

Installation Instructions

Step 1 : Disassemble the machine

- DISCONNECT FROM POWER SOURCE!!!
- Remove portafilter
- Remove water tank lid
- Remove grinder cover
- Take out from the water tank the 2 hoses
- Remove water tank
- Unscrew the 2 screws (fig. 1.1)

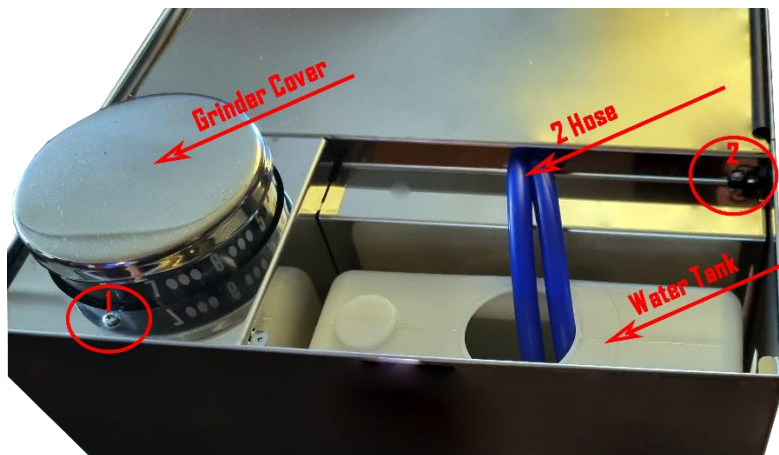


Fig. 1.1

- To remove the upper case, you need to push the 2 hoses inside about 5 cm, then start pulling out the cover. Once the cover starts to lift and you can access the interior, completely remove the 2 hoses from the hole. Then remove the lid completely. (fig. 1.2)

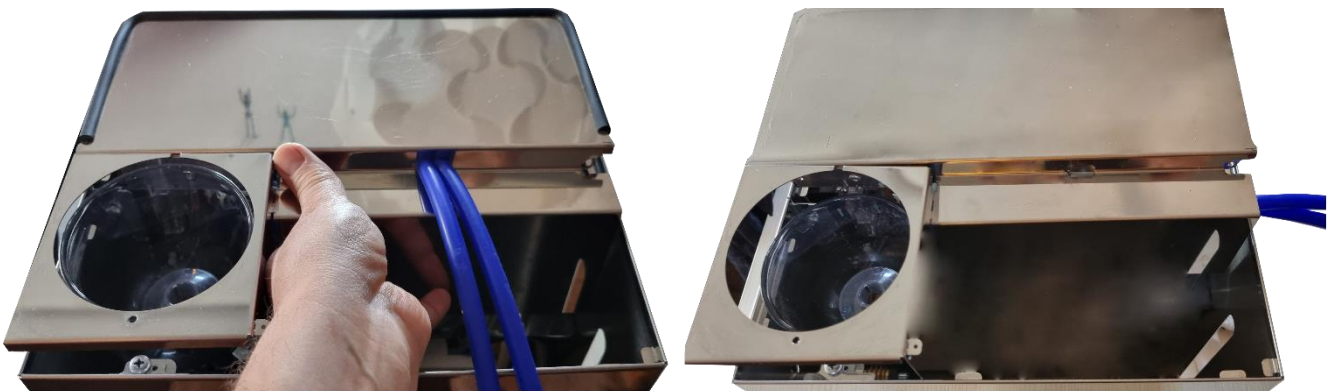


Fig. 1.2

- 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. 1.3). 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.

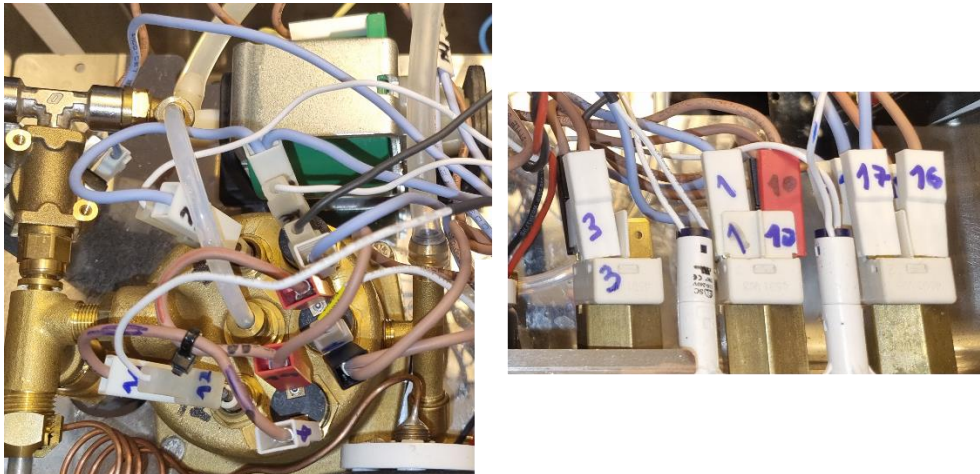


Fig. 1.3

Step 2 : 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 Power Btn. to Brew Btn., from 1 to 3) (fig. 2.1). All the plugs are marked with numbers and letters in fig. 2.1 . We will use those notations further.

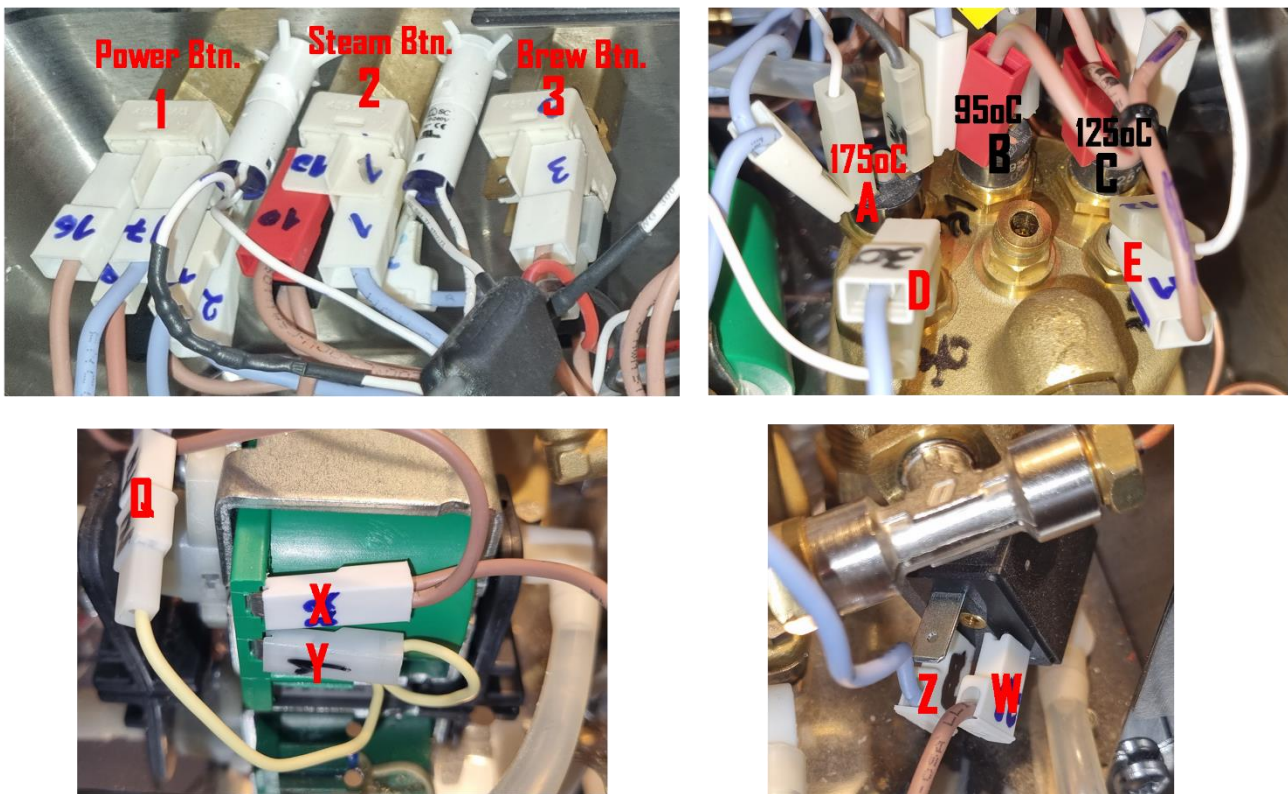


Fig. 2.1

- Remove from 2 (Steam Btn. left-up position) the brown wire with red plugs (this cable make connection between 2, C and B) (fig. 2.2)
- Remove the small brown wire white plugs connecting C with E (fig. 2.2)

