

Installation Instructions

Step 1 :

- DISCONNECT FROM POWER SOURCE !!!
- Remove portafilter
- Remove backflush pipe (fig. 1.1)
- Remove the flush tray
- Remove water tank lid
- Remove water tank

Step 2 : Disassemble the machine

- Unscrew the 2 screw from the top lid (fig. 2.1)
- Remove the upper lid (disconnect the ground wire)
- Before starting to remove any wires and disconnect any plugs it is best to take notes, make pictures and number all the plugs inside (fig. 2.2). This step is optional and it is required only if you intend to undo the modifications back to the original state at a later date.



Fig. 1.1



Fig. 2.1

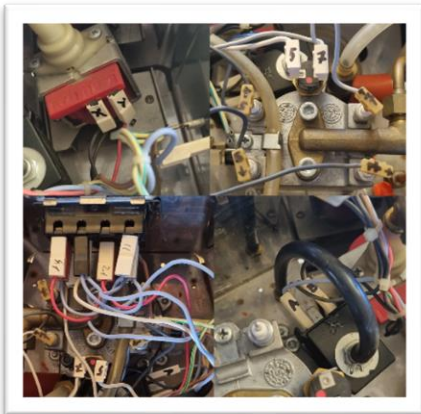


Fig 2.2

Step 3 : disconnect and remove unnecessary wires

- Starting from the buttons panel remove the wires from left to right using a straight screwdriver (looking from behind : from brew button to power button, from 4 to 1) (fig. 3.1)

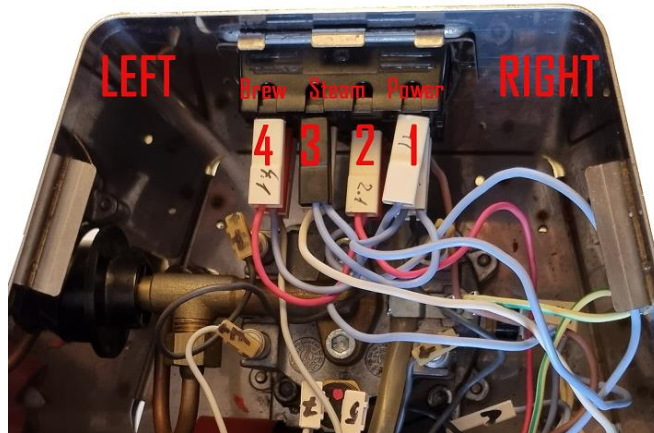


Fig. 3.1

- Remove from 4 the red cable (this cable make connection between 4,2 and the pump)
- Remove from 4 the bleu cable (this cable make connection between 4,3,1 and the right side temperature sensor)
- The 3th cable from 4 position will remain in place for now
- Remove from 3 the white cable (this cable make connection between 3, the right side temperature sensor and the upper temperature sensor)
- Remove from 2 the bleu cable (this cable make connection between 2 and the 3 way solenoid valve)
- Remove the right side temperature sensor using the provided 3D printed wrench
- You have removed 4 cables and 1 sensor and your actual state is shown in (fig. 3.2)

