 2](#)

Basic electrical and electronic understanding. Do you know what is a Volt, an Ohm, an Ampere? Can you use a digital multimeter? These are the questions you must ask yourself. If the answers are no, you might try to find a friend that knows

If you own these 3 skills, your kit will work for the first time!



✓ **Perfect!**



✗ **Too
Much
Solder**



✗ **Not
Enough
Solder**



✗ **Cold
Joint**



✗ **Too
Much
Heat**

What tools do you need?

- [A good soldering iron](#), preferably thermally regulated, 60W, with a medium size tip (1.5-2.5mm wide), screwdriver shape.
- [Solder](#). **Only use first grade solder**, 0.7 to 1 mm diameter, "no clean" type. Good quality solder will make the soldering process easier and you will get nice shiny joints.
- [Cutting plier](#). If you plan to go ahead with DIY, buy good quality cutters.
- [Flat nose pliers](#).
- [Phillips screwdriver](#), Slot screwdriver 3mm for trimmers, Nut driver $\varnothing 5.5\text{mm}$
- [Digital multimeter](#) with thin, insulated test hooks. If you can afford it, choose an RMS voltmeter with a good resolution.



What is included in the Quad VCA board kit?

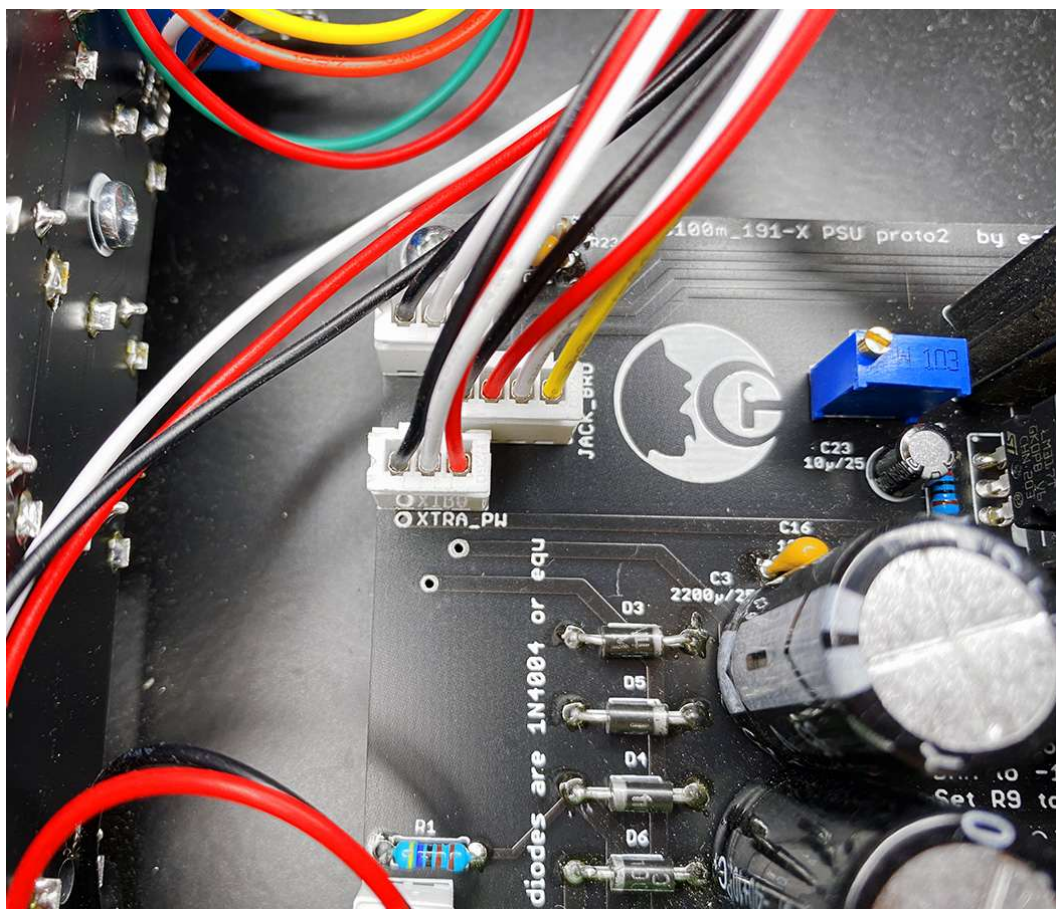
- 1x Full build Quad VCA board
- 1x 3 Pins JST 2.54 cable 30cm length
- 1x 3 Pins JST 2.54 PCB connector
- 1x 3M Sticker

SOLDER THE 3 PINS CONNECTOR AND CABLE

Pictures could show different parts type and color than the one you have.