- Remove from 1 (Power Btn. Left-down position) the brown wire with black plugs (this cable make connection between 1, B, 2 and 3)(fig. 2.3)

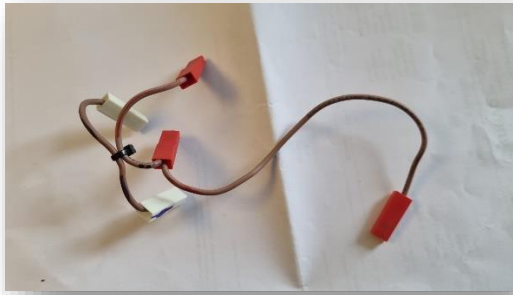


Fig. 2.2

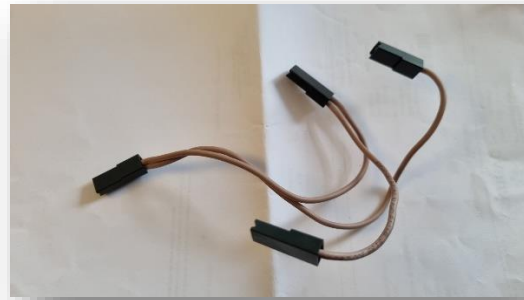


Fig. 2.3

- Remove from 2 (Steam Btn. right-down position) the bleu wire with white plugs. (this cable make connection between 2 and Z (3 way solenoid valve))(fig. 2.4)

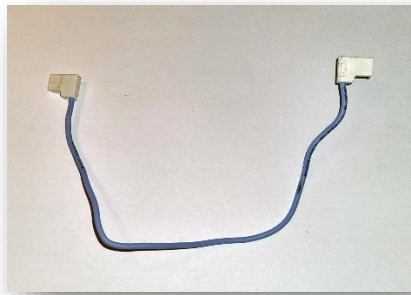


Fig. 2.4

- Remove from 3 (Brew Btn. right-up) the brown wire with white plugs. (this cable make connection between 3, X and W)(fig. 2.5)

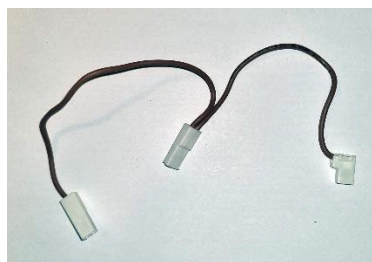


Fig. 2.5

- Unplug the remaining plug from B (95oC) (power led wire) and plug it into 1 position brown side (Power Btn. left-down)(fig. 2.6)

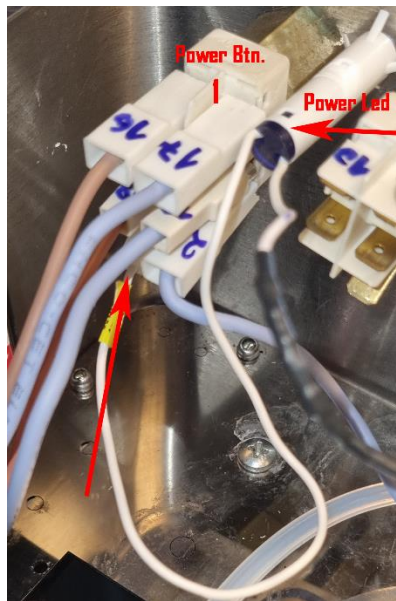


Fig. 2.6

- Unplug the remaining plug from 2 (Steam Btn. right-up) and connect it to Z (3 way Solenoid Valve) (fig. 2.7)

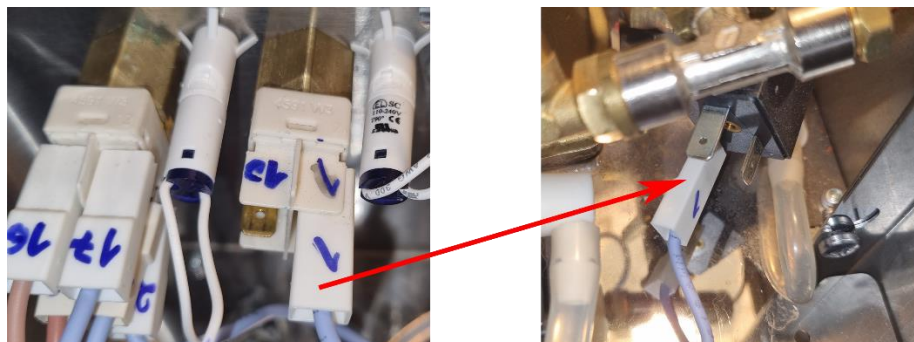


Fig. 2.7

- Unplug the remaining black wire from 3 (Brew Btn. right-down) and plug it to 1 position brown side (Power Btn. left-down)(fig. 2.8)

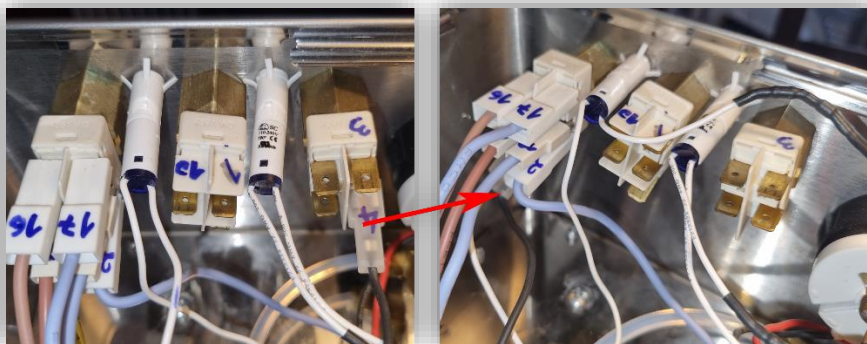


Fig. 2.8

- Remove from B position the 95oC Thermistor using the provided 3D printed 17mm wrench or use a metal wrench if the thermistor it's too tight. (fig. 2.9)

