SOLUÇÕES DE AQUECIMENTO A BIOMASSA

Pellet Insert

Instruction Manual

Models

FIRE 9KW | EARTH 9KW | WIND 9KW

Read these instructions carefully before installing, using and servicing the unit. The instruction manual is an integral part of the product.

Mod.814-E

Thank you for purchasing a SOLZAIMA appliance.

Please read this manual carefully and keep it for future reference.

* All our products fulfil the requirements of the Construction Products Directive (Directive 89/106/EEC) and have been approved with the CE conformity mark;

* The Pellet Burning Free Standing Fires are designed according to EN 14785:2008 Standards

* SOLZAIMA disclaims any responsibility for damages to the unit if installed by non-qualified personnel;

* SOLZAIMA is not responsible for any damage to units not installed and used in compliance to the instructions included in this manual;

* All local regulations, including but not limited to national and European standards, must be observed when installing, operating and servicing the unit;

* Whenever you need assistance, you should contact the supplier or installer of your equipment. You should provide the serial number of your stove that is located on the nameplate on the back of the equipment and on the sticker, s glued to the plastic cover of this manual.

*The technical service must be performed by the unit Installer or Supplier, except on situations where the assessment performed by the installer or service engineer determines that SOLZAIMA should be contacted, if required.

Contacts for technical support:

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Table of Contents

1. Package Content 1
1.1 Unpacking the insert 1
1. Safety Precautions 3
2. Advice on action in the event of a fire in a chimney (including equipment) 4
Technical Specifications 5
3. Installing the Free-Standing Pellet Fire 7
4. Installation of optional accessories 18
5. Intallation requirements 29
6. Installation for exhaust gas systems: 29
8.1 Installing without a Chimney 30
8.2 Installation with a Chimney 33
7. Fuel 35
8. Use of the pellet insert 36
9. Remote Control 37
11.1 Infrared Remote Control 37
11.2 Control and Display Panel 37
11.3 Display Information Summary 38
11.3.1 Selecting the Manual or Automatic Mode 38
11.3.2 Date and Time 38
11.3.3 Timer 41
11.3.4 Sleep (this menu is displayed only while the unit is operating) 44
11.3.5 Info 45
11.3.6 Settings Menu 48
12. Alarm / Failure / Recommendation List 53
13. Start-up 55
13.1 Stop 55
13.2 Turning Off the Unit 55
14. Control and Display – Columbus Electronics 56
14.1 Internal Display 57
15. External Display 59
15.1 General Menu - Settings Menu 60
15.1.1 Settings Menu – Language 60

15.1.2 Settings Menu – Date and Time 62
15.1.3 Settings Menu - Remaining Options 64
15.2 General Menu - Power Menu 67
15.3 General Menu - Service Menu 69
15.4 General Menu - Thermostats Menu 74
15.4 General Menu - Chrono Menu 76
16. List Alarms / malfunctions / recommendations 81
17. Instruction for installing the frame 83
17.1 Choice of frame 83
17.2 Installation of the frame on the equipment 85
18. Replenishment of pellets 86
19. Maintenance 89
20. Maintenance Plan and Log 97
21. Maintenance Guide Label 101
22. Electrical Diagram of the Free-Standing Fire Unit 102
22.1 Electrical schematic – Not applicable to Columbus Electronics 102
22.2 Electrical Schematic – Columbus Electronics 102
23. End of life of a pellet insert 103
24. Warranty 103
24.1 Warranty general conditions 103
25. Annexes 111
25.1 Flow chart 111
25.2 Statement of Performance 114

1. Package Content

The packaging of the equipment has the following contents:
- Pellet Insert models: Fire 9kW, Earth 9kW or Wind 9kW;
- Handle for opening the door and extracting the equipment;
- Power cable;
- Infrared remote control;

1.1 Unpacking the insert

To unpack the equipment, you must first remove the retractable bag that surrounds the carton box. Then remove the box by lifting it up and removing the bag wrapping the insert and the Styrofoam plates.

- The insert has a fixed part and a movable part which can be separated. To separate the two parts, first open the two safety latches under the door, use the accessory to make it easier to open.

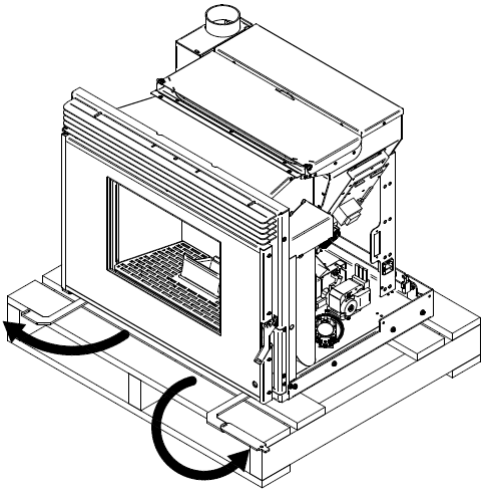


Figure 1 - Open safety latches

- With the two latches open, use them as pullers to separate the movable part from the fixed part attached to the pallet.
- ⚠ **Notice.** When you open the runner system to the limit, you notice a ledge that locks the moving part, as the ledge passes, the slides are released and the equipment

may fall. You have to be careful that this does not occur. The movable part of the fixed part is then separated.

- The surfaces on which the parts are supported must be protected.

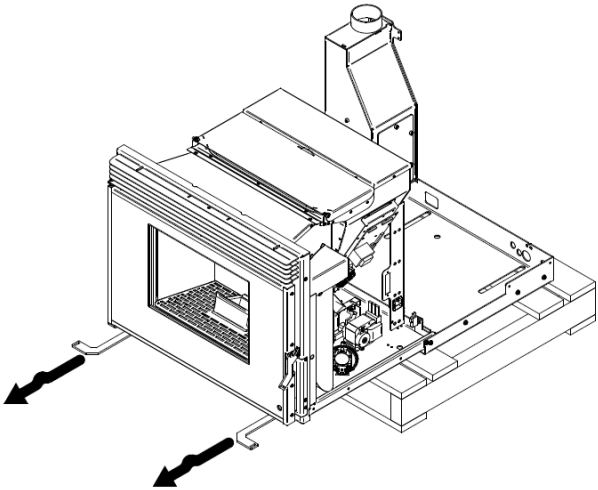


Figure 2 - Separate moving and fixed parts

- With the help of a star wrench PZ2 remove the two screws securing the fixed part to the pallet, the equipment is thus completely unpacked.

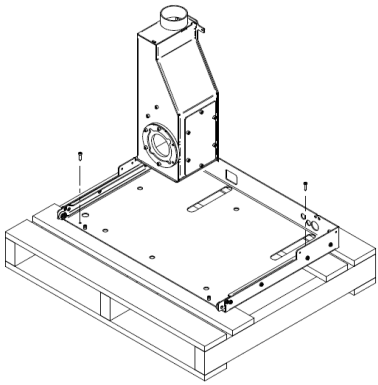


Figure 3 - Separate parts

2. Safety Precautions

- Make sure you fully read and understand the instructions contained in this manual before using the pellet insert as a biomass heating unit.
- The pellet insert is not intended for use by children or people physically and/or mentally challenged, or that are inexperienced or unfamiliar with using the unit, except when under supervision or after receiving proper training.
- Do not touch the pellet insert when barefoot or if any part of your body is wet or humid;
- Do not tamper with the safety devices or adjustment features without the SOLZAIMA SA manufacturer's authorization;
- It is prohibited to cover or reduce the size of the ventilation openings of the installation;
- The pellet insert is an equipment that requires air to have a proper combustion, the possible Airtightness of the place where the equipment is located or the existence of other sources of air extraction in the house can prevent the correct functioning of the equipment;
- The existence of vents is a requirement for proper combustion;
- Please keep the packing materials away from children;
- During normal operation, DO NOT open the door of the unit;
- Some parts may overheat during normal operation, so the direct contact with hot parts such as the door handle and glass should be avoided;
- Check for the existence of any obstructions to the fume duct before turning on the unit after a long idle period;
- The pellet insert is designed to work inside a protected environment. Safety systems may be used to turn off the insert. If this happens, contact the after-sales service and never in any situation disarm the safety systems;
- The pellet insert is a biomass heating unit equipped with an electric fume extractor. The occurrence of a power failure during its use may prevent the fume to be extracted, consequently causing the room to be filled with smoke. For this reason, a natural fume extraction system, like a chimney, is recommended;
- NEVER turn off an operating Free Standing Pellet Fire unit by disconnecting the electric plug. The fume extractor on the Free-Standing Pellet Fire unit is a powered feature, so disconnecting the power plug will prevent the extraction of combustion fumes;

- The unit must be disconnected from the mains power before any maintenance procedures can be performed. Please allow the unit to cool down completely before any maintenance operation (if operating before);
- Never touch the interior of the unit without disconnecting it from the power mains.

3. Advice on action in the event of a fire in a chimney (including equipment)

- Try to put out the fire, without risking your life.
- If you cannot put out the fire within a minute, you should call the fire department.
- Close the doors and windows or partition where the fire has flared.
- Turn off the power and close the gas before leaving your home.
- Once outside, you must wait for the firemen and be ready to give them the following information: location of the fire, possible materials that are burning and what they can do to prevent fire progression.

4. Technical Specifications

Features	Fire 9 kW	Earth 9 kW	Wind 9 kW	Units
Weight	112	114	116	kg
Height	546	606	546	mm
Width	688	688	688	mm
Depth	573			mm
Diameter of the fume discharge pipe	80			mm
Reservoir capacity	15			kg
Maximum heating capacity	188			m^3
Maximum overall thermal power	8,3			kW
Minimum thermal power	3,2			kW
Minimum fuel consumption	0,7			kg/h
Maximum fuel consumption	1,9			kg/h
Rated electrical current	100			W
Electric power at start-up (<10 min.)	350			W
Rated voltage	230			V
Nominal frequency	50			Hz
Thermal yield at rated thermal power	90,1			%
Thermal yield at reduced thermal power	96			%
Max. smoke temperature	154			°C
Min. smoke temperature	66,3			°C
CO emissions at rated thermal power	0,01/0,035			%
CO emissions at reduced thermal power	10,35/8,74			%
Combustion gas mass flow	6,3/2,6			g/s
Draught in the chimney	12/10			Pa
Fan Flow	48,2			dB(A)

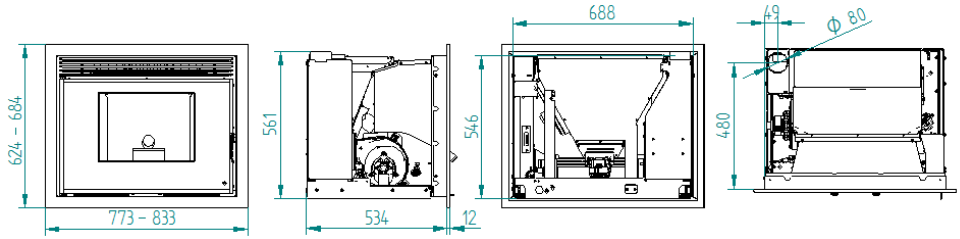
Table 1 – Technical specifications

Tests were performed using wood pellets with a heating capacity of 4.9 kWh/kg. The above information was obtained during product homologation tests conducted by independent laboratories accredited for pellet unit testing.

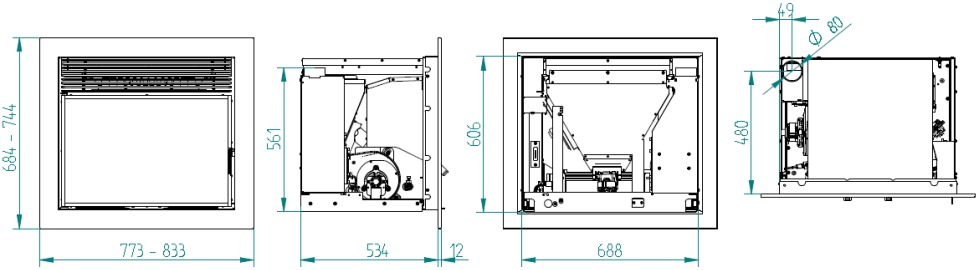
General Measures

Front Back Side Top

Fire 9 kW



Earth 9 kW



Wind 9 kW

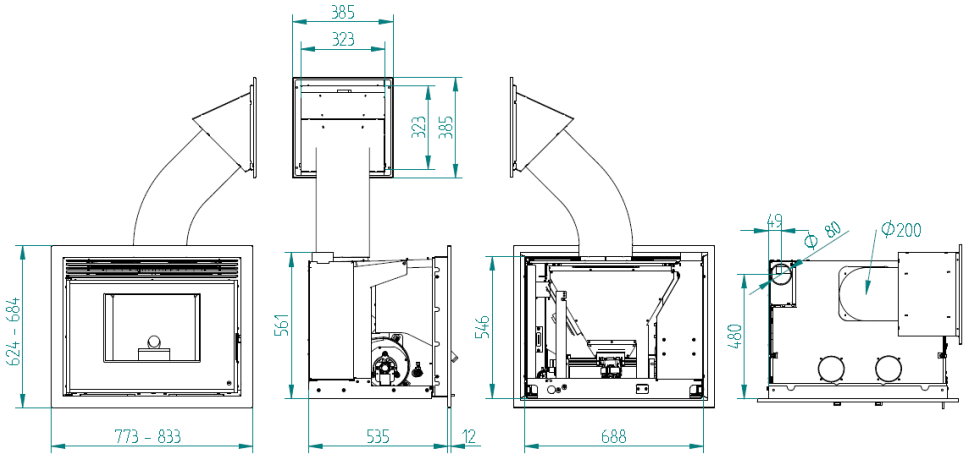


Figure 4 - Insertable dimensions to pellets

5. Installing the Free-Standing Pellet Fire

Before you begin the installation, perform the following actions:

- The recommended measures for installing the pellet insert are as follows:

Model	Width (mm)	Height (mm)	Depth (mm)
Fire 9 kW	695	550	550
Earth 9 kW	695	610	550
Wind 9 kW	695	550	550

- The surface where the base of the equipment is to be fixed must be levelled and have the necessary strength to support the entire weight of the equipment and its subsequent movements to load pellets.
- The base of the equipment has 7 holes to attach to the support.

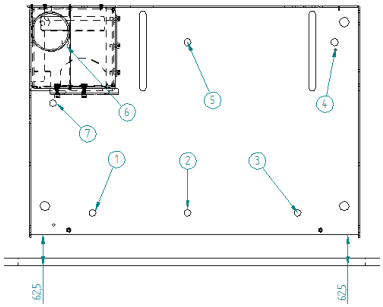


Figure 5 - Fixing base equipment

- As can be seen in Figure 5, a distance of 62.5mm from the base to the front of the wall must be left (it must be perfectly parallel).
- The equipment has an approximate weight of 100 kg and when it is extracted to the pellet / maintenance position, it exerts a high force on the base, during installation it is necessary to use anchoring material suitable for the type of base, soil and wall (In the case of extending table), recommendations:

Material	Type of attachment	Image
Massive (slab, stone)	FMS M8x60 Ø10 Metallic	
Massive and non-massive (brick)	FIP M8x60 Ø10 Chemical	

- It is very important that the base where the insert is installed is completely horizontal.
- If you do not have a base, the optional extendable table is available. This table is a metal structure that must be fixed to the floor and to the wall. The table can be adjustable in height between 300 mm (minimum) and 545 mm (maximum), it is very important to ensure that the top is perfectly horizontal for the correct operation of the equipment. Together with the extendable table, screws are delivered to secure the base of the insert to the table, with the same 7 screws, it is possible to attach the equipment to an existing base. Instructions given in point 6.

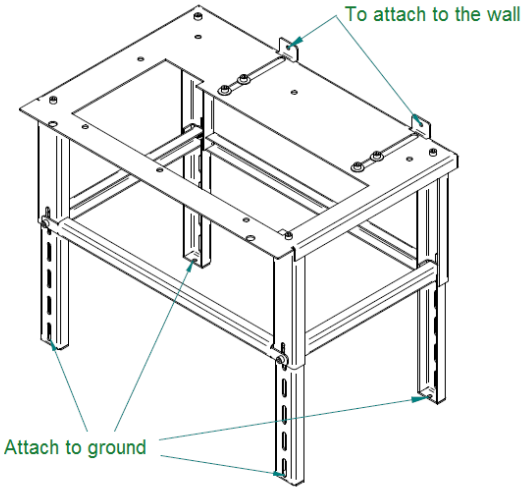


Figure 6 - Optional extendable table

- Connect the 80 mm diameter pipe between the flue gas outlet and the flue outlet to the outside of the building (e.g., fireplace) in accordance with the installation drawings.

- After securing the base of the equipment and the chimney being installed place the moving part of the equipment as shown in Figure 7.

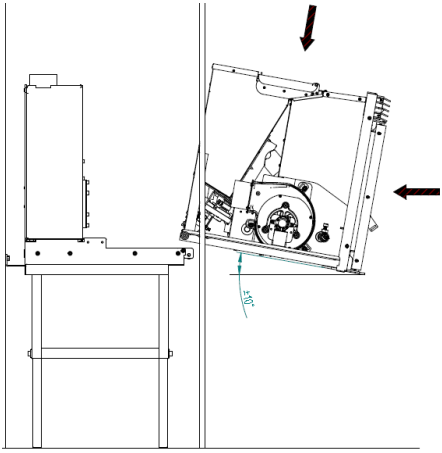


Figure 7 - Installation

- Then do a rotating motion to bring the equipment to the horizontal.

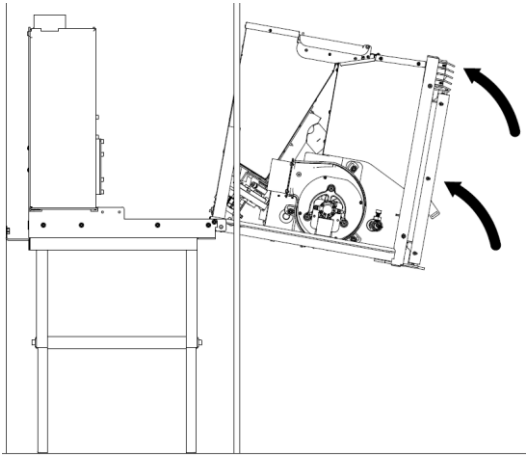


Figure 8 - Installation

- Push the movable part to the wall so that it slides on the rails. Check the correct sliding and that everything is properly attached before continuing with the installation.

Move the equipment to the end of runner system with open safety latches and once in position, close them to ensure that the equipment is properly placed in the working position.

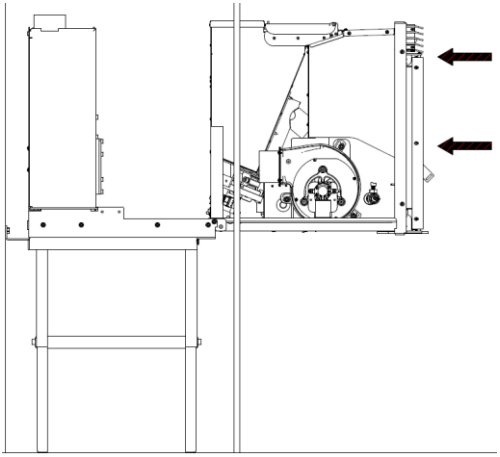


Figure 9 - Installation

- Connect the power cord to a 230V 50Hz grounded outlet.

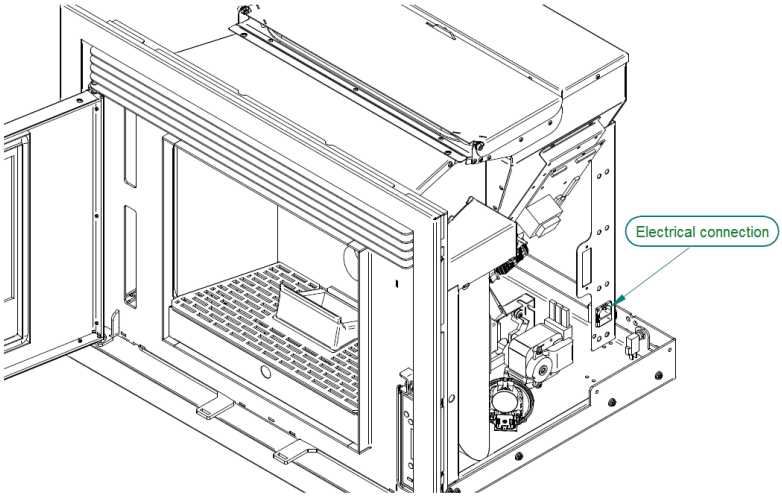


Figure 10 - Electrical connection

- After connecting the power cable to the silo column, it is necessary to attach the cable to the same column and the base, making sure to leave enough cable length, so that the equipment can make the entire route in the rails (500 mm), without the cable being stressed or touching the hot parts, Figure 11.

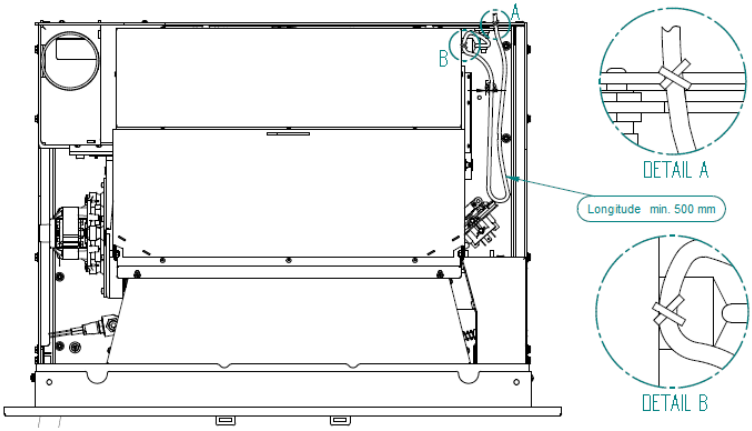


Figure 11 - Electrical connection

- Standard installation of the insert:

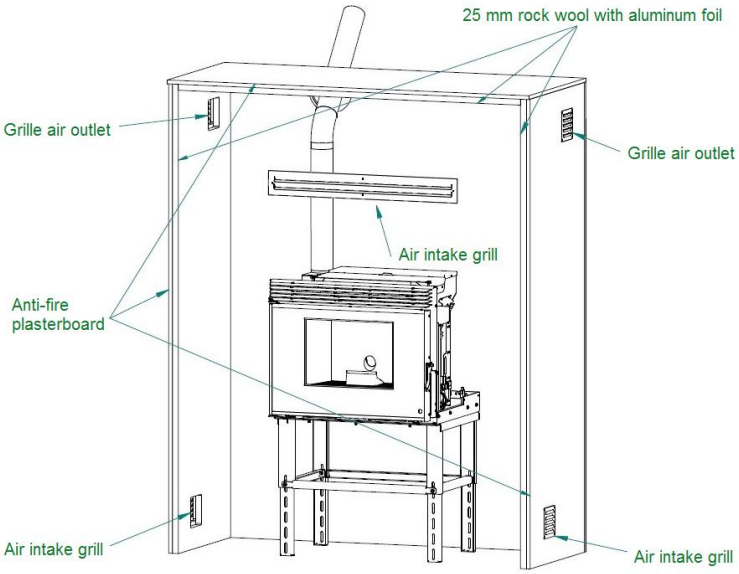


Figure 12 - Electrical connection

Installation WIND 9 kW

In case of the Wind 9kW it will be necessary to install the pellet feeding system. To install this loading system, it is necessary to open a 330x330 mm hole.

