MIKLOS STEEL

INSTRUCTIONS FOR COMMISSIONING
and use
Pellet stove
FM PREMIUM 25 kW

ATTENTION!
STRICTLY OBSERVE!

ATTENTION!!! Installation, installation and commissioning of a thermal fireplace should be carried out by an authorized service or an authorized specialist, observing safety instructions and labor rules.

ATTENTION!!! Do not connect the exhaust system to a chimney to which another fireplace, boiler or suction system is already connected. Install according to the instructions in this technical book.

Be sure to purchase quality pellets that meet the requirements mentioned in this technical product book. We recommend granules with a diameter of 6-8mm, a density of 600-750 kg/m,3 a calorific value of 4.7 -5.5 kWh/kg. Dust content – no more than 1% and humidity up to 10%.

f there are large voltage fluctuations, install a voltage stabilizer or a surge monitoring and protection relay on the electrical panel of the building.

Failure to comply with the above requirements may result in the loss of the warranty!

INSTRUCTIONS FOR USE FM PREMIUM 25KW

	It is mandatory to provide an alternative electricity option - a generator with the required power!
	ATTENTION! Installation and installation of a thermal fireplace should be carried out by an authorized service or an authorized specialist, observing safety instructions and work rules.
	The authorized installer / service provider is obliged to train the consumer in the operation and cleaning of the fireplace.

1. Precautionary measures

The FM PREMIUM 25kw pellet fireplace is designed to have maximum safety and ease of operation. However, it is necessary to observe the following safety measures:

1. The authorized installer is advised not to leave uncovered parts of pipes that are not fully enclosed in the collector. They should not come into contact with other objects.
2. Installation must be carried out by an installer authorised by the manufacturer. Upon its completion, the installer is obliged to present to the end user: a warranty card and a service book, confirming that the pellet fireplace is connected in accordance with all applicable standards and that the installer is fully responsible after the work done.
3. It is important to comply with all applicable laws in the country where the product is installed.
4. The manufacturer shall not be liable if the above indications are not followed.
5. Assembly and installation instructions are an integral part of this product. If they are lost or will be lost, the user of the goods must notify the manufacturer, who will make them available to the buyer in a timely manner.
6. This pellet fireplace should only be used for its intended purpose.
7. The manufacturer is not responsible for injuries to humans, animals or objects caused by improper installation or use of this product.
8. After removing the packaging, the user must check the presence of all the details. If the part is missing, the seller of the product must deliver the missing part to the user.
9. Only original parts should be used to replace defects. Contact an authorized Miklos Steel service.
10. Mandatory review - the fireplace must be thoroughly cleaned once a year and cleaned after an amount of use from 800 to 1000 kg. (certified pellets). This must be done by the client or an authorized Miklos Steel service (for a fee). During the warranty period, maintenance and service must be carried out by the authorized center, which puts the fireplace into operation and maintains it under supervision.

For safe operation, it is necessary to strictly adhere to the following rules:

- The pellet stove should not be operated by children or disabled people.
- It is forbidden to install a fireplace in wet or damp rooms, for example, in a bathroom or a room intended for a washing machine. Do not touch the fireplace with wet hands or feet.
- It is forbidden to change security measures without the approval of an authorized installer / service of Miklos Steel.
- Keep the power cord away and do not pull it or damage it.
- Children or disabled people are prohibited from accessing the room where the thermofireplace is installed unattended.
- The doors of the thermofireplace must be closed during operation.
- Avoid contact with hot parts of the thermofireplace.
- Check that the fireplace has no malfunctions before the onset of the cold season and when you have not used the fireplace for a long time (see chapter 6.0).
- The pellet fireplace is designed to work even in extreme weather conditions. However, in case of strong winds or very low temperatures, the safety system can stop the operation of the thermofireplace. In this case, contact the authorized service and do not try to disable the protection and security system yourself or put it back into operation.
- In the room where the thermofireplace is located, there must also be an inspector who uses it in case of fire of the flue gas exhaust pipe.

2. Technical specifications

2.1. Supply and unpacking of the thermofireplace

The thermofireplace is delivered on a pallet, tightly packed in a cardboard box and foil. Carefully remove the packaging. Check the thermofireplace for visible defects or malfunctions.

Check the door glass.