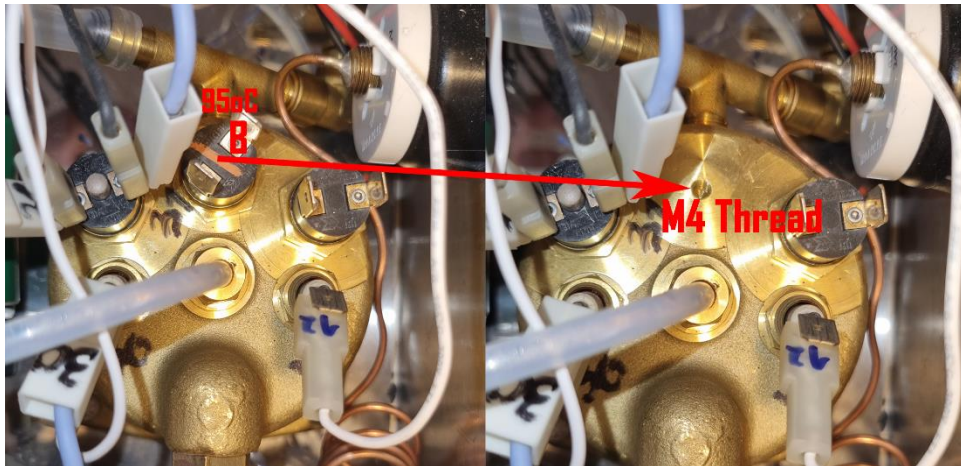
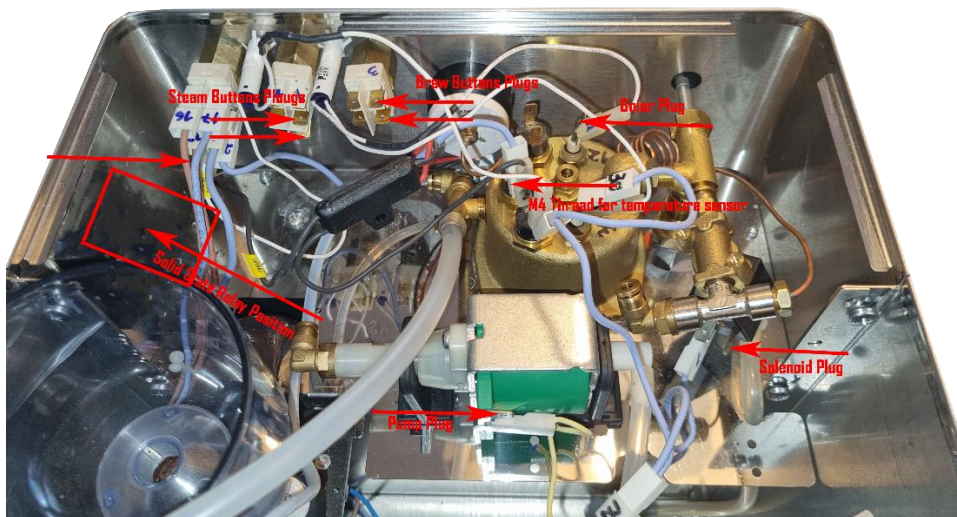


Fig. 2.9

- We are ready to move forward. We prepared the connections for the next step (fig. 2.10)



Step 3 : Attach the Solid State Relay.

- Take out the relay from the package box (fig. 3.1)



Fig. 3.1

- Prepare to glue the relay inside. Mounting position will be to the left side. Use an approximate position like in (fig. 3.2)

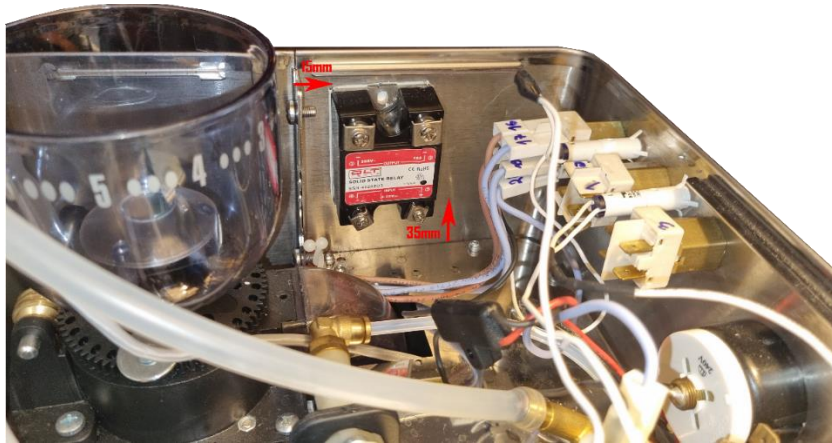


Fig. 3.2

- Once the position have been tested remove the adhesive tape protection and put the relay in place and press firmly.

Step 4 : Flow meter install

- The meter will be installed on the pump hose. Cut the hose at 20 cm from the pump like in (fig. 4.1). We will not use the remaining hose.

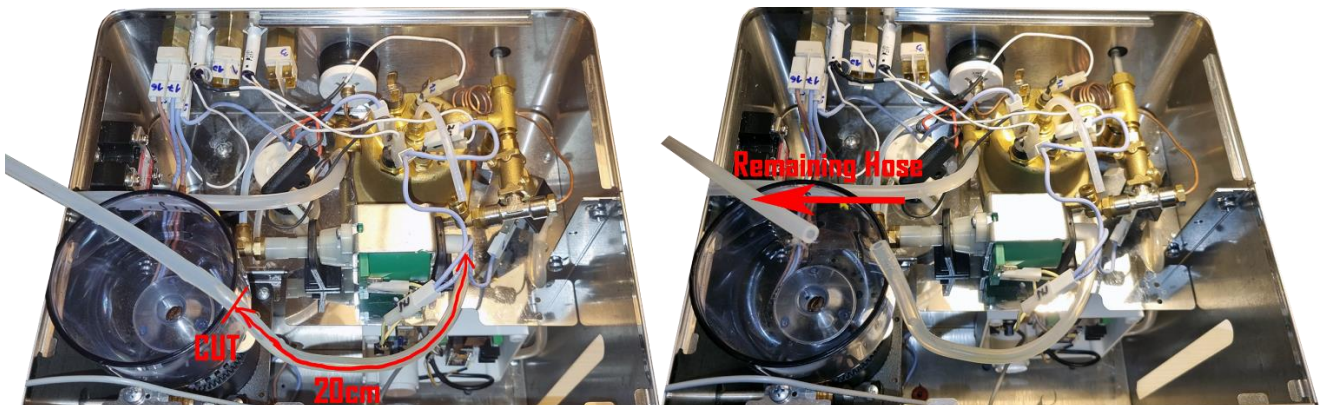


Fig. 4.1

- Take the PUMP HOSE from the package and the flow meter (fig. 4.2)



Fig. 4.2

- Take the flow meter from the bag, remove the adhesive tape protection and stick it in position like in (fig. 4.3). You can remove only the sensor after by pulling up for better access. The base will remain glued.

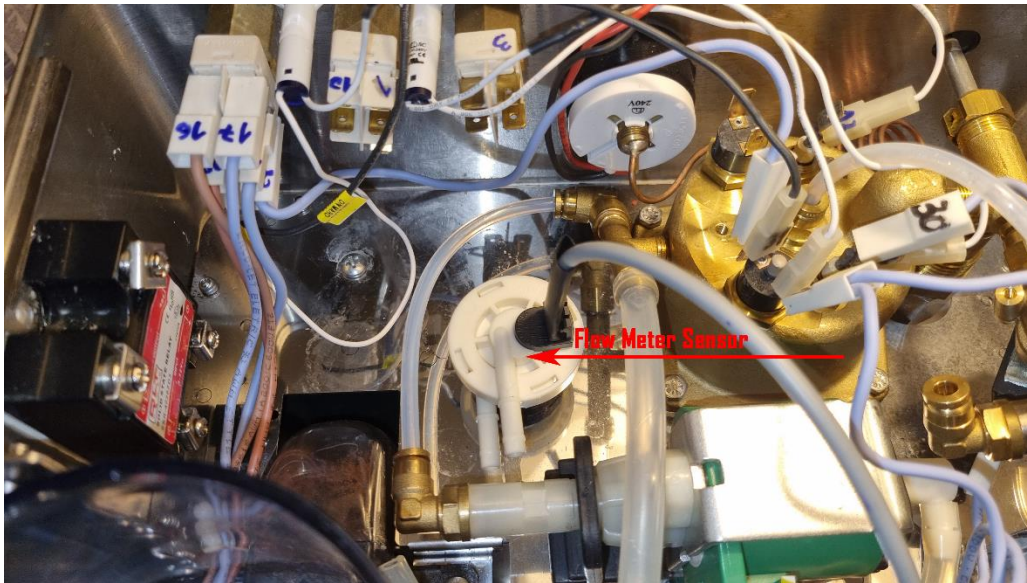


Fig. 4.3

- Take the modified hose attached to the pump and plug it in the flow meter sensor in the upper position, then take the provided HOSE from the bag and plug it in the flow meter in the bottom position, this one will go to the water tank (fig. 4.4)