• The position of the loading system has to maintain a ratio where X is always less than Y = X * 0.7, Figure 13, so that we can ensure that the slope is sufficient so that the pellets are not trapped in the tube connecting the loading mouth with the top of the insert structure. The loading mouth can be installed in any of the walls that form the surroundings where the equipment is installed, either to the right or to the left, as in the front or rear, if the layout of the house allows it. It is always necessary to respect the minimum distances X = 390 mm, Y = 275 mm Example: X = 450 mm Y = 450x0.7 = 315 mm (minimum).

• The tube used to attach to the loading mouth and top of the insert chassis must have an internal diameter of 200mm and must be rigid enough not to deform when the pellets fall inside. It is recommended to apply flexible aluminium tube.

• To attach the drop tube of the pellets to the loading mouth of the top of the insert chassis it is recommended to use metal clamps. This type of clamps provides good clamping and sealing, and it is possible to open or close the clamp when necessary.

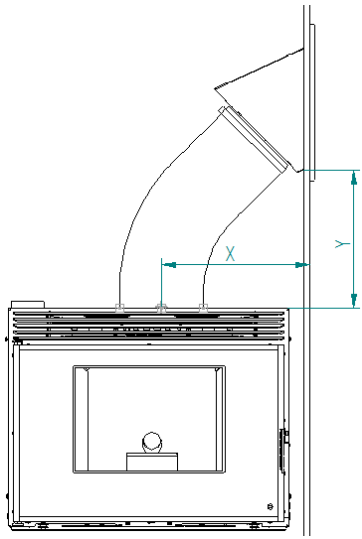


Figure 13 - Feeding system installation

• The easiest way to install the tube will be to perform the following steps:

1- Using the metal clamp, attach the pre-cut tube with the appropriate size and shape onto its final position in the loading mouth.

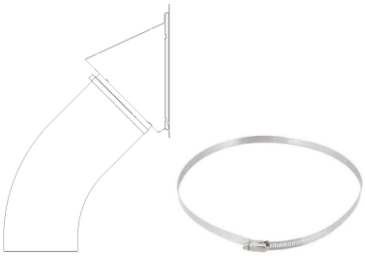


Figure 14 - Installation of the loading tube and metal clamp

2- Insert the assembly through the hole made in the wall with the above-mentioned measurement 330x330 mm, respecting the dimensions for its positioning indicated above, it is necessary to fix the loading mouth.

3º- To be fixed to the wall, the loading system has four 6 mm holes in diameter. It is recommended to use 8mm SX bushings for brick walls with 4.5 or 5.5 bolts and 8mm HM bushes for plasterboard walls (Pladur) with the corresponding screws.

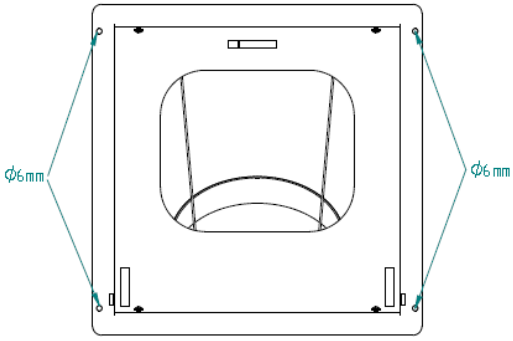


Figure 15 - Mouthpiece installation

4º After fastening the loading piece, place the finishing frame with the cover. Fix the frame by tightening the 4 load screws on the wall. The cover has a pin limiting its the

opening, as can be seen in the following figure, with a cut of the base assembly, finishing ring and loading cover.

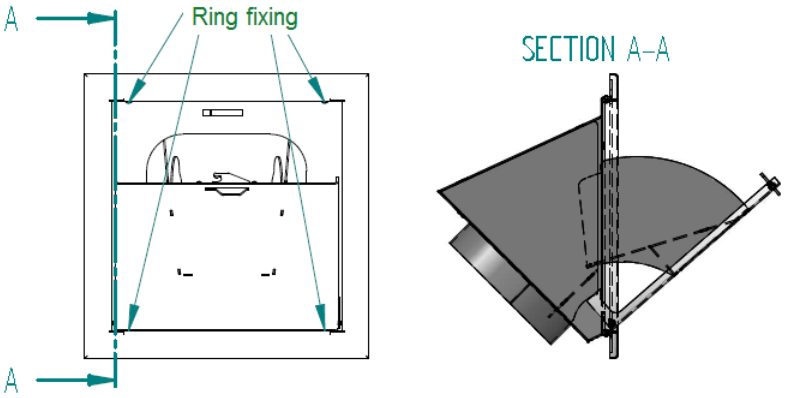


Figure 16 - Equipment installation

5º- When opening the lid, the inner parts are positioned to facilitate the loading of the pellets, for this reason it is very important that the cargo mouth is always placed in the position shown in Figure 16.

6º- As shown in Figure 16, the WIND version has a top chassis attached to the side columns by means of DIN 912 M6 screws and DIN 934 nuts. Unscrew without completely removing the front screws (marked with the letter "A"), the cap rotates over the rear screws, making the top cover accessible to facilitate attachment of the flexible tube to the pellet gargle. It is necessary to join the tube leaving the loading mouth with the cap through a metal clamp, it is necessary to make sure that the tube has no curves where they can

Accumulate pellets. Finally, place the cover in its original position and fix the screws again.

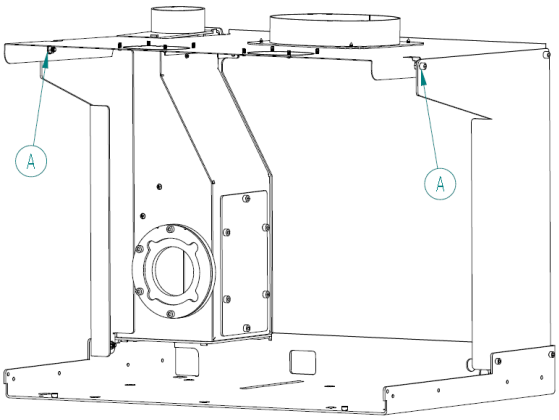


Figure 17 - Installation of the pellet insert

- The option to install a system to channel the air is only available for the version of WIND, due to its construction, designed with superior load. To install the system, you must follow the following steps:

1º- Ensure that the fixed part of the insertable pellets is in its definitive place.

2º- The pellet loading tube installation must be carried out in the same way. Add a pipe to channel the air (aluminium tube 100 mm in diameter) with the grid to be fixed to the wall. It is recommended to make this union with a metal clamp. The length of the aluminium tube should be sufficient to reach the air outlet, located on the top of the chassis. It is necessary to repeat this step to place the second tube.

3º- To access the top of the cover, Figure 17. It can be observed that the upper part comes with the installation of 2 air outlets of 100 mm, with a pliers cut the micro joints to install the tubes for the ducted hot air.

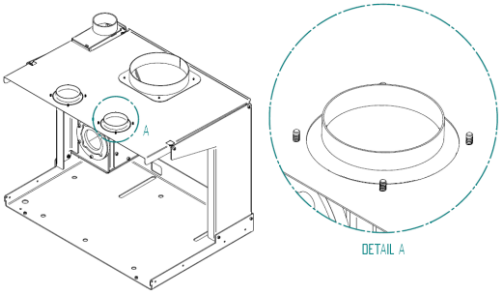


Figure 18 - Insertable pellet installation

4º- It is important that the bolts or rivets used to secure the air outlets be fixed from the bottom up so that a minimum height is allowed inside the insert to not interfere with the proper extraction of the equipment during maintenance, see Figure 18.

5º- Once the grilles are fitted, the ducted air pipes are attached to them. The use of metal cable clamps is recommended. It is important to ensure that the air pipes are not in contact with the exhaust pipe or pellet duct to prevent noise or vibration during operation of the insert.

- Example of a ducted air installation:

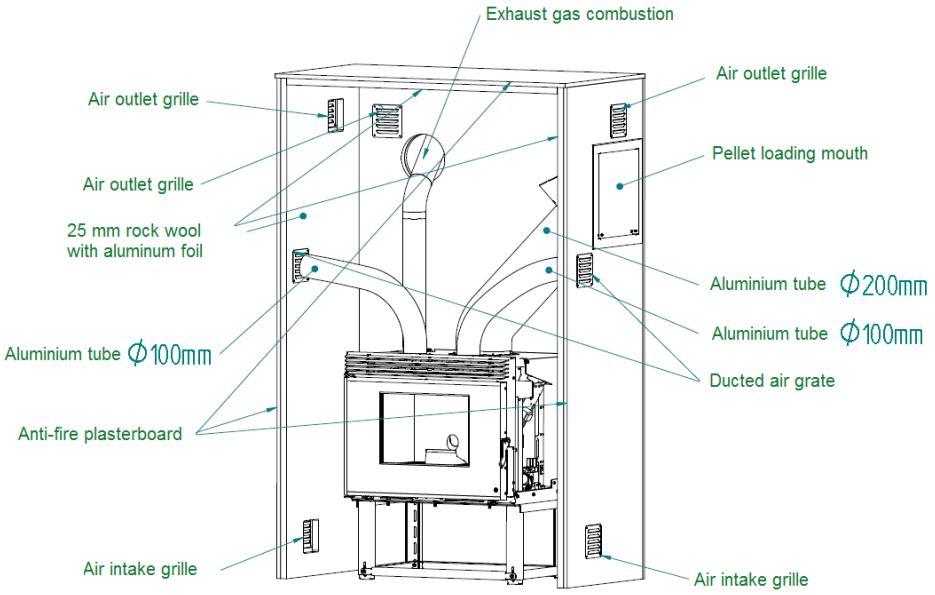


Figure 19 - Equipment installation

- In the installation example, Figure 19, it can be verified that the pipes are placed to channel the hot air outlet to the room where the insert is installed, but could be installed to carry hot air to neighbouring rooms. The maximum length of pipes without installing an air extraction box is 3-4m.
- The amount of air flowing to the front of the equipment and that flows through the tubes to channel the hot air can be adjusted using the accessory to open the door and the safety latches. Put the back part of the accessory between the grate in its central part as shown in Figure 20, you can check that there is a piece that fits perfectly and is able to rotate and move a deflector that causes the air to be directed towards the Front

or to the air pipes. For safety, there is always a minimum amount of air that has to come out in front of the equipment. After adjusting the position, you must remove the accessory to keep it cool.

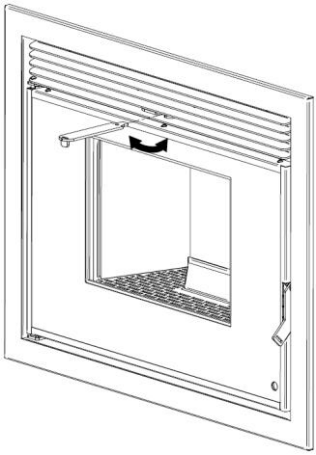


Figure 20 - Equipment installation

6. Installation of optional accessories

Installing the display outside the equipment (not applicable for Columbus Electronics)

It is possible to install the display outside the insert. It's an option that allows the installation of the display where it is most practical, up to a maximum length of 30m using a parallel cable with a 0.75 mm^2 section. In this way, the operation of the insert can be controlled without being close to the heat source, even from another division. This installation requires two additional components: the blind cover for the insert and the frame to attach the display to the wall. Sufficient cable length must be left so that the moving part of the equipment can be removed without causing strain on the cable and does not interfere with the movement of the equipment guides. Steps for assembly:

Once you have chosen the location where the display will be installed, you should make a hole in the wall with the help of the plate that will support the display on the back. Place it next on the wall, making sure it is levelled and with the help of a pencil mark the hole as shown in the figure.

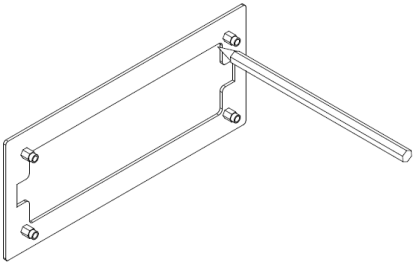


Figure 21 - Installing the display outside the insert

1. Place the outer support plate, making it coincide with the markings done previously as shown in the figure with the hole, mark the 4 holes where the screws pass.

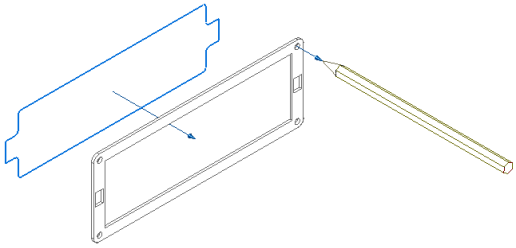


Figure 22 - Installing the display outside the device

3. With the 5 holes open, the next step is to insert the back support plate to be fixed from the inside of the wall.

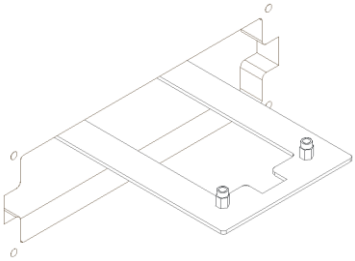


Figure 23 - Installing the display outside the device

4. On the outside, place the front support plate to match the holes previously opened, insert the screws 4x30mm DIN 7991 until it is fully threaded, leaving the two pieces together and the wall between them.

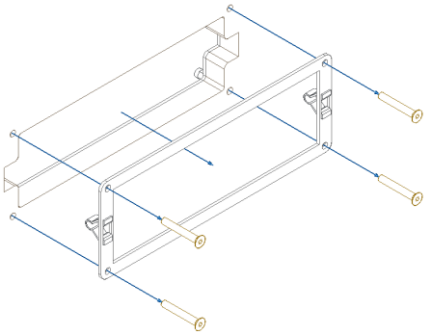


Figure 24 - Installing the display outside the device

5. With all the support fixed to the wall, the display can be placed on the finishing frame, fixing the display from the front and the box from the rear. We have to connect the two wires of the display and must take into account that the length must be enough to be able to remove without creating any problem or tension or interference of the cable. Finally, the frame must be fitted with the display by attaching the bolts to the fixing springs as shown in Figure 25.

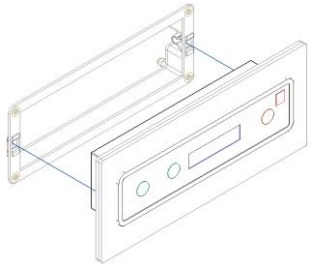


Figure 25 - Installing the display outside the device

Temperature probe installation

• The pellet inserts have a probe to measure the ambient temperature. For a correct reading of the ambient temperature, this probe must be located on the exterior in a place where it does not receive direct radiation or hot air from the equipment. It is sufficient to drill a hole in the wall and fix the box screwed or glued, leaving the end of the probe inside. Sufficient length of cable must be left so that the moving part of the equipment can be removed without causing strain on the cable and does not interfere with the movement of the equipment guides.

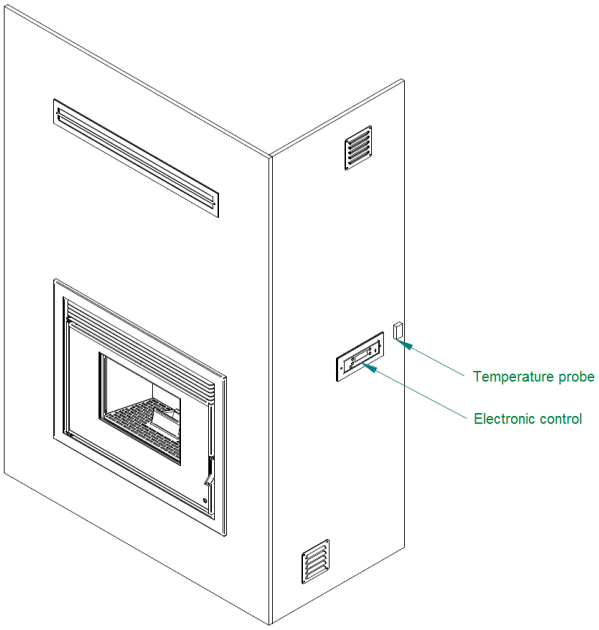


Figure 26 - Installation of the accessories

Installation of ventilation grille

1. The grate must be installed at the top of the wall where the equipment is installed to allow the exit of the hot air that accumulates inside the walls, and together with lower grates allows a natural circulation that will cool the interior walls.

Once you have chosen the place where the grill will be placed, you should drill a hole in the wall with the help of the plate that will support the back. It should be placed on the wall making sure that it is level, with the help of a pencil mark the hole as shown in the figure.

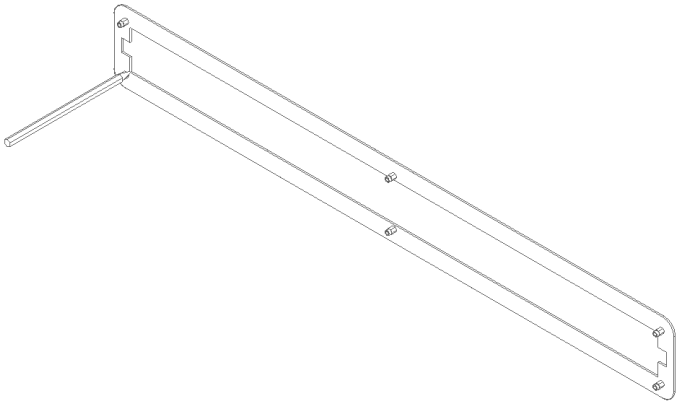


Figure 27 - Installation of the accessories

2. The outer support plate is placed making it coincide with the markings done previously as showed in the figure then mark the 6 holes.

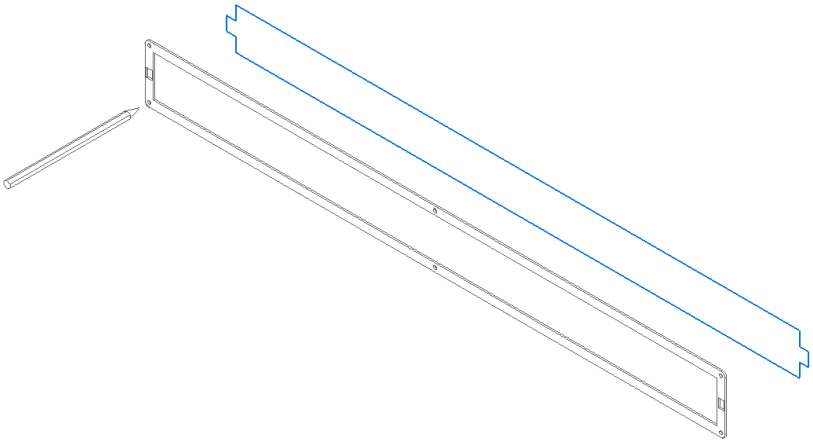


Figure 28 - Installation of the accessories

3. The **next step** is to place the rear support plate to be fixed from the interior of the wall.

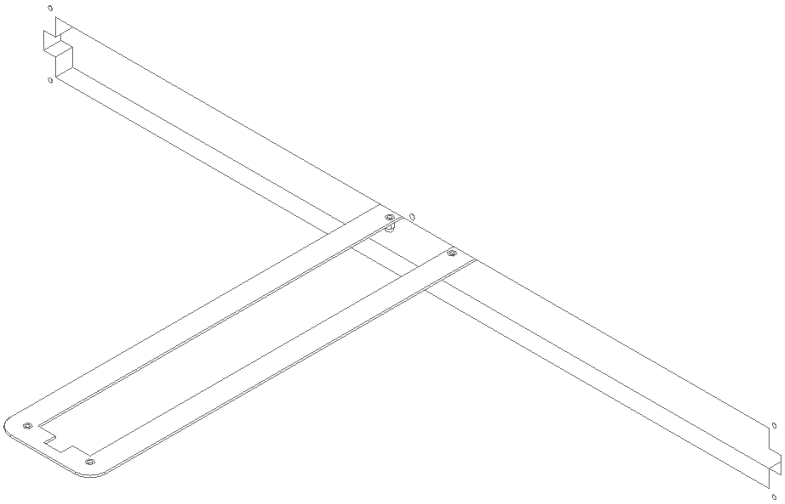


Figure 29 - Installation of the accessories

4. On the outside, place the front support plate to match the holes previously opened, insert the screws 4x30mm DIN 7991 until it is fully threaded, leaving the two pieces together and the wall between them.