Open the tank at the top of the thermofireplace and check:

- Remote control;
- Electronic control + mounting screws;
- Installation and operation instructions;
- Power cord;
- Safety valve.

Check that you have received the technical documentation (instructions for use, service book and warranty). Carefully read all documentation and save it. If a defect, damage or missing parts and elements are found, contact the seller from whom you purchased the product.

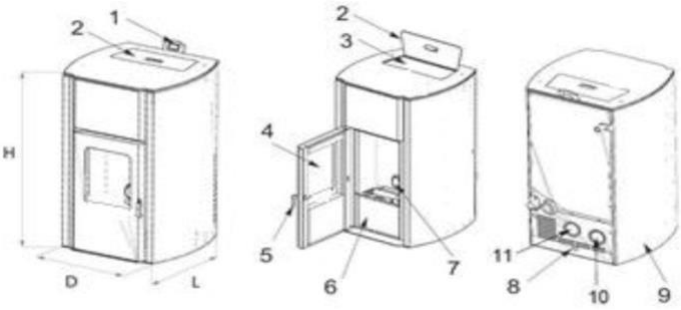
2.2. Description of the pellet fireplace

Termosemineul or plate

FM PREMIUM 25kW with water jacket, is designed for connection to heat installation, heating houses, offices, smaller restaurants and others.

It creates a pleasant and comfortable atmosphere. The combustion chamber of the thermofireplace is protected by a large surface water jacket for greater efficiency. The thermofireplace burner is made of refractory material. The door of the thermofireplace closes hermetically. Door glass is heat resistant - temperature up to 700°C. Thanks to the glass. Heat-resistant, fire can be observed by preventing contact with sparks, which can be dangerous or smoke.

Elements of a pellet furnace:



1 - Command (Controller)	*6 - Ash drawer*
2 – Pellet tank cap	*7 - Torch*
3 – Pellet tank	*8 - Power supply*
4 - Heat-resistant glass	*9 - Side decorative panels*
5 - Door handle	*10 - Smoky body*
	11 - Air intake pipe

2.3. Technical specifications

Model		**25 kW**
Height	Mm	1056
Width	Mm	620
Depth	Mm	554
Weight	Kg	180
Air intake pipe, diameter	Mm	Ø50
Exhaust gas temperature	°C	<180
Exhaust pipe, diameter	Mm	Ø80
Tank capacity	Kg	45
Rated output	Kw	25
Low heat capacity	Kw	11
Heat capacity of the water jacket		21.5
Water casing outlet		Nozzle ø1'' 25mm
Water casing entrance		Nozzle ø1'' 20mm
Working pressure	bar	2
Average hourly fuel consumption	h/kg	3
During combustion, a funnel full of granules at maximum heat capacity	h	12
Carbon monoxide (CO) content		0.02%

at 13 % oxygen O_2 at rated heat capacity		
Efficacy	%	
Power of the electrical part	W	
Voltage	V/Hz	
Recommended fuel		Lem granules, Diameter 6-8 mm, EN 14961-2:2011

The data in the table above form the basis for tests carried out on the combustion of wood pellets with a calorific value of 18220 Kj/kg (equivalent to 4350 Kcal/kg). The above values are informative, not mandatory.

The manufacturer reserves the right to change these values at any time to improve the efficiency of the thermos.

3. Installation of a pellet fireplace

3.1. General

Proper assembly and connection of the flue gas system plays an important role in the careless operation of the pellet fireplace.

Errors made during installation and installation are not covered by the warranty granted by the MANUFACTURER.

Installation, commissioning and prevention of a thermal fireplace is necessarily carried out by an authorized installer / service Miklos Steel!

Simplified scheme for connecting a thermoplite to a heating unit

ABOVE recommendations for the installation and installation of a thermal fireplace:

- Check the minimum volume of the room in which the thermofireplace will be installed (not less than 40 m3);
- Check if there is an open place where smoke can escape;
- Comply with all norms - technical, construction and safety;
- Pay attention to the correct operation of the flue gases (proper operation of the chimney);
- Do not install a pellet fireplace in the bedroom, bathroom, as well as in rooms where there is already another source of heat, without sufficient access of fresh air (another fireplace and others), if necessary, install an air intake;
- In the room where the thermofireplace is installed, there should be no explosive substances;
- The surface around the thermofireplace should be made of stone, cement or other refractory material;
- The minimum distance at which the thermofireplace must be made of materials that can easily ignite is 400 mm. If the floor is made of materials that can easily ignite (for example, parquet), it must be insulated with fireproof material.
- Flue gas metal pipes should be at a distance of 1.5 m from materials that can easily ignite.
- We recommend installing the thermofireplace as close as possible to the flue gas system (chimney).

