



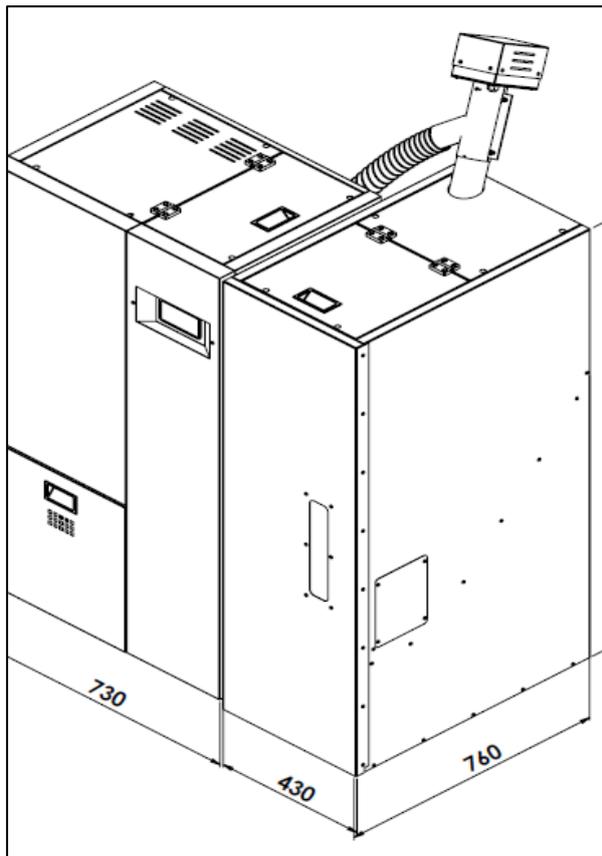
Assembly and Operation Instructions



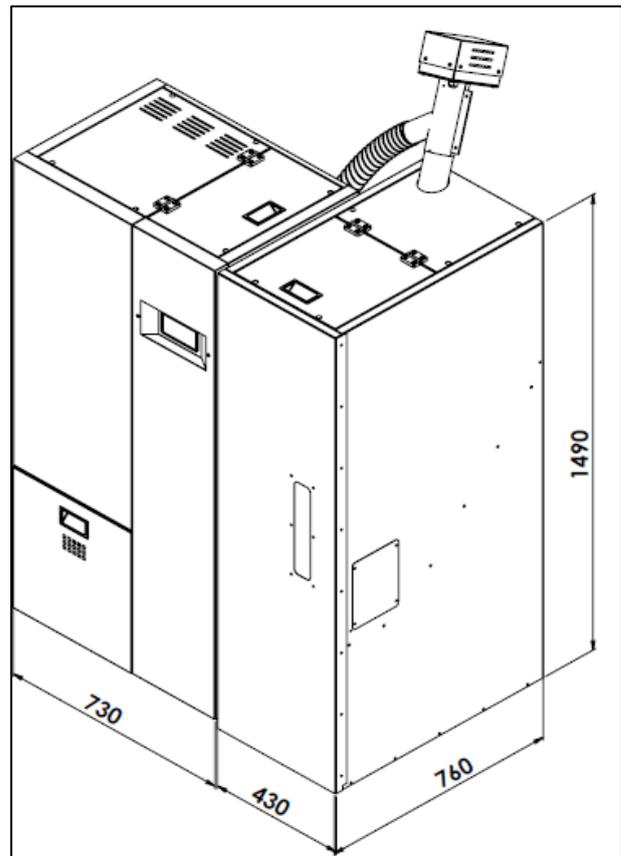
CB 125/225 Manual 2019 V01

CB 125 / 225

CB 125 and CB 225 fuel hoppers are designed to work with Cortina 12 / 18 / 24 X boilers. CB 125 matches outer dimensions of CT 12 and CT 18, and CB 225 matches CT 24 model.