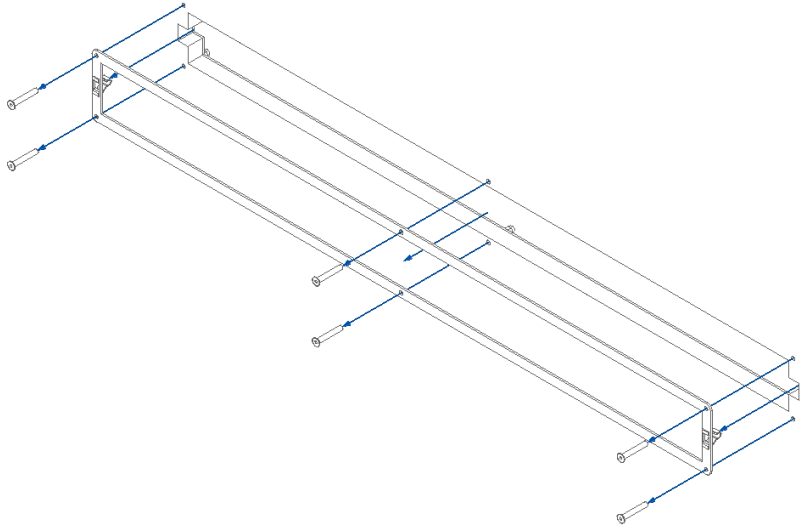


Figure 30 - Installation of the accessories

5. Finally you can place the grate on the wall by fitting the bolts into the fixing springs as shown.

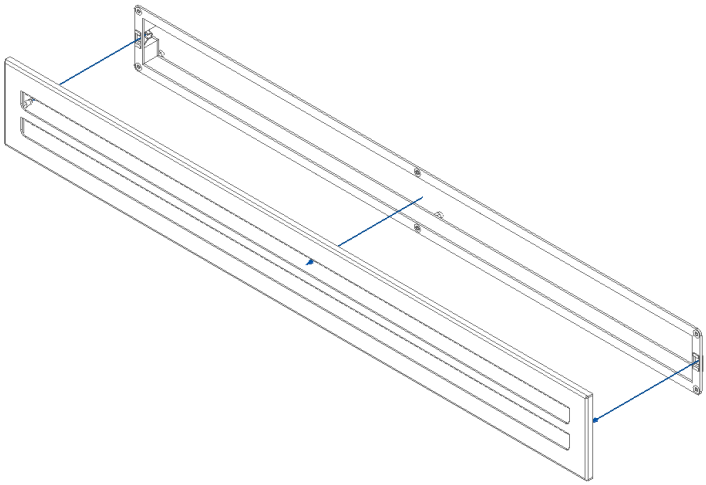


Figure 31 - Installation of the accessories

Auxiliary table installation

To perform a root installation. A height adjustable table is available to facilitate the installation of the equipment. The table is adjustable in height and has 2 components to regulate the depth and be able to fix it to the back wall. It also has holes in the lower legs to facilitate fixation to the floor.

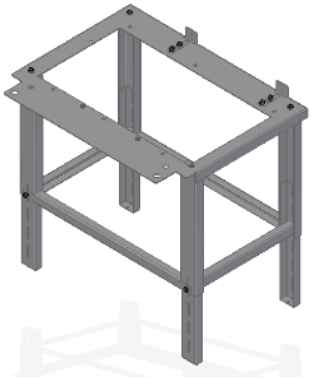


Figure 32 - Auxiliary table installation

It is very important that the table is levelled, both in depth and width, this will facilitate the extraction of the equipment on the guides and so increasing their life span. To level the table, it is necessary to adjust the legs in height.

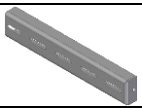
The attachment to the wall and to the floor will depend on the material from which they are made. The fastening must be very firm because the insert has a weight of about 115 kg, for this reason, the following configurations are recommended according to the material where the table will be fixed:

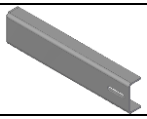
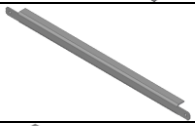
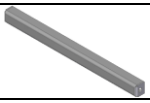
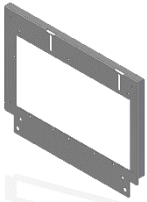
Material	Type of attachment	Image
Massive (slab, stone...)	FMS M8x60 Ø10 Metallic	
Massive and non-massive (brick)	FIP M8x60 Ø10 Chemical	

You should select the type of configuration that best suits your needs and use the proper tools and security measures for the installation.

To assemble the table components, you need a 6 mm hex key.

The components that make up the table are as follows:

Component drawing	Quant.	Description
	21	Screw DIN 912 M8x20mm
	4	Washers DIN 9021 M8
	6	Nylon Bushing 8x40
	6	Screw AGL CE 5x40
	2	Screw DIN 933 5.6 M8x16
	4	Extension for leg

	4	Table leg
	2	Long locking
	2	Short locking
	1	Table
	2	Fixing brackets

1. Protect the surface on which you are going to work. The four legs of the table should be attached by hand with four DIN 912 M8x20mm screws as shown in figure 33. The rest of the assembly will be easier to perform. As indicated in Figure 33.

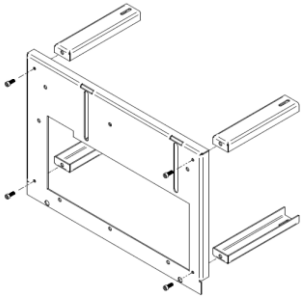


Figure 33 - Auxiliary table assembly

2. Place one of the short locks on the inside of one of the leg extensions and insert between the two leg extensions on one side, as can be seen in the image below. Place one of the long interlocks on the outside and secure the assembly with a DIN 912 M8x20mm bolt. Do not tighten the bolt tightly to make the rest of the assembly easier. The leg extensions have 5 holes, you must select which to apply as well as the total height of the table.

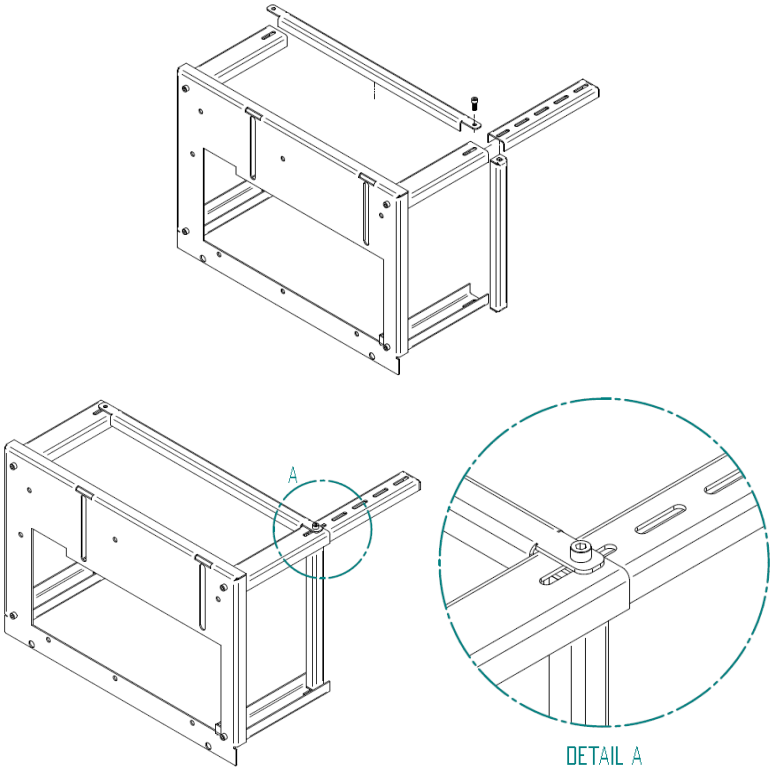


Figure 34 - Auxiliary table assembly

3. One must repeat the process for the other three legs.

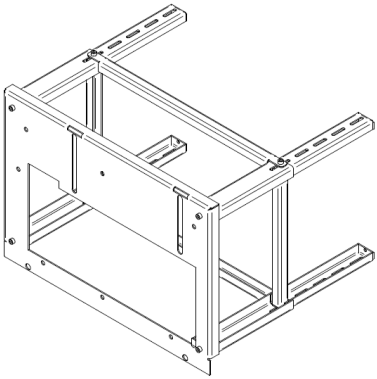


Figure 35 - Auxiliary table assembly

4. Place the two set-squares through the opening on the table and put a screw and washer in each. Do not tighten the bolts completely, just enough to allow displacement of the brackets.

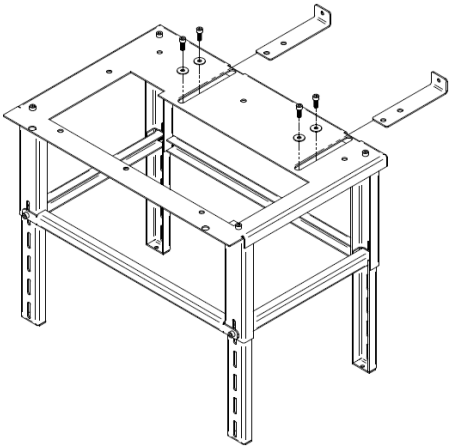


Figure 36 - Auxiliary table assembly

5. To place the auxiliary table in its final position, remember that the table has to be installed 62.5 mm from the front wall, as shown in the image. Then mark the four holes of the legs on the floor, drill the holes, you must use the necessary means of fixing as indicated previously. At the end the table should be fixed to the floor.

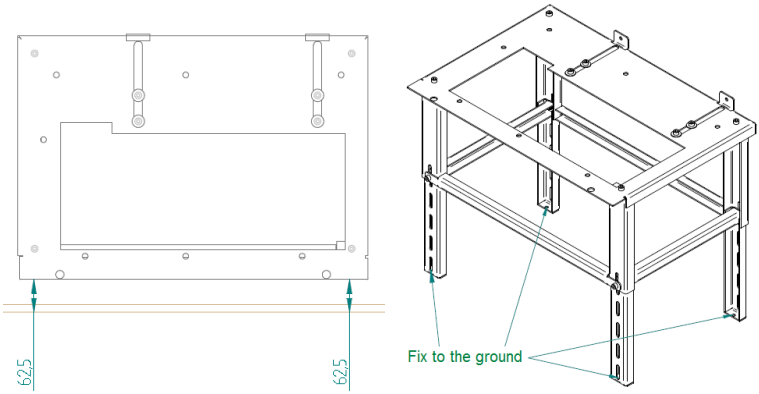


Figure 37 - Auxiliary table assembly

6. You should level the table as accurately as possible with the help of a level. Tighten all screws with a 6mm umbrako wrench. Move the squares on the back wall and mark

the holes. Remove the brackets, if necessary, remove the screws and remove the assembly to make it easier to drill holes in the wall. Once done is put the necessary components to fix, place the brackets in place. Check that the table is level and that it respects the height of 62.5 millimetres. The screws that secure the table brackets must be tightened with a 6 mm umbrako table. Before finishing installation check that the table is level if necessary to correct.

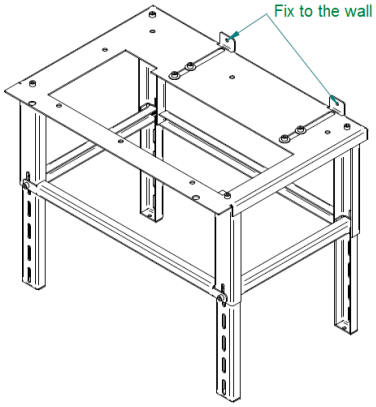
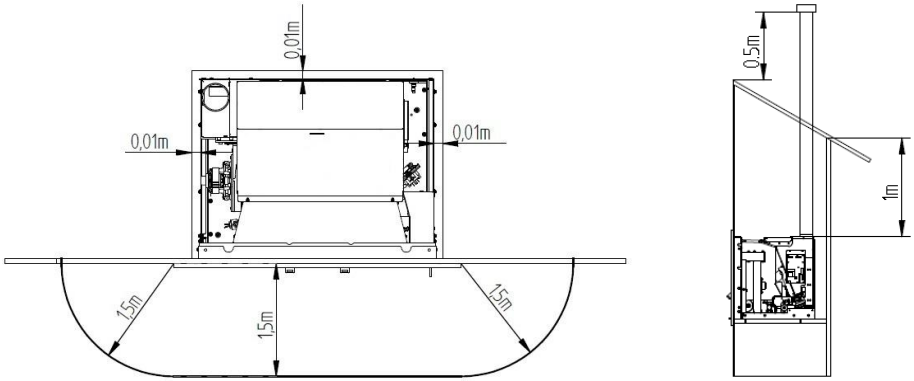


Figure 38 - Auxiliary table mounting

7. Installation requirements

The minimum distances from the pellet insert to flammable surfaces as shown in figure 39. At the top of the insert it is necessary to keep a minimum distance of 1 m from the ceiling of the room especially if they contain flammable material in their composition.

The base that supports the insert cannot be made of combustible material (e.g., carpet) and adequate protection must always be provided.



a) b)

Figure 39 - Minimum distances of all surfaces: a) top view of the installation of the equipment; b) side view of the equipment installation

¡NOTICE!

Keep combustible and flammable materials at a safe distance. Never less than 5 cm from insulated surfaces and 1 cm to non-combustible surfaces.

8. Installation for exhaust gas systems:

- The construction of the exhaust pipe must be suitable for the purpose in accordance with local requirements and in compliance with the regulations in force.
- As shown in Figure 40, the exhaust duct must be so arranged that cleaning and maintenance are ensured by insertion of the inspection points. The insert contains a registration cover in the smoke box for cleaning.
- Under nominal operating conditions, the drawdown of the combustion gases must give rise to a depression of 12 Pa, measured 1 meter above the chimney neck.
- The insert cannot share the chimney with other equipment.

- Tubes outside the site of use must be double insulated in stainless steel, with an internal diameter of 80 mm.
- The exhaust pipe can generate condensation; in this case it is advisable to establish suitable condensate collection systems.

8.1 Installing without a Chimney

The installation of the pellet inserts when there is no chimney should occur, as in figure 40, bringing the exhaust pipe (with a minimum internal diameter of 80 mm) directly out and above the roof.

Double-walled insulated stainless-steel pipes should be used properly to avoid condensation.

Provide at the base of the tubing a T for periodic inspections and annual maintenance, as exemplified in Figure 40.

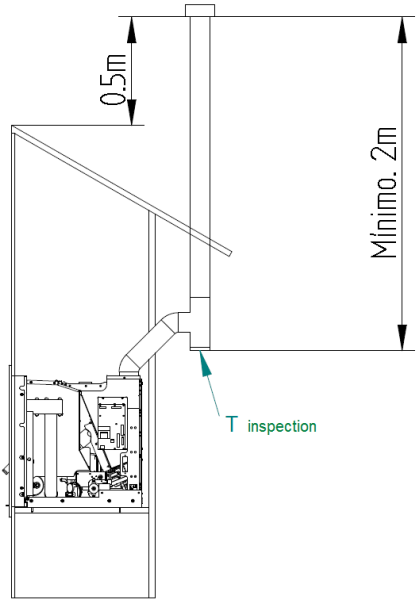
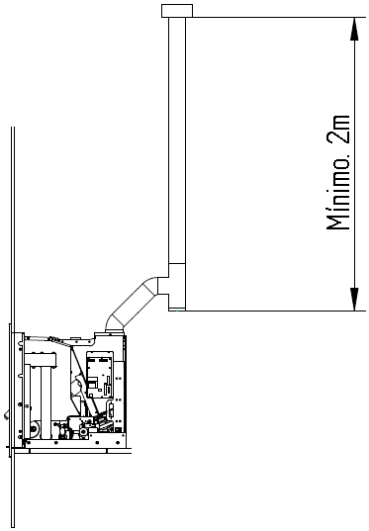
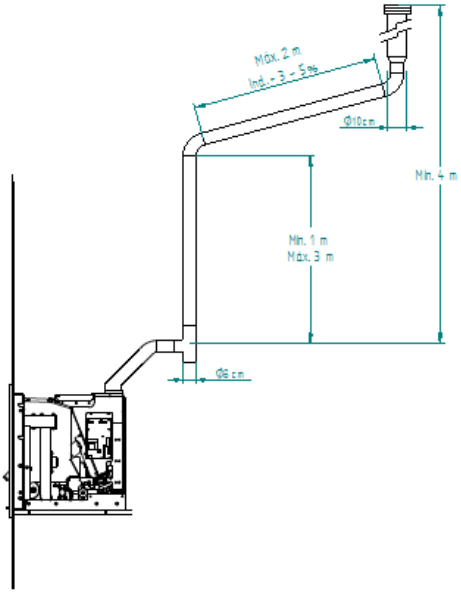


Figure 40 - Side view of the installation without chimney, example of the inspection point

In Figure 41, the basic requirements for installing the insert flue are shown.

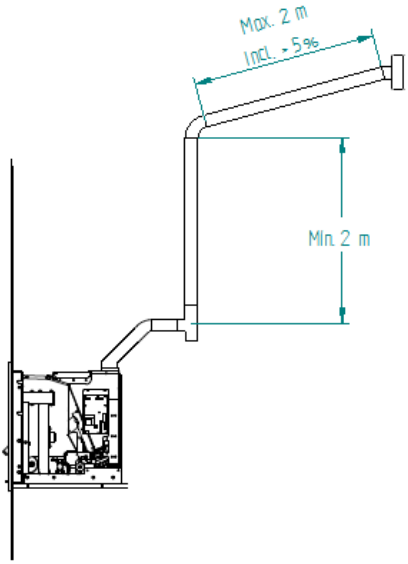


a)



b)

Attention. Do not use 90º curves.



c)

Figure 41 - Examples of installations

⚠ Failure to comply with these requirements may prevent the correct operation of the unit, resulting in warranty void. Be sure to follow all the instructions on the diagrams.

⚠ Free Standing Fires operate with the combustion chamber in draught, which is why it is absolutely necessary that they include a fume exhaust duct to adequately extract combustion gases.

Fume duct material: The tubing must consist of 0.5mm thick rigid stainless steel, with fitting bindings to attach the different sections and accessories.

Insulation: The fume ducts must be double-walled and insulated to make sure the fumes do not cool down going outwards, which could cause an inadequate circulation and condensation that may damage the unit.

Output "T-tube": Always attach to the output of the unit a "T-tube" with a damper.

Chimney Crown: A wind shield termination must be installed to avoid fume back flow.

Chimney draught: The Figures below show three standard diagrams, specifying adequate lengths and diameters. Any other type of installation must guarantee a draught of 12 Pa (0.12 mbars) measured when hot and at the maximum power.

Ventilation: To get the optimum operation from the unit **it is necessary that the installation location has an air inlet with a minimum section of 100 cm², preferably near the back panel of the unit**.

If the house is equipped with an air exhaust system (e.g., kitchen extractor fan), a top ventilation section must be installed, suitable to accommodate the different air exhaust systems existing in the household. The installation of the unit on locations near kitchen exhaust fans or fume extractors may prevent the unit from operating properly. It is recommended that the unit is disconnected when these extractors are working.

8.2 Installation with a Chimney

As shown in figure 41, the installation of the pellet insert brings the exhaust pipe (⌀ 80 mm) directly into the chimney. If the chimney is too large, it is recommended to pipe the gas outlet with a pipe with a minimum internal diameter of 80 mm.
Provide a "T" for the periodic inspections and the annual maintenance, as shown in Figure 42.

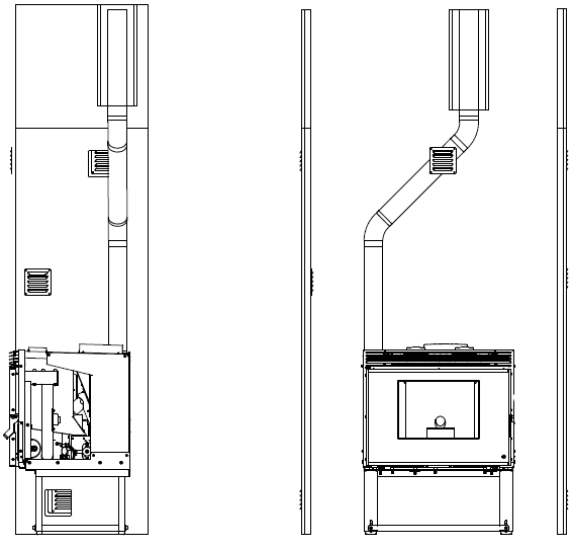


Figure 42 - View installation with chimney

When atmospheric conditions are so adverse that they cause a significant disturbance in the drawability of the insertable gases (in particular very strong winds), it is advisable not to use the insert.

If the equipment is not used for an extended period of time, the user must ensure that there is no blockage in the chimney tubes prior to lighting.

9. Fuel

The Free-Standing Pellet Fire operates exclusively with pellets. No other fuel sources are allowed to be used.

Only use *pellets* certified by standard EN 14961-2 grade A1 with a **diameter of 6mm** and a length of **10-30mm**.

The pellets may have a maximum humidity content of 8%. To guarantee a good combustion, the pellets must maintain these characteristics so it is recommended that they should be stored in a dry place.

The use of different pellets will reduce the efficiency of the unit and cause deficient combustion.

Only certified pellets should be used and a sample must be tested before buying large bulks.

The physicochemical properties of the pellets (namely, calibre, friction, density and chemical composition) may vary within specific tolerances and across manufacturers. Please note that this may cause changes to the feeding process and, consequently, the need for different doses (more or less pellet quantity).

Consequently, it may be necessary to adjust the pellets quantity according to its quality, even if the pellets are certified.

The unit allows for an adjustment of ± 25% the pellet dosage at the start-up phase and at each power level (please see section 11.3.6 of this manual).

WARNING!

This unit may NOT be used as an incinerator.

10. Use of the pellet insert

Recommendations

Before starting up the unit, please check the following:

- Ensure the unit is properly connected to the power mains using the 230V AC power cable.

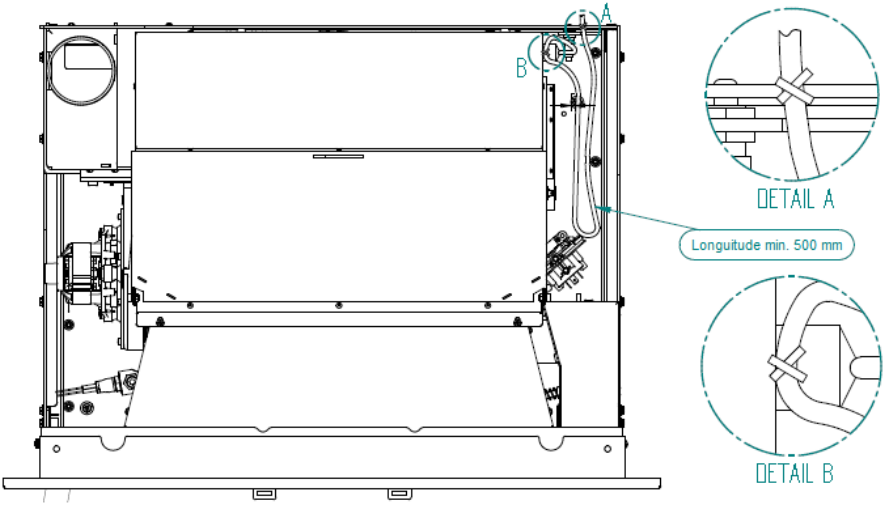


Figure 43 - Electrical connection plug

- Check that the pellet hopper is filled. Inside the pellet reservoir is a safety grid to prevent users from reaching the worm screw.