After determining the place of installation of the fireplace, remove cardboard and other protective materials for the fireplace and check that the fireplace door closes tightly.

3.2. Connection of the external fresh air intake pipe

For proper operation and proper temperature distribution, the pellet fireplace should receive enough fresh air and put it in the right place (a special hole for air intake can be made). This hole should be a minimum of 100 cm2 and without obstacles. Air can also be received from another room that is constantly ventilated, where there is no other fireplace or other system that needs fresh air. However, this room can not be a bedroom, bathroom or other room with a fire hazard, for example, a garage, basement or warehouse, where there are materials that can easily catch fire. If in the same room there is a pellet fireplace that uses gas from an open system or a source of toxic gases, the incoming air should come from the outside, from the outside.

EXAMPLE OF AN OUTDOOR CONNECTION (fresh air intake)

For proper operation, an external connection can be made through a pipe with a diameter of 80 mm, with a silicone gasket.

The outer opening should be facing downwards and the pipe angle should be 90° – protection from wind, water and others.

Observe the following distances:

1.5 m from the floor;

1.5 m horizontally;

0.3 m from windows, doors;

2,0 m from the flue gas system.

The manufacturer is not responsible for the consequences of non-compliance with these instructions.

3.3. Flue gas system

Proper installation of this system is very important.

This installation is mandatory for authorized personnel!

Recommended parameters for the installation of the flue gas system:

Model		25 kW
Revolving cos	Ra	12
Flue gas flow	g/s	5,3
CO is measured in 13% oxygen	%	0,015
Output gas temperature	°C	180

3.4. Requirements for the flue gas system

This system must meet the following requirements:

- recycled materials that are recommended;
- hermetic closure - chimney pipes must have silicone gaskets;
- to be able to work under pressure and at a temperature of 200°C - 250°C (pipe thickness not less than 1mm);
- if you connect the thermofireplace to an already existing chimney, its condition must be checked by an authorized installer;
- periodically need to clean the exhaust system (chimney).

3.5. Flue gas system pipes (chimney connection pipes)

Pipes must be strong, fine inside, machined from metal and silicone gaskets.

The diameter of the pipes up to 3 m long should be 80 mm.

The diameter of the pipes longer than 3 m must be at least 100 mm and the chimney draught must be required (see 3.3).

The length shall be as indicated in 3.1.

CAREFULLY! Do not connect the flue gas system to a chimney to which another fireplace, heating boiler or suction system is already connected.

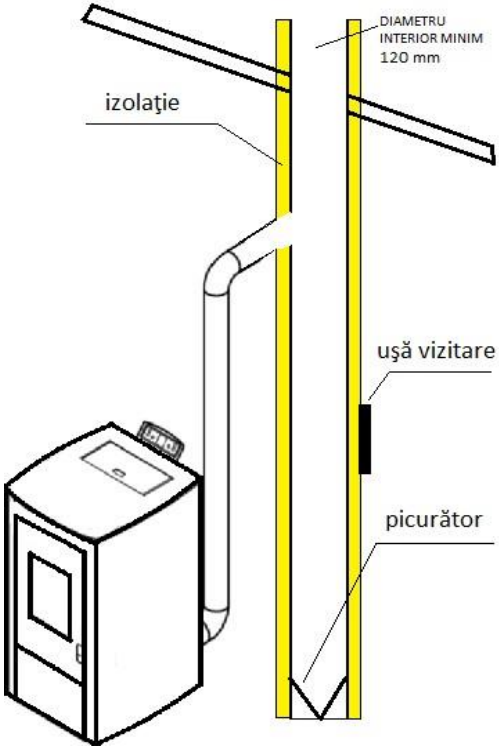
3.6. CHIMNEY

Recommendation as mandatory:

- ✓ The chimney must be doubly insulated (stone wool is recommended), equipped with a condensate receiving system (dropper) and a test door. Smoke channels are equipped with hatches and control holes, which are closed with lids or insulating metal doors located at the beginning of the smoke channel, changing its direction. At the base of the chimney there is a hatch with waterproof doors for inspection and cleaning, at the bottom of the chimney there is a nozzle for evacuating condensate
- ✓ We do not recommend using a brick chimney or an uninsulated pipe (in order to avoid a decrease in the temperature of the flue gases below the dew point temperature and provide the necessary draft)
- ✓ It is recommended to extend the masonry chimney through non-insulated sheet baskets, which causes a cold zone that prevents drafts
- ✓ The minimum height of the chimney (heat-insulated), measured from the **top of the thermofireplace, must be vertically at least 4.5 m**. When determining the correct height, the power of the thermofireplace / stove, the slope of the roof, the distance from the roof ridge, the location on other tall buildings and even climatic conditions are taken into account
- ✓ The chimney is insulated from combustible structural elements in accordance with the technical rules in the field, so as not to provoke a fire due to heat transmission or hot gas discharge, flame, sparks, etc.
- ✓ If the chimney passes through combustible or temperature-sensitive materials, protective measures must be observed in accordance with STAS 6793-86 and P118-99.
- ✓ Before connecting the fireplace / stove, the chimney must be inspected and cleaned by a specialist.

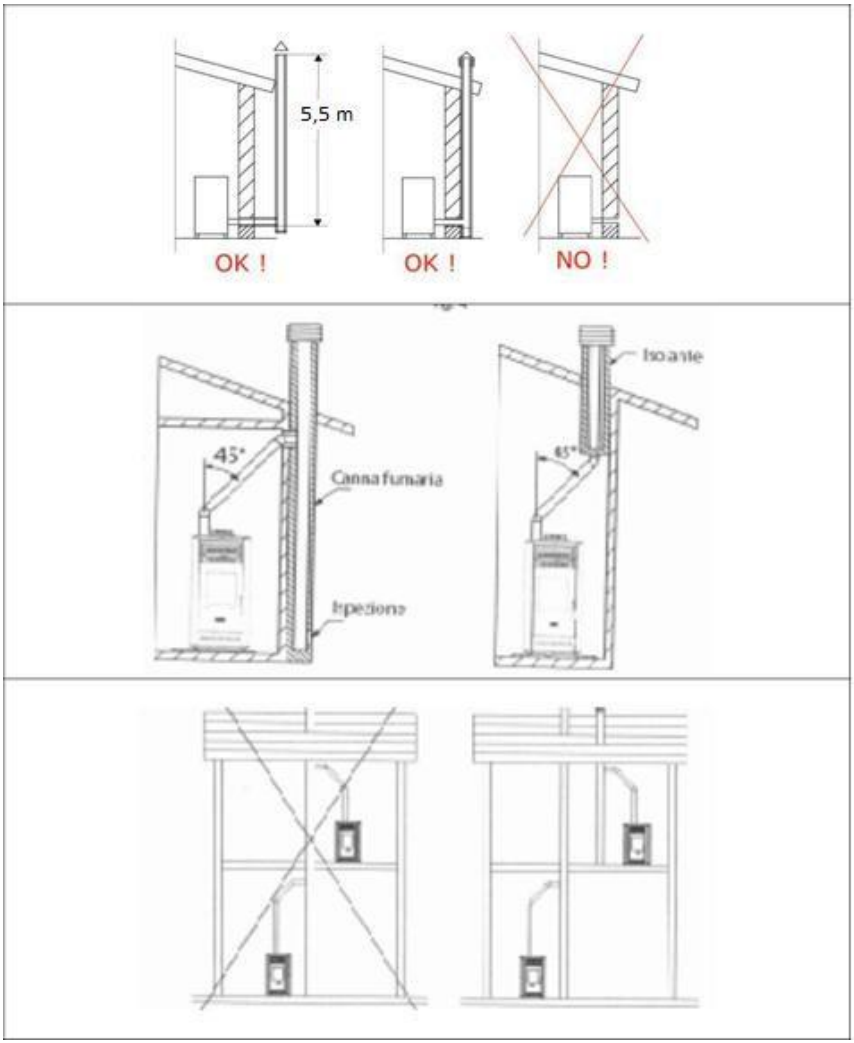
- ✓ To make the connection of a thermofireplace / stove to the chimney, we recommend that you call or consult a specialist. The connecting elements (elbows, gutters) must be fastened tightly, durable in order to avoid the escape of smoke and so as not to disturb the passage part of the chimney.
- ✓ Pipes connecting to the chimney must have at least the diameter of the nozzle of the fireplace / stove **(80 mm)**
- ✓ The minimum internal diameter of the chimney must be **120 mm** (or 120 mm x 120 mm square)
- ✓ The average temperature of the flue gases coming out to the chimney, in normal use, is below 180 ^{o}C. It is recommended to use a chimney characteristic of each thermofireplace / stove.
- ✓ In order to connect the thermofireplace/stove to the chimney, periodic inspection and cleaning must be provided. The connection should be carried out on the shortest possible route between the fireplace / stove and chimney. It is advisable that one of the gutters be equipped with a viewing window.
- ✓ Rooms equipped with well-closed doors and windows can not always provide sufficient air supply to the fireplace. For proper combustion, it should be taken into account that each unit of measurement of heating power (kW) requires at least 4m3/hour of fresh air. Fresh air for combustion can also be provided from other rooms or from the outside. In such cases, you should always provide fresh air intake with repeated ventilation or equip the room with a separate air intake. For useful advice, contact a specialist in this matter.
- ✓ Mufflers in the same room as the fireplace/stove can cause draft problems.
- ✓ **It is forbidden to pass the smoke channel through other rooms**