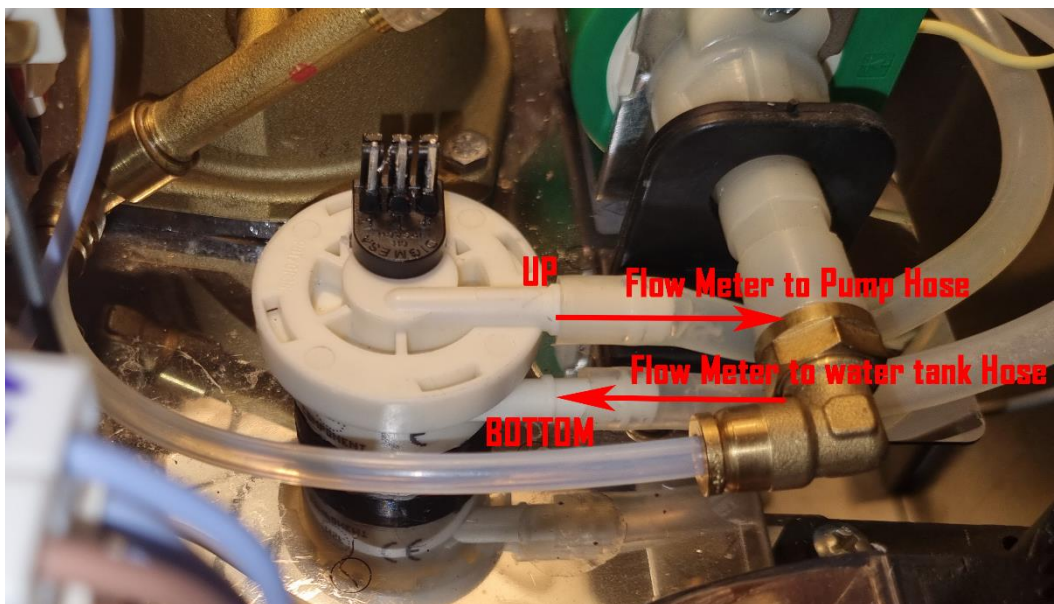


Fig. 4.4

Step 5 : Display Install

- We will attach the display on the front-right like in (fig. 5.1).



Fig. 5.1

- The cable from the display will be positioned on the outside and will enter the inside of the machine through a slot near the exit of the grinder. That is why the display need to be glued 5mm lower than the bottom front panel so the cable can go out behind the display case and under the bottom front panel (fig. 5.2)



Fig. 5.2

- Remove the 4 screws and open the display case (fig. 5.3)

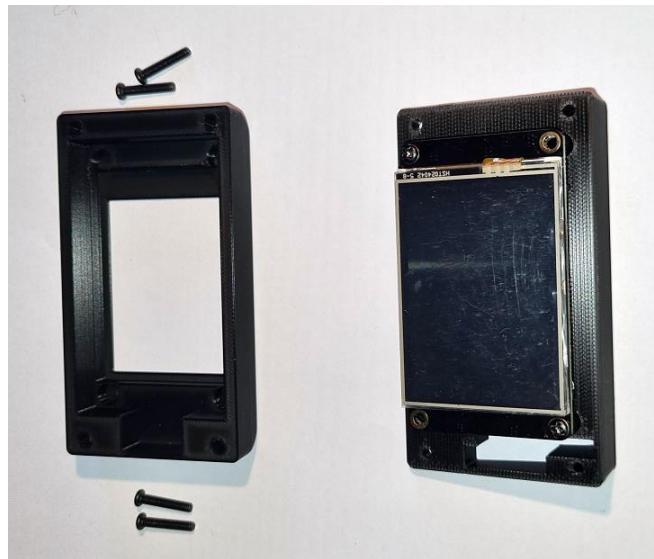


Fig. 5.3

- Install the DISPLAY CABLE in the display case and plug in the "Display" end of the cable into the screen plug. (fig. 5.4).



Fig. 5.4

- remove the adhesive tape protection and attach the display on the lower front like in picture 5.1 so that the cable remains hidden behind the display case and under the group head floor
- install the display case front and put back the 4 screws
- insert the DISPLAY CABLE through a slot near the exit of the grinder and push it inside the machine. We will attach it later to the main board.

Step 6 : Attach the housing of the electronic components

- You will mount the case inside the machine behind the water tank. (fig. 6.1)

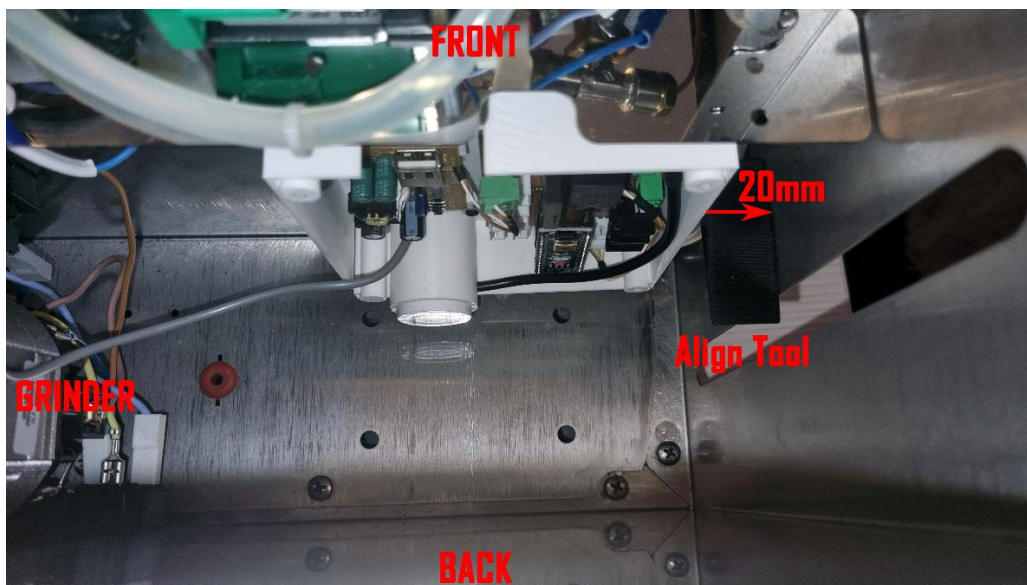


Fig. 6.1

- Get the main case from the package
- Remove all 4 screws and put aside the top lid
- Get all the remaining cables from the package (fig. 6.2)



Fig. 6.2

- Install them into the main board case as described in the next steps. You can install them with the main board case on the working table.

- Plug in the BUTTONS CABLE - PCB plugs (PCB3 BREW, PCB2 STEAM) and let the rest of the cable outside the case through the big hole (fig. 6.3)

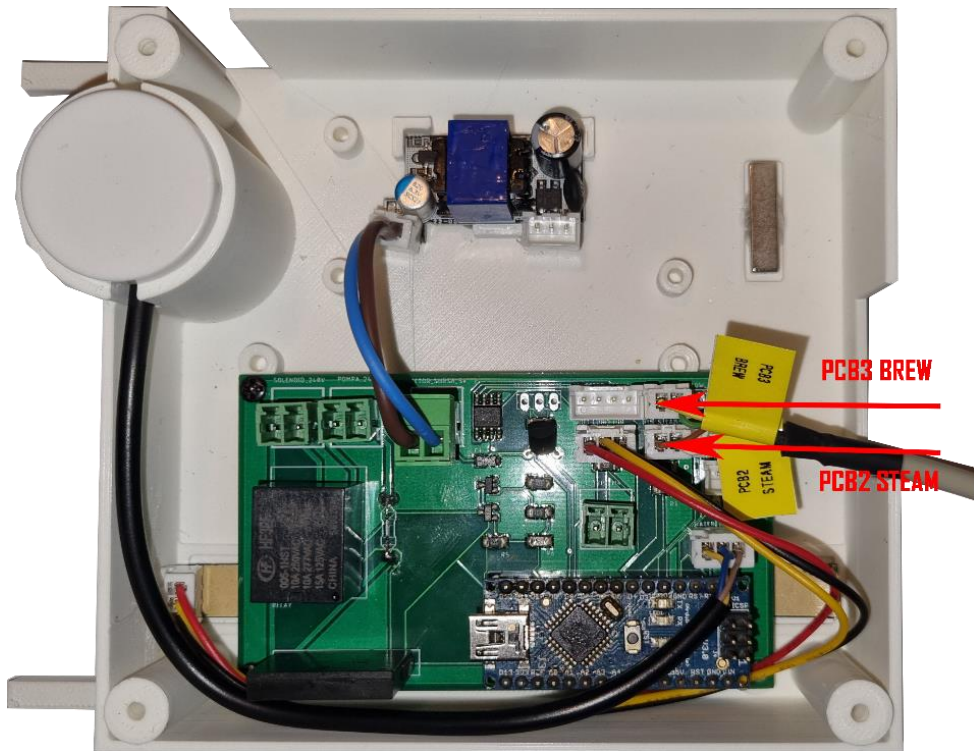


Fig. 6.3

- Plug in the SSR CABLE -5V+ - PCB plug (PCB4 SSR) and let the rest of the cable outside the case through the big hole (fig. 6.4)