⚠ **The unit's combustion chamber and panel door are made of iron plate painted with high temperature resistant paint which releases fumes during the initial burn due to the paint's curing process. Avoid touching the unit during its first burn to prevent leaving permanent marks on the paint. The paint goes through a more plastic phase during the curing process. The curing of the paint occurs at approximately 300ºC for 30 minutes.**

Please make sure the room where the unit is installed has adequate air circulation; otherwise, the unit will not work properly. For this reason, it is important to check if there are any other air-consuming heating appliances present in the room (e.g., gas units, braziers, extractors, etc.); these should not be used simultaneously with the unit.

11. Remote Control

11.1 Infrared Remote Control



Figure 44 - Infrared remote control

The infrared remote control allows the user to turn the unit on and off, control the fan airflow and increase or decrease the unit's power level.

11.2 Control and Display Panel

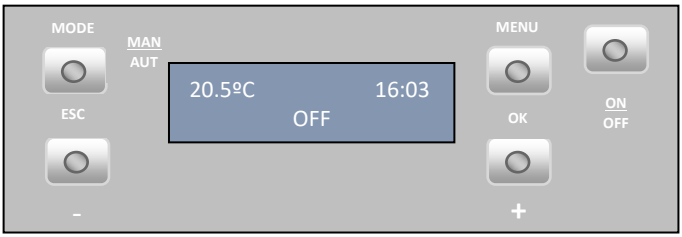


Figure 45 - Command and display



a) Key to toggle between manual and automatic mode and exit menus (esc).



b) Key to access menus and confirmation key (ok).



c) Key to start/stop the unit and reset error messages.



d) Key to scroll menus to the left, to increase and reduce the fan flow and increase or reduce the set-point temperature.



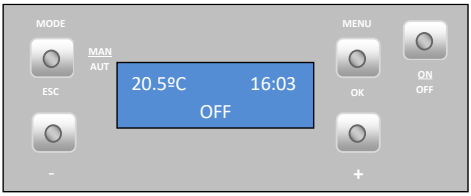
e) Key to scroll menus to the right and increasing and to reduce the unit's power.

Figure 46 - Command keys

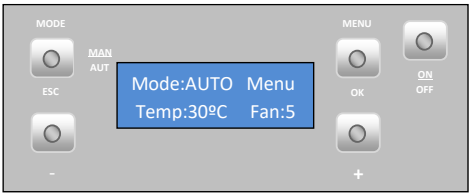
11.3 Display Information Summary

11.3.1 Selecting the Manual or Automatic Mode

Menu indicating that the unit power is "off", the room temperature in ºC and Time.



Selecting the operating mode: To select the operating mode, press the "Mode" key to select "Manu" for manual mode or "Auto" for automatic mode.

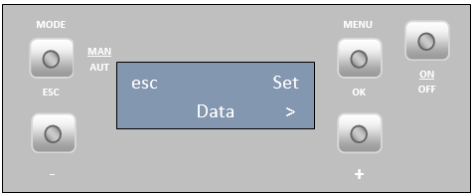


Auto mode: In this mode, the unit is turned on at maximum power until reaching a temperature 1ºC above the selected temperature (set point temperature). After reaching the selected temperature, the unit switches to the minimum operating power. The set-point temperature can be set between 5 and 40ºC by pressing the "-" key.
The "+" key allows the user to set the fan speed between 1-5 or to automatic operation.

"Manu" mode: In this mode, the unit will operate at the speed selected using the "-" key, ranging between 1 (minimum operating power) and 5 (maximum operating power)

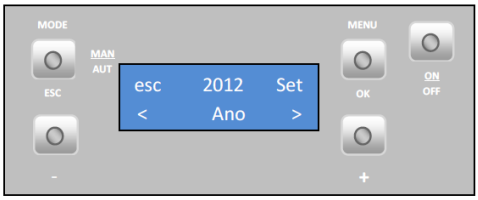
11.3.2 Date and Time

Setting the **date**: press the Menu key twice until "Data" (Date) is displayed. Press "set" to see the following menu:



- Year

To set the **year** press "set". The display starts to flash. Press the "+" or "-" key to select the desired year and then "ok" to confirm. Press "esc" to return to the "Data" (Date) menu, then press "+" to scroll to the next menu. The "Mês" (Month) menu is displayed.



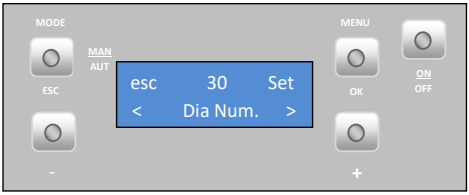
- Month

To set the **month** press "set". The display starts to flash. Press the "+" or "-" key to select the desired month and then "ok" to confirm. Press the "+" key to scroll to "Dia do mês" (Day of the month) menu.



- Day of the month

To set the **day of the month** press "set"; the display starts to flash. Press the "+" or "-" key to select the desired day and then press "ok" to confirm. Press the "+" key to scroll to the "Dia" (Day) menu.



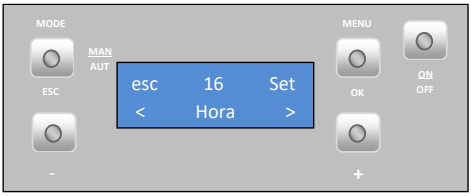
- Day

To set the **day of the week** press "set". The display starts to flash. Press the "+" or "-" key to select the desired day and then "ok" to confirm. Press the "+" key to scroll to the "Time" (Hour) menu.



- Time

To set the **time** press "set"; the display starts to flash. Press the "+" or "-" key to select the desired time and then press "ok" to confirm. Press the "+" key to go to the "Minutos" (Minutes) menu.



- Minutes

To set the **minutes** press "set". The display starts to flash. Press the "+" or "-" key to select the desired minutes and then "ok" to confirm. Press the "Esc" key to exit.

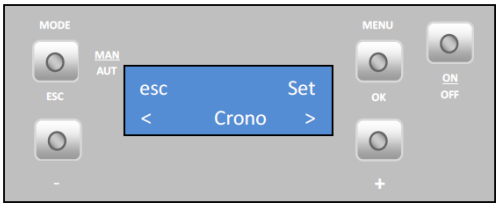


11.3.3 Timer

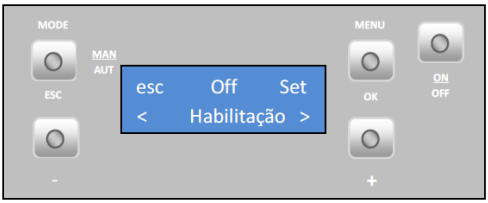
The unit is equipped with a timer that allows the unit to be turned on or off at a specified time.

- Activation

To **enable the timer** press "set". The "habilitação" (activation) menu is displayed. The timer may only be activated after setting the configurations, as shown in the following paragraph.

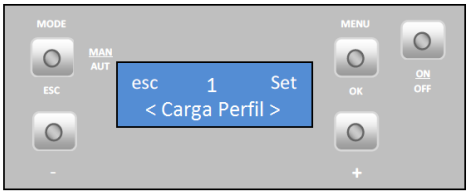


To **activate the Timer mode**, press "Set" - the display starts to flash. Press the "+" or "-" key to select "On" or "Off" and then "Ok" to confirm. Press the "+" key to scroll to the "Carga Perfil" (Profile Load) menu.



There are 10 weekly programmes available on the Timer (see item 17 in the annexes). The selected programme runs from Monday to Friday and from Saturday to Sunday. Press "set"; the display starts to flash. Press the "+" or "-" key to select the desired

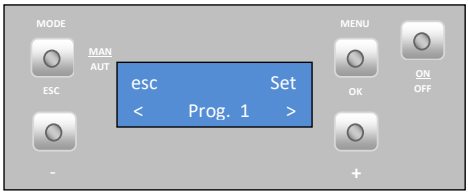
programme and then press “ok” to confirm. Press the “+” key to go to menu “Reiniciado” (Reset).



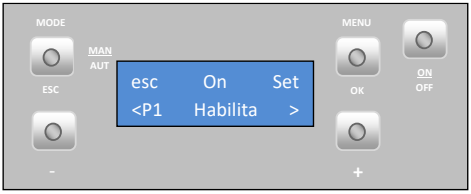
This menu allows you to delete any programme settings. To do this, press “set”. The “Confirmar?” (Confirm?) prompt appears. Press “set” again to confirm that you want to delete the settings or “esc” to exit.



The unit's **programmer** lets you choose from 6 different programmes for each day of the week.
To set up **programmes “P1” to “P6”**, select the desired programme using the “-” and “+” keys, and press “set” to select. The “P1 Habilitação” (P1 Activation) menu appears.



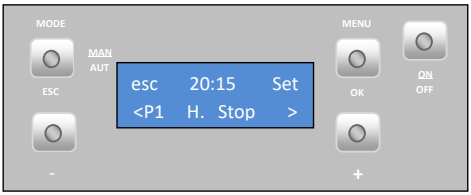
Press “Set” again and when the display starts to flash, press the “+” or “-” keys to select “On” or “Off”. Press “ok” to confirm the selection. Press the “+” key to go to the “P1 A. Inicio” (P1 A. Start) menu.



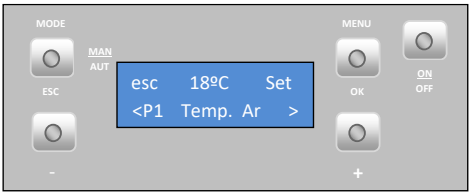
To set the **starting time** for Programme P1, press "set". The display starts to flash. Press the "+" or "-" key to select the time and then press "ok" to confirm. Press the "+" key to go to the "P1 A. Stop" menu.



To set the **stopping time** for Programme P1, press "set". The display starts to flash. Press the "+" or "-" key to select the time and then press "ok" to confirm. Press the "+" key to go to the "P1 Temp." (P1 Air Temp.) menu.



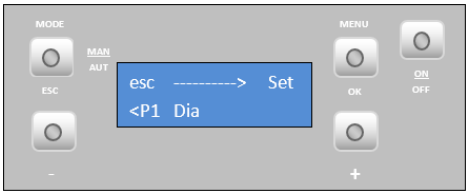
To set the **set point temperature** for Programme P1, press "Set". The display starts to flash. Press the "+" or "-" key to select the desired temperature, followed by "Ok" to confirm. Press the "+" key to go to the "P1 Temp. Água" (P1 Water Temp.) menu.



To set the **operating power level** (1 to 5) of Programme P1, press "Set". The display starts to flash. Press the "+" or "-" key to select the desired power level (1 to 5), and then "Ok" to confirm. Press the "+" key to go to the "P1 Dia" (P1 Day) menu.



To select the **days of the week** that you want P1 Programme to run, press "set" and then select the day of the week using the "-" and "+" keys. Press "set". The display starts to flash. Select "On" or "Off" using the "-" and "+" keys. Press "ok" to confirm the selection. Press the "esc" key to go to the "P1 Dia" (P1 Day) menu. Press "esc" twice and then "+" to access the "Configurações" (Configuration) menu.



Repeat the above steps for programmes P2 to P6.

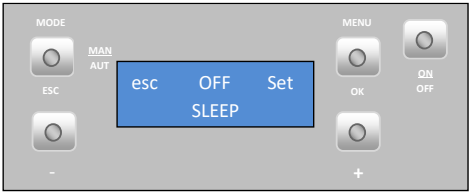
Note:

- Once the programmes are set, remember to enable them on the "Habilitações" (Activation) menu.

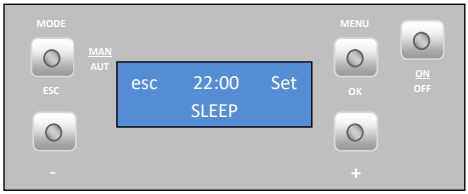
- There can only be one enabled profile in the Timer, either weekly or daily (they do not operate simultaneously).

11.3.4 Sleep (this menu is displayed only while the unit is operating)

The "Sleep" menu allows you to setup the time you want the unit to turn off.



Press "set". The display starts to flash. Select the desired time using the "-" and "+" keys. After choosing the time, press "ok" to confirm. Press "esc" to return to the menu and "+" to go to the configuration menu.

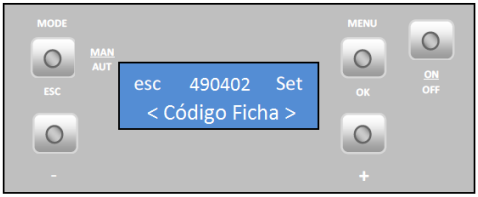


11.3.5 Info

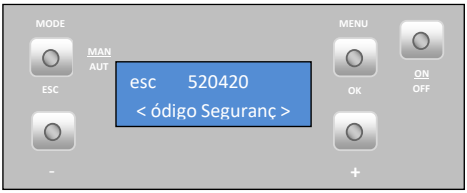
This menu contains information on the Free-Standing Fire unit. Press "set"; the "Código de Ficha" (File Code) menu appears.



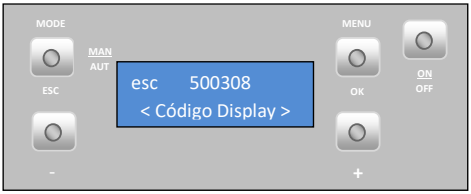
Software code / Motherboard firmware. Press the "+" key to scroll to the "Código de Segurança" (Security Code) menu.



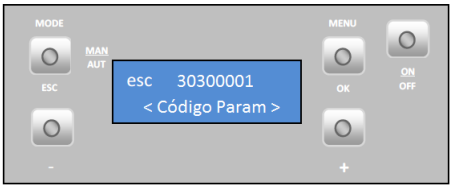
Software code / Security firmware. Press the "+" key to scroll to the "Código Display" (Display Code) menu.



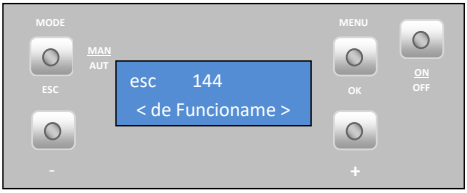
Software code / Display firmware. Press the "+" key to scroll to the "Código de Parâmetros" (Parameter Code) menu.



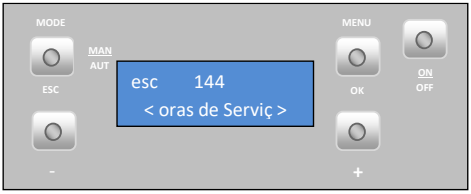
Parameter code. Press the "+" key to scroll to the "Horas de Trabalho" (Operation hours) menu.



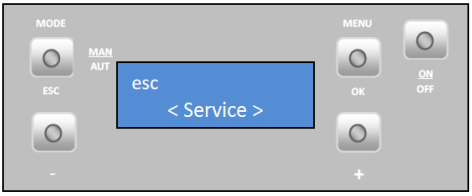
This menu shows the unit's current operating hours.



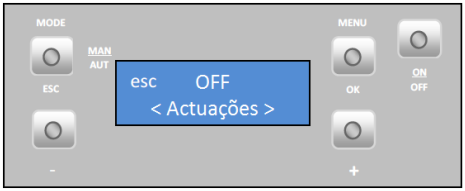
This menu shows the number of operating hours the unit has registered since its last servicing.



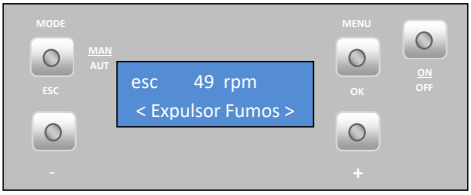
The number of hours at which the next servicing should take place.



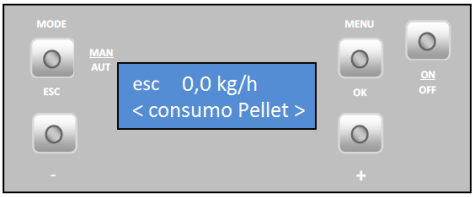
This menu shows the phase/status of the free-standing fire.



Fume extractor operating speed (rotation per minute).



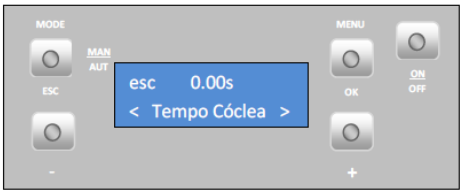
Theoretical pellet consumption.



Fume temperature.

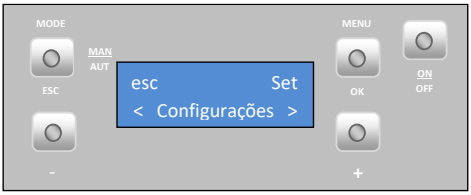


Worm drive rotation "On" time.



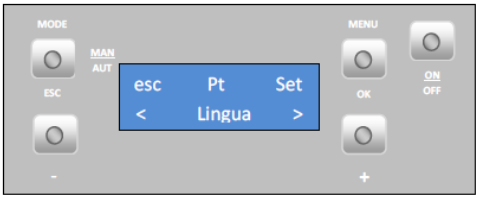
11.3.6 Settings Menu

To modify the unit's **settings**, press "Set". The "Língua" ("Language") menu should then appear, allowing the user to choose a set language.



- Language

To select the **language**, press "set". Using the "+" or "-" keys, select the language (**Pt** – Portuguese; **Nl** – Dutch; **Gr** – Greek; **Tr –** Turkish; **It** – Italian; **En** – English; **Fr** – French; **Es** – Spanish; **De** – German). Press "ok" to confirm. Press the "+" key scroll go to the "Eco" menu.



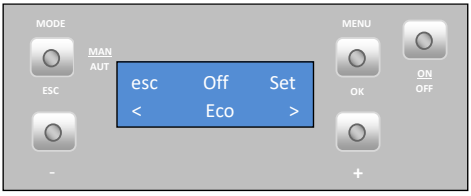
- Eco mode

When the "ECO" mode is enabled at the same time as the Thermostat feature, the unit will operate at maximum power until the thermostat opens contact (NO). The unit then will operate at minimum power for a present period of time (Shutdown delay time: factory setting: 20 minutes). Once the present time is elapsed, the unit shuts down. At the start of the Shutdown phase, another timer for a different present period of time is triggered (Start-up delay time: factory setting: 20 minutes), that will make the unit enter the activation phase, when the thermostat closes contact (NC)

Start-up delay time (Delay time On): The delay time that elapses between the moment the thermostat closes (NC) until the unit is activated.

Shutdown delay time (Delay time Off): The delay time that elapses between the moment the thermostat opens (OC) until the unit starts to shutdown.

Note: When using the feature for the first time, you must press the On/Off button in the display. To enable the eco mode, press "set". The display starts to flash. To activate the eco mode, press "set". The display starts to flash. Select "On" or "Off" using the "-" and "+" keys. Press "set" to confirm the selection. Press "esc" to return to the previous menu and then press "+" to go to the "Iluminação" (Lighting) menu



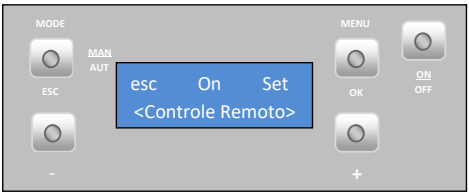
- Lighting

To select **lit screen**, press "set". The display starts to flash. Press the "+" or "-" key to select the time for the screen to light up, or select "On" to keep the light permanently on. Press "ok" to confirm. Press the "+" key to go to the "Controlo remote" (Remote control) menu.



- Remote control

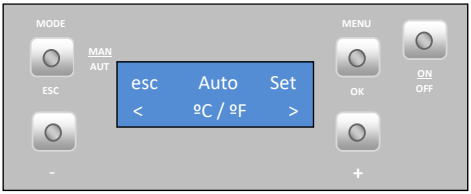
This feature enables and disables the remote control, when the user wants to operate the unit's thermostat remotely. Press "Set" and use the "+" and "-" keys to select the "On" or "Off" mode. Press "Ok" to confirm. Press the "+" key to go to the "Unidade de temperatura" (Temperature units) menu.



Note: Some TV remote controls share the same frequency as the unit's remote control, possibly influencing the unit's operation. If this is the case, it is recommended to disable the remote-control feature.

- Temperature unit (ºC/ºF)

To select **ºC / ºF**, press "set". The display starts to flash. Press the "+" or "-" key to select "ºC", "ºF" or "Auto", and then "ok" to confirm. Press the "+" key to go to the "Combustion recipe" menu.



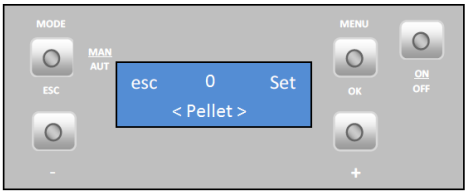
- Combustion recipe

Press "set" to display the “Combustão receita” (Combustion recipe) menu.



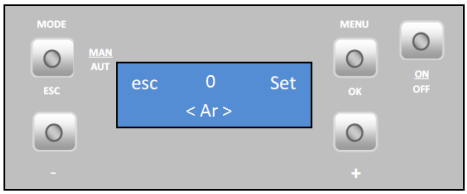
- Pellet

This feature allows the user to increase or decrease by 25% the **pellet quantity during the start-up and power process**. Press “set”. The display starts to flash. Press “+” or “-” to increase or decrease (between -10 to +10), as required. Each unit must be multiplied by 2.5 to obtain the correct percentage. Press “ok” to confirm. Press the “+” key to go to the “Ar” (Air) menu.