The chimney must be built in accordance with the current norms in accordance with STAS 6793 and STAS 3417 for authorized personnel.



Schemes for connecting a flue gas system / connecting a thermofireplace to a chimney / .

The schemes are given as an example.


5,5 m
OK !
OK !
NO !
45°
Canna fumaria
Isolante
45°

Flue gas discharge problems

For all the problems associated with the evacuation of burnt gases, the wind plays the greatest role.

3.7. Connection to electrical wiring

After installation in the room, the thermofireplace must be connected to the power supply network. On the back of the fireplace there is a power cable. Check if everything is in order with the cable. If not, contact the authorized service to replace it.

Before connecting the pellet fireplace to the wiring, check the following:

- The characteristics of the power supply network correspond to those indicated on the label of the thermofireplace;
- The grounding was done correctly;
- The cable temperature must not exceed 75°C;
- If you connect the fireplace directly to the mains, contact the electrical technician to do this.
- Disconnect the thermofireplace from the electrical network if you will not use it for a long time.
- Access to the mains should be facilitated in order to disconnect from the network in time in the event of a possible breakdown.
- If there are large voltage fluctuations, install either a voltage stabilizer or in the building's electrical panel for monitoring relays and surge protection.

4. Combustible mixture

ATTENTION! Pellet fireplace is tested only with wood pellets with a diameter of 6÷8mm, EN plus class A1, according to EN 14961:2011.

The manufacturer is not responsible for malfunctions if you use fuel that he does not recommend.

All types of granules are biological mass produced from shrubs and trees. In households, pellets produced from sawdust, ground chips are most often used, i.e. waste obtained from the processing of trees, which is used in the manufacture of wood logs, furniture and other products. Wood material is the richest raw material resource, which does not affect the cost of food production or ethyl alcohol (ethanol). Raw materials are processed under high pressure and temperature, and pressed into small cylindrical granules. In the manufacture of the product, soft wood materials (for example, coniferous, pine), hardwood material (oak) and residues of recycled wood can be used.

Advantages of wood pellets:

Comfort of storage. Bags of pellets can be stored on a small, dry surface in garages, cellars, service rooms or sheds.

Easy feeding. Regulation of the optimal amount of fuel. The small size of the pellets ensures accurate fuel supply. In turn, the air supply to achieve optimal combustion efficiency can be adjusted quite simply, since the amount of fuel in the combustion chamber is constant and predictable.

Fuel efficiency. High combustion efficiency is also determined by the uniformly low moisture content in the granules (constantly below 10% compared to the moisture content of 20% to 60% in the case of felled wood). Low humidity, controlled fuel parts, as well as accurate air regulation guarantee combustion efficiency and a fairly low level of carbon oxides in the emitted gases.