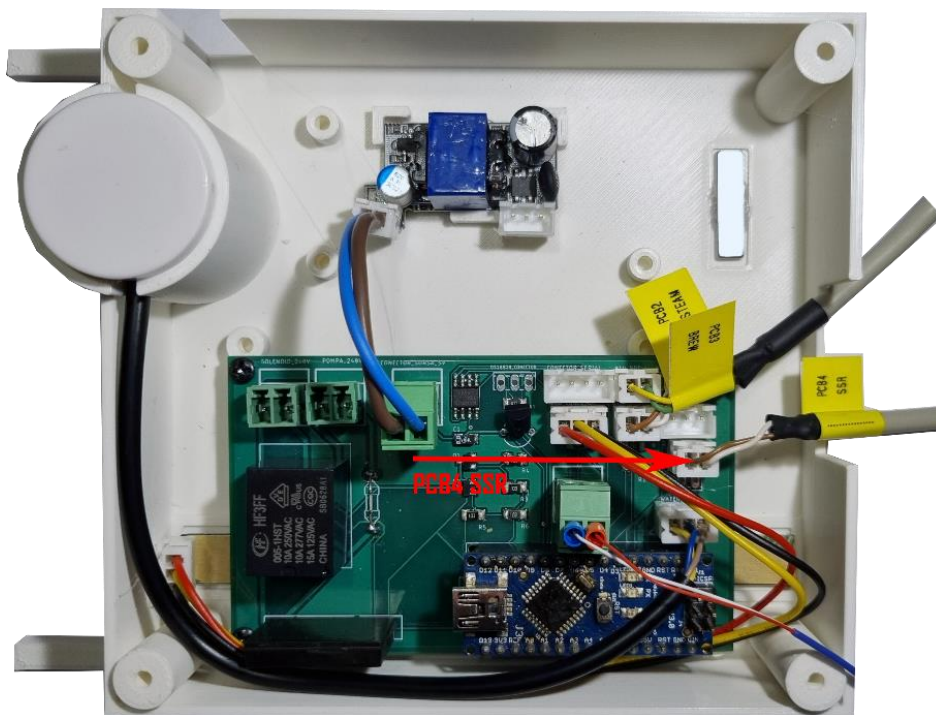


Fig. 6.4

- Plug in the POWER&CONTROL CABLE - PCB plugs (PCB5 PUMP, PCB6 SOLENOID, 240V TRAF POWER IN) (fig. 6.5) . Please find the 240V POWER IN - BLEU wire and route it outside the case through the small hole(fig. 6.6), Then let the rest of the cables outside the case through the big hole (fig. 6.6)

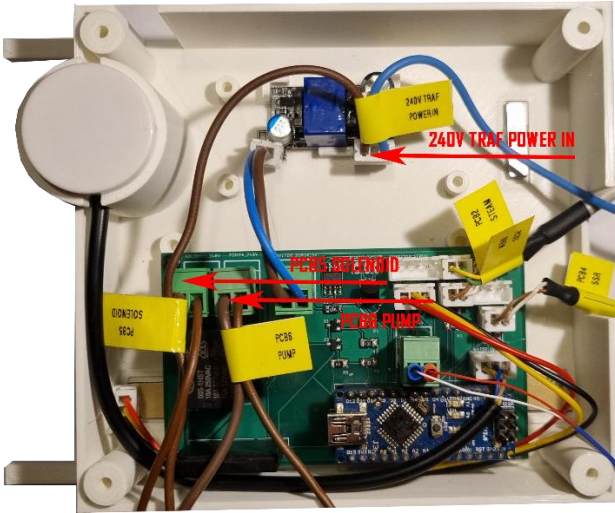


Fig. 6.5

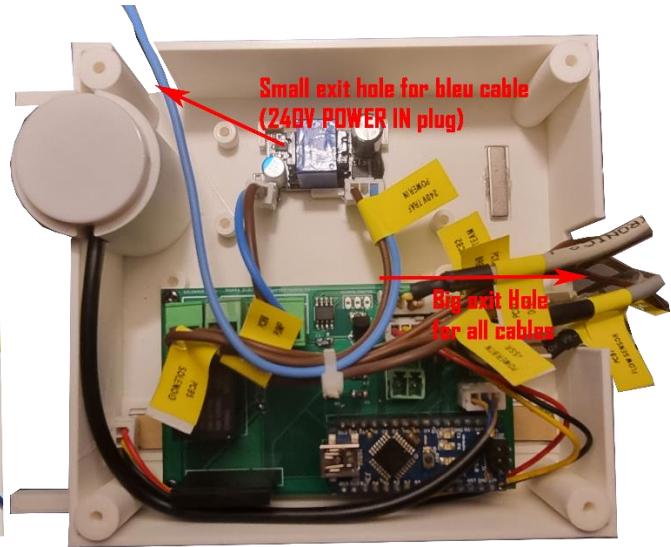


Fig 6.6

- You can use some plastic necklace to tie them and arrange the cables position for better management. (fig 6.6)
- Now you need to take the case and move it on top of the machine in one corner to make connections with the display cable, flow meter cable and k-type sensor(fig.6.7)

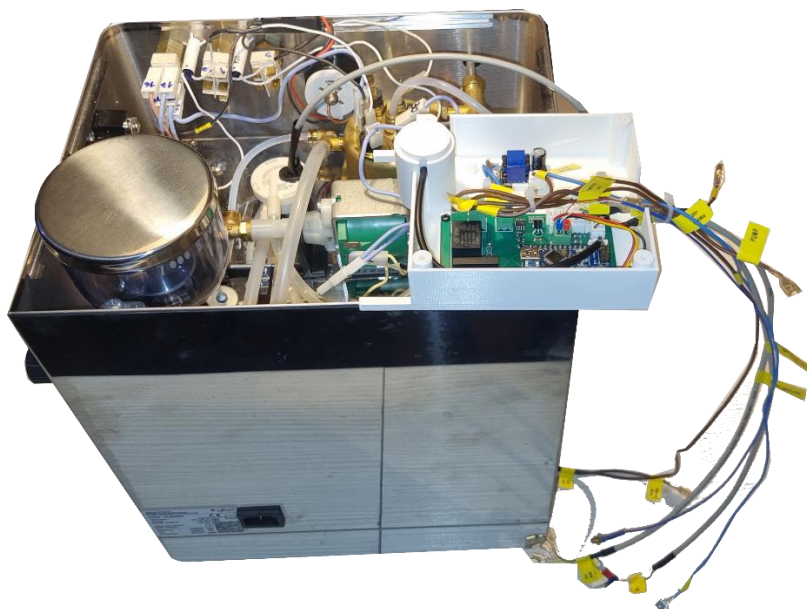


Fig. 6.7

- Plug in the FLOW METER CABLE - PCB plug (PCB7 FLOW SENSOR) and let the rest of the cable outside the case through the big hole (fig. 6.8)