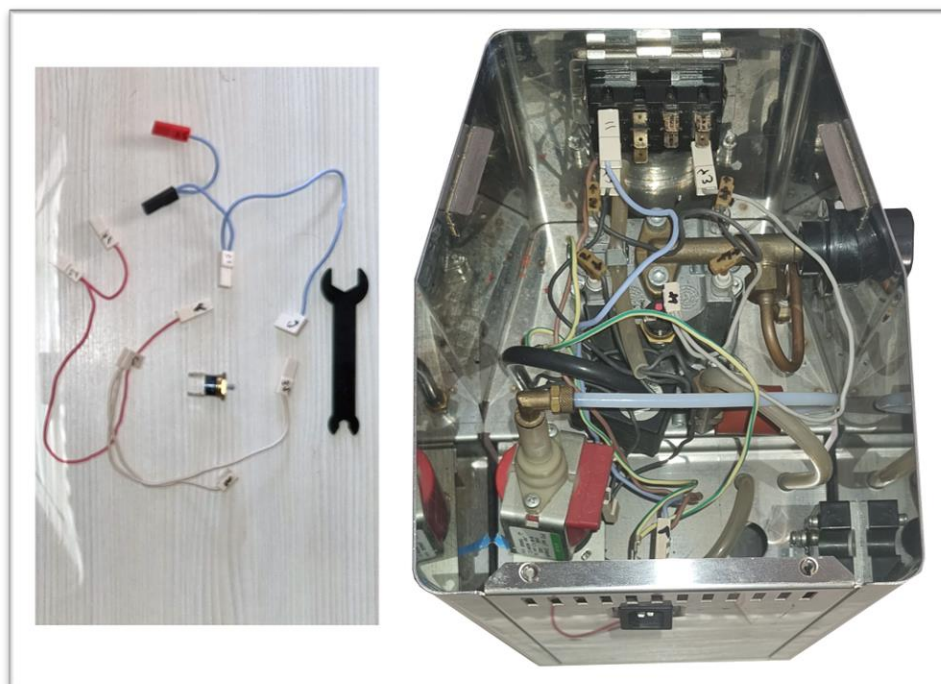


Fig. 3.2

Step 4 : Attach the housing of the electronic components

- You will mount the case on the back of the machine on top of the main power plug
- Take out the power supply plug , you will need to put little force from inside by squeezing left and right side of the plug. (fig. 4.1)
- Remove the wires plugs from the power supply block and let them inside
- Clean around the plug hole with acetone or alcohol to remove any grease.
- Get the main case from the package
- Remove all 4 screws and put aside the top lid
- Prepare to glue the case on the back on top of the hole aligning the 2 holes as best as you can
- Once you aligned the case and visualised the position take down the adhesive tape protections from the case and press firmly the case in place.
- Get the wires through the hole inside the case and mount the removed power module in the new mounting hole on the upgrade case (fig. 4.2)



Fig. 4.1



Fig. 4.2

Step 5 : Installing the solid state relay inside

- Take out the relay and the SSR Cable Boiler from the package box (fig. 5.1)



Fig. 5.1

- Connect the SSR CABLE -5V+ to the relay to 3-32VDC ports , red to positive (+) and black to negative (-), then connect the remaining SSR CABLE BOILER to the upper left port (the other port would be ok to but for the future installation steps is better this way) (fig. 5.2)

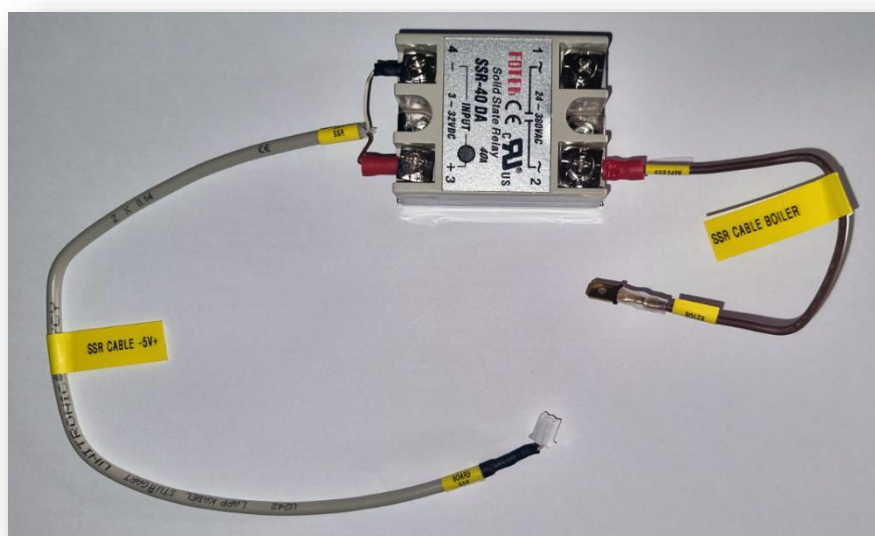


Fig. 5.2

- Prepare to glue the relay inside. Mounting position will be to the back left side at 3cm high from the inside floor and 3cm from the back, looking from the behind the machine . (fig. 5.3)