CB 125 with CT 12/18



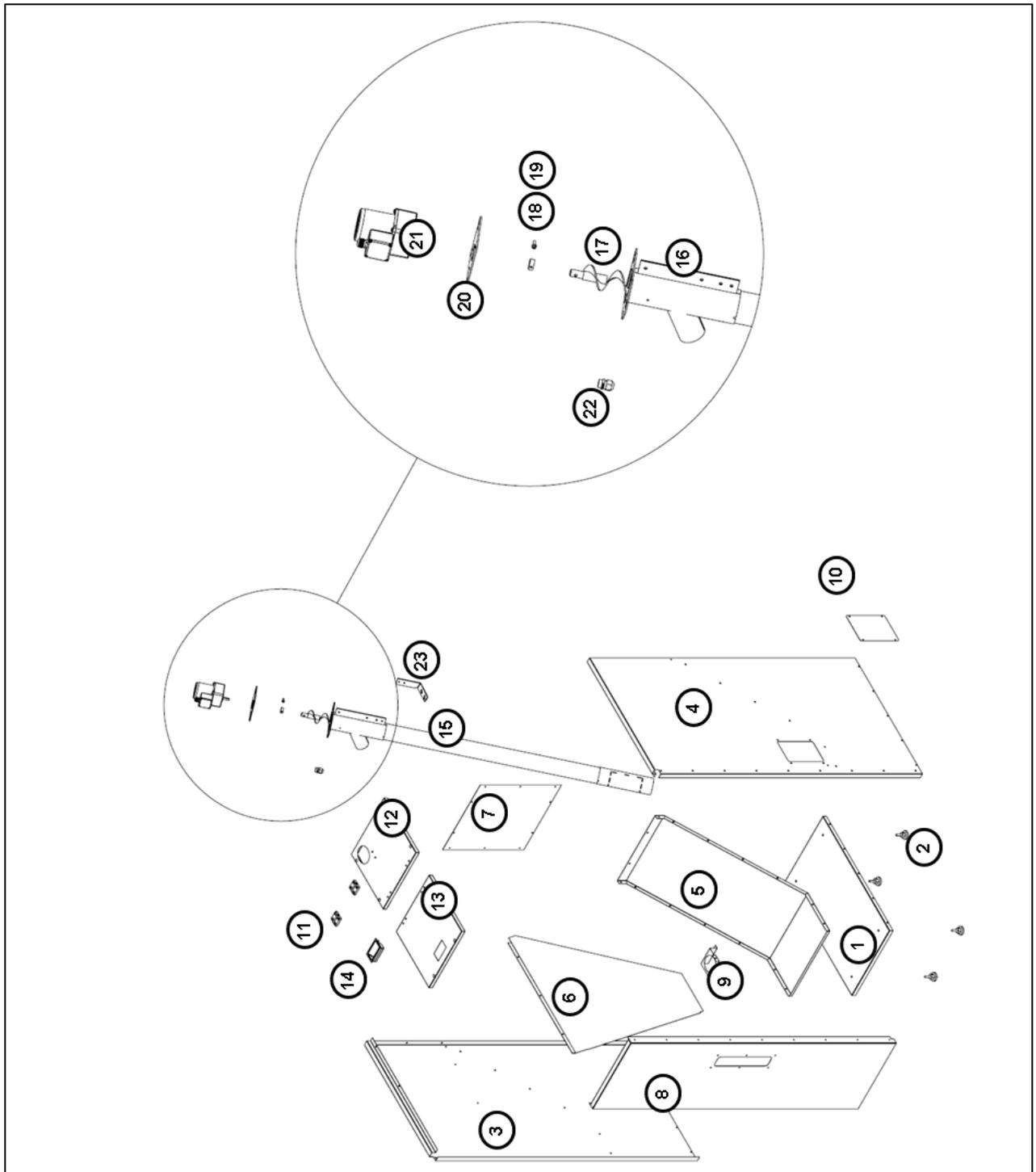
CB 225 with CT 24

Delivery package has all items needed to connect CB tanks to Cortina X boiler. Main advantages of CB 125 / 225:

- Designed particularly to match boiler external dimensions, and ensure longer operation time without refuelling
- 250 liters (175 kg) additional fuel volume
- Pellet level sensor ensures auto refuelling when boiler original fuel container is empty
- Together with boiler's original tank, system can work up to 10 days without refuelling
- Additional tank is purchased separately, and can be added later to the boiler in operation.