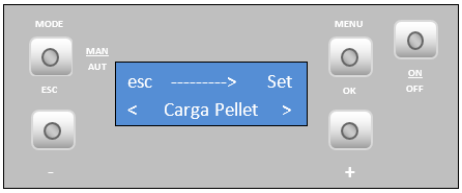
- Air

This feature allows the user to increase or decrease by 25% the **rotation speed of the fume extractor during the start-up and power process**. Press “set”. The display starts to flash. Press the “+” or “-” key to increase or decrease (from -10 to +10), as required. Each unit must be multiplied by 2.5 to obtain the correct percentage. Press “ok” to confirm. Press “esc” to return to the “Receita de pellets” (Pellet recipe) menu and then press “+” to go to the “Carga pellet” (Pellet loading) menu.



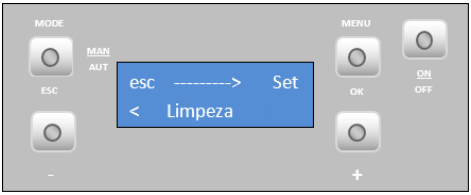
- Pellet loading

This feature allows you to enable the **worm drive** to fill the channel when it is empty to keep the unit running. Press "set"; the "ok" option appears. Press "ok" to activate the drive; the message "habilitada" (enabled) is displayed. Press "esc" to stop. Press the "+" key to go to the "Limpeza" (Cleaning) menu.



- Cleaning

This feature allows you to **clean** the burning basket manually. Press "set"; the "ok" option appears. Press "ok" to start the cleaning procedure; the "Habilitada" (Enabled) message is displayed. To stop, press "ok". Press the "+" key to go to the "Técnico" (Technical) menu.



The technical menu is not available to the end user.

12. Alarm / Failure / Recommendation List

Alarm	Code		Troubleshooting
Ignition failure	A01	Maximum time 2400 s	- The worm drive channel is empty - restart the unit - Resistance burnt – replace resistance - Burning basket incorrectly installed - Locked worm - unlock - Smoke temperature non exceeded the value defined in the captivation
No flame or insufficient quantity of pellets	A02	Temperature under: - 40 °C (Air Version) - 43 °C (Douro 24 kW); - 50 ºC (Douro 17 kW)	- Pellet reservoir is empty
Pellet drum temperature is too high	A03	110 °C	- The fan is not working – call for assistance - Faulty thermostat - call for assistance - Faulty ventilation of the unit
Fume temperature is too high	A04	Over 230 °C (Air version); Over 260 °C (Water version)	- The fan is not working or is working at a low speed - increase level to the maximum (if the problem persists, call for assistance) - Insufficient extraction - Excess pellets - Faulty smoke sensor
Pressure regulator alarm	A05	Door open, draught too low or extractor fault for 60 sec	- Close the door and clear the error message on the faulty pressure switch - Obstruction of the exhaust pipe or faulty extractor
Air mass sensor	A06	40 lpm Delta for 3600 s	- Piping with insufficient draft or obstructed tubing
The door is open	A07	Door open for 60 seconds	- Close the door - clear the error message - Faulty air mass sensor
Fume extractor failure	A08	Connection failure	- Check connection - Check that the fan is not blocked
Fume probe failure	A09	Connection failure	- Check connection
Pellet resistor failure	A10	Connection failure	- Check connection - Faulty resistance
Worm drive failure	A11	Connection failure	- Check connection - Failed worm motor
Pellet level sensor alarm	A15		- Check connection
Water pressure out of operating range *	A16		- Check connection - Check pressure in the hydraulic circuit - Adjust pressure (1 bar) in the hydraulic circuit (working range 0.5 to 2.8 bar)
Excess water temperature *	A18		- Check connection - Check that the pump is working - Bleed hydraulic circuit - Check that the heat sinks are open

Table 2 - List of alarms

⚠ Important notice: when triggered, all the alarms above cause the machine to shutdown. The alarm must be reset and the unit restarted. To reset the unit, press the "On/Off" button for 10 seconds until the alarm sounds.

- Failures

Failures
“Service” (Maintenance)
Air sensor failure
The door is open
Air temperature probe failure

Table 3 - List of failures

⚠ Important notice: A “***service***” warning on the display (maintenance due) indicates that the unit has exceeded 2100 operating hours. In this case, the client must perform the unit's maintenance procedure (following the instruction on the Technical Manual). Once this procedure is completed the hour meter may be reset, to clear the waning message. This message does not impact the normal operation of the unit. It is simply a warning.

⚠ Important notice: The errors can be reset only when the error information is flashing on the display. To reset the error, press the “Mode” button once while displaying the error.

⚠ **WARNING!**

In case of an emergency, turn off the unit by following the normal shutdown procedure.

⚠ **WARNING!**

THE UNIT BECOMES HOT DURING OPERATION SO CARE MUST BE TAKEN ESPECIALLY WHEN HANDLING THE DOOR GLASS AND DOOR HANDLE.

13. Start-up

After loading the pellets into the deposit (see chapter 13), press and hold the ON/OFF button for 3s, to start the Free-Standing Fire. During the lighting phase, the display will show the message **"Ativação" (Activation) until this phase is completed**.

The *pellets* are fed through the supply channel to the burning basket (combustion chamber), where they will be ignited using a heat resistor. This process may take 5 to 10 minutes, depending on whether the worm screw used to push through the pellets has been previously filled with fuel or is empty. Once the ignition phase is completed, the message "On" appears on the display. The heating power can be adjusted at any time by pressing the power selection button for approximately 1 second. You can select from the five pre-set power levels that are available. The selected power is indicated on the display. The initial power status at each start-up will correspond to the power level set before the last stop.

⚠ **Important notice: Before starting up the unit, please check to determine if the deflector plate is in place.**

13.1 Stop

The stop sequence of the unit is started by pressing the ON/OFF button for 3 sec.
The display will show **"Desativação"** (Disabling) until full completion of this phase. The extractor will operate until the fume temperature of 64ºC is reached, to guarantee that all the material has been burnt.

13.2 Turning Off the Unit

The unit should only be disconnected after its full stop. Make sure the **"Off"** shows on the display before disconnecting the unit. If necessary, disconnect the power cable from the mains.

14. Control and Display – Columbus Electronics

Solzaima inserts may be equipped with Columbus electronics, the Columbus display is as shown below. To confirm if your equipment is equipped with this electronics, you should check the equipment's serial number below.

Columbus Electronics	Serial No. of equipment
Earth	≥ 01-27-01550
Fire	≥ 01-27-00405
Wind	≥ 01-27-00757

The equipment contains 2 displays, one incorporated in the equipment, the other wireless (radio remote control) that generate several functions and allow programming and interaction with the device.
The internal display must be used only in case of failure (display without battery) of the external display/command via radio.

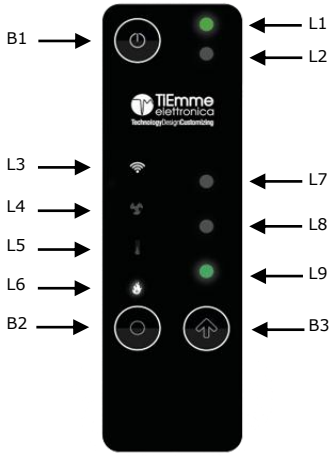
Device	Functionality
	• Internal display • Visualization and interaction of the device's parameters and functions
	• External radio display/control • Visualization and interaction of the appliance's parameters and functions • Serves as wireless thermostat (preferred device in the greenhouse control) • Has 3x AAA 1,5 V batteries

The internal display must be used only in case of failure (display without battery) of the external display/command via radio (in this case the equipment is controlled by the thermostat temperature set on the internal display and the room probe reading).

When connecting the equipment to electricity, the device's display indicates the current time and the ambient temperature.

14.1 Internal Display

The internal display must be used only in case of failure (display without battery) of the external display/command via radio (in this case the control of the equipment goes through the thermostat temperature set on the internal display and the ambient probe reading).



Led	Significado
L1	Blue LED - System OFF Green LED - System ON Flashing Green LED - Ignition or extinguishing system Red LED alternating with green and blue colors - System in Error
L2	Maintenance
L3	Led on - Connected to WiFi Led flashing - WiFi setting
L4	Visualization of the heating power on LEDs L7, L8 and L9 (see following table)
L5	Visualization of the local room thermostat on LED values L7, L8 and L9 (see table below)

L6	Visualization of the combustion power in leds L7, L8 and L9 (see following table)
L7 / L8 / L9	Display of the selected parameter's value (minimum, average, maximum)
B1	Press for 3 seconds - switches the heating system on / off
B2	Selection of the parameter to be displayed (heating power, room thermostat, combustion power). If pressed for 3 seconds, enters the WIFI LAN configuration mode (L7, L8, L9 flash).
B3	Allows you to modify the selected parameter (the led corresponding to the parameter, blinks, while the leds L7, L8, L9 show its value). If the key is pressed again, the parameter value is modified. If pressed during the local WIFI network configuration mode, allows you to start the configuration process, and if pressed for a few seconds, allows you to restart the configuration.

Change the value of a parameter

- Select the parameter to be modified with the B2 key.
- Press the K3 key to enter and modify the value, the led corresponding to the parameter, blinks while the L7, L8 and L9 leds show its value.
- Press B3 again to change the value. The data will be saved after 5 seconds if no key is pressed or if you move to the next parameter by pressing B2.

Led	0	Mínimo	Médio	Máximo	Auto (apenas para potências)
L7	●	○	○	●	●
L8	○	○	●	●	●
L9	○	●	●	●	●

NOTE: The user can, via a 2WAYS2+ device, set the minimum, average and maximum value of the local room thermostat.

15. External Display

The external display should preferably only be used in case of a fault (e.g., display without battery).

When the external controller is turned on by pressing the standby button (B1), the unit's display shows the date and time, room temperature, whether a time clock is set and its mode, the target temperature, wireless room thermostat, combustion power and room ventilation level, the status of the unit (including any error that may exist) and the status of the controller's battery.



Home Menu - Columbus Electronics

Symbol	Meaning
Qua 09:14	Time and day of the week
	Battery level
S	Active Time Chrono
18°	Ambient Temperature
20	Target temperature
A	Combustion power
M	Ventilation level

In the Home Menu by pressing the key:

- "B1" Removes radio command from Sleep mode. Puts the remote control in Sleep mode. Put radio remote control in Standby (3s).
- "B2" Turns the unit on and off (3s). Reset errors (3s). Double click when radio command in Standby reactivates it.
- "B3" Exit menus.
- "B4" and "B5" Change the ambient thermostat of the device. Navigate menus and submenus.
- "B6" Enter Menu, submenu and validate changes.

⚠ THE INSERTABLE MUST ALWAYS BE DEACTIVATED BY THE SAME METHOD AS IT WAS ACTIVATED. DURING THE ACTIVATION PROCESS THE EQUIPMENT MUST NEVER BE UNPLUGGED.

15.1 General Menu - Settings Menu

The Settings Menu allows you to manage the thermostat of the external controller, enable and disable the standby function, adjust contrast, keypad sound, set date and time, and change language. Changing the Language and Date and Time are shown below in detail, and the rest of the functions in this menu are explained later.

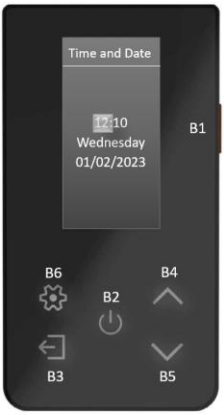
15.1.1 Settings Menu – Language

Select Language Function	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the initial menu, press key B6 and the Menu appears.

 Access the Settings Menu	In the Menu with B4 and B5 select "Settings" and press B6.
 Access the Language Menu	In the Settings menu with B4 and B5 select "Language" and press B6.
 Choose Language	In the "Language" menu with B4 and B5 select the desired language and press B6 to validate.

15.1.2 Settings Menu – Date and Time

Select Date and Time function	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the initial menu, press key B6 and the Menu appears.
 Access the Settings Menu	In the Menu with B4 and B5 select "Settings" and press B6.

 Accessing the Date and Time Menu	In the Settings menu with B4 and B5 select "Date and Time"; Press B6 and the "Date and Time" menu appears. In the Settings menu with B4 and B5 select "Language" and press B6.
 Choose Date and Time	In the "Date and Time" menu with B4 and B5 select Time and press B6 and the Time menu appears in editable mode with the Time flashing; With B4 and B5 select the correct Hour and press B6 to validate. With B4 and B5 select Minutes and press B6, the Minutes menu appears in editable mode with Minutes flashing; With B4 and B5 select the correct Minutes and press B6 to validate. Repeat the previous steps for the day, month, and year. **THE DAY OF THE WEEK (SUNDAY TO SATURDAY) CHANGES ACCORDING TO THE DAY OF THE WEEK SELECTED.**

15.1.3 Settings Menu - Remaining Options

Function Settings	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the initial menu, press key B6 and the Menu appears.
 Access the Settings Menu	In the Menu with B4 and B5 select "Settings" and press B6.

 Accessing the Settings Submenus	In the "Settings" menu with B4 and B5 select the desired submenu; Press B6 and the selected menu appears.
 Accessing the Radio Thermostat Menu	In the "Settings" menu with B4 and B5 select "Radio Thermostat"; Press B6 and the menu "Radio Thermostat" appears; In this menu with B4 and B5 you can set whether you want to activate or deactivate the Thermostat for the external display, choosing between Activated or Invalid; By default, this option is active, so that the equipment is controlled by the temperature measured by the thermostat of the external controller; When you deactivate the choice option on the main screen by using the B4, or, B5 keys, it is also inactive.

 Activate Standby Mode	In the "Settings" menu with B4 and B5 select "Standby Radio"; Press B6 and the "Radio Standby" menu appears; In this menu with set (B6) you can alternatively activate the Standby mode of the external controller. To reactivate the external control, you must press B1 followed by a double-click on B2.
 Access the Contrast Change Menu	In the "Settings" menu with B4 and B5 select "Contrast"; Press B6 and the "Contrast" menu appears; In this menu with B4 and B5 you can set the desired contrast between 0 and 30 for your display.
 Accessing the Key Sound Menu	In the "Settings" menu with B4 and B5 select "Key Sound"; Press B6 and the "Key Sound" menu appears; In this menu with B4 and B5 you can set whether you want to activate or deactivate the keyboard tones by choosing Enabled or Disabled.

The General Menu gives access to the Power, Thermostats, Chrono, Information, Settings, Service and System Menu submenus. It allows you to control combustion, control heating, develop a chrono program, observe the various operating variables on the monitor, and manually load pellets. The remaining menus are of exclusive access to the technical service and require a password to do so.

15.2 General Menu - Power Menu

Pressing B6 gives access to the following menus, Power, Thermostats and Chrono. With the keys B4 and B5 you must select the desired menu and then press B6 to validate the choice, in this case the Power menu.

General Menu Functions	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the initial menu, press key B6 and the Menu appears.
 Access the different Sub-Menus	In the "Menu" menu with B4 and B5 select the desired sub-menu; Press B6 and the selected menu appears.

 Access the Combustion Power Menu	In the "Menu" menu with B4 and B5 select "Combustion" and press B6; In the "Combustion" menu with B4 and B5 select the "Power" sub-menu; In this menu with B4 and B5 you can set the equipment's operating mode between Auto and Menu mode, and in this between power 0 to 5.
 Go to the Combustion Management Menu Worm Motor Calibration	In the "General Menu" menu with B4 and B5 select "Combustion" and press B6; In the "Combustion" menu with B4 and B5 select submenu "Calibration Auger"; In this menu with B4 and B5 you can adjust the number of pellets to be fed between -7 (-25%) and 7 (+25%).
 Access the Combustion Management Menu Calibration Extractor Velocity	In the General menu with B4 and B5 select "Combustion" and press B6; In the "Combustion" menu with B4 and B5 select submenu "Calibration Extractor"; In this menu with B4 and B5 you can adjust the fume extractor speed between -7 (-25%) and 7 (+25%).

 Access the Room Ventilation Speed Menu	In the General menu with B4 and B5 select "Heating" and press B6; In this menu with B4 and B5 select submenu "Heating"; Here with B4 and B5 set the operating mode of the fan between Auto and Menu mode (between power 0 to 5).

15.3 General Menu - Service Menu

General Menu Functions	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the start menu, press key B6 and the Client Menu appears.

 Access the different Sub-Menus	In the "Menu" menu with B4 and B5 select the desired submenu; Press B6 and the selected menu appears.
 Accessing the Service Menu	In the Service menu with B4 and B5 select the required submenu. Press B6 to go to the desired submenu.
 Access the Counters Menu	Select Counters by pressing B6 to validate the entry in this submenu. This function allows you to consult the working hours, the number of ignitions and the number of failed ignitions. With keys B4 and B5 select the submenu that you want to consult and press B6 to validate. To return to the Service menu press B3.

 Error List View	In the Service menu with B4 and B5 select the submenu Error List, pressing B6 to validate. This submenu shows the last 10 errors that occurred, on each line the error code and the date and time when it occurred are displayed. To return to the Service menu, press B3.
 Monitor Menu View	In the Service menu, select the Secondary Information submenu with B4 and B5, and then press B6. In the "Information" menu with B4 and B5 scroll through the menu to check the different variables; The value displayed is the value measured On-Line.
 Monitor Menu View	In the "Information" menu with B4 and B5 scroll down to check the different variables; The value displayed is the value measured On-Line.

 Monitor Menu View	In the "Information" menu with B4 and B5 scroll down to check the different variables; The value displayed is the value measured On-Line.
 Enable Signal Test Mode	In the "Menu Service" menu with B4 and B5 select "Test Radio"; Press B6 and the "Radio Test" menu appears; In this menu you can check the quality of the signal and its level of electromagnetic pollution. The external controller, develops a set of communications monitoring the errors that occurred.
 Access the Code Change Menu	In the "Service Menu" menu with B4 and B5 select "Change" Code; Press B6 and the "Change Code" menu appears; In this menu and keeping the learn code option active on the internal display you can change the communication frequency in order to mitigate communication errors caused by other devices.

 Access the Reset Cleaning Menu	In the "Service Menu" menu with B4 and B5 select "Reset Cleaning"; In this function you can turn this function on or off. To return to the Service menu press B3.
 Access the Cochlea Calibration Menu	In the Service menu with B4 and B5 select the Squeeze Calibration submenu, pressing on B6 to validate. In this submenu with the keys B4 and B5 you can adjust the quantity of pellets to feed, between -7 (-14%) and 7 (+14%). To return to the Service menu press B3.
 Accessing the Fan Calibration Menu	In the Service menu with B4 and B5 select the submenu Fan Calibration by pressing on B6. In this submenu with keys B4 and B5 you can adjust the fan speed, between -7 (-21%) and 7 (+21%). To return to the Service menu press B3.

 Access the Cochlear Charge Menu	Select Load Pellet, with the B6 key, to validate the entry in this submenu. This function activates manual pellet loading. Pressing the B3 key twice will take you back to the main menus, Settings, Keypad, Service and System Menu.

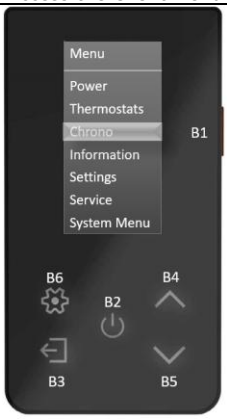
15.4 General Menu - Thermostats Menu

Functions Thermostats Menu	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the initial menu, press key B6 and the Menu appears.

 Access the different Sub-Menus	In the "Menu" menu with B4 and B5 select the submenu Thermostats; Press B6 and the selected menu appears.
 Access the Thermostats Menu	In the "Thermostats" menu with B4 and B5 select the Environment Sub-Menu. Press B6 to validate.
 Choose Ambient	You can set the target comfort temperature between 10 and 40°C, with keys B4 and B5. Press B6 to save your changes and use B3 to go back.

15.4 General Menu - Chrono Menu

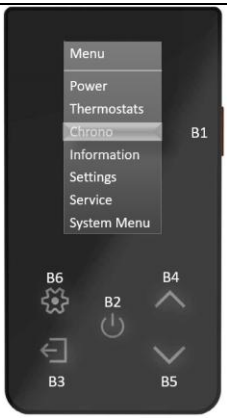
The insertable has a time switch that is used to turn the insertable on and off. It can be Daily (you can select the day of the week you want and set up to 3 different schedules for the respective day), Weekly (you can select up to 3 schedules during a day, the same program will be applied every day of the week), and Weekend (you can select 3 schedules during the day for weekdays and weekends). After analysing the available options select the desired modality.

Functions Chrono Menu	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the start menu, press key B6 and the Client Menu appears.
 Access the different Sub-Menus	In the "Menu" menu with B4 and B5 select the desired submenu; Press B6 and the selected menu appears.

 Access the Modality Menu	In the "Chrono" menu with B4 and B5 select the Sub-Menu Mode. Press B6 to validate.
 Select Mode and activate Chrono	In the "Modality" menu with B4 and B5 select the desired mode; press B6 to validate; The chosen Program will be saved and will be signalled by the symbol <<. The display after activation will have the led active, also mentioning the active mode, Daily is symbolized by "D", Weekly "S", Weekend/Weekend by FS, respectively.

AFTER DEINITION OF THE CHRONO MODE DESIRED TO DEVELOP THE RESPECTIVE PROGRAMS.

THE FOLLOWING IS AN EXAMPLE OF THE CREATION OF A DAILY PROGRAM, IN THIS CASE, MONDAY.

Functions Chrono Menu	Procedure
 Access the Client Menu	Press key B1 to exit Sleep mode; In the start menu, press key B6 and the Client Menu appears.
 Access the different Sub-Menus	In the "Menu" menu with B4 and B5 select the desired submenu; Press B6 and the selected menu appears.
 Access the Program Menu	In the "Chrono" menu with B4 and B5 select the Sub-Menu Mode. Press B6 to validate.

 Choose appropriate mode	In the menu "Chrono Program" with B4 and B5 select Daily, Weekly, or Weekend (you must respect the mode already selected; In this case the daily program is exemplified Press B6 to validate.
 Select Day of Week	In the "Daily" menu with B4 and B5 select the desired day of the week; Press B6 to validate.
 Select Program Start and End Times	In the "Daily" menu with B4 and B5 select start time; Press B6 to edit; With B4 and B5 select the desired time; Validate with B2 the developed program line (the point "○" is filled "●"); Repeat the process with B5 for the End Time and for the remaining available times if applicable, with the B5 key.