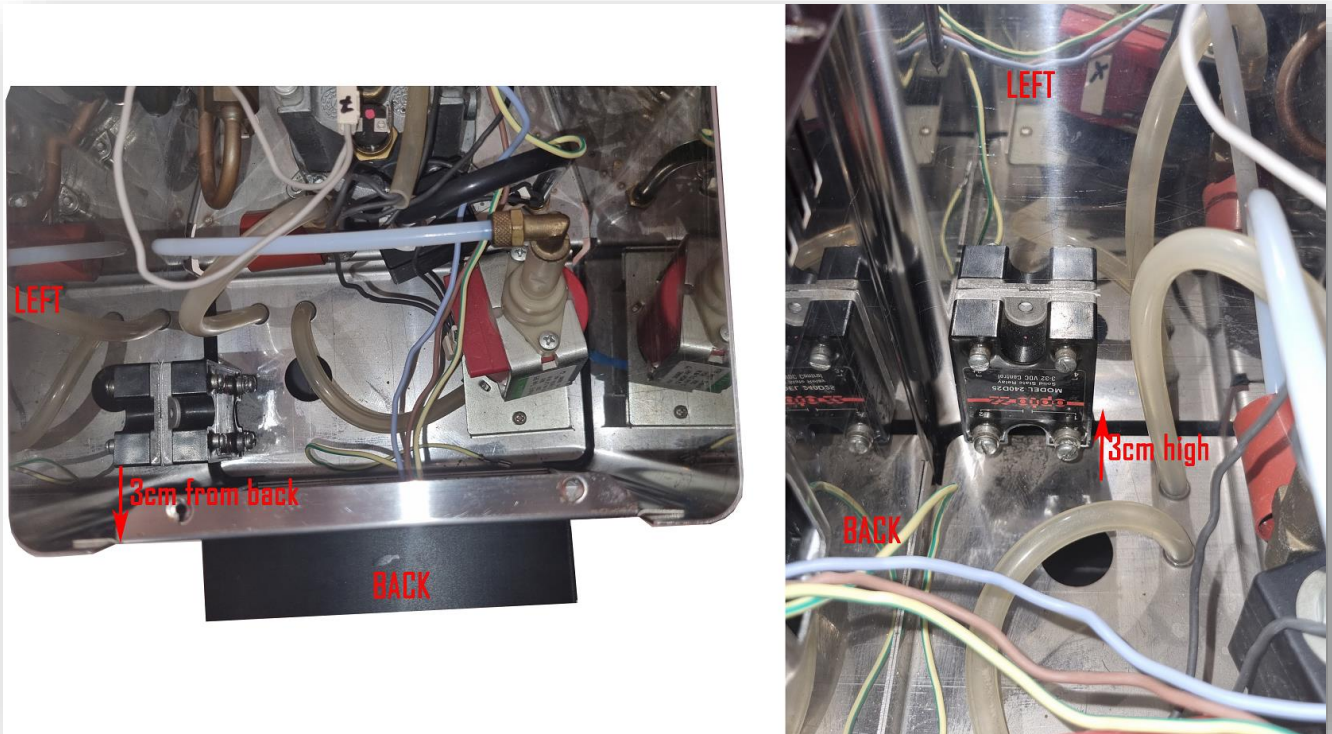


Fig. 5.3

- Once the position have been tested remove the adhesive tape protection and put the relay in place with the 2 connected plugs down and single plug connected up right and press firmly . Cable connections are better to be made before the mounting process because the access after will be harder. (fig. 5.4)



Fig. 5.4

- Disconnect from 4 the remaining plug from grey cable (from buttons module) and connect it to the remaining SSR CABLE BOILER from SSR
- Get the SSR CABLE -5V+ out through the hole in the external PCB board case.
- Connect the SSR BOARD end of the cable to the main board (fig. 5.5)

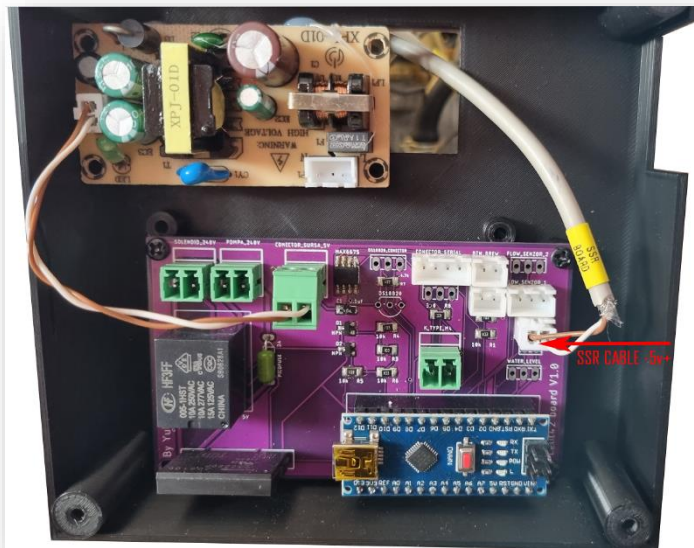


Fig. 5.5

Step 7 : buttons panel connections

- Take the BUTTON CABLE from the package and make connection between buttons panel and the main board. Pay attention to the wire colours because you need to connect 1 brew plug and 1 steam plug to the main board as specified in fig. 7.1 and the corresponding ends to brew button and steam button. Keep the same colours from the board to the panel for the same button.

