Installation Instructions

Step 1 :

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

Fig. 1.1

Step 2 : Disassemble the machine

- Unscrew the 2 screw from the top lid (fig. 2.1)
- Remove the upper lid (disconnect the 2 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. 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. 2.1

Step 3 : remove all original cables and electronics

- We need to remove all original cables and electronics. Keep all the ground wires (green-yellow). You need to mount them all back to the same position. (fig.3.1)

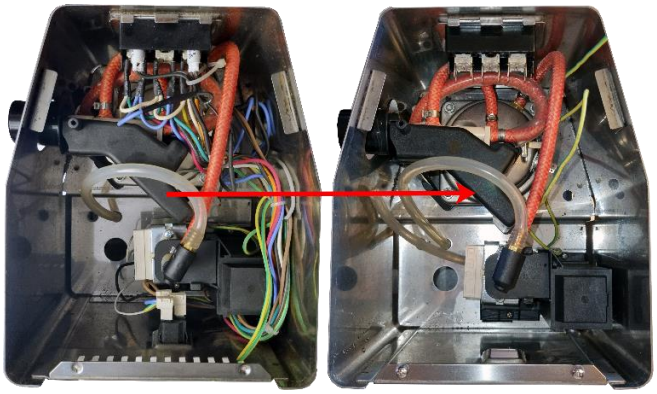

Fig. 3.1

- This step is not easy. The plugs are well attached and their removal requires attention. Use a screwdriver in a lever and apply a little force. You must be careful when removing the plugs behind the buttons not to damage them. I suggest that to remove the plugs behind the buttons, remove the button panel outside for better access. In case that you accidentally damage one button the kit provides all the functions you need without needing the buttons. So, you will be able to use the machine without the buttons.
- To remove the electronic board, you will have to remove the pump support. There are 2 screws at the base (fig. 3.2) . Remove the plastic stopper (fig.3.3). Remove the electronic board.