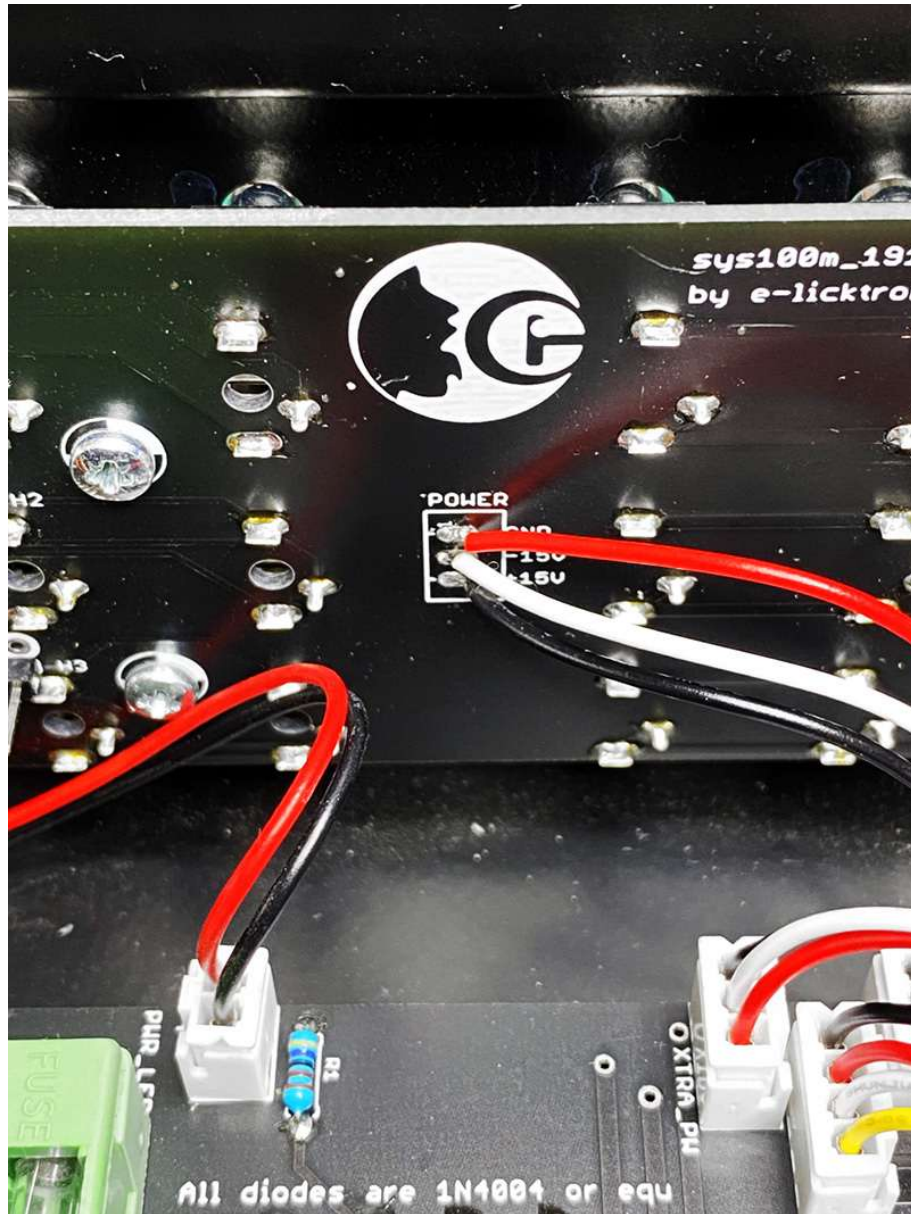
First you need to [open the M-191X case and unscrew the PSU pcb](#). Then solder the 3 Pins JST connector to XTRA_PW place.