Repeat the previous process for all desired days.

When programs are developed around midnight with the intention of starting operation the day before and ending operation the next day, it will be pertinent:

- End the last program on the previous day by 23:59;
- Start the first program the next day at 00:00.

IN THE WEEK AND WEEK/WEEKEND MODES, THE EXECUTION OF PROGRAMS FOLLOWS THE SAME LOGIC EXEMPLIFIED ABOVE.

The following table explains the meaning of each of the variables.

T. Smoke [°C]	Read in degrees Celsius (°C) it tells you the exhaust temperature monitored by the thermocouple.
Water Temperature [°C]	Read in degrees Celsius (°C) it tells you the ambient temperature monitored by the NTC probe placed outside the stove.
Extractor [rpm]	Read in revolutions per minute, it tells you the rotation speed of the extractor.
Auger Motor [s]	Read in seconds, this tells you the time within a 4-second period that the worm motor is active and feeding pellets to the burner.
Service [h]	Read in hours informs the number of hours missing to report anomalies due to lack of maintenance. These must be calibrated by the technical service during maintenance. The maintenance period must respect the kilos of burned pellets
Working Time [h]	Read in hours tells you the number of hours in On, modelling, and security.
Ignitions [nr]	Read in number of occurrences tells you how many ignitions have been performed since they were fired.
Artic. Code	Product Code.

16. List Alarms / malfunctions / recommendations

All alarms cause the machine to shut down with information about the error and activation of the alarm led. It will be necessary to reset the alarm and restart. To reset the machine, press the "On/Off" button for 3 to 4 seconds until you hear a beep, accompanied by the message "Reset alarms in progress";

If the reset is successful, there will be new information - Reset alarms successful

In the Off state if for any reason the smoke temperature rises above 85ºC (Th01) the stove enters the off mode.

Alarm	Code	Cause and Resolution	
Excess temperature in the pellet tank	Er01	110 °C, even when the equipment is off	- Room fan not working - call for service - Thermostat defective - call for service - Machine with defective ventilation
Smoke pressure switch alarm	Er02	Door open, no depression or extractor failure for 180 s Only visible if puller is set to On	- Close the door and remove the faulty pressure switch error - Faulty exhaust pipe obstruction or extractor
Exhausted flame or lack of pellets	Er03	Fume temperature below: 55°C (Th03)	- Empty pellet tank; - Broken thermocouple; - Clogged pellet channel
Excess temperature fumes	Er05	More than 300 °C	- Room fan does not work or is at a low power level - increase the level to maximum (if the problem persists call for service) - Insufficient draft - Excessive dosage of pellets - Defective smoke probe
Fume extractor error	Er07	No rpm signal. Allows unlocking and working by voltage in a provisional way P25=0	- Check connection - Check that the fan is not blocked - After fault correction it is necessary to reselect operation mode P25=2

Fume extractor encoder error	Er08	Encoder shows signal, but failed regulation. Allows unlocking and working by voltage temporarily P25=0	- Exhaust pipe obstruction or extractor defective - After fault correction it is necessary to reselect operating mode P25=2
Ignition failure	Er12	Maximum time:900 s and Fume temperature less than 50ºC	- Empty worm channel - restart - Burned out heating element - replace heating element - Firing basket incorrectly placed - Fume temperature did not exceed the value set at switch-on
Power supply voltage cut-off	Er15	Power cut for time longer than 50 min	- Check supply voltage with the electric power supplier; - Check simultaneous use of electrical appliances - In case of a short power failure (<10s) the insert continues to work normally; - If the system was ON and the power supply failure occurs for more than 10s and less than 50 min the insertable develops an ignition after blackout
Faulty communication with LCD control	Er16		- Check connection between board and display
Pressure differential sensor damaged	Er39	The combustion regulation is interrupted and the stove will work with the factory default values entering standby until Tfumos < 85ºC (Th28)	- Check connection between plate and pressure differential sensor; - Check pressure differential reading - Check possible clogging in the measurement taps, or throttling of the same
Open door error	Er44	Door open for 60 sec	- Close the door - remove the error
Maximum value / reference for the differential sensor reached	Service	Maximum 2100 hr Hours (T66) planned for maintenance achieved	- Contact your installer or repairer for occasional preventive maintenance of the equipment.

17. Instruction for installing the frame

17.1 Choice of frame

Before installing the frame, it must be immediately verified that the packaging is complete and in perfect condition, any damage or lack of components must be reported before installation.
On this equipment it is possible to install different finishing frames.
To install the frame, you must first check that the frame is compatible with the insert:

- **Thin Frame (Fire and Wind 9 kW)**

Interior measurements:
685x536mm
Hoop width 44mm
Ref. MO1160N017

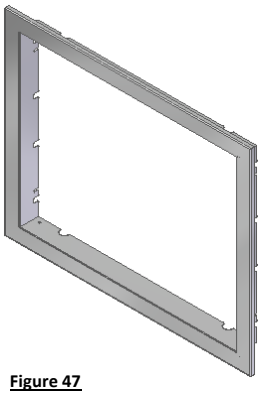


Figure 47

- **Thin Frame (Earth 9 kW)**

Interior measurements:
685x596mm
Hoop width 44mm
Ref. MO1160N015

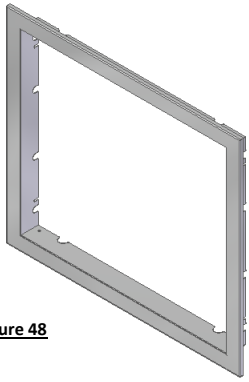


Figure 48

- **Wide frame (Fire and Wind 9 kW)**

Interior measurements:

685x536mm

Hoop width 74mm

Ref. MO1160N018

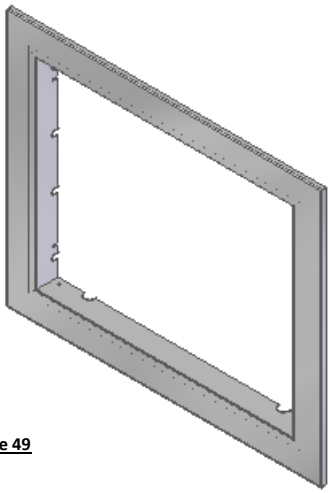


Figure 49

- **Wide frame (Earth 9 kW)**

Interior measurements:

685x596mm

Hoop width 74mm

Ref. MO1160N016

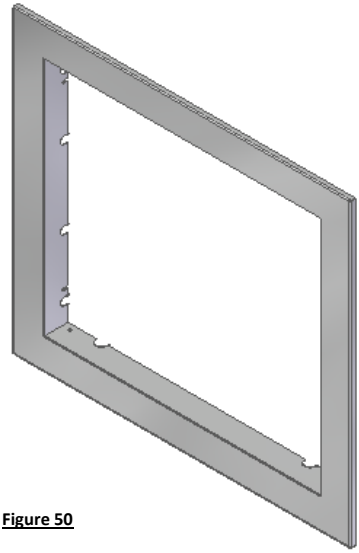


Figure 50

17.2 Installation of the frame on the equipment

With the fixed insert and the tripartite frame prepared, the next step is to assemble the two. Open the safety catch of the insert, remove the insert to work comfortably. On each side of the insert, we have two screws (DIN 967 M4x8mm), it is necessary to slightly loosen these screws, see Figure 51.

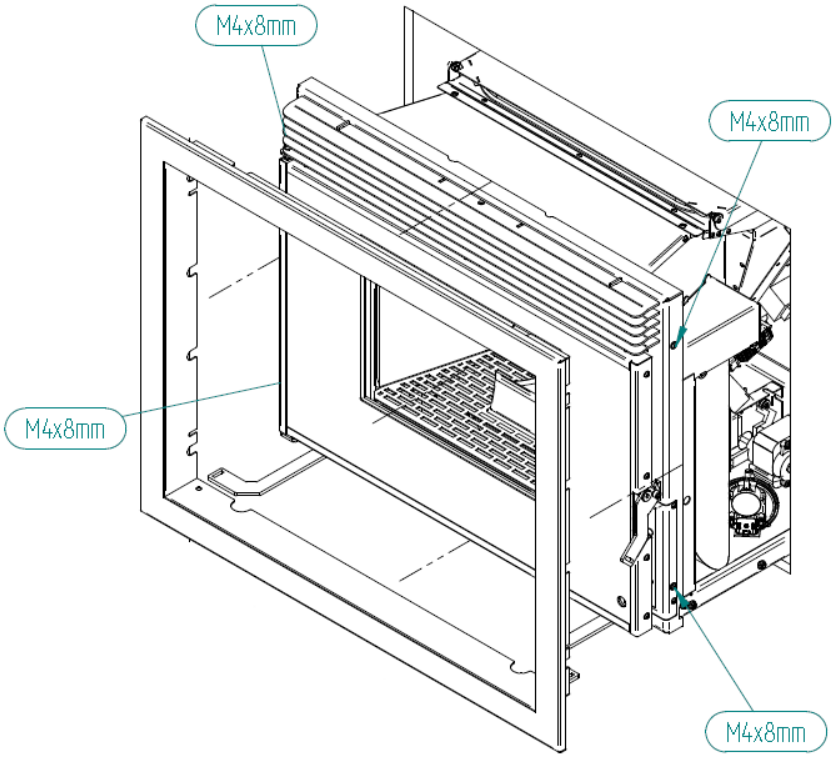


Figure 51 - Locating the screws to attach the frame to the insert

Insert the frame, aligning the insertable bolts with the frame flaps, insert the frame, line up in front of the insert and tighten the screws again to secure the rim, see Figure 51. Place the insert in its operating position and close the two safety latches, if the wall is sensitive to marks it is recommended to leave 1 or 2 mm distance between the rim and the wall.

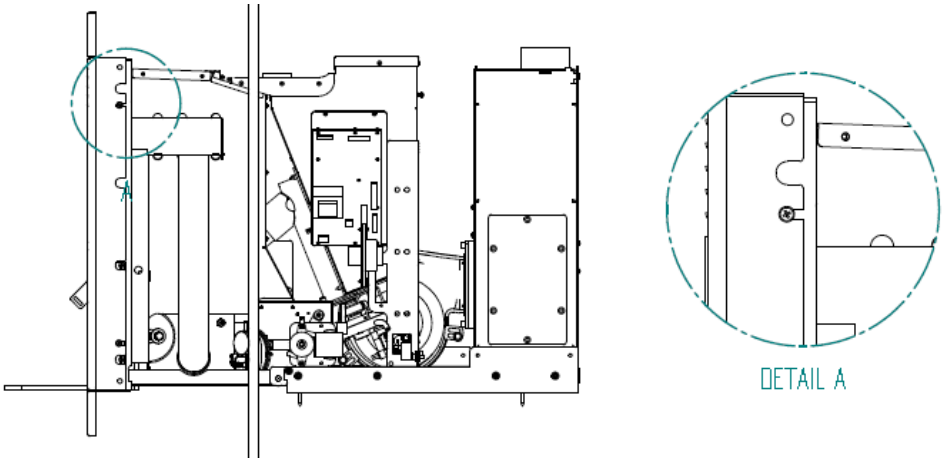


Figure 52 - Installing the frame

VERY IMPORTANT: You should always read the instruction manual of the equipment before proceeding with its installation.

18. Replenishment of *pellets*

Depending on the type of insert, refuelling will be done in one of the following ways:

- **Insertable with replenishment by extraction of the body**

If the refuelling is by extraction the first thing we should know, is we can never refuel with the equipment in operation.

It must always be replenished when the insert is completely disconnected, because when extracting the insert from the operating position the smoke extractor is disconnected from the smoke box and this can cause smoke to flow out to the room where it's installed.

To refill disconnect the equipment, open the located safety latches under the door. Using these latches, remove the equipment completely, Figure 53.

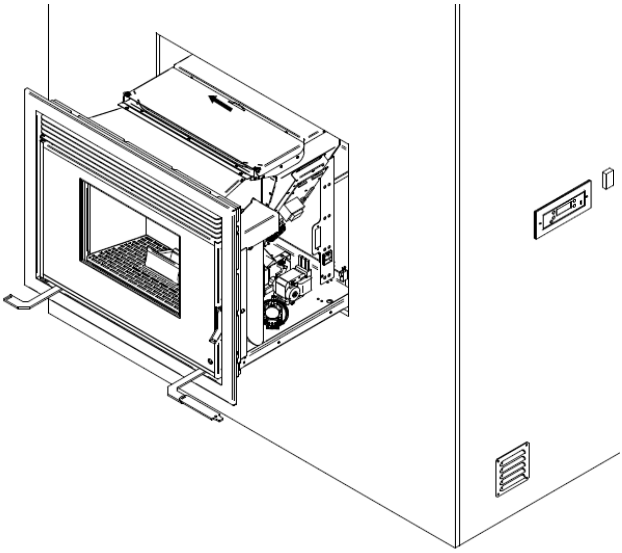


Figure 53 - Extraction of the insert to refuel

At the top of the equipment, we can see the lid of the pellet tank. We open completely by rotating until it touches the front, Figure 54.

After refuelling, close the cover and put the insert into its working position, finally close the safety latches.

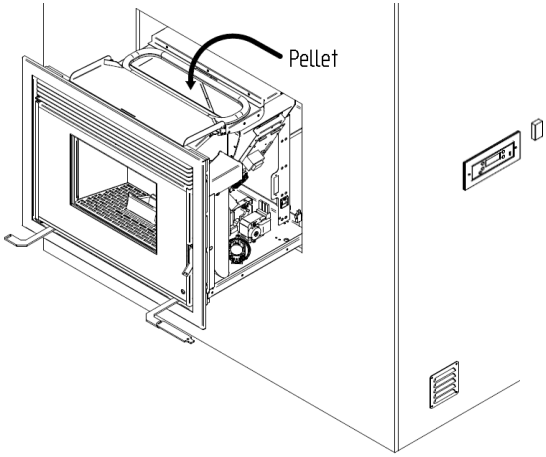


Figure 54 - Pellet Reservoir Lid Opening

- **Insertable with refill per load drawer**

This charging system can be used with the equipment in operation, but always with care as you will be close to sources of heat.

To refill the tank, open the cargo drawer by pulling the upper grate completely. Pour the pellets into the drawer and with the aid of the accessory the pellets should be pushed to the back of the drawer. The pellets will fall into the tank. When the pellets stop falling and begin to accumulate in the drawer stop loading.

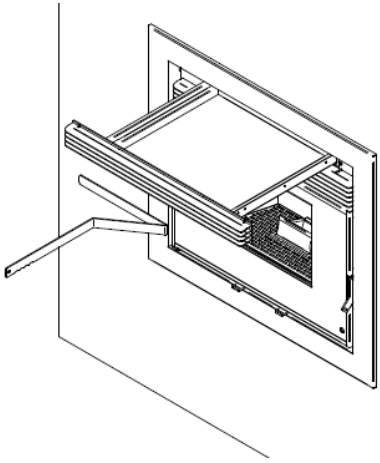


Figure 55 - Drawer for refuelling

- **Insertable with top-load refuelling**

This top loading system can be used with the equipment in operation because it does not interfere with the normal operation of the insert and depending on where the loading mouth is placed it will not be near the heat source, you can observe the installation of this system in the Point 4. The installation of the equipment is restricted to the height and distance to install the respective loading mouth. The mouth can be installed on the right, left, forward or, if possible, evenly distributed through the back of the equipment. To load the pellets simply open the loading door, the door has stops that will open the door in a certain position to facilitate loading, causing a ramp effect for the pellets to enter the tube into the tank. When checking that the pellets are about to reach the loading mouth, do not put more and you should close the door.

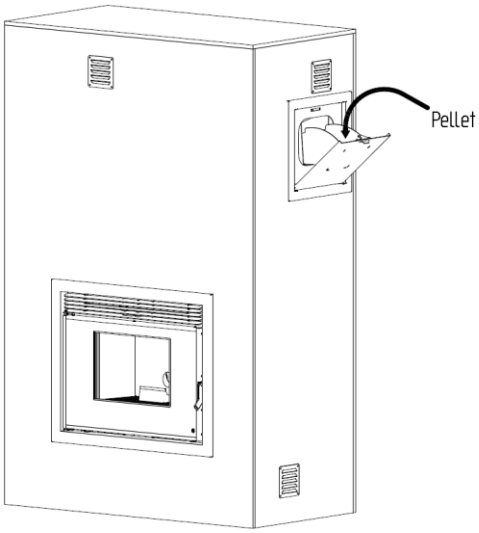


Figure 56 - Loading head for refuelling

19. Maintenance

Maintenance is a work of overhaul and mainly cleaning. The periods marked in this manual are indicative and the dirt on the equipment varies greatly according to usage and fuel.

Note: Before performing any cleaning, it is imperative that the insert is off and sufficiently cold in order to avoid accidents.

Daily Maintenance

The insertable pellet requires strict maintenance. The main care is the regular cleaning of the ashes in the pellet burning chamber. This can be done in a practical way through the aid of a simple vacuum cleaner. The cleaning operation must be performed after each firing of approximately 30 kg of pellets.

To perform this maintenance, you must open the door with the aid of the accessory. Clean the drawer and the grate. Then remove the burner and empty the ashes.

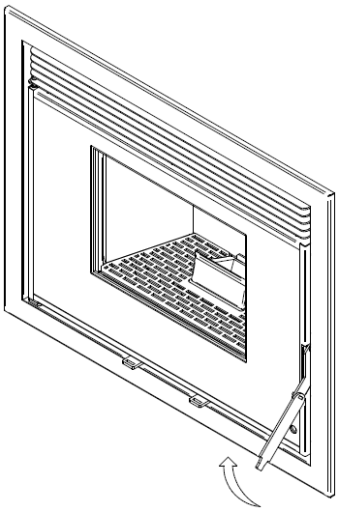


Figure 57 - Opening of the door

Weekly Maintenance

Open the door, clean the debris that may be on the grate before removing it, remove the grate, drawer and burner, Figure 58 and vacuum the ashes. Make sure all burner holes are clear, clean the inside of the insert. Finally, put the components in reverse order.

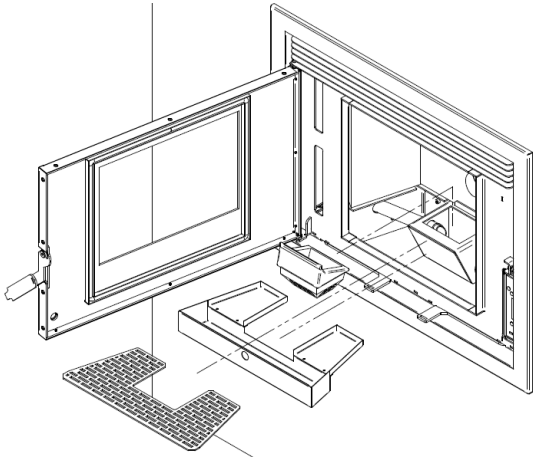


Figure 58 - Weekly cleaning

Additional Cleaning

Every 600-800 kg of pellets, an additional cleaning should be carried out. Open the door, clean the debris that may be on the grate before removing it, remove the grate, drawer and burner, once removed, remove the baffle plate, which is on top of the combustion chamber, Figure 59.

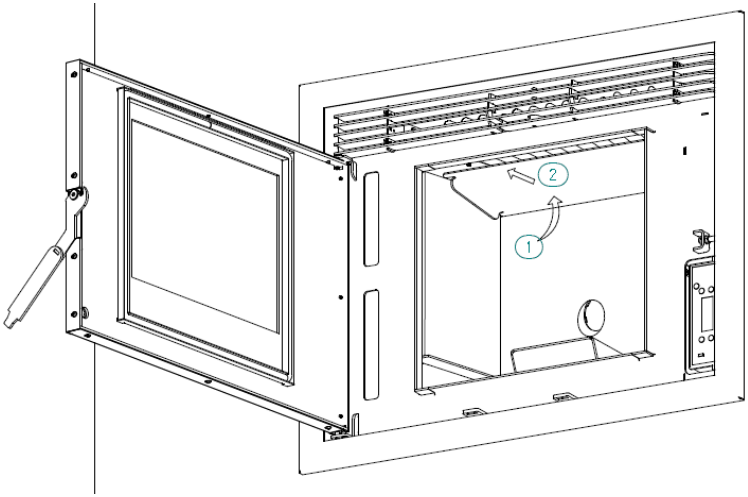


Figure 59 - Removal of the baffle plate

Remove the vermiculite plates lining the inside of the combustion chamber, first remove the sides and then the back. This shows the parts separating the combustion chamber from the smoke passage, Figure 60.

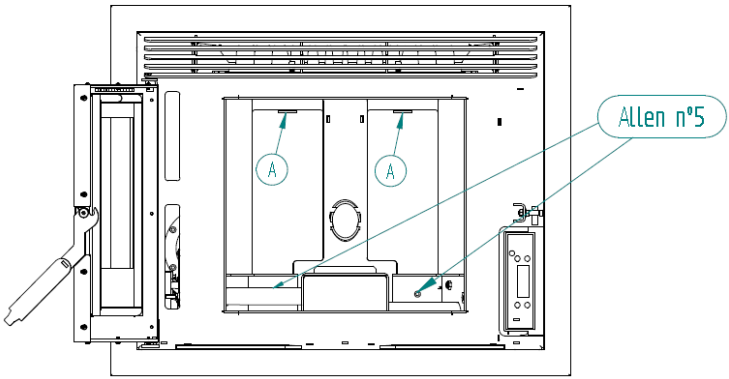


Figure 60 - Combustion chamber separators

Using a nº5 hex wrench, remove the two DIN 912 M6x12 screws securing the lower spacers, Figure 61. Once removed, the top separators are easily removed, the smoke passage in the rear of the combustion chamber should be cleaned using a vacuum cleaner and a vacuum cleaner to clean the combustion chamber, the top-floor heat exchanger, The ash basket area and the lower part of the combustion chamber.