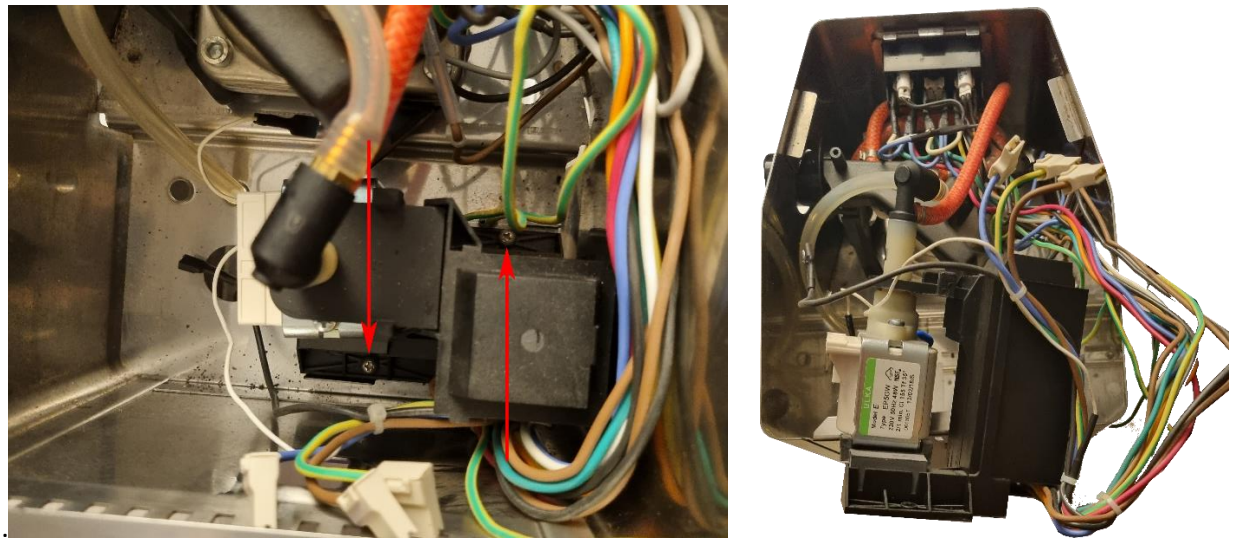

Fig. 3.2

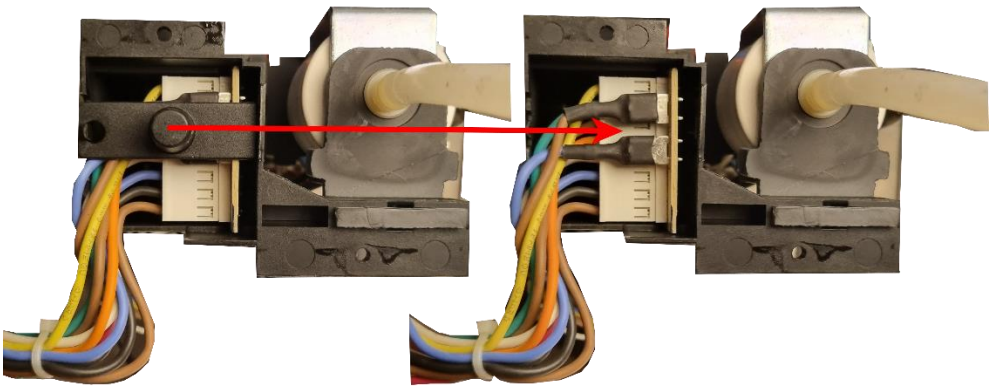

Fig. 3.3

- Refit the plastic stopper then screw the pump support back in place. Do not insert the hose trough the same hole under the pump, let the hose inside the machine like in fig.3.4. We will need the hose to mount the flow sensor .
- Refit the button panel back in place
- Reinstall the ground wires back in original places. There are 3 ground wires, 2 are attached to the base near the pump support (one goes to the boiler and one remain in air for future connection to the top lid), one you may need to recover from the group cables by cutting the plastic ties. This one will connect the ground from power source and the second plug from the top lid.

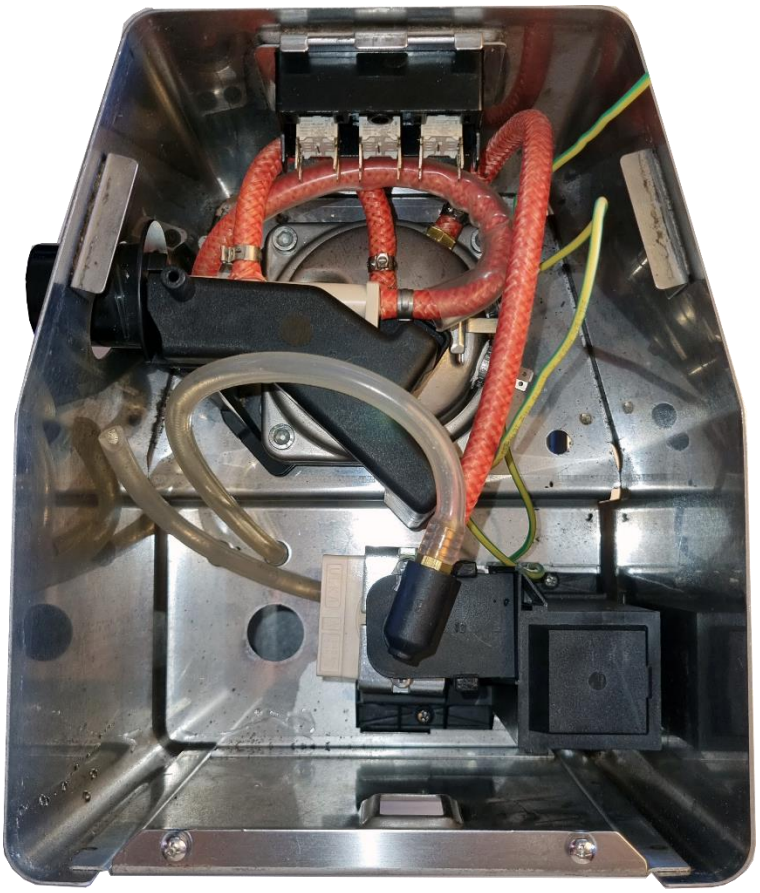

Fig. 3.4 – Step 3 final

Step 4 : Mount 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)
- Clean around the plug hole with acetone or alcohol.
- 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.
- Mount the removed power module in the new mounting hole on the mounted case (fig. 4.1).

Fig. 4.1

STEP 5 : Mount the DISPLAY

- There are 2 possible mounting solutions. (fig. 5.1)

Fig. 5.1

- Mounting position 1 requires drilling the front with a 10 mm drill , passing the DISPLAY CABLE through the hole then glue the display on top.
- Mounting position 2 requires the removal of the “Classic Gaggia” logo, then pass the DISPLAY CABLE through the existent hole near the group head, then glue the display in the lower position of the front.