Table: European wood pellet certificate

Parameters	Measures	ENplus-A1	ENplus-A2	EN-B
Diameter	Mm	6 (± 1) 8 (± 1)	6 (± 1) 8 (± 1)	6 (± 1) 8 (± 1)
Length	Mm	15 ≤ L ≤ 40 1)	15 ≤ L ≤ 40 1)	15 ≤ L ≤ 40 1)
Mass of hectolitre per storage volume	kg / m2	≥ 600	≥ 600	≥ 600
Calorific value	MJ / kg	≥ 16.5-19	≥ 16.3-19	≥ 16.0-19
Dampness	Ma .-%	≤ 10	≤ 10	≤ 10
Dust	Ma .-%	≤ 1 3)	≤ 1 3)	≤ 1 3)
Mechanical strength	Ma .-%	≥ 97.5 4)	≥ 97.5 4)	≥ 96.5 4)
Ash	Ma.-% 2)	≤ 0.7	≤ 1.5	≤ 3.5
Melting point of ash	°C	≥ 1200	≥ 1100	-
Chlorine content	Ma.-% 2)	≤ 0.02	≤ 0.02	≤ 0,03
Sulfur content	Ma.-% 2)	≤ 0,03	≤ 0,03	≤ 0,04
Nitrogen content	Ma.-% 2)	≤ 0,3	≤ 0,3	≤ 1.0
Copper content	mg/kg 2)	≤ 10	≤ 10	≤ 10
Chromium content	mg/kg 2)	≤ 10	≤ 10	≤ 10
Arsenic content	mg/kg 2)	≤ 1.0	≤ 1.0	≤ 1.0
Cadmium content	mg/kg 2)	≤ 0.5	≤ 0.5	≤ 0.5
Mercury content	mg/kg 2)	≤ 0,1	≤ 0,1	≤ 0,1
Lead content	mg/kg 2)	≤ 10	≤ 10	≤ 10
Nickel content	mg/kg 2)	≤ 10	≤ 10	≤ 10
Zinc content	mg/kg 2)	≤ 100	≤ 100	≤ 100

1) no more than 1% the length of the granules may exceed 40 mm, the maximum length is 45 mm;

2) dry mass;

3) particles < 3.15 mm, fine dust, before the transfer of the goods;

4) for measurements with a limit value of 97,7 % for Lignotester ≥ 97,7 %.

	When purchasing pellets, request a declaration of conformity and a certificate from an accredited laboratory, make sure that the fuel meets the requirements specified in the instruction. When purchasing a large number of pellets (for example, the amount required for the heating season), ask the supplier for specific and accurate information on how to store the pellets.

We recommend granules with a diameter of 6-8mm, density 600-750 kg/m3, calorific value of 4.7 -5.5 kWh/kg. Dust content – not more than 1% and humidity up to 8%, EN 14961-2:2011. The optimal density of granules, which guarantees quality, is in the range from 605 to 700 kg per m3.

The moisture content of the granules should not exceed 10%. Be sure to store fuel in a dry and well-ventilated area.

The optimal amount of ash in granules is ≤ 1%. This amount provides less need to clean the burner.

5. Operation of a pellet fireplace

Attention! This is done by an authorized service / installer!

5.1. Safety measures when operating pellet fireplaces

The thermofireplace develops a very high temperature, and when touching hot surfaces there is a risk of burning. Do not leave children and disabled people unattended by the fireplace.

- It is forbidden to operate a thermofireplace for children or disabled people.
- Do not pour water or other liquid that can cause shock at the operating temperature of the fireplace.
- There is a risk of ignition, so keep flammable objects (towels, plastic) and liquids (alcohol, alcohol, etc.) away from the hot parts of the fireplace.

5.2. Before the first lighting of the fireplace

Making sure that the thermofireplace is installed correctly, you can turn it on for the first time and set all its operating parameters.

Setup is done from a screen or computer using our software, our systems or by entering data.

5.3. First ignition of the thermofireplace:

- Check that all cables are connected correctly;
- Turn on the thermofireplace;
- Make all the controller settings.

6. Controller / cod PSYSQ 01000013/

6.1. Description

"EasyTech.One" is an order for pellet, water and dry fireplaces.

Main features:

- Easy to install and use;
- Secure and flexible software;
- Clear and specific features for the user;
- Features that make it easier for the installer to install different types of installations.