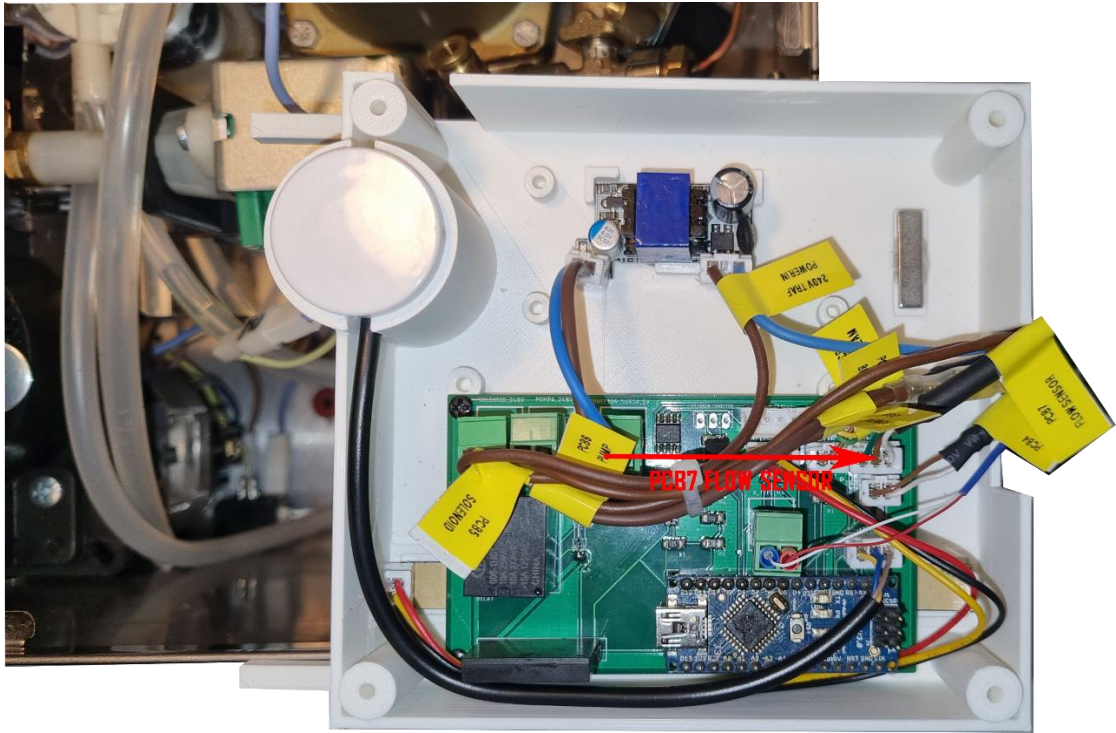


Fig.6.8

- Plug in the DISPLAY CABLE - PCB plug (PCB1 DISPLAY) and let the rest of the cable outside the case through the big hole (fig. 6.9)

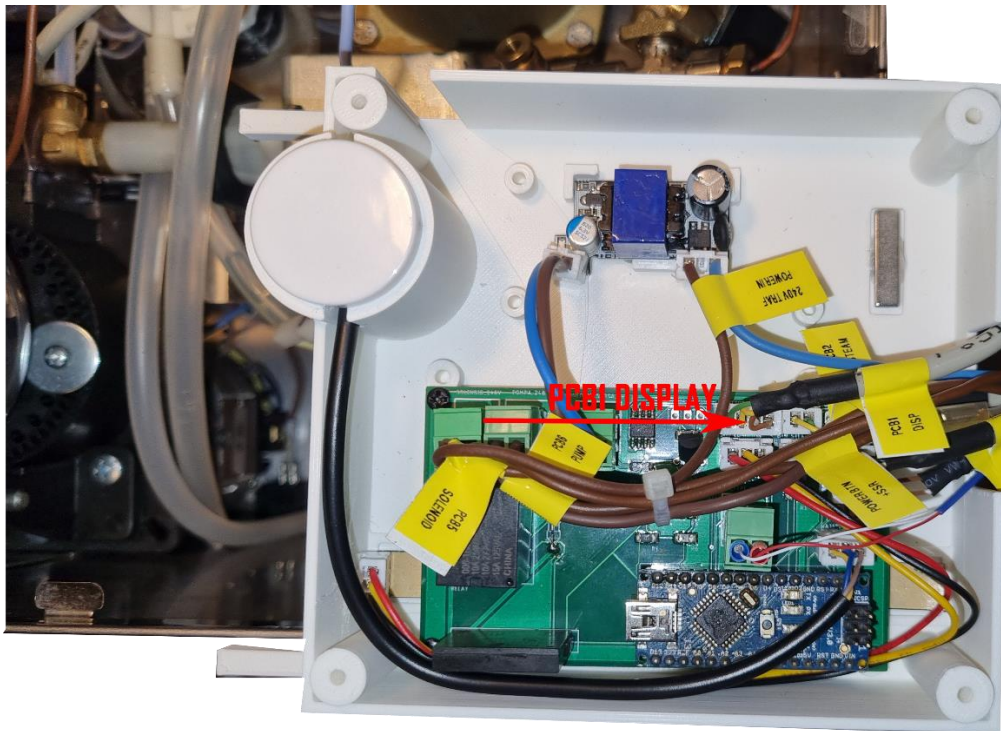


Fig. 6.9

- Install the K-Type M4 SENSOR - BOILER plug . Use the provided tool (fig.6.10) to screw it in B position (fig. 6.11)

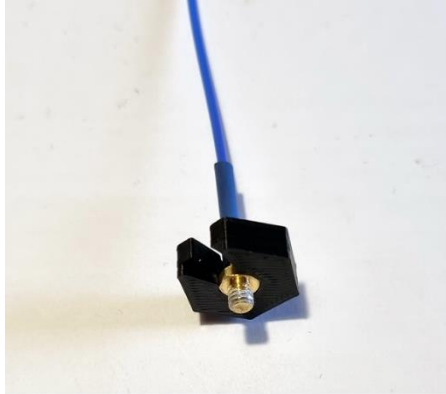


Fig.6.10

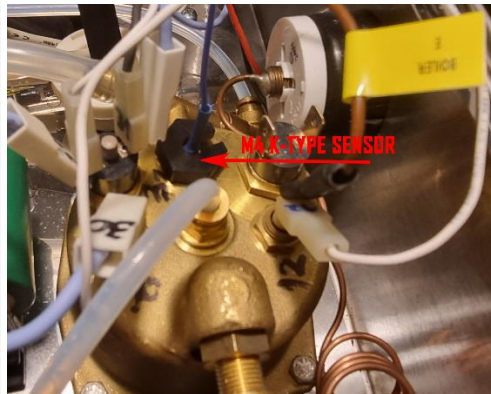


Fig. 6.11

- Plug in the K-Type CABLE - PCB plug and let the rest of the cable outside the case through the big hole (fig. 6.12)

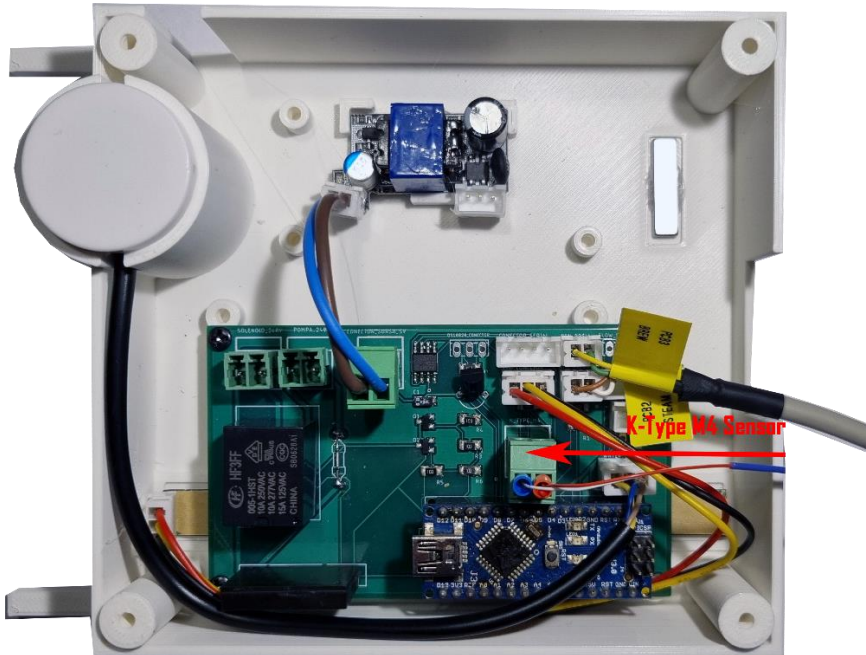


Fig. 6.12

- Now get the lid and screw it with the 4 screws

- Next take the 240V POWER IN - BLEU wire that exit from the case from the small hole and connect it to the external 240v plug near the grinder motor. Make sure you connect the wire to the Original BLUE existent cable (fig. 6.13)