- Remove the 4 screws and open the display case (fig. 5.2)

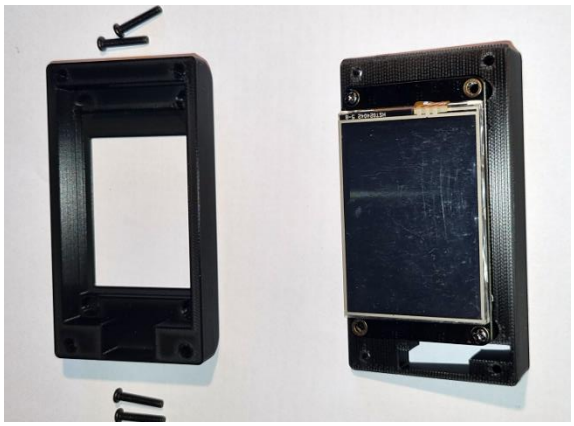

Fig. 6.2

<u>Mounting position 2 :</u>

- Remove the logo from inside by straightening the retaining pins.
- Insert the DISPLAY CABLE in the case and plug it in. (fig. 5.3).

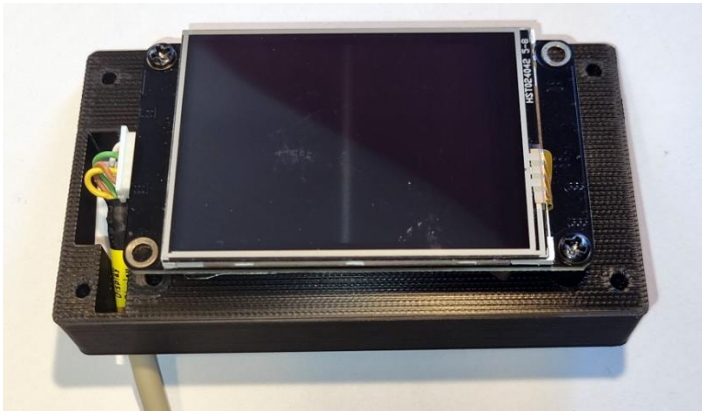

Fig. 5.3

- remove the adhesive tape protection and attach the display on the lower front like in picture 5.4 so that the cable remains hidden behind the display case and under the group head floor

Picture 5.4

- install the display case front and put back the 4 screws
- insert the DISPLAY CABLE through the existent hole left of the group head. If there is no hole, please drill one with 10mm drill (fig. 5.5)

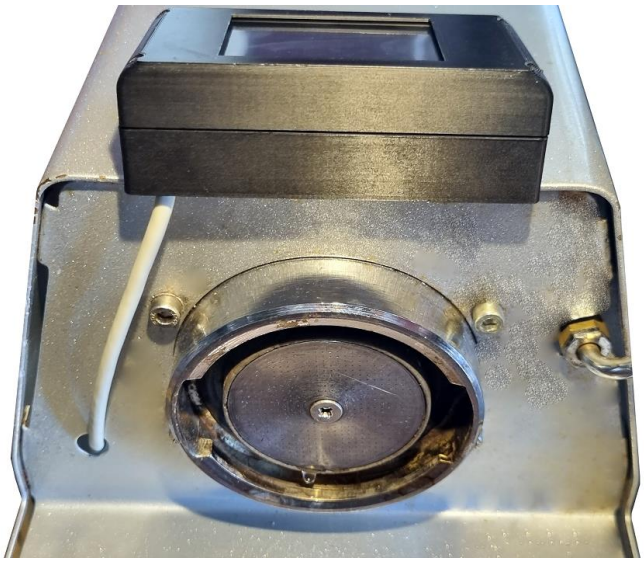

Fig. 5.5

Mounting position 1 :

- take the bottom part of the display and place it on the front just below the button panel
- make sure that the position is correct then mark inside the inner cutout of the case with a marker
- drill a 10 mm hole inside the marked place (fig. 5.6)

Fig. 5.6

- Insert the DISPLAY CABLE in the case and plug it in. (fig. 5.7).

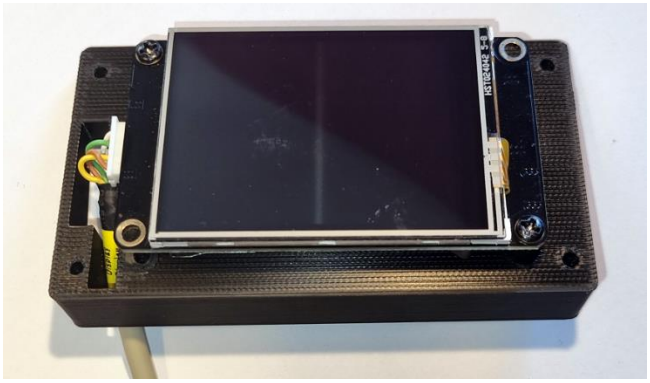

Fig. 5.7

- insert the DISPLAY CABLE - PCB plug through the drilled hole (fig. 5.8)

Fig. 5.8

- remove the adhesive tape protection and attach the display in the desired position and press firmly (fig. 5.9)