Pack of additional tank includes;

- Fuel tank
- Feeding screw
- Gearmotor
- Pellet level sensor
- Adaptor to boiler tank
- Wiring
- Flexible feeding hose



1	Baseframe	13	Top panel - front part
2	Adjustable support bases (x4 pieces)	14	Plastic handle
3	Left panel	15	Feeding pipe (plastic)
4	Right panel	16	Feeding pipe adaptor
5	Internal panel -1	17	Feeding screw
6	Internal panel -2	18	Gearmotor shaft fixing bush
7	Rear panel	19	Socket cap head screw M6x20
8	Front panel with inspection glass	20	Gearmotor assembly plate
9	Feeding screw pipe support sheet	21	Gearmotor
10	Service cover	22	Cable gland PG 9
11	Hinges (x2 pieces)	23	Pipe adaptor fixing sheet
12	Top panel - rear part		

2 ASSEMBLY OF TANK

2.1. Fit four pieces adjustable support bases (2) into related nuts on the baseframe (1) as seen in the following pictures:



2.2. Fit left panel (3) onto the baseframe with M5x15 pan head setscrews. Then fit internal panels 1 (5) and 2 (6) in order onto left panel with the same setscrews.



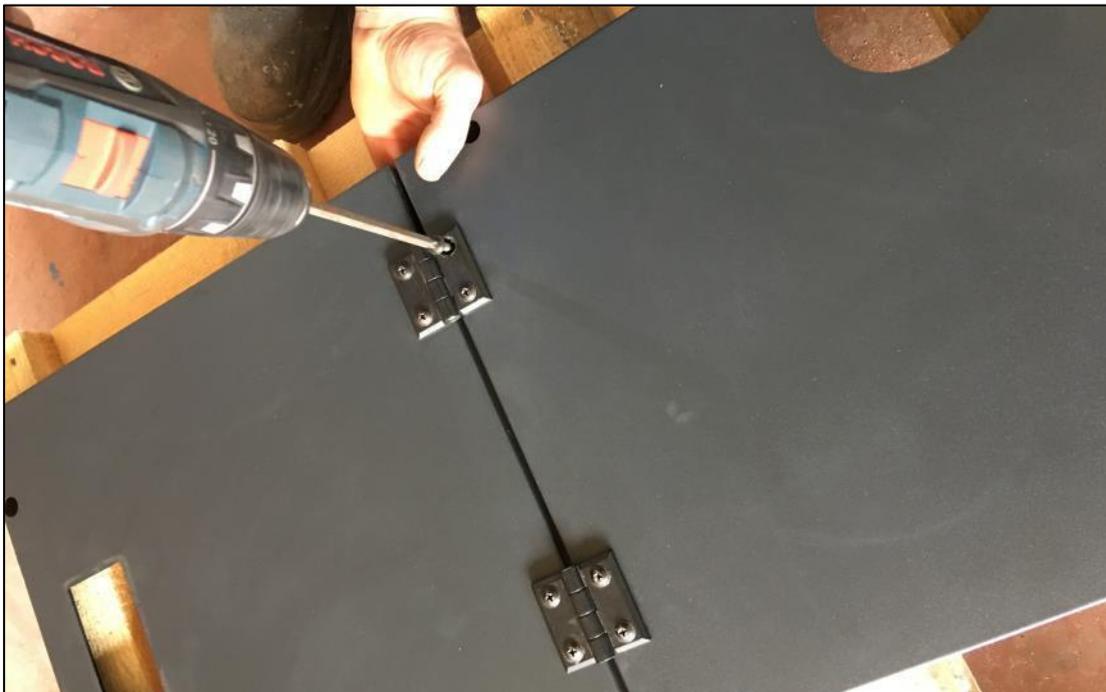
2.3. Fit right panel (4) and then rear panel (7) in order as seen in the following pictures. Fit front panel (8) (pellet inspecton glass is already installed on front panel)