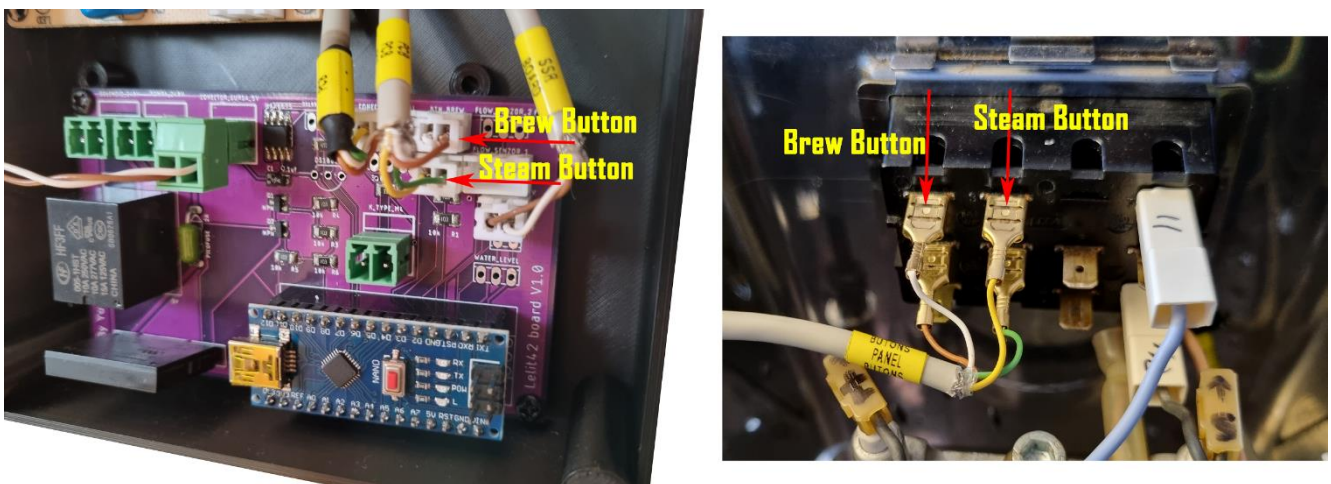


Fig. 7.1

Step 8 : Install K-Type temperature sensor

- Take the type-k temperature sensor from the package and make connection between the main board and the temperature sensor hole left empty after the removal of the original sensor. Use

the provided 3D printed tool for help with the m4 plug of the sensor (fig. 8.1) . First screw the M4 sensor plug then pose the cable to main board case and plug it in.(fig. 8.2)(fig. 8.3)