Fig. 5.9

Mounting position 1 and 2

- pass the cable through the interior of the coffee machine on one side (left or right) do not let the cable on top of the boiler, then exit with it to the main board case.
- Connect the cable to the main board (fig. 5.10)

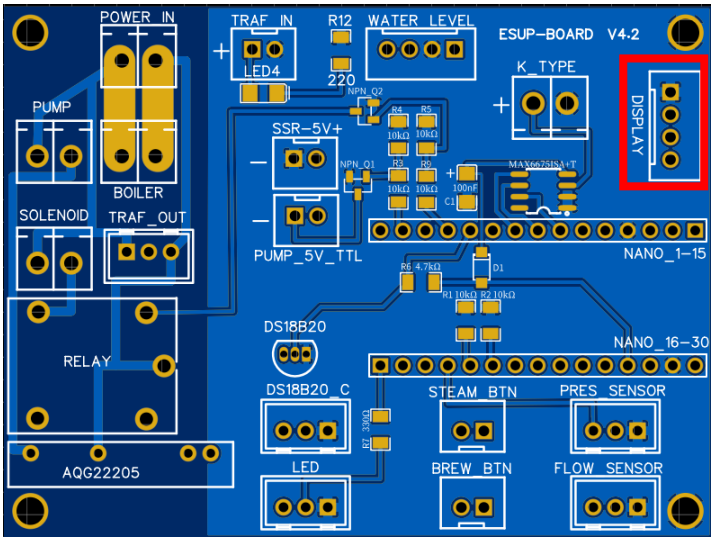

Fig. 5.10

Step 6 : Install Flow Meter sensor

- Take out the flow meter sensor from the package and prepare it for installation
- You need to split the hose between the pump and the water tank
- You will glue the flow sensor in the left-down corner to the bottom. Clean the spot with acetone or alcohol then take out the adhesive tape protection and glue it on the floor like in (fig. 6.1)

- Take the hose and place it on top of the sensor in pipes. Mark the spot where you will cut the hose like in (fig. 6.1)
- Cut the hose with a scissors (fig. 9.2). insert the hose all the way into the upper pipe.
- Take the provided new hose from the package and install it to the second bottom pipe on the sensor. Push it well all the way. Route the hose around the big hole and insert it in the small right hole. Take the upper hose and insert it in the second small left hole (fig. 6.3)
- Pay attention to insert the hose in the flow sensor all the way and to position the hoses in such a way that they do not bend and obstructs the flow of water.

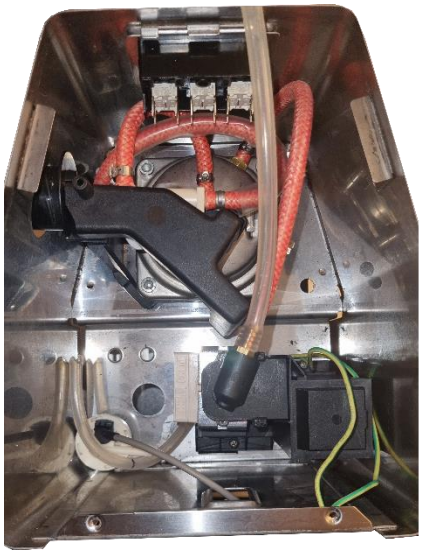

Fig. 6.1

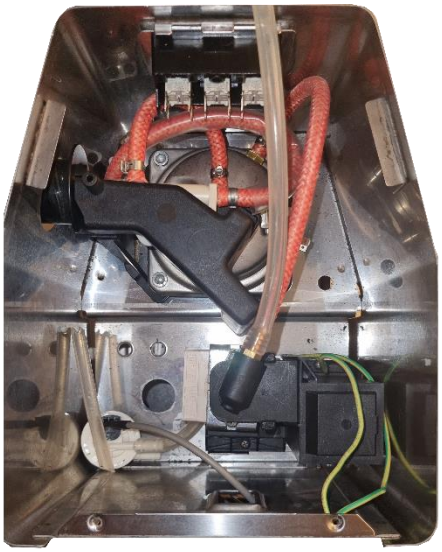

Fig. 6.2

Fig. 6.3

- Take the sensor cable, pass it through the hole to the main board and plug it to FLOW_SENSOR port (fig.6.4).