Ingredient of the product:

- Electronic board with four attachment points, solid and safe;
- Connectors;
- Flue gas sensor up to 500 °C;
- Room temperature sensor;
- Fireplace sensor;
- Communication cable between the main board and the control panel;
- Control panel with antistatic coating;
- RS232 connector for modem/computer connection.

Safety regulations:

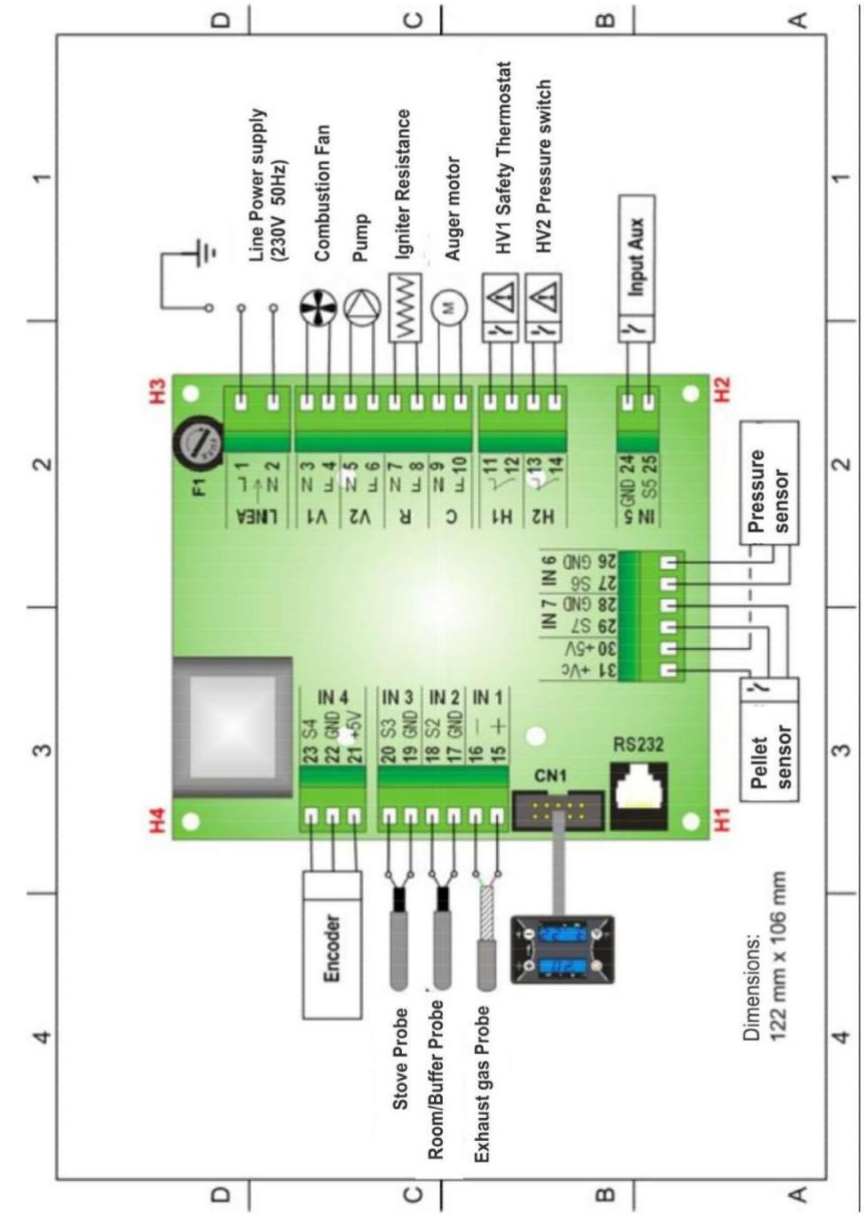
Before you start working on your order, follow these steps:

- Prevention and installation of user incidents in the room;
- Comply with national regulations on occupational safety and operation of equipment;
- Follow the rules of legal certainty.

Declaration of conformity.

