How to make the d8b PSU/CPU fanless

Do this only if you know what you are doing and if you want to use your d8b as a pure DAW controller !

Warning: you will loose the Audio functionality of the d8b except the monitor controller function

Parts that you need:

1. **Power supply**

2. **Cables 1,5mm2 for wiring, different colors (black or brown, blue, yellow/green)**

Power supply 12V 102Watt or more

Within EU order at: www.reichelt.de →choose your country and language for ordering !

Ordernumber: SNT RS 100 12   Switching power supply 102W, 8.5A 12V

for people in UK: https://www.reichelt.at/switching-power-supply-102-w-8-5-a-12-v-snt-rs-100-12-p137107.html?r=1

Modification

1. Power off, d8b and disconnect the CPU/PSU from 230V/110V that you do not hurt yourself.
2. Remove the cover from the Compute Power supply

3. Disassemble the computer power supply and disconnect ALL connectors from mainboard, floppy disk, harddisk. You have to remove the power supply totally. This will make the CPU dead. Remove computer power supply (the red marked).
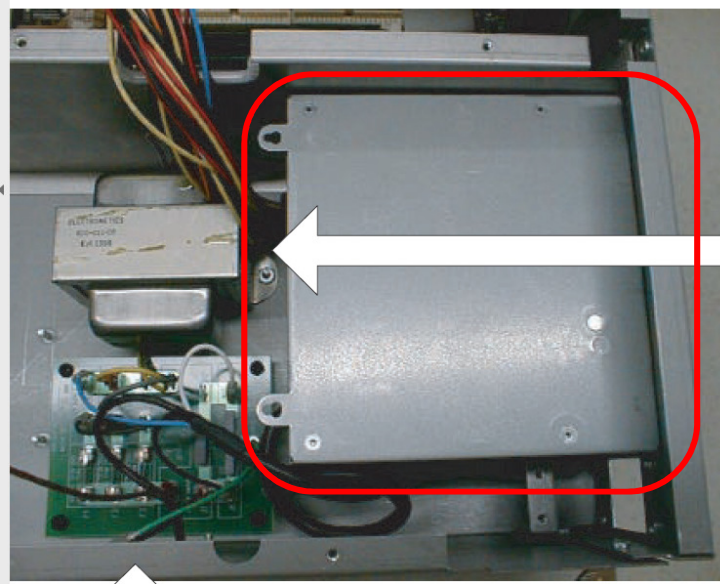
IMPORTANT ! Also disconnect the plug "A" in the picture downwards. Cut this connecter from the power supply in a way that you have the most possible cable length! You will need this cable for the new power supply.
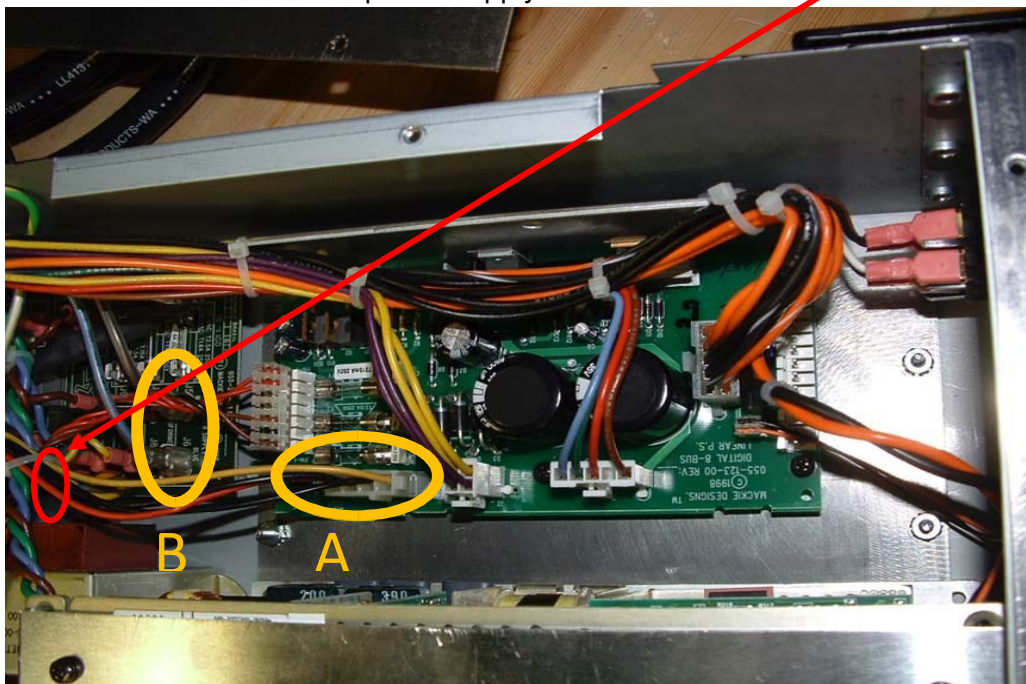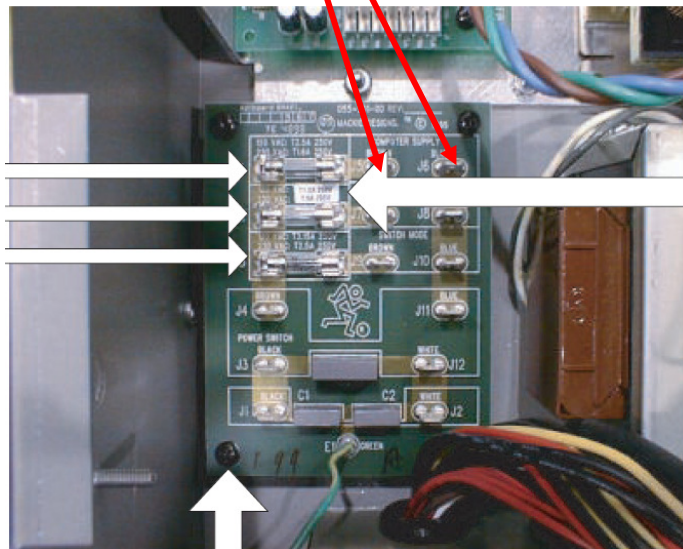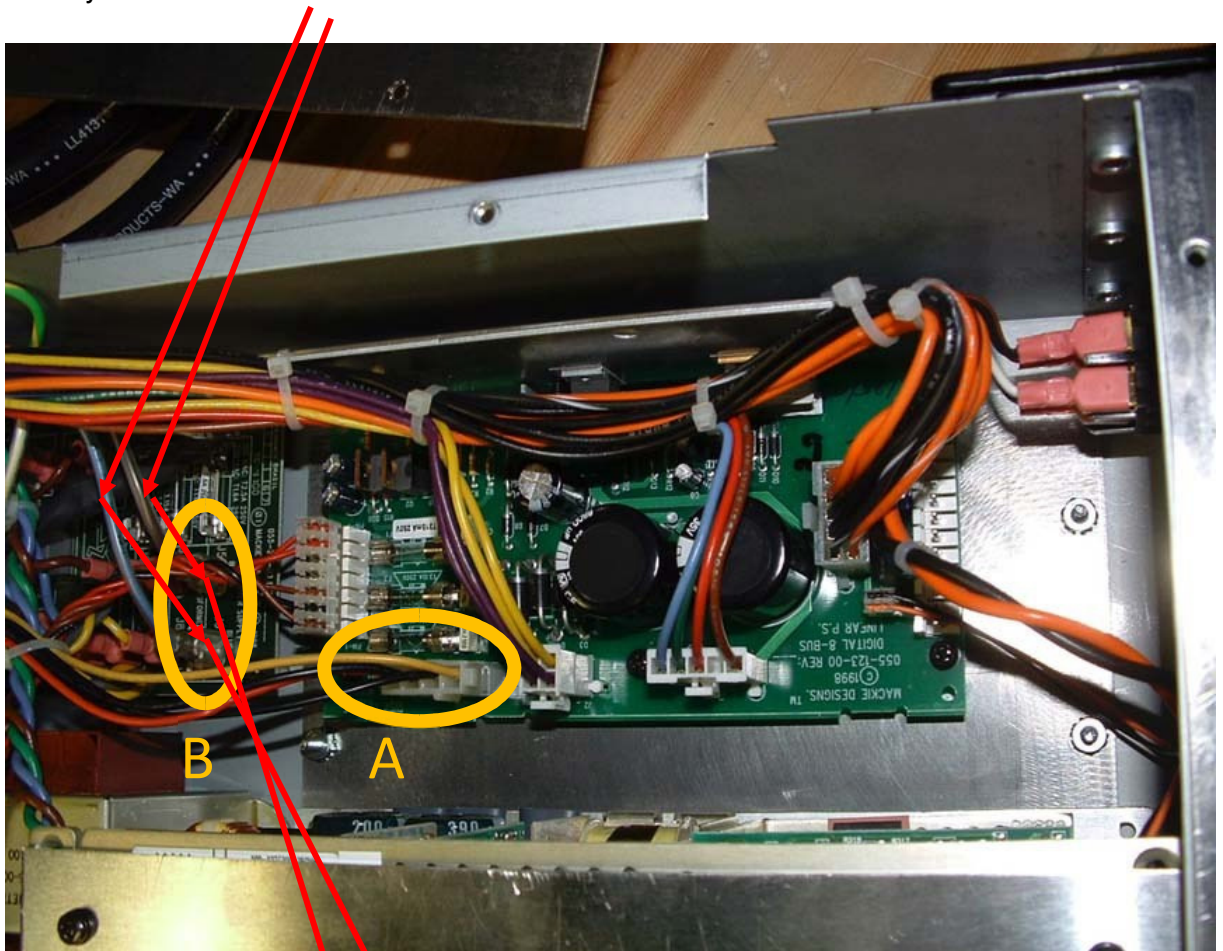