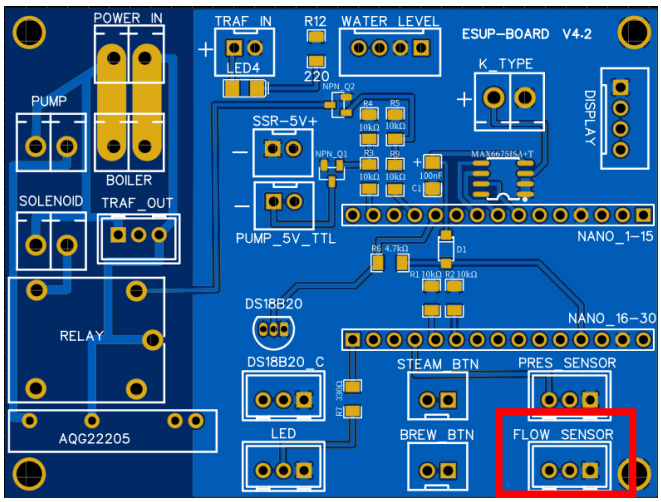

Fig. 6.4

Step 7 : Installing the solid state relay.

- Take out the relay and the SSR Cables from the package box (fig. 7.1)

Fig. 7.1

- Connect the cables outside the case, then glue the SSR inside. Cable connections are better to be made before the mounting process because the access after will be harder..
- Connect the SSR -5V+ cable to the relay to 3-32VDC ports , brown to positive (SSR+) and white to negative (SSR-), then connect the remaining brown SSR CABLES to AC side (fig. 7.2)

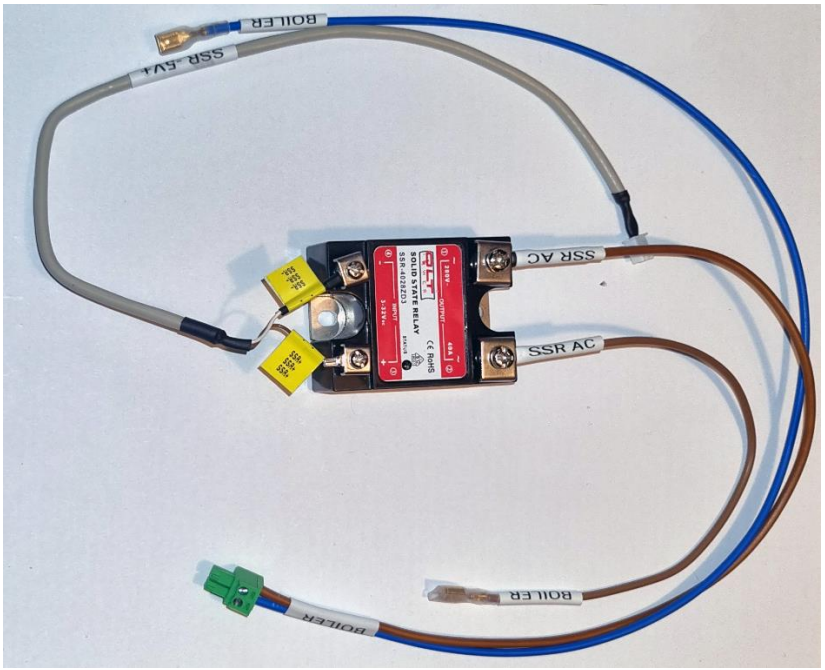

Fig. 7.2

- Prepare to glue the relay inside. Mounting position will be to the back left side at 3cm high from the inside floor and 5cm from the back, looking from the behind the machine . (fig. 7.3)

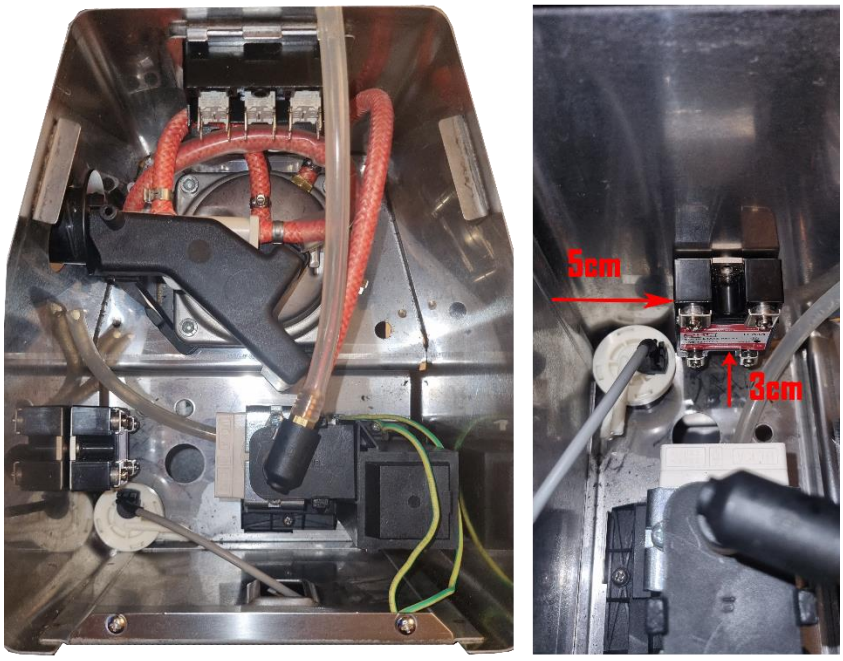

Fig. 7.3

- Once the position has been tested clean the spot, remove the adhesive tape protection and put the relay in place with the SSR -5v+ plugs down and press firmly.
- Connect the cables to the main board (fig. 7.4).