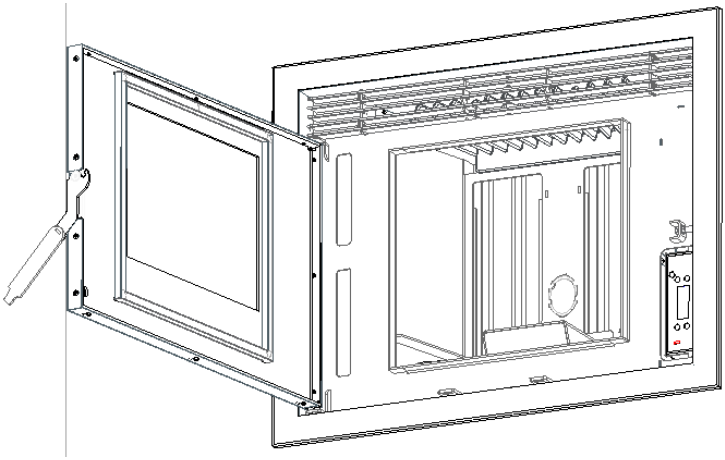


Figure 61 - Fume passage cleaning and cast-iron heat exchanger

Cleaning the Glass

Allow the unit to cool down completely before cleaning the glass. For cleaning, use a specific product following the instructions of the label. Avoid contact between the product and rope gasket and painted metal parts of the unit, as this may cause oxidation. The rope gasket is fixed with glue so any contact with water or any other liquids must be avoided.



Figure 62 - Incorrect cleaning of the glass



Figure 63 - Cleaning the glass: Applying liquid to the cloth



Figure 64 - Cleaning the glass: Cleaning the glass with the cloth

Annual cleaning

For the next cleaning task, it is necessary to remove the insert. With the door closed, open the two safety latches located under the door using the accessory, Figure 65. On the left side of the equipment, you can access the smoke extractor, as shown in Figure 65.

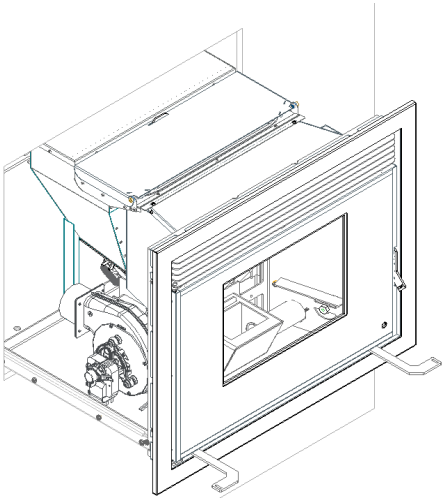


Figure 65 - Smoke extractor view

The smoke extractor is located on the left side of the equipment, it's mainly composed of two parts, the body and the motor. To clean the extractor, it is necessary to remove the cap with the motor, remove the screws as shown in Figure 66 with a Phillips screwdriver (PH2). You can use a brush and a vacuum cleaner to remove any dirt from the extractor walls and propellers.

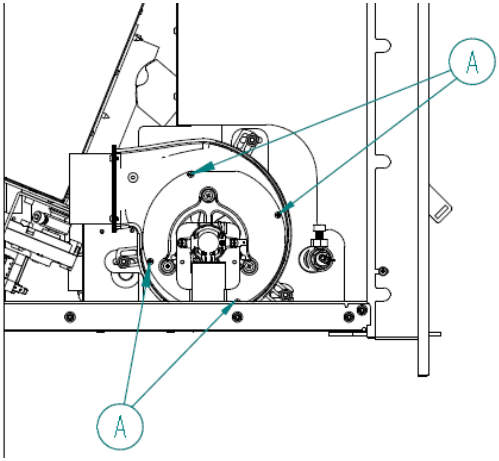


Figure 66 - Smoke extractor view

The second part of the cleaning requires the complete removal of the moving part of the equipment. The first thing to do is to disconnect the power cord and the connections if there is external probe or chrono-thermostat.

We remove the equipment from its fixed base. At the rear of the fixed base, to the left we have the smoke box that is connected to the chimney. On the front there is a red silicone gasket that is responsible for making the connection between the extractor and the smoke box, it must be checked that this gasket is in good condition. The joint cannot have cracks or cuts and must be flexible, if it is not in good condition, it is necessary to replace. The smoke box on the right side has a fixed cover with screws 6 DIN912 M6x12, Figure 67, it is necessary to remove this cover to gain access to the inside of the box and clean, Figure 68.

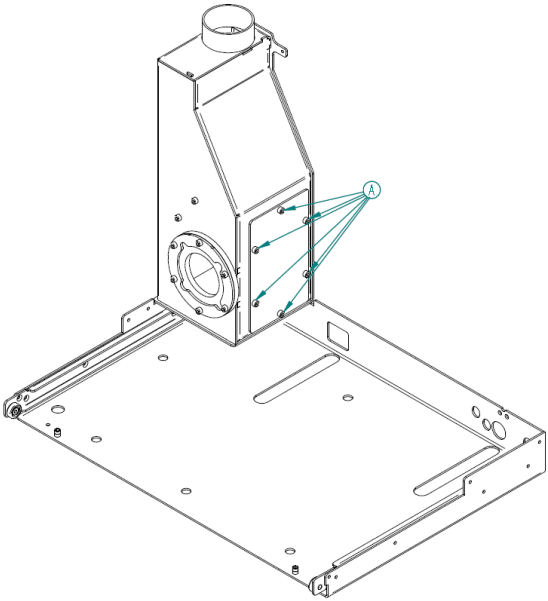


Figure 67 - Smoke box cover

Inside the box there are two smoke deflectors, positioned as shown in Figure 68, to carry out a proper cleaning it is necessary to remove them.

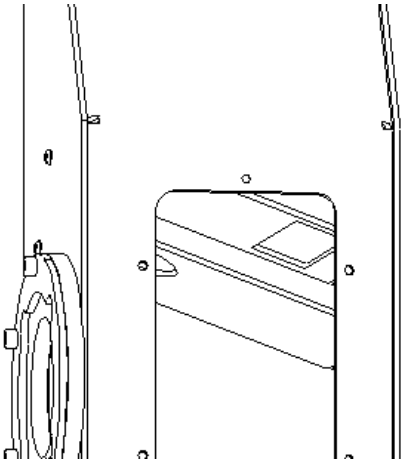


Figure 68 - Smoke box cover

To remove the baffles, you first have to remove 2 M6x20 DIN 912 screws as shown in Figure 69. Clean the inside of the smoke box and replace the baffles.

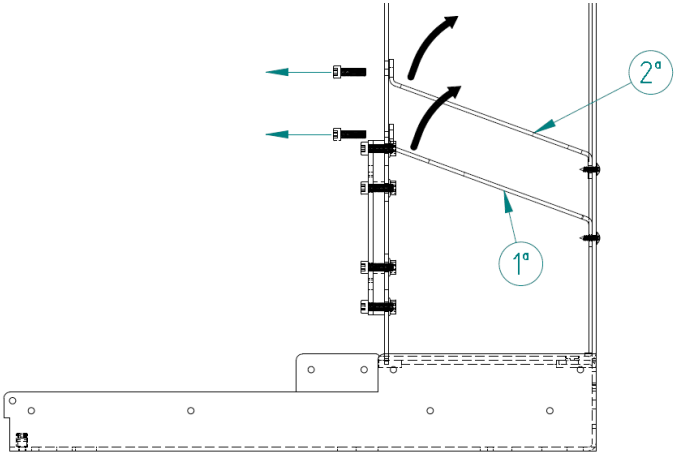


Figure 69 - Smoke box deflectors

Finally, replace all the parts in reverse order of their disassembly, finally close the safety locks under the door.

NOTICE! The frequency of maintenance tasks depends on the quality of the pellets.

20. Maintenance Plan and Log

To ensure the proper operation of the unit, maintenance operations must be performed, as described in Chapter 19 of this Instruction Manual or in the Maintenance and Cleaning Guide. There are specific maintenance tasks that must be performed by authorised technicians only. Please contact the person responsible for installing the unit. To make sure the warranty remains valid, the maintenance operations performed on this unit must comply with the frequency requirement specified in the manual, and the service technician must fill and sign the maintenance log.

Client data:

Name:	
Address:	
Telephone:	
Model:	
Serial number:	

Company/SAT: _____
Technical: _____
Dates: _____
Service hours of boiler: _____
Quantity of pellets burned: _____

Task	Check	Obs.
Clean burner		
Clean smoke circuit and turbulators		
Vacuum pellet tank sawdust		
Check pressure of the expansion vessel		
Check safety valve 3 bar		
Check the fluid on the hydraulic circuit		
Clean the smoke extractor		
Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

Company/SAT: _____
Technical: _____
Dates: _____
Service hours of boiler: _____
Quantity of pellets burned: _____

Task	Check	Obs.
Clean burner		
Clean smoke circuit and turbulators		
Vacuum pellet tank sawdust		
Check pressure of the expansion vessel		
Check safety valve 3 bar		
Check the fluid on the hydraulic circuit		
Clean the smoke extractor		
Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
Clean smoke circuit and turbulators		
Vacuum pellet tank sawdust		
Check pressure of the expansion vessel		
Check safety valve 3 bar		
Check the fluid on the hydraulic circuit		
Clean the smoke extractor		
Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
Clean smoke circuit and turbulators		
Vacuum pellet tank sawdust		
Check pressure of the expansion vessel		
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Check the fluid on the hydraulic circuit		
Clean the smoke extractor		
Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
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Dates:
Service hours of boiler:
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Clean chimney		
check the tightening of the screws		
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Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
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Check pressure of the expansion vessel		
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Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
Clean smoke circuit and turbulators		
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Signature/stamp

Company/SAT:
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Service hours of boiler:
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Service hours of boiler:
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Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
Clean burner		
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Signature/stamp

Company/SAT:
Technical:
Dates:
Service hours of boiler:
Quantity of pellets burned:

Task	Check	Obs.
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Dates:
Service hours of boiler:
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Clean burner		
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Clean chimney		
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Clean the smoke extractor		
Check and clean the inspection T		
Clean chimney		
check the tightening of the screws		
Check engine cap pellet hopper		

Signature/stamp

21. Maintenance Guide Label

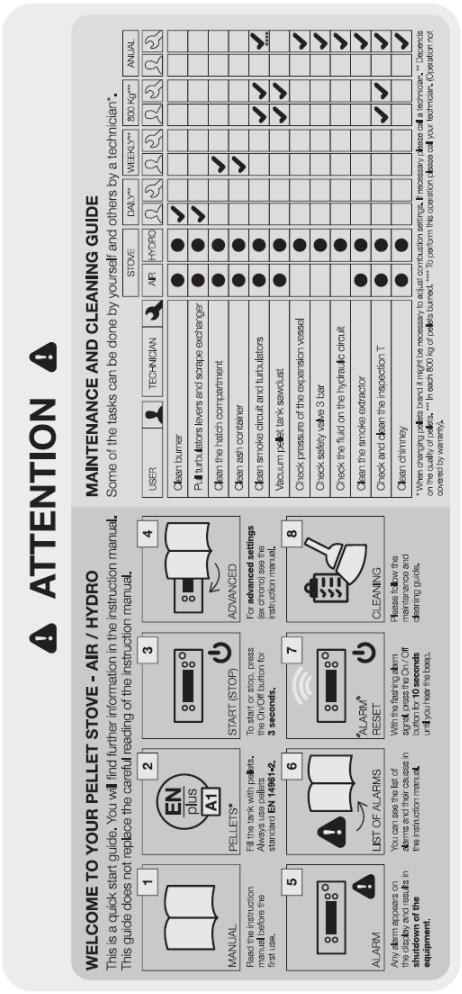


Figure 70 - Maintenance guide label

Note: The safety warnings sticker label is attached from factory to the unit's pellet lid, in the Portuguese language. Attached to the manual you will find other language versions of the sticker labels (Spanish, English, French and Italian). If necessary, remove the Portuguese language label and replace it with the label in your country's language.

22. Electrical Diagram of the Free-Standing Fire Unit

22.1 Electrical schematic – Not applicable to Columbus Electronics

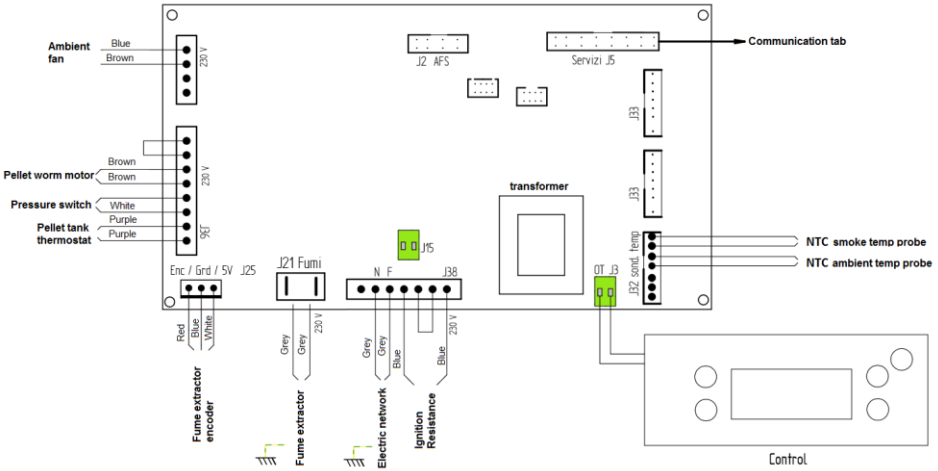


Figure 71 - Electrical diagram

22.2 Electrical Schematic – Columbus Electronics

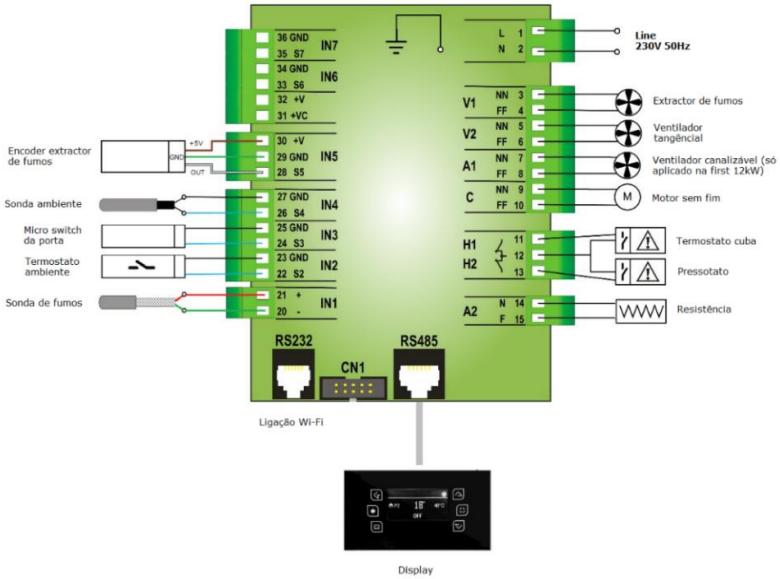


Figure 72 - Electrical diagram (Columbus Electronics)

23. End of life of a pellet insert

Approximately 90% of the materials used to manufacture these units are recyclable, contributing towards a reduced environmental impact and a more sustainable planet.
End-of-life units should be processed by licensed waste operators. We recommend contacting your local council to ensure the unit is collected and handled pursuant to any legal requirements.

24. Warranty

This model requires that the unit is subject to start-up for the warranty to be to activated. The start-up service can only be performed by technical services authorised by the manufacturer. This is mandatory before the unit reaches 100 service hours. The final user is responsible for any expenses related to the start-up service.

24.1 Warranty general conditions

1. Company name of the Manufacturer

SOLZAIMA S.A.
www.solzaima.pt
apoio.cliente@solzaima.pt
Address: Rua dos Outarelos; nº 111;
3750-362 Belazaima do Chão
Águeda - Portugal

This document does not constitute a voluntary warranty provided by SOLZAIMA S.A. for any products manufactured and marketed by SOLZAIMA (hereinafter called "Product(s)"). The purpose of this document is to provide the client with guidelines on how to effectively activated the legal warranty that is standard to any consumer Product (hereinafter "Warranty"). Naturally, this document does not impact any warranty legal rights the Buyer may have, arising from the Product purchase contract.

2. Identification of the Warranted Product

The use of the warranty service is based on the assumption that, through the proper means, the Client has previously sent the correct warranted Product information to SOLZAIMA S.A. including the Product information as described on in the proof of

purchase and on the Product's specification plate (model and serial number).

3. Warranty Conditions for the Product

3.1 A SOLZAIMA S.A. is liable towards the Buyer for the non-compliance of the Product with the sale and purchase contract, within the following timeframes:

3.1.1 For 24 months from the Product's delivery date, in case the Product is applied to domestic use;

3.1.2 For 6 months from the Product's delivery date, in case the Product is applied to professional use;

3.2 To claim his rights and provided the deadline mentioned above is not exceeded, the Buyer must denounce in writing to SOLZAIMA S.A. the Product's non-compliance within the following deadline:

3.2.1 Within 60 (sixty) days from the date the non-compliance was detected, in case the Product is applied to domestic use;

3.2.2 Within 30 (thirty) days from the date the non-compliance was detected, in case the Product is applied to professional use;

3.3 During the Warranty period specified under clause 3.1 above (to make sure the Warranty is valid), any Product servicing operations must be exclusively performed by the manufacturer's technical services representative. All servicing under the scope of this Warranty shall be performed from Monday to Friday within the working hours and calendar legally established in each region.

3.4 Any service request must be sent to SOLZAIMA S.A. Customer Service via the following email: apoio.cliente@solzaima.pt. Upon the technical servicing of the Product, the Buyer must provide the technician with a document certifying the Product is in the Warranty Period, namely the proof of purchase or other document supporting the purchase. In any case, the document certifying that the Product is in the Warranty Period must include the identification of the Product (as per clause 2 above) and the date of purchase Alternatively, and to make the Product Warranty valid, the Client may provide the PSR - the certifying document of the unit start-up (when applicable).

3.5 The Product must be installed by a specialized technician, qualified to install the Product in compliance with the regulations applicable in the Client's geography, namely those regarding the chimney, as well as other applicable regulations concerning water supply, power supply and/or other utilities related to the use of the equipment or sector, as described in the Instruction Manual. This Warranty shall be void in case of non-compliance of the Product installation with the manufacturer’s specifications and/or any applicable law in force. Should be Product be installed on the exterior of a building, it must be protected from weather conditions, namely rain and wind. In this case, it may be necessary to protect the unit with a cabinet or a protection box properly ventilated.

3.6 The units cannot be installed in locations with chemicals agents in the atmosphere, in saline or high humidity environments. The combination of these agents with oxygen (air) may cause the quick corrosion of the combustion chamber to. In these environments, it is recommended that the units are protected with proper anticorrosion products, specially between periods of usage. We recommend the application of graphite wax specific for high temperatures to lubricate and protect the unit from corrosion.

3.7 For the equipment that use pellets, in addition to the daily and weekly maintenance procedures described in the Instruction Manual, it is also mandatory to clean the interior of the unit, as well as the fume exhaust chimney. These operations should be performed at every 600-800 kg of used pellets for Free Standing Fire units (air and water models) and Compact Boilers, and at every 2000-3000 kg of used pellets for Automatic Boilers. If the used quantity of pellets is under these Figures, at least a thorough preventive maintenance operation must be performed annually.

3.8 The Buyer is responsible for the execution of the periodic maintenance operations, as set forth in the Product’s instruction and handling manuals provided with the unit. When requested, a proof of maintenance must be produced, which includes the technical report from the entity responsible for executing such procedures or, alternatively, the filled in maintenance log provided in the corresponding section of the instruction manual.

3.9 To avoid damages to the equipment due to overpressure, safety measures must be

taken during the installation of the unit, namely by installing pressure safety valves or thermal safety valves, as applicable, as well as an expansion vase suited to the size of the installation and operating properly. Please note: The above-mentioned valves must have a pressure rating equal or less than the pressure supported by the equipment. No cutting valve must exist between the equipment and respective safety valve. A thorough preventive maintenance plan must be in place to ensure the proper operation of all the safety mechanisms. Regardless of the type of equipment, every safety valve must be directed to siphoned drainage to prevent damages to the house caused by water discharges. The Product's Warranty does not include damages caused by the lack of a piping system for the water discharging from such valve.

3.10 To prevent damages to the equipment and attached pipes due to galvanic corrosion, we recommend using dielectric separators to connect the equipment to the metallic pipes, since the applied materials may have components that enhance this type of corrosion. The Product's Warranty does not include damages caused by failure to use the dielectric separators mentioned above.

3.11 The water or thermal fluid used for the heating system (water models of Free Standing Fire units, Boilers, Central Heating Stoves, etc.) must comply with the requirements of the applicable law, in addition to ensuring the following physical and chemical properties: absence of solid suspended particles; low conductivity level; residual hardness within 5 to 7 French degrees; neutral pH, close to 7; low concentration of chloride and iron; and absence of air inlets by draught, or other inlets. In case the installation promotes automatic water make-up, this system must accommodate an upstream preventive treatment system consisting of filtration, decalcification and preventive dosage of polyphosphates (encrustation and corrosion), as well as a degassing step, if necessary. In the event any of these indicators show figures different from the recommended values, the Warranty shall be void.

3.12 Except in cases expressly provided by law, a servicing operation performed during the Warranty period does not renew the Product's Warranty period. The rights arising from the Warranty are not transferable to the Buyer of the Product.

3.13 The equipment must be installed in locations with easy access that present no risk for the technicians. The Buyer is responsible to provide full access to the equipment for

servicing, and any related costs shall be paid by the Buyer.

3.14 The Warranty is valid for the Products and equipment sold by SOLZAIMA S.A. only and exclusively within the geographic area and territory in the country where the Product was sold by SOLZAIMA S.A.