Warning: Make sure to respect the direction of the connector



Now solder the cable to the multiple jack PCB

Warning: Take care of the order of each wire: GND is **RED**, -15V is **WHITE** and +15V is **BLACK**

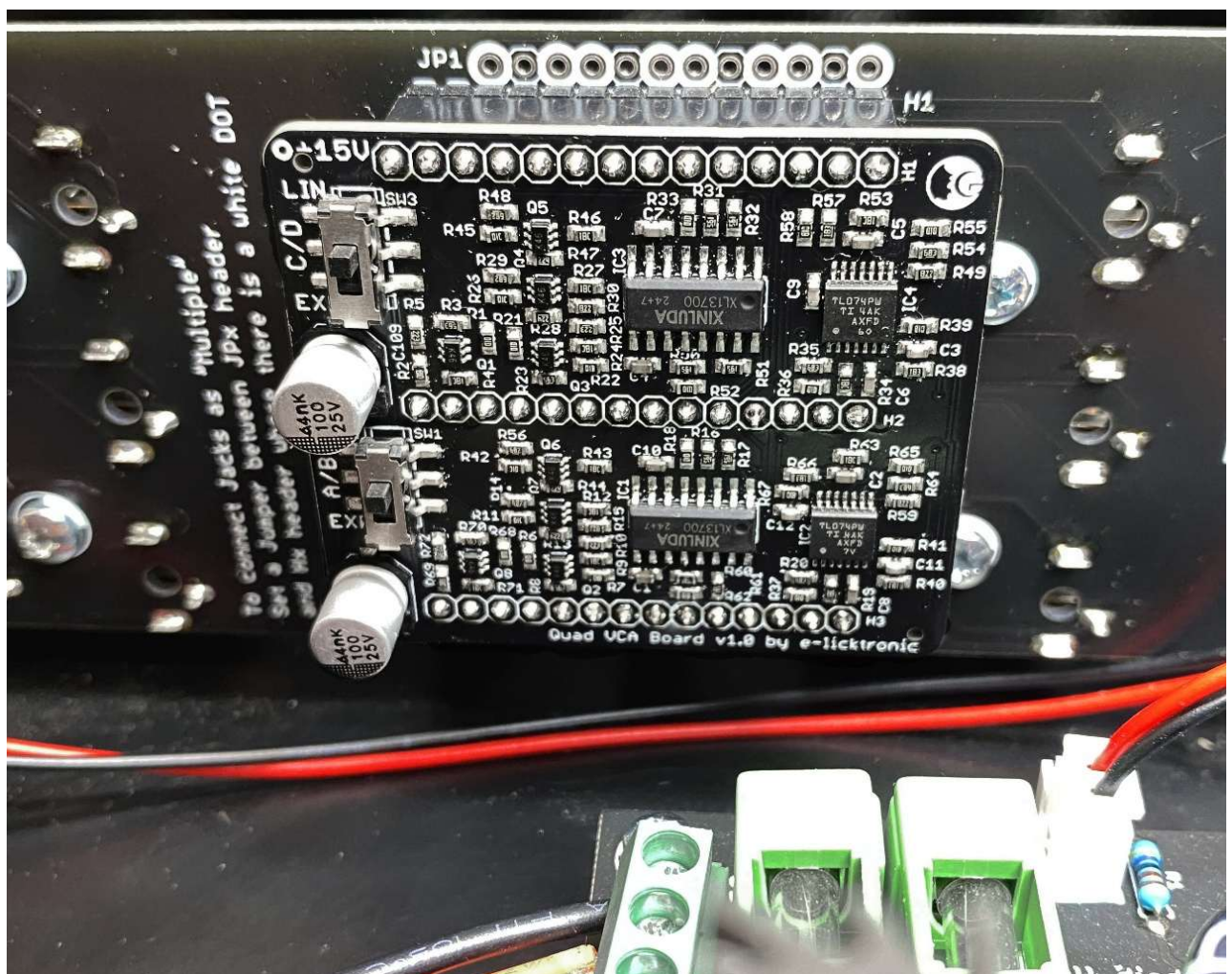


Connect the cable to the PSU board XTRA_PW connector

INSTALL THE QUAD VCA BOARD ON THE MULTIPLE JACK BOARD

Warning: Take care of the orientation of the Quad VCA Board. It must be like on the picture

(You can select either the central position or the right position depend on your choice and configuration)



FINISHING

Select what curve you want for VCA response. You can choose between EXPonential of LINear. Example: if switch A/B is placed on EXP, the VCA 1 and 2 will be exponential and same thing for C/D corresponding to VCA 3 and 4.

You can now close the M-191X case and stick the 3M Overlay on the position you choose for the Quad VCA board.



**YOU ARE DONE AND ADD
Quad VCA to your M-191X
System 100m Case.
CONGRATULATION!**