You need this with a cable length as long as possible:

Also disconnect the connector "B" (brown and blue cable). Follow the red arrows to identify them.

4. Mount the new fanless 12V power supply to the location of the old computer power supply that you have removed.

5. The supply has the following connections:


L = 230/110V phase (brown or black)
N = 230/110V neutral (blue cable)
-V = GND of the 12V supply → to the yellow of your cutted connector
+V= +12V → to the black of your cutted connector

6. Connect the primary 230/110V connectors to the connector "B". blue is N, brown is phase L (110V/230V). Fuse should fit, keep the old one for the beginning. Maybe you have to change it to a stronger value but as long as it works keep it as it is.
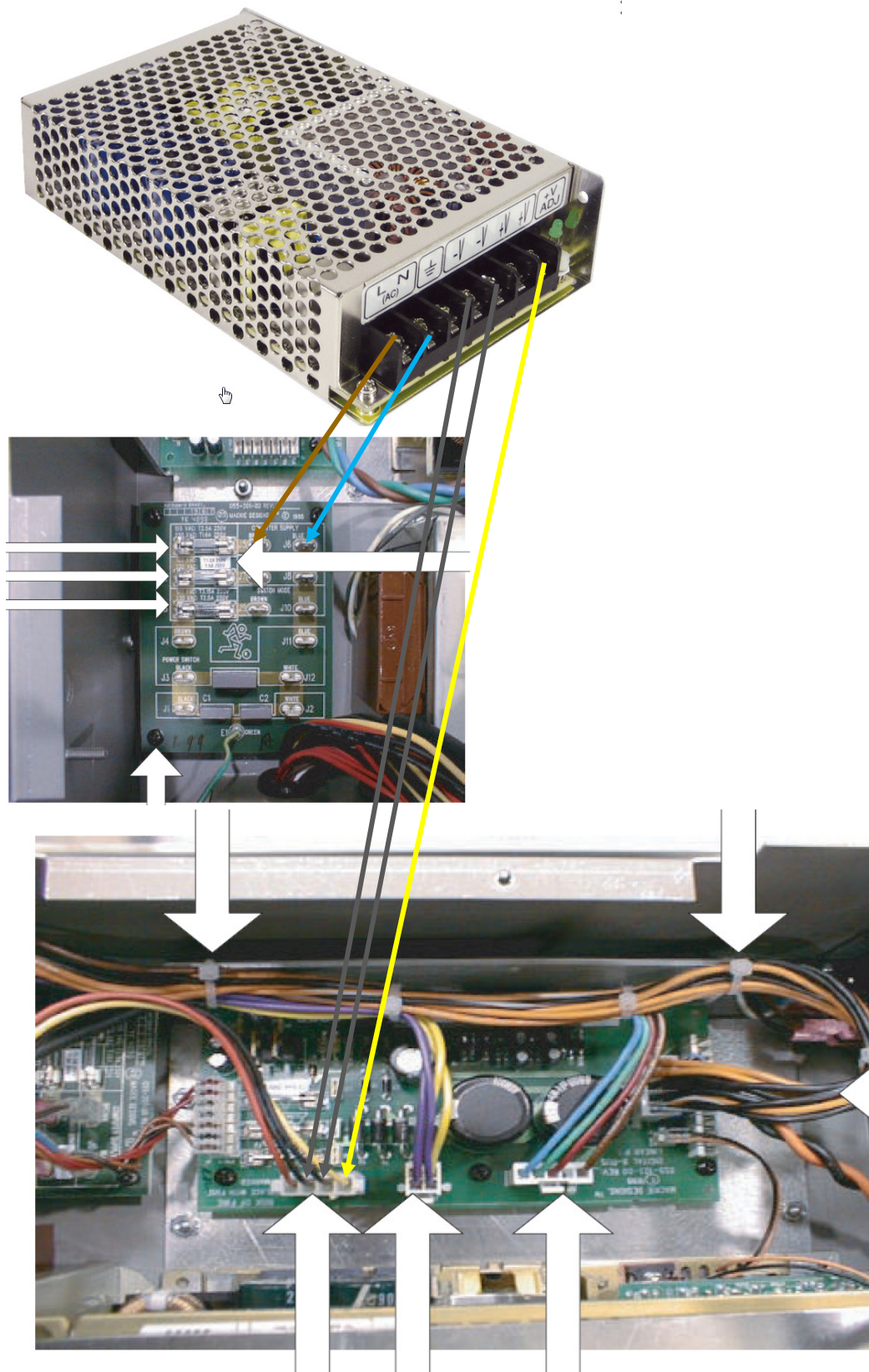
7. Connect the cable that you have cutted from the computer power supply to your new fanless 12V supply.   Yellow should be +V (12V)   the black cables should be -V (GND). NOTE: from the white cutted connector (red,black,black,yellow cables) connect both black to GND!. The red cable is not connected !!