2.4. Fit feeding screw pipe support sheet (9) into the fuel tank, and fix it to the right panel with 4,2 x 13 self drilling SMS screw as seen in the following picture. Then fit service cover (10) onto the right panel with M5 x15 setscrews.

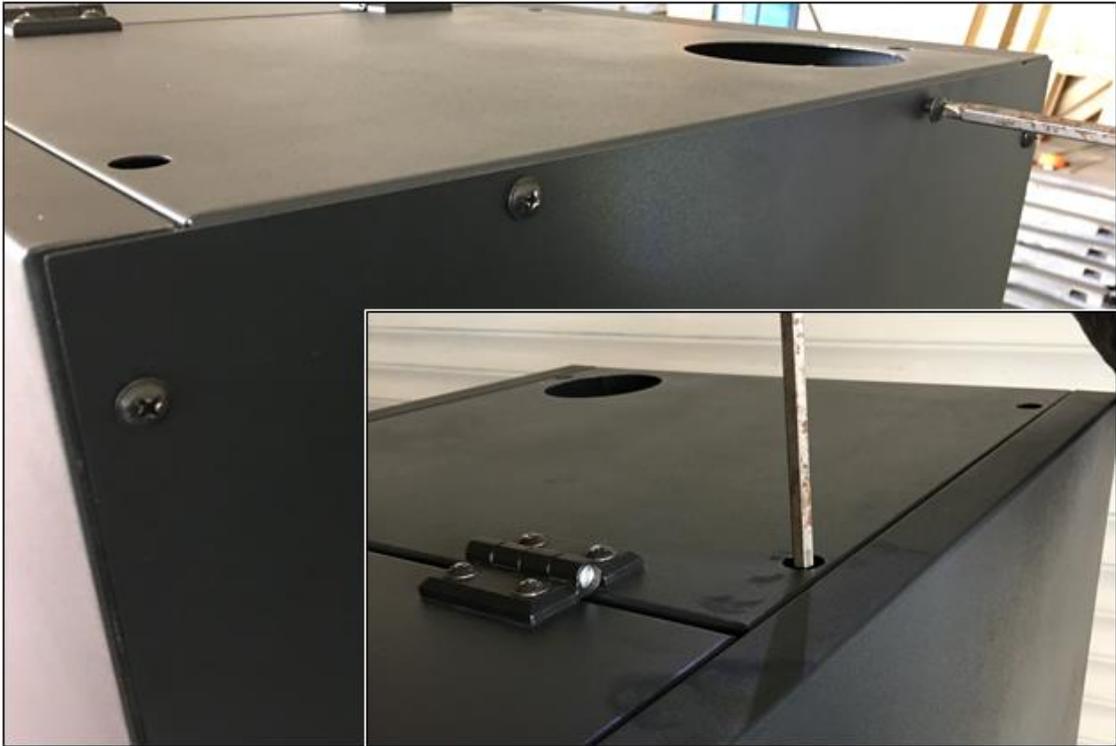


2.5. Fit hinges (11) onto top panels via M5x15 setscrews and M5 nuts:



2.6. Fit top panels group onto the fuel tank, securing it at the top and back of the product with M5 x 15 screws as seen in the following picture. Top panel rear part is fixed to the tank, while front

part is used as hinged cover for pellet loading. Insert plastic handle (14) onto related clearance on top panel front part.



2.7. Fit plastic feeding pipe (15) into feeding pipe adaptor (16). Be careful when matching the position of plastic pipe inside the adaptor, see blue line on plastic pipe aligned with the clearance on pipe adaptor. Fix those items together by 2 pieces 4,2x13 self self drilling SMS screws. Secure this group by 2 sets of M5x15 pan head setscrews and M5 nuts.