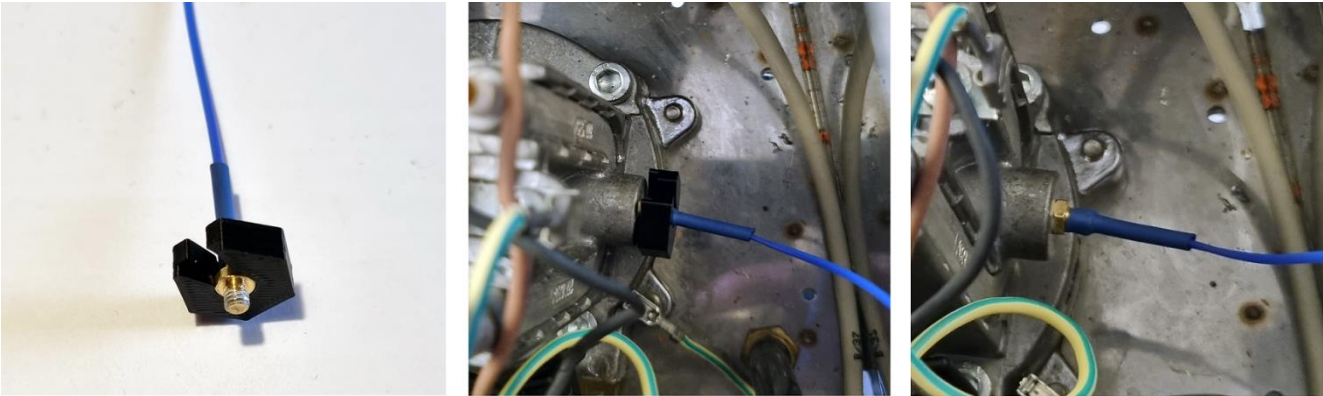


Fig. 8.1

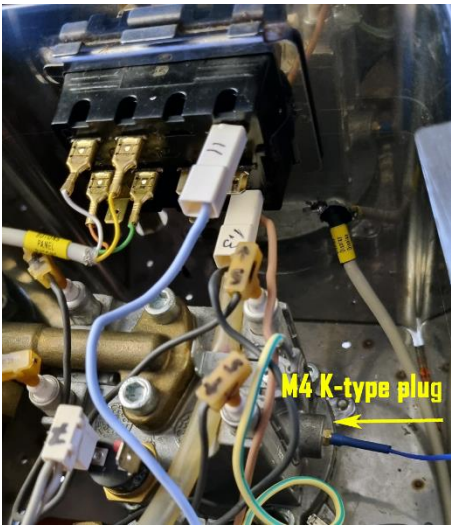


Fig. 8.2

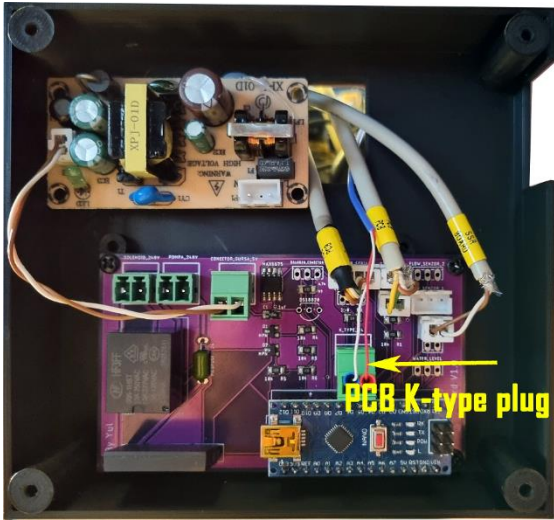


Fig. 8.3

Step 10 : Install the Power&Control cables

- Mount the original power module, connect the earth wire, then connect the blue wire coming from the button panel in position 1 , the unconnected brown wire will remain in air for now (fig. 10.1)

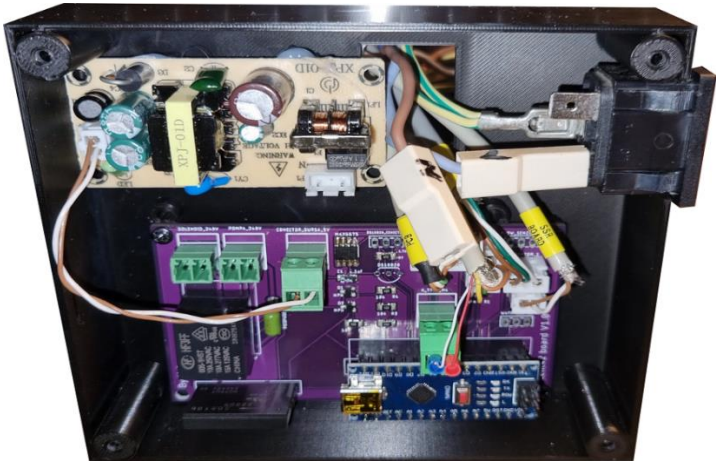


Fig. 10.1

- Take out the POWER&CONTROL CABLE and prepare to install it
- Insert the 240V PCB MODULE connector in the power board and “240V IN” split connector to the original power module (fig. 10.2), then connect the remaining original brown wire in the spliced connector on original power module (fig. 10.3)