8.   Grounding (Motor /digital) Modification in the console !!!
As you loose the ground connection between MGND and DGND when you do this adaption, you have to make this connection by yourself again:
You have to solder/mount an electronic connection on the red marked connectors
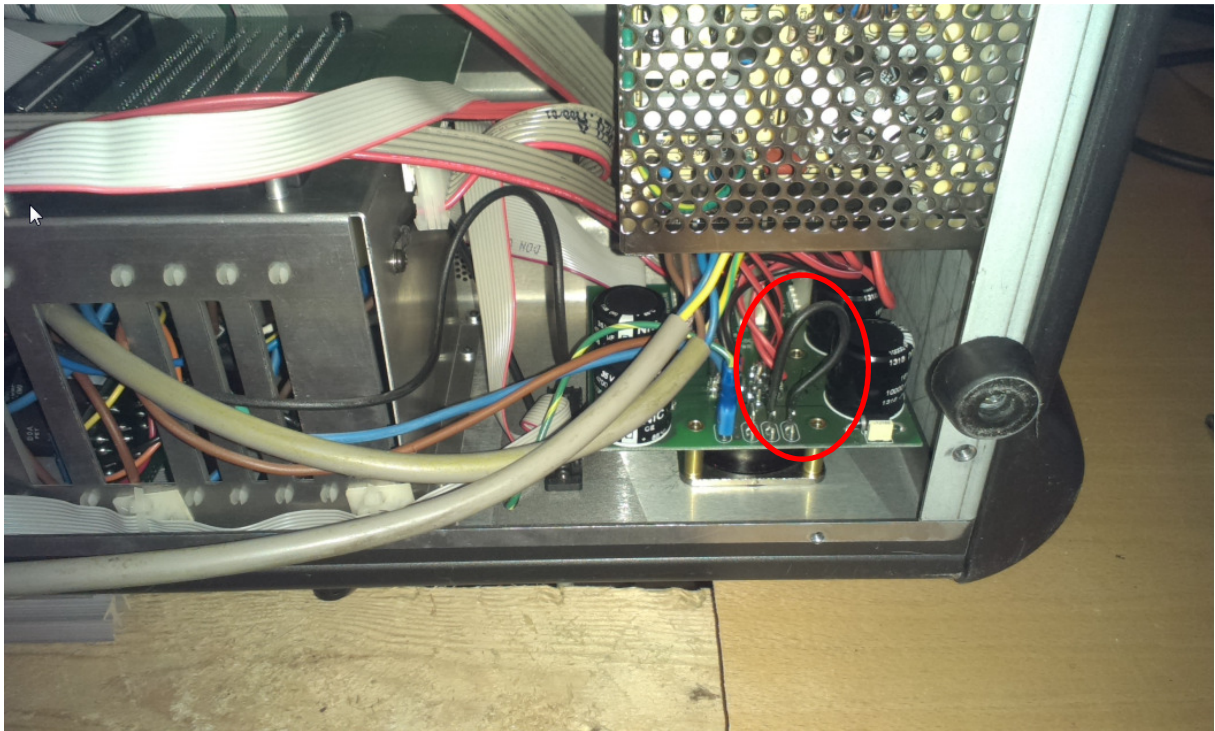
see the black cable loop in the red circle.
you have to connect the two right pins (from the 4 existing)

Problems, only if something doesn't work

If you have a missing GND connection or not the 12V on your system, the VPots and Faders will go crazy. The reason ist the AD-converter. It is supplied by the 12V for the reference voltage. This ADC is used to digitalize all Faders and Vpots. To check if the voltage is ok for the ADC you can measure on the pins of the Brainboard.

Use Multimeter in DC Voltage mode (20V)

You should measure on these pins on the picture about 12Volts
put the black tip to the black points on the graphics and the red pin to the red ones.