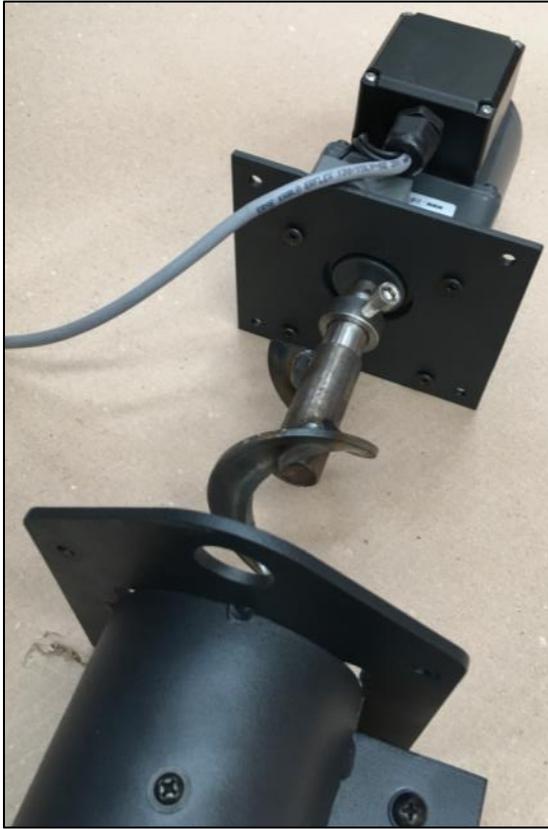
2.8. Fit gearmotor shaft fixing bush and M6x20 setscrew on the the feeding screw shaft (18) and (19)



2.9. Gearmotor (21) is supplied already installed on assembly plate and power cable pre-wired. Fix gearmotor group to the feeding screw securing it with pos. (18) and (19).



2.10. Pass feeding screw group through feeding pipe adaptor. Loose parts of Pg-11 cable gland, and, pass and secure the power cable of gear motor as seen on following pictures. Fix gearbox assembly plate to feeding pipe adaptor (16) by 4 sets of M5x15 pan head setscrews and M5 nuts.



2.11. Insert feeding pipe group into fuel tank. For correct positioning of the plastic pipe, refer to the following picture on the right. The end of plastic pipe must be well supported by the screw housing support sheet (9)



2.12. Fit pipe adaptor fixing sheet (23) onto feeding pipe adaptor (16) as seen on the following picture. Then, fix item 23 onto top panel of the tank (12) to keep the position of item 15 fixed for optimum pellet feed.



2.13. Remove the cover at the back of Cortina boiler, using the same screws, fit feeding adaptor for Cortina supplied inside the additional tank package. Fit PVC spiral hose between adators on the tanks and on Cortina rear cover. Secure both ends of the spiral hose by two cable ties supplied inside the package.



IMPORTANT NOTE

When fitting PVC spiral hose between boiler and additional tank, ensure that the hose will reach the adaptor on the boiler without any bend that may block the pellet flow. See the picture above for correct fitting. Cut the extra length of the hose during assembly.

3 PELLET LEVEL SENSOR INSTALLATION

3.1. For boilers already pre-cut for pellet level sensor

You will receive the boiler with its fuel tank equipped with a screwed circular cover on relevant sheetmetal of the tank. Just rotate the circular cover to reach pellet level sensor port as seen on following pictures.

Then continue with the assembly of pellet level sensor as described in the next chapter.