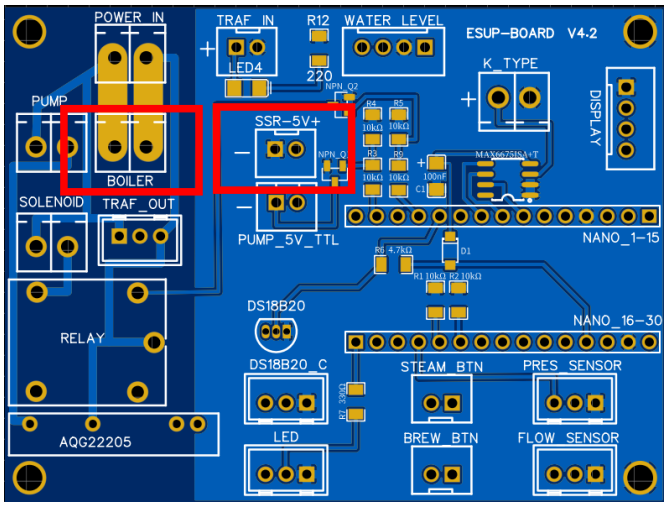

Fig. 7.4

- Connect the brown and blue wire boiler plugs. Access is difficult. Make sure the plugs are well inserted and not lose (fig.7.5)

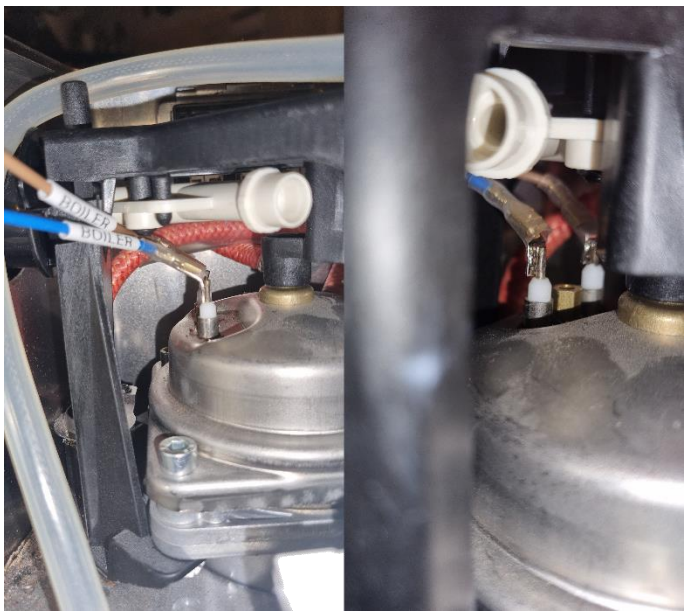

Fig. 7.5

Step 8 : buttons panel connections

- Take the BUTTONS CABLEs from the package and make connection between buttons panel and the main board like in fig.8.1.

