Installation Instructions

Step 1 : Disassemble the machine

- DISCONECT 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)





- 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)



- 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, remove unnecessary wires and reconnect some of the plugs.

- Use the notations in fig. 2.1 do the next operations.



- Take the plug from buttons position 2 middle, disconnect it and mark it with 2M (position 2 middle), we will use it after few steps to connect it to solenoid.
- Mark all the wires and positions from PID module if you want to return to original state then disconnect all the plugs from PID with a screwdriver. The red wire from the sensor can remain attached to PID.
- Disconnect the red temperature sensor from Boiler C position using a screwdriver.
- Disconnect the plugs from buttons position 3-middle and 3-down (PID wires)
- Unscrew the 2 screws from PID case (fig. 2.2)



Fig. 2.2

- Once the screws are removed you can take out the PID from outside the machine (fig. 2.3). The PID housing will remain inside and will need to be removed from inside.





Fig. 2.3

- Disconnect the remaining plugs from buttons panel.
- Disconnect from SSR S1 and S2 plugs and wires (fig. 2.4)





- Remove the wire that make connection between PUMP X plug, SOLENOID plug Z and previous unplugged 1D connector (fig. 2.5)





- Remove the wire that make connection between SOLENOID plug W and previous unplugged 2U (position 2 - UP) connector from button panel. (fig. 2.6)



- Use an insulating tape to isolate the 2 wires left uninsulated after removing them from the PID (fig. 2.7)
- Use plastic collars to clamp stripped and recently insulated cables to other nearby wires . (fig. 2.7)
- Take the plug previous marked with 2M and connect it to SOLENOID plug W.(fig. 2.7)



Fig. 2.7

- Use plastic collars to secure cables near button panel and SSR for better visibility and management (fig. 2.8)



Fig. 2.8

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The meter will be installed on the pump hose. Cut the hose at 20 cm from the pump like in (fig. 3.1). We will not use the remaining hose.



Fig. 3.1

- Take the PUMP HOSE from the package and the flow meter (fig. 3.2)



Fig. 3.2

- Take the flow meter from the bag, remove the adhesive tape protection and stick it in position like in (fig. 3.3). You can remove the sensor after by pulling up for better access on hose plugin. The base will remain glued.



- Take the cut 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. 3.4). You can take out the sensor by pulling up for help with this.



Fig. 3.4

Use one plastic tie and attach the hose to the case like in fig. 3.5



Fig. 3.5

Step 4 : Display Install

- We will attach the display on the front-right like in (fig. 4.1).



Fig. 4.1

- The cable from the display will be inserted inside the machine through the PID hole
- Remove the 4 screws and open the display case (fig. 4.2)





- Install the DISPLAY CABLE in the display case and plug in the" Display" end of the cable into the screen plug. (fig. 4.3). The cable need to exit from the display base from the middle hole (fig. 4.4)



Fig. 4.4

- Take the DISPLAY CABLE and get it through the PID hole then remove the adhesive tape protection and attach the display on the lower front on top of the PID hole.
- install the display case front and put back the 4 screws
- We will attach the DISPLAY CABLE later to the PCB main board.

Step 5 : Attach the housing of the electronic components

- You will mount the case inside the machine behind the water tank. (fig. 5.1)



Fig. 5.1

- 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. 5.2)



Fig. 5.2

- 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. 5.3)



Fig. 5.3

- 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. 5.4)



Fig. 5.4

- Plug in the POWER&CONTROL CABLE - PCB plugs (PCB5 PUMP, PCB6 SOLENOID, 240V TRAF POWER IN) (fig. 5.5) . Let the rest of the cables outside the case through the big hole.



Fig. 5.5

- You can use some plastic necklace to tie them and arrange the cables position for better management if needed.
- Now you need to take the case and move it on top of the machine in one corner (fig.5.6) to make connections with the display cable, flow meter cable and k-type sensor



Fig. 5.6

- 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. 5.7)



Fig.5.7

- Plug in the DISPLAY CABLE - PCB plug (PCB1 DISPLAY) and let the rest of the cable outside the case through the big hole (fig. 5.8)



Fig. 5.8

- Install the K-Type M4 SENSOR into the BOILER plug C. Use the provided tool (fig.5.9) to screw it in C position (fig. 5.10)



Fig. 5.9

Fig. 5.10

- Plug in the K-Type CABLE - PCB plug and let the rest of the cable outside the case through the big hole (fig. 5.11)



Fig. 5.11

- Use one plastic collar to tie all the cables together at the case exit hole
- Now get the lid and screw it with the 4 screws
- Next take the 240V POWER IN BLEU wire that exit from the case and connect it to the BOILER
 PLUG A position 2 near the double wire plug (fig. 5.12). Check that the connection is firm, if lose then you need to tighten the larger plug with some pliers. It is important that the connection is firm.



Fig. 5.12

 Next take the 240V POWER IN - BROWN wire that exit from the case and connect it to the remaining unconnected plug near the button panel (fig. 5.13). Check that the connection is firm, if lose then you need to tighten the larger plug with some pliers. It is important that the connection is firm.



Fig. 5.13

- Get the align tool provided in the tool bag (fig. 5.14) and use it to position the case with the legs on the ground and at 20mm from the right wall like in (fig. 5.15) (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. 5.14

Fig. 5.15

 Now take the align tool, remove the adhesive tape protection and glue it to the back position like in (fig. 5.16)



Fig. 5.16

Step 6 : Connect all the cables



- Connect the SSR CABLE -5V+ to the relay to + - (S1, S2) ports , red to positive (+) and black to negative (-)(fig. 6.1)



- Take the BUTTON CABLE plugs and connect them to buttons panel. STEAM BTN to Button Panel position 2 middle and down and BREW BTN to Button Panel position 1 up and down (fig. 6.2)



Fig. 6.2

- Connect the PUMP PLUG to the empty pump slot (fig. 6.3)
- Connect the SOLENOID PLUG to the empty 3-way solenoid valve slot (fig. 6.3)





Fig. 7.4

Step 7 : 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 !!!