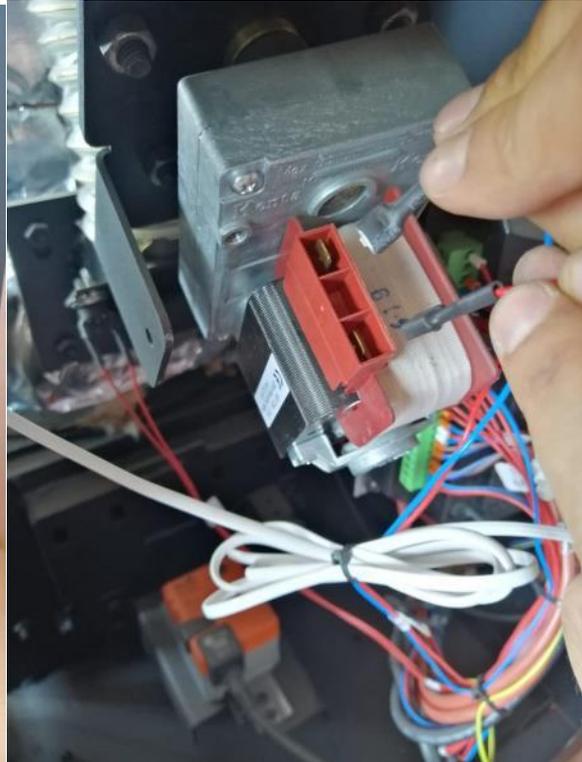


3.2. For boilers not prepared for pellet level sensor

Remove front panel left hand side modules, remove all top panels of the boiler. Detach the service cover on the right from the boiler



Remove user display interface cable from main boiler controller. Remove wiring from gearmotor terminals.



Remove front panel right hand side module from the boiler completely. Then, detach pvc spiral hose for pellet feed from the feeding screw adaptor as seen in the following pictures.



Remove real panel completely out of the boiler, then take the fuel tank outside the boiler. Use the A4 sized pattern supplied in fuel tank package to mark the correct place of the pellet sensor. See following picture.



Make a hole with 20 mm diameter using an appropriate tool on relevant fuel tank sheet. Take the pellet level sensor. It has a nut to secure the sensor onto the sheetmetal it is installed on.



Pass pellet sensor through the 20 mm diameter hole, and secure it with its nut supplied within the package. Having installed, the face with terminal should face the outside of the fuel tank. See following pictures.



Fit the fuel tank back on the boiler, applying all above in reverse order. Take pellet level sensor wire, fit one end into the terminal on the sensor, and move the other end onto related port on main boiler controller as seen below.

Reconnect user display cable, and gearbox cables. Put all covers, and side panels back on the boiler. Re-fit pvc flexible hose for feeding back onto the feeding pipe adaptor, and secure it with a cable tie. Check it is air-tightness.