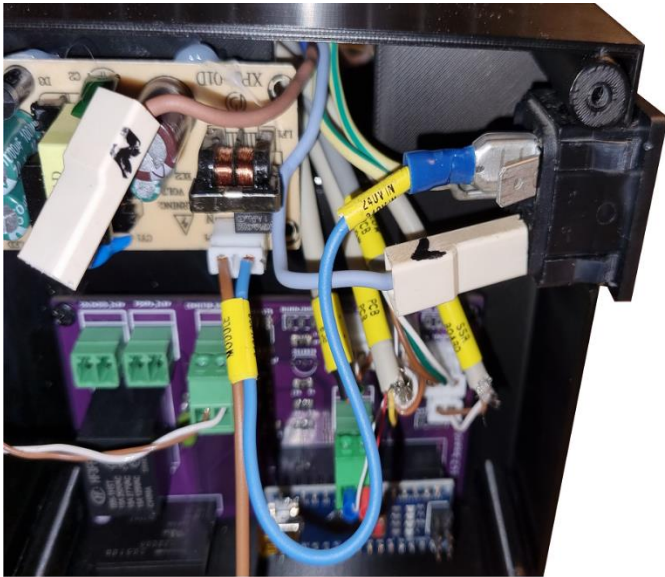


Fig. 10.2

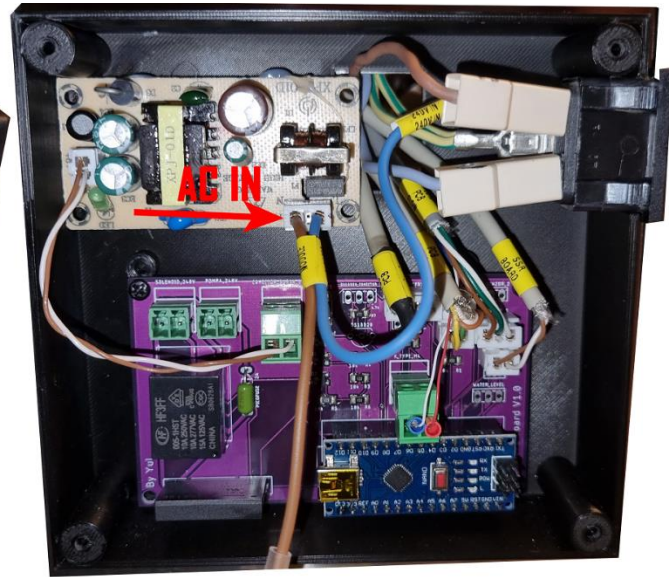


Fig. 10.3

- Take the POWER BUTTON connector and pass it through the hole and connect it to button panel in position 1 (fig. 10.4)

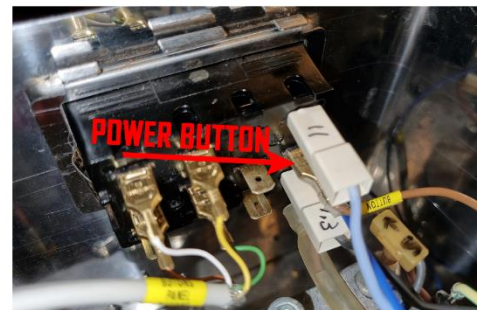
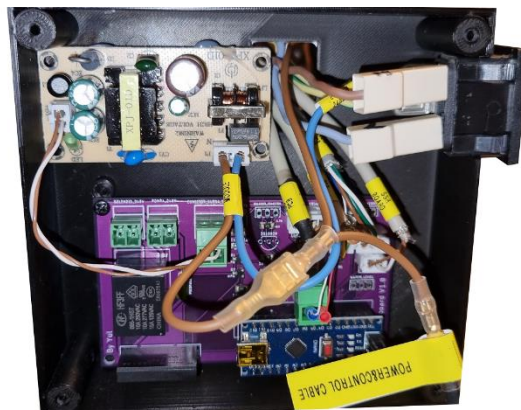
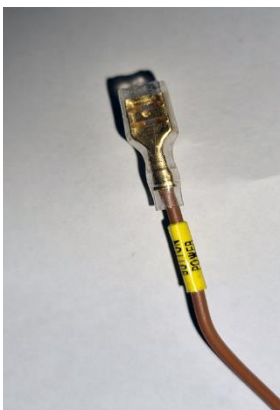


Fig. 10.4

- Take “SOLEN.” Connector and insert it in solenoid slot on main board (fig.10.5)
- Take “PUMP” connector and insert it in pump slot on main board (fig.10.5)