4. Circumstances not covered by the Warranty

The following items are excluded from the Warranty coverage. The Buyer is responsible for the total repair cost of:

4.1. Maintenance operations, Product adjustments, start-up procedures, cleaning, clearing errors or anomalies not related to faulty components and battery replacement;

4.2. Components in direct contact with fire, namely: vermiculite brackets, deflecting or protection plates, vermiculite, rope gaskets, burners, ash drawers, wood collectors, smoke dampers, ash grates that will wear in compliance with its handling conditions.
Paint degradation, as well as corrosion caused by paint degradation, due to fuel overload, open drawer usage or excessive extraction from the installation chimney.
For units operating on pellets, the lighting resistors are wearing parts, and for that reason their warranty is limited to 6 months. Glass break due to improper handling or any other reason not related to any fault in the product;

4.3. Components considered wearing parts, namely bearings and brass bearings;

4.4. Faulty components which are external to the Product and may affect its proper operation, as well as material damages or others (e.g. roof tiles, roofs, waterproofed coverings, piping, or personal damages) due to inadequate handling of materials during the installation, non-compliance with the product's installation rules, non-compliance with the applicable laws or non-compliance with the rules of the trade, namely the use of piping suited for the usage temperature and the use of expansion vessels, non-return valves, safety valves, anti-condensation valves, etc.;

4.5. Products whose operation has been affected by failures or deficiencies of external components or by faulty sizing;

4.6. Defects caused by using as replacement parts accessories other than those specified by SOLZAIMA S.A.;

4.7. Defects caused by non-fulfilment of the instructions for the installation, use and operation, or usage not complying with the Product's intended use, or even unusual weather conditions, irregular operating conditions, overload or inadequate maintenance or cleaning operations;

4.8. Products that have been modified or handled by people other than the manufacturer's service team and without explicit authorisation from SOLZAIMA S.A.;

4.9. Failures caused by external factors (rodents, birds, spiders, etc.), atmospheric and/or geological phenomena (earthquakes, storms, frost, lightning, rain, etc.), humidity aggressive environments (e.g. Proximity to the sea or river) as well as failures resulting from excessive water pressure, inadequate electric connections, (voltage with variations 10% higher than the nominal value of 230V), inadequate circuit pressure or supply, acts of vandalism, urban riots and armed conflicts of any kind, and derivatives;

4.10. The failure to use the fuel recommended by the manufacturer is a condition for warranty exclusion;

Explanatory note: For equipments operating on pellets, the fuel in use must be certified in accordance with EN 14961-2 standard, grade A1. Also, before buying large amounts of fuel, please check the fuel to check it behaves as expected.
For wood operating equipments, the wood humidity content must be less than 20%.

4.11. Evidence of corrosion, caused by a faulty installation or the usage of fuel other than virgin wood (such as pallets or wood impregnated with paint, varnish, salt or other components) contributing to the equipment's rapid degradation, particularly the combustion chamber;

4.12. Products, accessories or components damaged during transportation or installation;

4.13. Cleaning operations executed on the equipment or its components, resulting from condensation, fuel quality, bad adjustments or other circumstances arising from the installation area. Also, the warranty service excludes interventions to decalcify the Product (to eliminate the lime scale or other products deposited inside the equipment and produced by the supplied water quality). Equally excluded are the warranty services to vent the air in the circuit or unblock the circulating pumps.

4.14. The installation of the equipment supplied by SOLZAIMA S.A. must enable its easy removal, as well as provide access points to the mechanical, hydraulic and electronic components of the equipment and the installation. When the installation does not allow for the immediate and safe access to the equipment, the additional costs regarding access and safety will be paid by the Buyer. The cost of disassembling and assembling boxes of plasterboards or masonry walls, isolation or other elements, such as chimneys and hydraulic connections preventing free access to the Product (if the Product is installed inside a plasterboard box, masonry wall or other dedicated area, it must comply with the dimensions and properties indicated in the instruction and use manual provided with the unit).

4.15. Household calls to provide information regarding the use of the heating system and programming and/or reprogramming the adjustment and control elements, such as thermostats, gauges, timers, etc.;

4.16. Fuel adjustment interventions in pellet operating equipment, cleaning, water leak detection in the equipment's external piping, damages caused by cleaning the machine or the gas exhaust chimney;

4.17. Emergency interventions not included under the warranty service, i.e., during the weekend and on holidays, since these are special interventions not included in the warranty and therefore have an additional cost, based on a price list. These shall be executed exclusively upon request from the Buyer and according to booking availability.

5. Warranty Inclusion

SOLZAIMA S.A. will the Product, free of charge to the Buyer, any defects on the Product that are covered by the warranty. The replaced Products or Components will

become the property of SOLZAIMA S.A.

6. SOLZAIMA S.A.'s responsibility

Without prejudice to the relevant legal provisions, SOLZAIMA S.A.'s responsibility regarding the warranty is limited to the dispositions of the warranty conditions.

7. Price list for services executed outside the scope of the warranty

The interventions executed outside the scope of the warranty are subject to the current price list;

8. Administrative Expenses

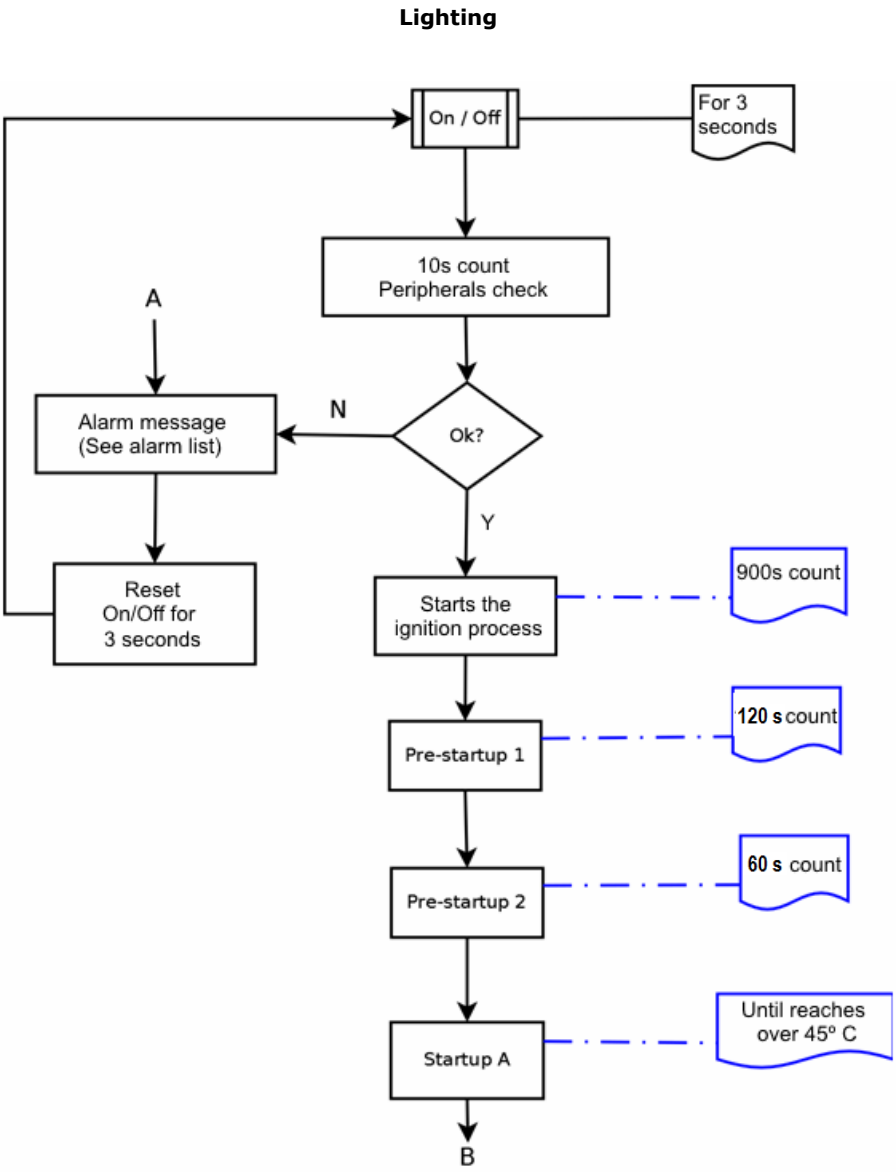
For invoices related to services executed and not paid within the specified due date, late-payment fees will apply at the maximum legal rate.

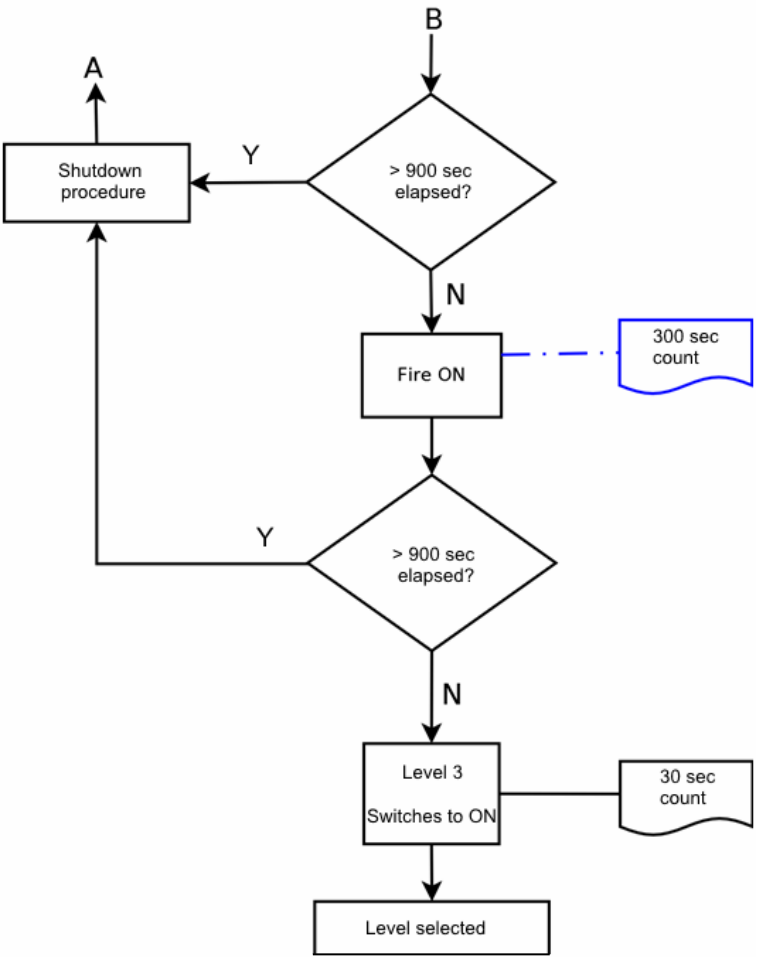
9. Competent Court

The Parties agree that the settlement of any dispute arising from the sales purchase contract of the Products covered by the Warranty shall be the competence of the Court of Águeda, expressly waiving any other jurisdiction.

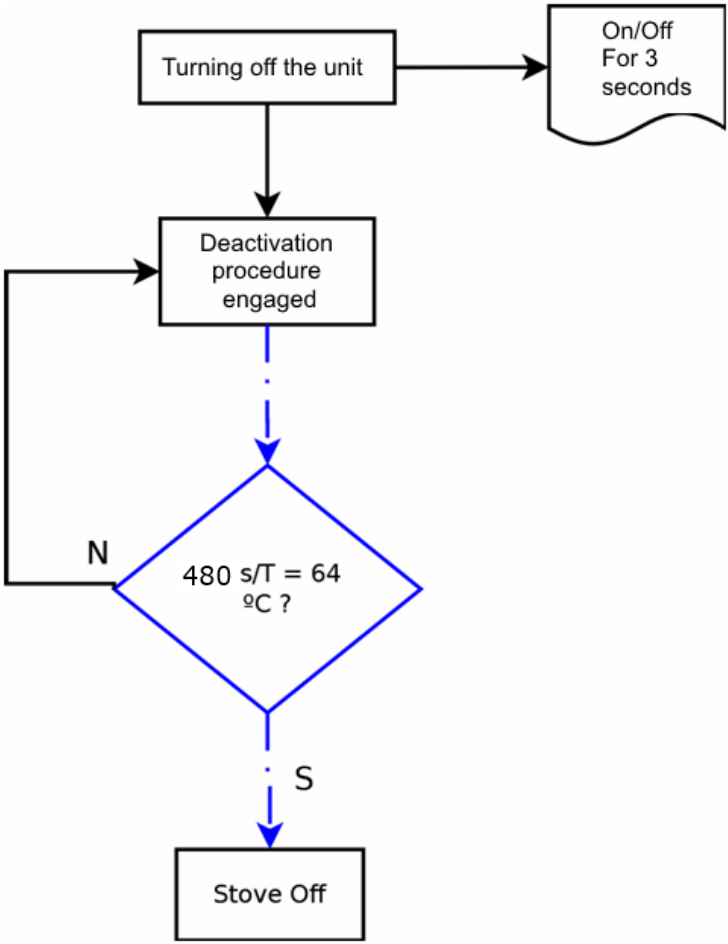
25. Annexes

25.1 Flow chart




B
A
Shutdown procedure
Y
> 900 sec elapsed?
N
Fire ON
300 sec count
Y
> 900 sec elapsed?
N
Level 3
Switches to ON
30 sec count
Level selected

Disabling


Turning off the unit
On/Off
For 3
seconds
Deactivation
procedure
engaged
N
480 s/T = 64
ºC ?
S
Stove Off

25.2 Statement of Performance

DECLARAÇÃO DE DESEMPENHO | DECLARACIÓN PRESTACIONES | DECLARATION OF PERFORMANCE | DÉCLARATION DE PERFORMANCE

Nº DD-037

1. Código de identificação único do produto-tipo | Código de identificación único del tipo de producto | Unique identification code of the product type | Le code d'identification unique du type de produit | Codice unico di identificazione del tipo di prodotto

FIRE 9 KW – EAN 05600990442528
EARTH 9 KW – EAN 05600990445185
WIND 9 KW – EAN 05600990445437

2. Número do tipo, lote ou série do produto | Número de tipo, lote o serie del producto |Number of type, batch or serial product | Nombre de type, de lot ou de série du produit |Numero di tipo, di lotto, di serie del prodotto

(VER CONTRACAPA)

3. Utilização prevista | Uso previsto | Intended use | Utilisation prévue | Destinazione d'uso

AQUECIMENTO DE EDIFÍCIOS DE HABITAÇÃO | CALEFACCIÓN DE EDIFICIOS RESIDENCIALES | HEATING OF RESIDENTIAL BUILDINGS | CHAUFFAGE DE BATIMENTS RESIDENTIELS |RISCALDAMENTO DEGLI EDIFICI RESIDENZIALI

4. Nome, designação comercial registada e endereço de contacto do fabricante | Nombre, marca registrada y la dirección de contacto de lo fabricante | Name, registered trade name and contact address of the manufacturer | Nom, marque déposée et l'adresse de contact du fabricant | Nome, denominazione commercial registrata e indirizzo del construtore

Solzaima
atendimento@solzaima.pt
Fabricado na UE

5. Sistema de avaliação e verificação da regularidade do desempenho do produto | Sistema de evaluación y verificación de constancia de las prestaciones del | System of assessment and verification of constancy of performance of the product | Système d'évaluation et de vérification de la Constance des performances du produit | Sistema di valutazione e verifica della costanza della prestazione del prodotto

SISTEMA 3

6. Norma Harmonizada | Estandár armonizado | Harmonized standard | Norme harmoisée | Standard armonizatta

EN 14785

7. Nome e número de identificação do organismo notificado | Nombre y número de identificación del organismo notificado | Name and identification number of the notified body | Nom et numéro d'identification de l'organisme notifié | Nome e numero di identificazione dell'organismo notificato

TÜV RHEINLAND ENERGIE UND UMWELT GMBH
NB: 2456

8. Relatório de ensaio | Informe de la prueba | Test report | Rapport d'essai | Rapporto di prova

K18082016T1

9. Desempenho declarado | Desempeño declarado | Declared performance | Performance déclarée | Dichiarazione di prestazione

Características essenciais | Características esenciales | Essencial characteristics | Caractéristiques essentielles | Caratteristiche essenziali	**Desempenho | Desempeño | Performance | Prestazione**	**Especificações técnicas harmonizadas | Especificaciones técnicas armonizadas |Harmonized technical specifications | Spécifications techniques harmonisées | Specifiche tecniche armonizzate**
Segurança contra incêndio | Seguridad contra incêndios | Fire safety | Sécurité incendie | Sicurezza antincendio	**OK.** De acordo com relatório de ensaio | De acuerdo com informe de la prueba | According to the test report | Selons le rapport d'essai | Secondo i rapporto di prova **K18082016T1**	De acordo com os requisites | De acuerdo con los requisites | According to the requirements | Selons les exigences | Secondo i requisiti 4.2, 4.3, 4.7, 4.8, 4.10, 4.11, 5.1, 5.3, 5.4, 5.5, 5.8 (EN14785)
Emissão de produtos da combustão | La emisión de produtos de combustion | Emission of combustion products | Emission des produits de combustion | Emissione dei prodotti di combustione	**OK.** Caudal térmico nominal | Caudal térmico nominal | Nominal heat output | Le débit calorifique nominal | Nominal heat output | Flusso termico nominale –**CO:0,01%**	Caudal térmico nominal | Caudal térmico nominal | Nominal heat output | Le débit calorifique nominal | Nominal heat output | Flusso termico nominale – **CO<0,04%**
	OK. Caudal térmico reduzido | Flujo térmico reducido | Reduced thermal flow | Flux thermique réduit | Flusso termico ridotto –**CO: 0,035%**	Caudal térmico reduzido | Flujo térmico reducido | Reduced thermal flow | Flux thermique réduit | Flusso termico ridotto – **CO<0,06%**
Libertação de substâncias perigosas | Emisión de sustancias peligrosas | Release of dangerous substances | Dégagement de substances | Rilascio di sostanze pericolose	**OK.** De acordo com relatório de ensaio | De acuerdo com informe de la prueba | According to the test report | Selons le rapport d'essai | Secondo i rapporto di prova **K18082016T1**	De acordo com o Anexo ZA.1 (EN14785) | De acuerdo con lo Anexo ZA.1 (EN14785) | According to the Annex ZA.1 (EN14785) | Selons le Annexe ZA.1 (EN14785) | Secondo l'allegato ZA.1 (EN14785)
Temperatura de superfície | Temperatura de la superfície | Surface temperature | La température de surface | Temperatura superficiale	**OK.** De acordo com relatório de ensaio | De acuerdo com informe de la prueba | According to the test report | Selons le rapport d'essai | Secondo i rapporto di prova **K18082016T1**	De acordo com os requisites | De acuerdo con los requisitos | According to the requirements | Selons les exigences | Secondo i requisiti 4.2, 4.13, 5.1, 5.2, 5.4, 5.5 (EN14785)
Segurança eléctrica | Seguridad eléctrica | Electrical safety | Sécurité électrique | sicurezza elettrica	**OK.** De acordo com relatório de ensaio | De acuerdo com informe de la prueba | According to the test report | Selons le rapport d'essai | Secondo i rapporto di prova **K18082016T1**	De acordo com os requisites | De acuerdo con los requisites | According to the requirements | Selons les exigences | Secondo i requisiti 5.9 (EN14785)
Aptidão para ser limpo | Capacidad para ser limpiado | Ability to be cleaned | Possibilité d'être nettoyé | Capacità di essere puliti	**OK.** De acordo com relatório de ensaio | De acuerdo com informe de la prueba | According to the test report | Selons er apport d'essai | Secondo i rapporto di prova **K18082016T1**	De acordo com os requisites | De acuerdo con los requisites | According to the requirements | Selons les exigences | Secondo i requisiti 4.5, 4.6, 4.10, 4.12 (EN14785)
Temperatura dos gases de combustão | Temperatura de los gases de combustion | T emperature of the flue gas | Température du gaz de fumée | Temperatura dato fumi	**OK.** **154ºC**	De acordo com os requisites | De acuerdo con los requisites | According to the requirements | Selons les exigences | Secondo i requisiti 6.2 (EN14785)

Resistência mecânica **|** Resistencia mecânica **|** Mechanical strength **|** résistance **|** Resistenza meccanico	**OK.** De acordo com relatório de ensaio **|** De acuerdo com informe de la prueba **|** According to the test report **|** Selons le rapport d'essai **|** Secondo i rapporto di prova **K18082016T1** A cada 10 m de conduta de fumos deve ser colocado um suporte de carga **|** cada 10 m de la salida de humos se debe colocar un soporte de carga **|** every 10 m of the flue should be placed a load support **|** tous les 10 m de conduit de fumée doit être placé un support de charge **|** ogni 10 m della canna fumaria deve essere posto un supporto di carico	De acordo com os requisitos **|** De acuerdo con los requisites **|** According to the requirements **|** Selons les exigences **|** Secondo i requisiti 4.2, 4.3(EN14785)
Potência térmica **|** Potencia térmica **|** Thermic output **|** Puissance thérmique **|** Potenza termico	**OK.** **8,3 kW**	De acordo com os requisitos**|**De acuerdo con los requisites **|** According to the requirements **|** Selons les exigences **|** Secondo i requisiti 6.1, 6.4 – 6.10 (EN14785)
Rendimento energético **|** Eficiencia energética **|** Energy efficiency **|** L'efficacité énergétique **|** Efficienza energetica	**OK.** **90,1%**	**≥ 75%** para potência térmica nominal **|** de potencia térmica nominal **|** for rated termal input **|** Pour puissance thermique nominale **|** di potenza termica nominale
	OK. **95,94%**	**≥ 70%** para potência térmica reduzida **|** la reducción térmica **|** to reduced termal **|** à la réduction thermique **|** di potenza térmica ridotto
Durabilidade **|** Durabilidad **|** Durability **|** Durabilité **|** Durabilità	**OK.** De acordo com relatório de ensaio **|** De acuerdo com informe de la prueba **|** According to the test report **|** Selons le rapport d'essai **|** Secondo i rapporto di prova **K18082016T1**	De acordo com os requisites **|** De acuerdo con los requisites **|** According to the requirements **|** Selons les exigences **|** Secondo i requisiti 4.2 (EN14785)

10. O desempenho do produto declarado nos pontos 1 e 2 é conforme com o desempenho declarado no ponto 9. A presente declaração de desempenho é emitida sob exclusiva responsabilidade do fabricante identificado no ponto 4. | El funcionamiento del producto se indica en los puntos 1 y 2 es compatible con las prestaciones declaradas en el punto 9. La presente declaración se expide bajo la exclusiva responsabilidad del fabricante identificado en lo punto 4. | Performance of the product stated in points 1 and 2 is consistent with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. | Les performances du produit indiqué dans les points 1 et 2 est compatible avec les performances declares au point 9. Cette declaration de performance est établie sous la seule responsabilité du fabricant identifié dans le point 4.
Portugal, 08/07/2016