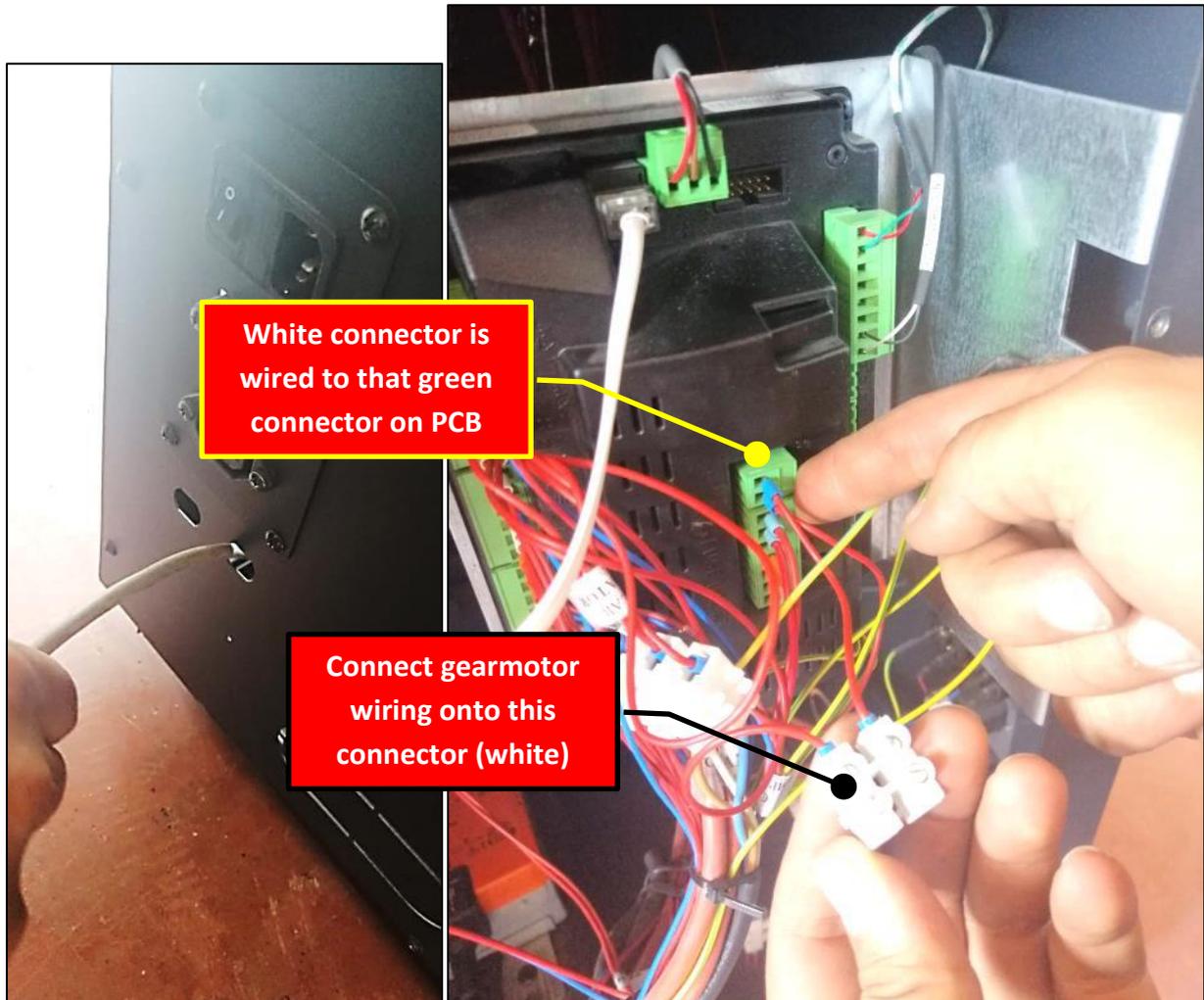
Pellet level sensor wiring attached to the main controller

NOTE: On other side of cable, there is a green connector with 3 terminals. You should connect it to the controller's pins numbers 43-44-45 which is next to user display connection. If you will need on any case, green connectors connections:

Pins	Cable Colors
45	Black (GND)
44	Brown (Signal)
43	Red (+Vc)

3.3. Gearmotor wiring

Wire of feeding motor is already connected to the motor. So you don't need to make connections inside of motor. After assembly of the silo, you can use one of the holes under power sockets to get in to boiler.



You should connect this cable to the terminal (white connector on above picture) which seems like room thermostat connection but not shorted. On above picture you can also track where this white terminal ends on the controller (it is the green connector pointed on above picture)

4 PARAMETERS SETTING

Pellet Level Sensor Configurations

P71 = 3 · IN8 configured as pellet level sensor input

P09 = 1 · Sensor type configuration

Loading Motor Configurations

P36 = 2 · AUX 3 is configured as Loading Motor

Loading Timers

T23 = 1800 · Loading time after sensor level is reached (seconds)

T24 = 3600 · Loading time to reach sensor level (seconds)

Functioning

When pellet level sensor signals for lack of pellet, controller starts the loading engine for a time equal to T24. If in T24 seconds pellet level will not reach to sensor level system goes in extinguishing and the display shows the message Er18. If the tank filled manually, it is possible to reset the error and restart the system. If the pellet level has reached to sensor level, pellet loading continues for T23 more seconds.