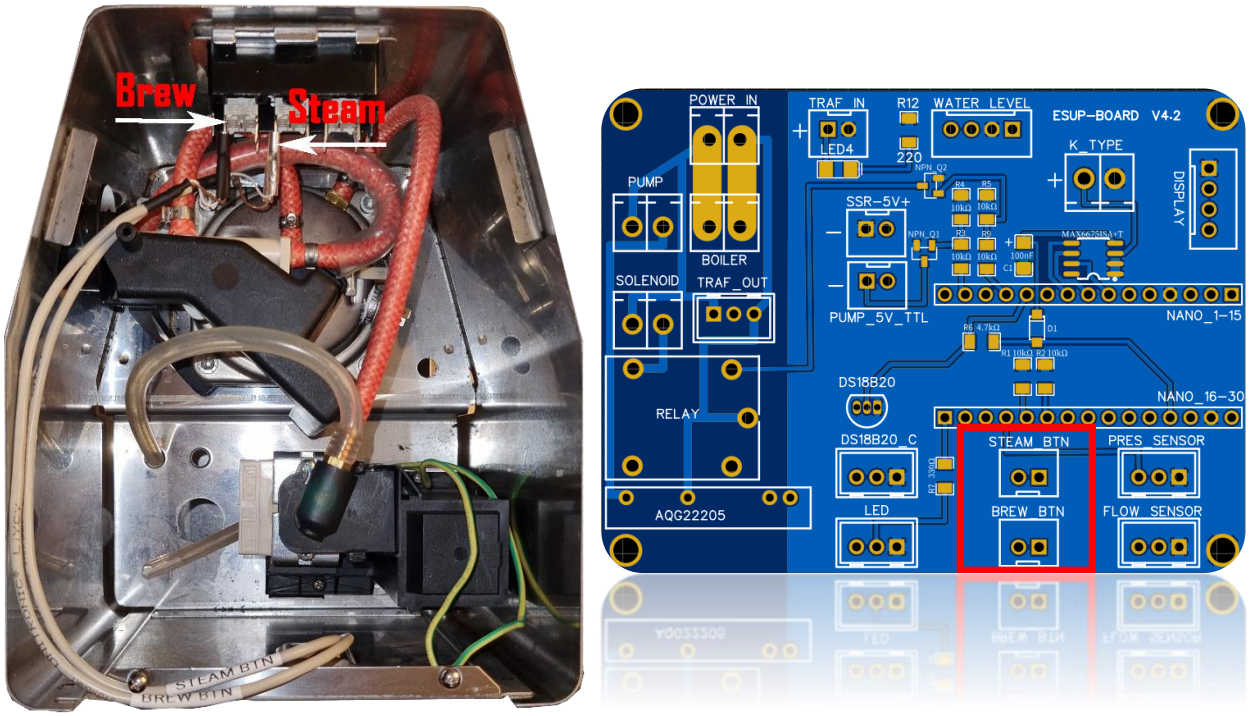

Fig. 8.1

Step 9 : Install K-Type temperature sensor

- Take the type-k temperature sensor from the package and make connection between the main board (fig.8.1) and the boiler. The sensor will be installed between the boiler and one of the 2 original thermostats (fig. 8.1). Use a right screwdriver to make little space then insert the sensor. (fig. 8.2)