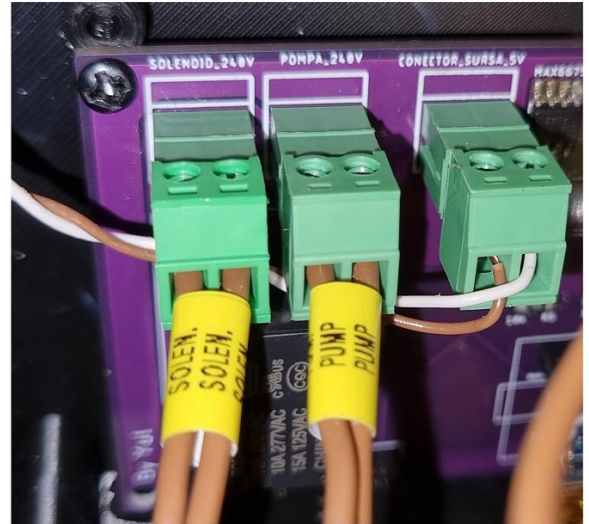
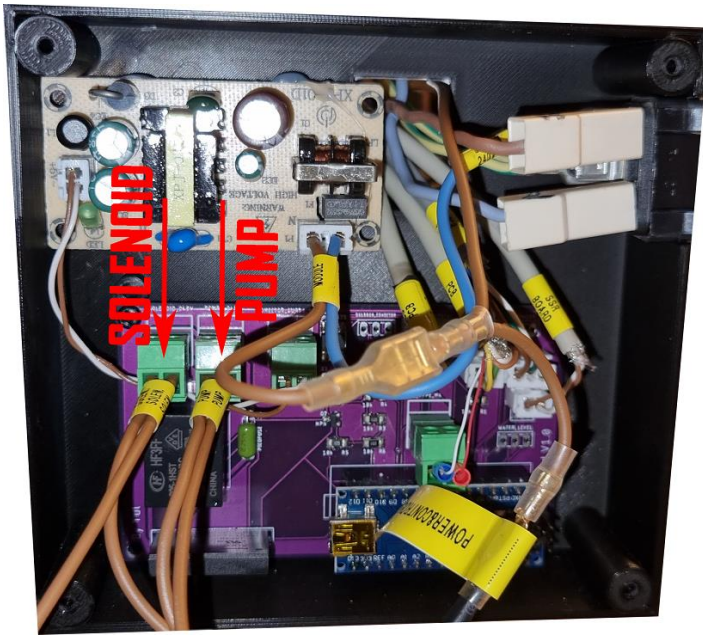


Fig. 10.5

- 3 cables are left unconnected, connect them as follow
- PUMP connector will go to the pump (fig. 10.6)



Fig. 10.6

- SOLENOID connector will go to 3 way valve. If you don't have the 3 way valve then this cable does not need to be connected. Insulate it. (fig. 10.7)

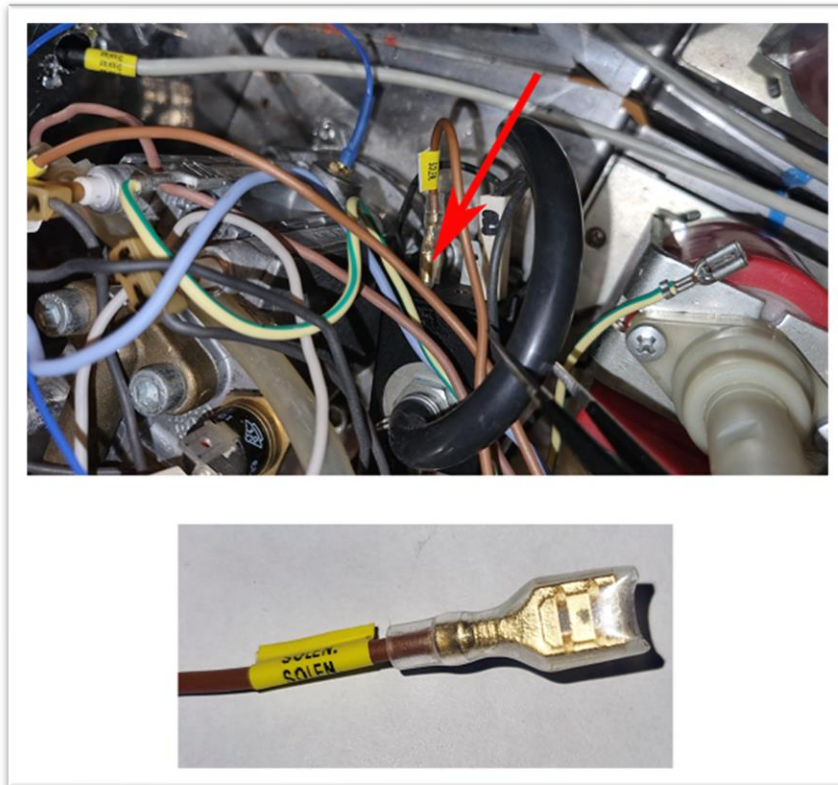


Fig. 10.7

- SSR 240V connector will go to SSRelay on the empty slot left (fig. 10.8)