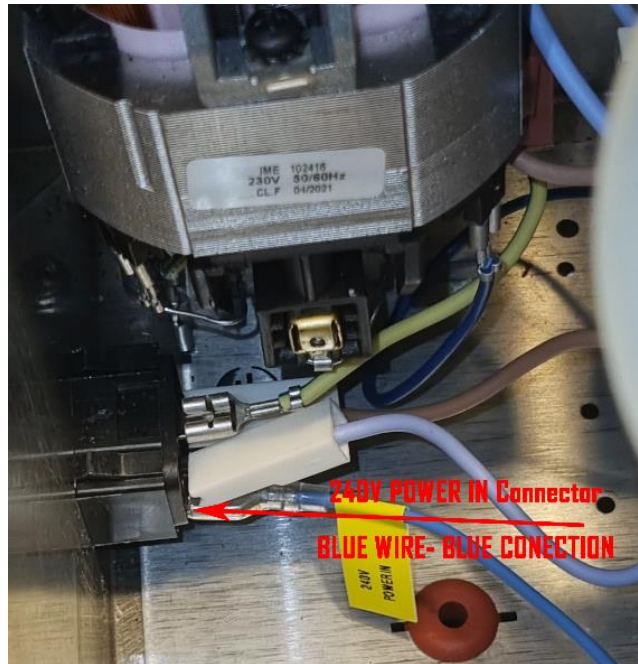


Fig. 6.13

- Get the align tool provided in the tool bag (fig. 6.14) and use it to position the case with the legs on the ground and at 20mm from the right wall like in (fig. 6.15) (the tool is 20mm wide). The case has magnets that will keep it attached in to position. The main reason you need to align the case inside is to align the led strip to the front hole. You can mark the led strip looking in the light through the opened case and use the mark to align the led strip with the hole.



Fig. 6.14

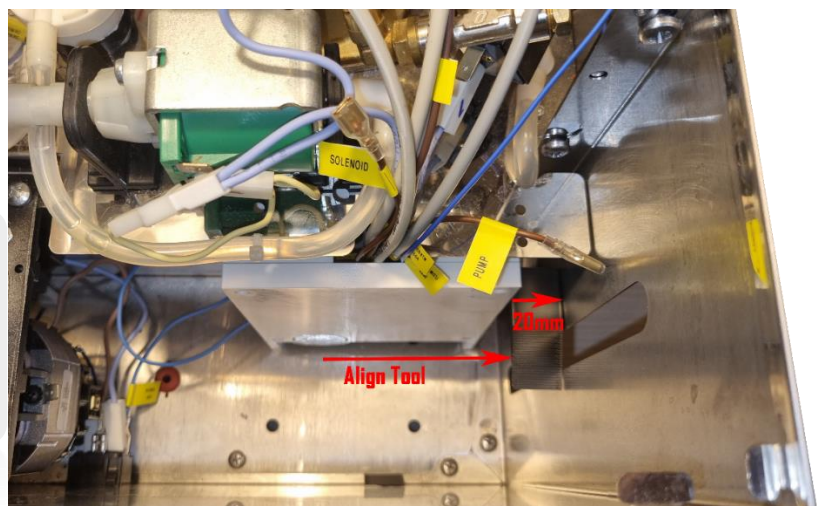


Fig. 6.15

- Now take the align tool , remove the adhesive tape protection and glue it to the back position like in (fig. 6.16)

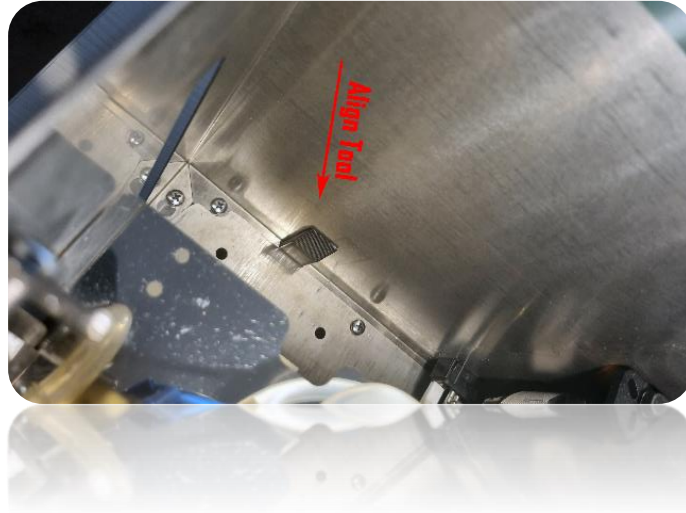


Fig. 6.16

Step 7 : Connect all the cables

- You have left 1 cable (SSR CABLE BOILER). You need to connect it between Solid State relay (240V connection → upper-left side) and the Boiler heat element left unconnected (boiler position E). (fig. 7.1)

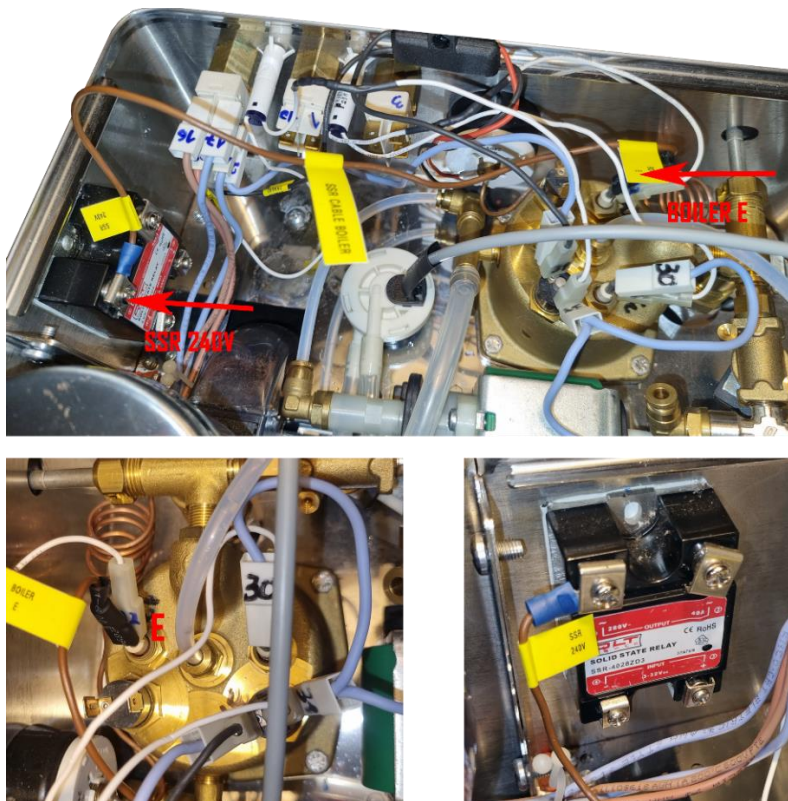


Fig. 7.1

- Connect the SSR CABLE -5V+ to the relay to 3-32VDC ports (lower positions) , red to positive (+) and black to negative (-)(fig. 7.2)