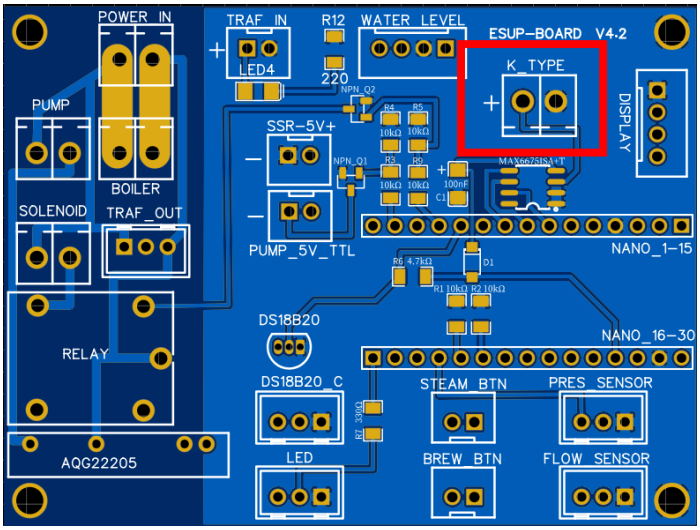

Fig.8.1

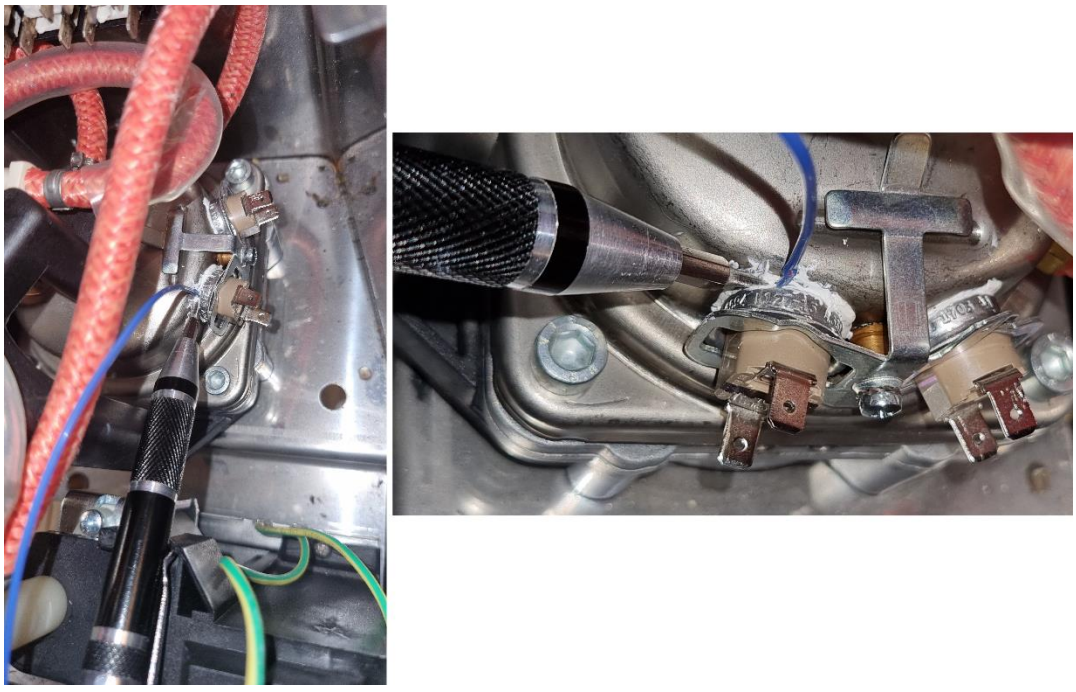

Fig. 8.2

Step 9 : Install the Power cables

- Take the POWER IN cable from the package. Connect the green plug to the POWER IN main board (fig. 9.1)

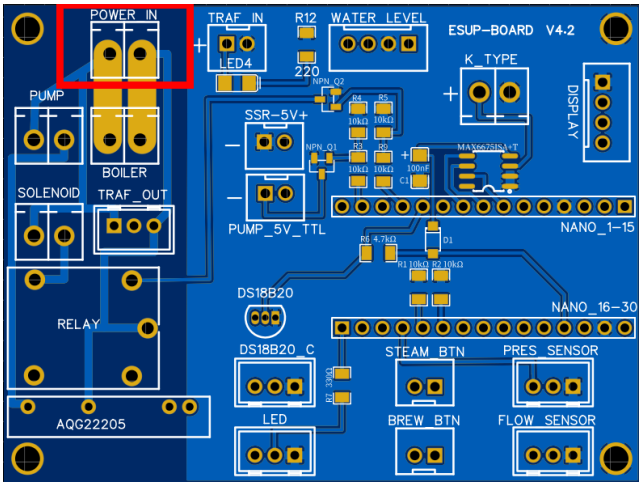

Fig.9.1

- Plug the blue wire into the original power module.
- The brown wire from the green plug need to go to the power button with the overheat protection passing over the boiler. Insert the temperature protection under the clamp (fig.9.2).

Fig.9.2

- The other brown wire go from the power button to the original POWER module
- Very important. This step pass the AC current trough an overheat protection and 1 power button. Some models have 1 push position button other have 2 push position button. In case that your button does not stay pushed you have 1 push position button. In that case you need to connect the 2 brown wires from the power button side in permanent contact.

Step 10 : The last check out.

- Take PUMP cable and connect it from the main board to the pump (fig.10.1)

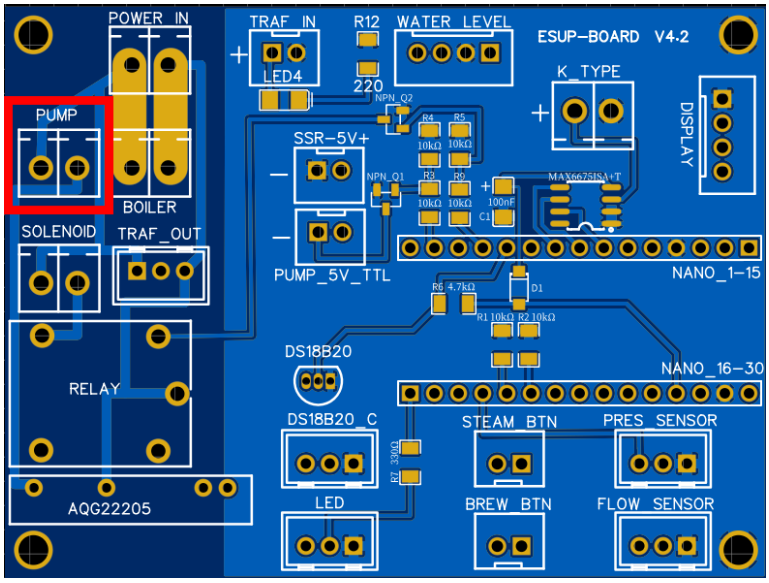

Fig.10.1

- Connect the 2 plugs on pump side and insert the overheat protection in the designated place on the pump.

Fig. 10.8

Step 11 : The last check out.

- arrange the cables, position them on one side or the other, tie them with pins, check all the plugs and make sure they are insulated and not touching the case.
- Connect the ground wires back to the original position described in step 1.
- Conect the 2 ground wires to the top lid.
- Mount the top lid back and thread the 2 screws.

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 !!!