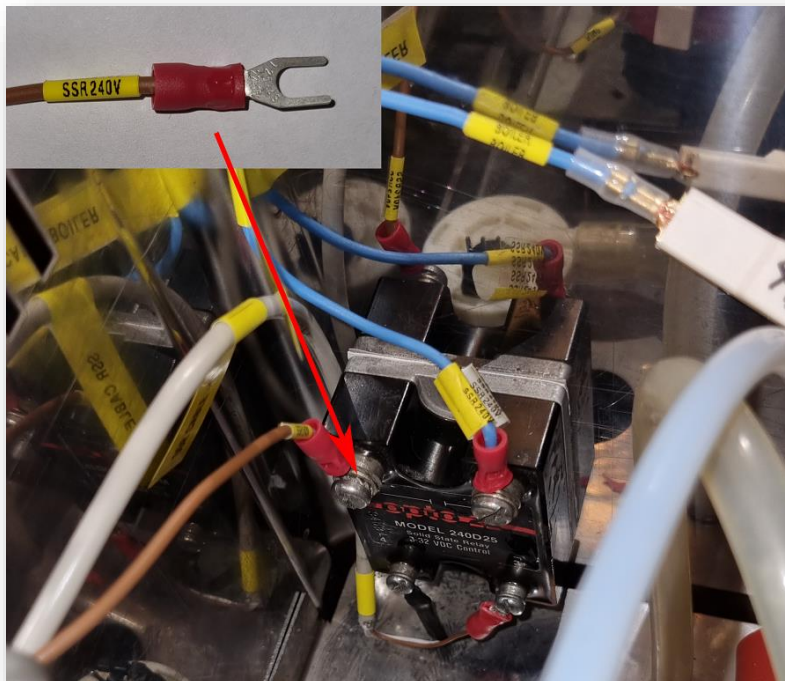
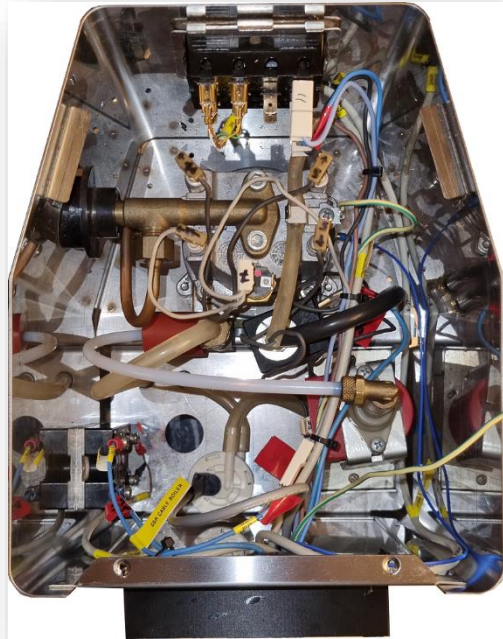
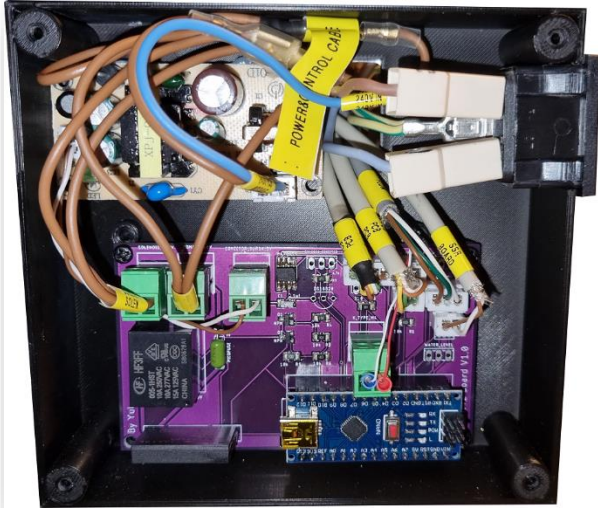


Fig. 10.8

Step 11 : The last check out.

- arrange the cables, tie them with pins, check all the plugs and make sure they are insulated and not touching the case.



- Close the main upgrade board case
- Mount the cafe machine cover back and do not forget to attach the ground wire to it.

Warning !!! The coffee machine operates under high voltage and that can harm you. Check the connections twice and do not power up the machine without the top cover.

We cannot be held responsible by any harm you may experience because of bad installation or manipulation.

ENJOY !!!