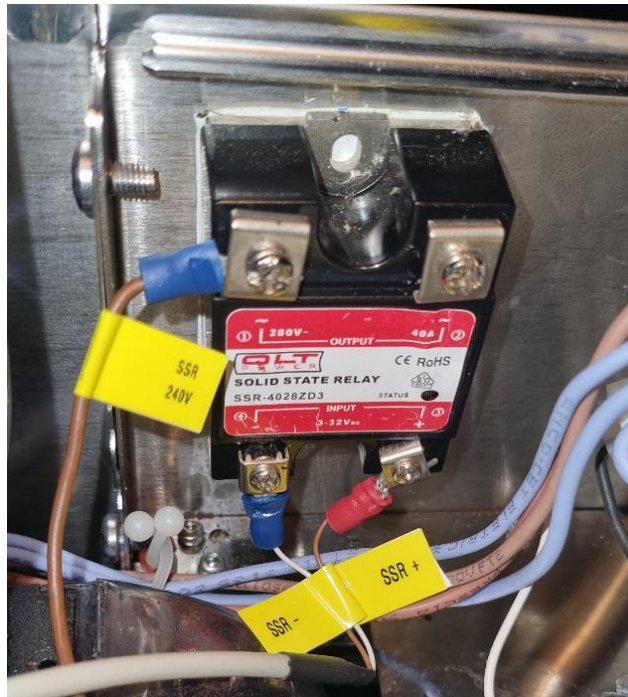


Fig.7.2

- Take the BUTTON CABLE plugs and connect them to buttons panel. STEAM BTN to Steam button connections and BREW BTN to brew button connections (fig. 7.3)

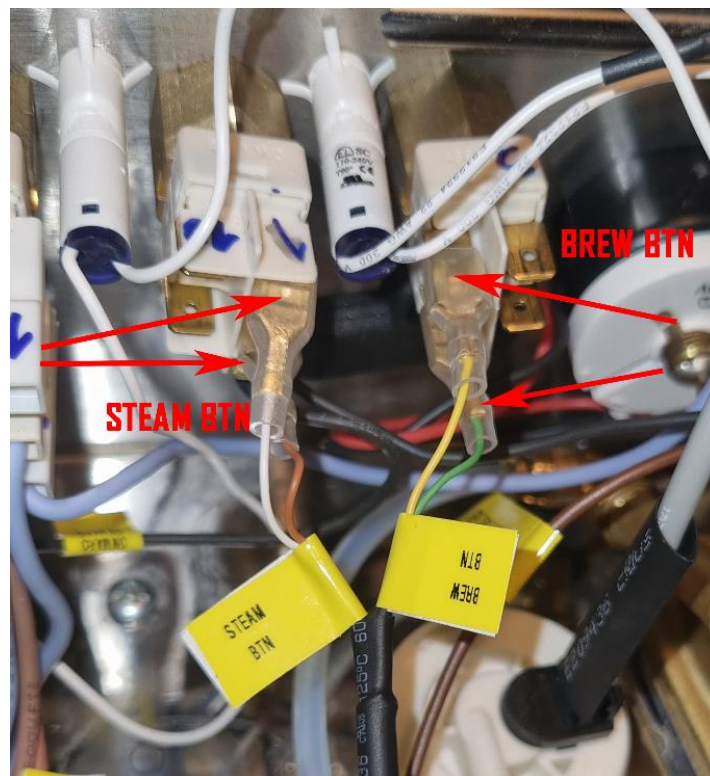


Fig. 7.3

- Connect the PUMP PLUG to the empty pump slot (fig. 7.4)
- Connect the SOLENOID PLUG to the empty 3-way solenoid valve slot (fig. 7.4)

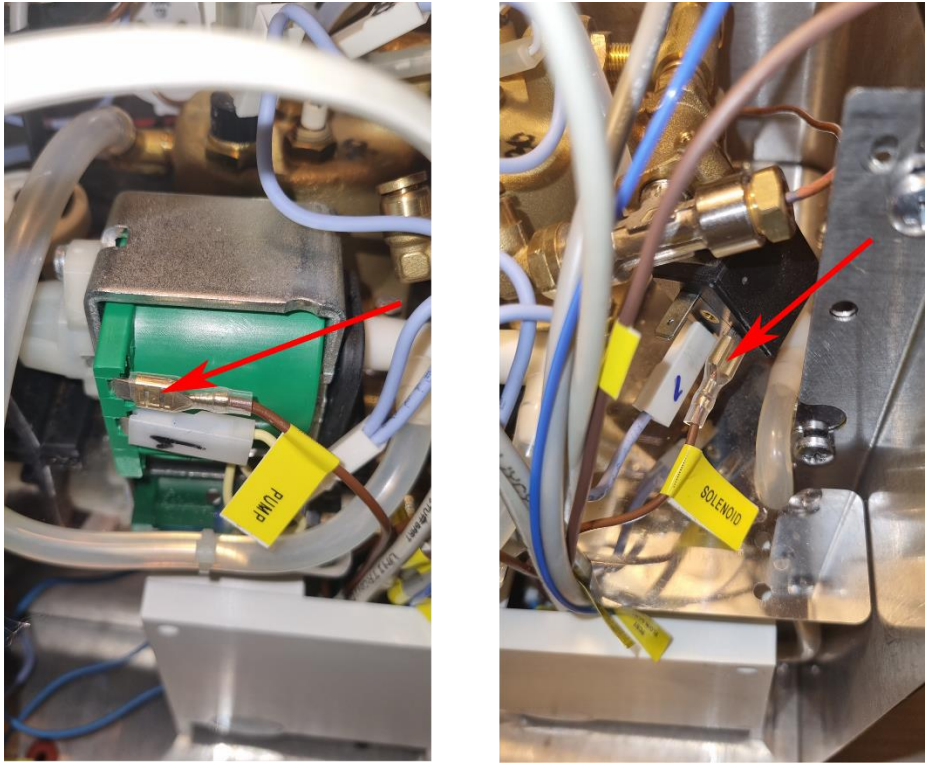


Fig. 7.4

- Connect the remaining brown cable (SSR 240V and POWER BTN BROWN PLUGS). SSR 240V goes to solid state relay 240V connection (upper-right). POWER BTN BROWN goes to buttons panel power button brown connection (left-down plug on the back of the existent connections) (fig. 7.5)

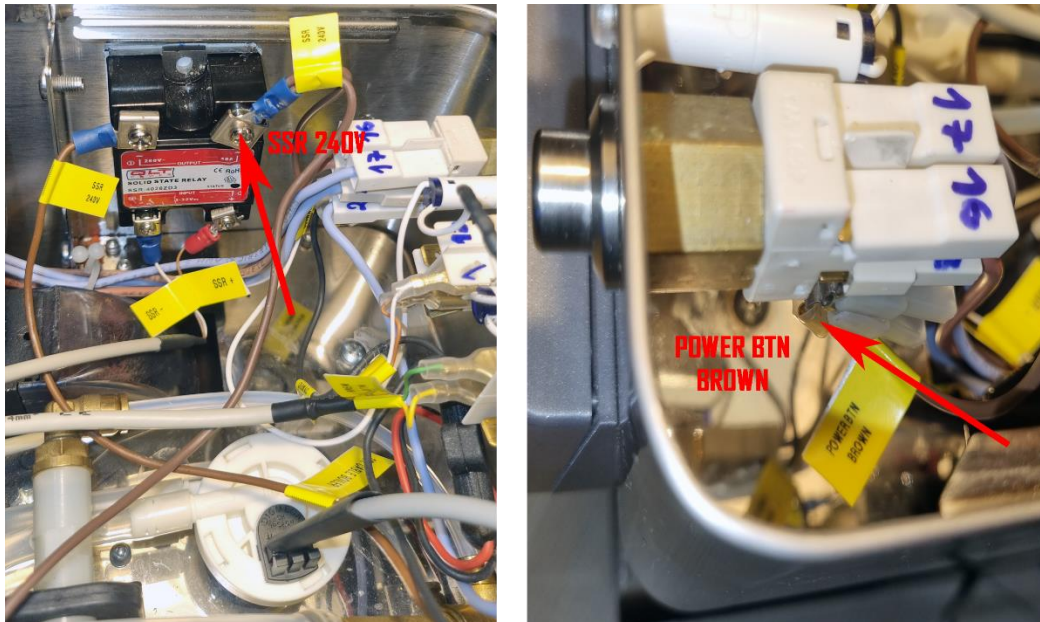


Fig. 7.5

Step 8 : The last check out.

- Tie all the screws and check all the plugs, press them well. Make sure that the Hose are inserted till the end of the flow meter sensor pipes.
- arrange the cables, tie them with pins, check all the plugs and make sure they are insulated and not touching the case.

- Mount the cafe machine cover back.

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 !!!