Soft standard: EN 60730-1 50081-1 EN 60730-1 A1 50081-2

6.2. Connection

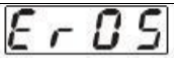
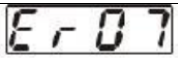
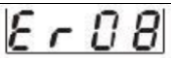
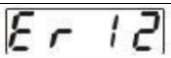
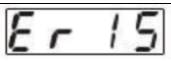
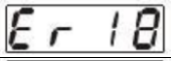
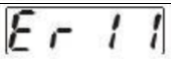
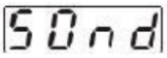
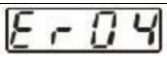
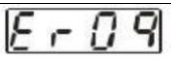
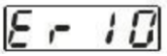


NO.		FUNCTION	CHARACTERISTICS
1	N	Feeding	230 Vac ± 10% 50/60 Hz F1 = fuse T5,0 A
2	L		
3	N	Fan	Electric relay - maximum load 1A
4	L		
5	N	Pump	Electric relay - maximum load 1A
6	L		
7	N	Heater	Relay 3A MAX
8	L		
9	N	Top-rail motor	Electric relay - maximum load 1A
10	L		
11		Backup thermostat HV1	ON/OFF contact closed if not in use
12			
13		Pressure switch HV2	ON/OFF contact closed if not in use
14			
15	Red +	Flue gas temperature sensor	Temperature K: 500 °C Max
16	Green-		
17		Temperature sensor room thermostat/bumper	NTC 10K @25°C: 80°C Max
18			
19		Fireplace temperature sensor	NTC 10K @25°C: 120°C Max
20			
21	+5V	Encoder	Semnal TTL 0/5V
22	GND		
23	GHGs		
24		Outdoor device input	ON/OFF contact
25			
26	GND	Water pressure sensor	Analog signal
27	GHGs		
28	+5V		
29	GND	Pellet level sensor	Semnal 0/5V
30	GHGs		
31	+V		
CN1		Keyboard connector	Smooth cable
RS23		RS232 connector	Connection between modem/computer

6.3. Control Panel. Functions

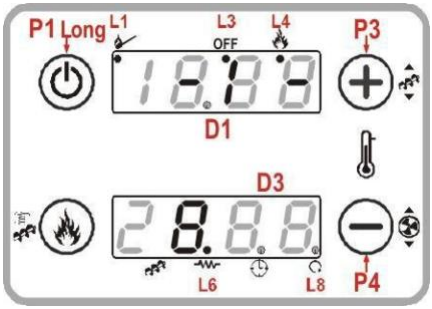
-1- Display		
LED	Fixed / permanent indication	Blinking indication
L1	Stabilization phase	Ignition phase
L3	Fireplace suspension	Deletion phase
L4	Operating mode	Modulation phase
L5	Engine screen turned on	
L6	Heater on	
L7	Programmer on	
L8	Pump on	
D1	Hour	
D2	Working power kit	Change of working capacity
D3	The current temperature in the fireplace water jacket	Changing the temperature of the water in the water jacket

-2- Buttons		
Position	Pressing the button	Press and hold the button
P1	Indicates current values	Turn on /Off/Restart
P2	Setting the degree of burnout	Manual pellet feed
P3	Setting the temperature of the fireplace (+)	Correction of pellet feed
P4	Fireplace temperature setting (-)	Functional fan correction

-3- Alarms		
Description		Error code
HV1 protection thermostat: transmits the signal and when	Block	Er 01
fireplace is OFF HV2 pressure protection thermostat:	Block	Er 02
sends a signal when the fan is turned on Shutdown due to a decrease in the temperature of the combustion gases	Block	Er 03
Disappearance due to high temperature of combustion gases	Block ALt	
Encoder error: no signal from the encoder (if **P25 = 1** or **2**)	Block ALt	
Coder error: failed fan start (if **P25 = 1** or **2**)	Block ALt	
Ignition failed	Block ALt	
Fuel shortage	Block ALt	
Lack of fuel	Block ALt	
TIME *(ORA)* and DATE *(DATA)* are incorrect due to prolonged power shortages	Block ALt	
Anomaly in sensor reading in CHECK *(VERIFICARE)* mode		
Shutdown due to high water temperature	Block ALt	
Low pressure in the fireplace	Block ALt	
High pressure in the fireplace	Block ALt	
Restarting in LOCK *(BLOCARE)* mode is performed by holding down the P1 button		

6.4. User menu (1)

6.4.1. Ignition/extinguishing



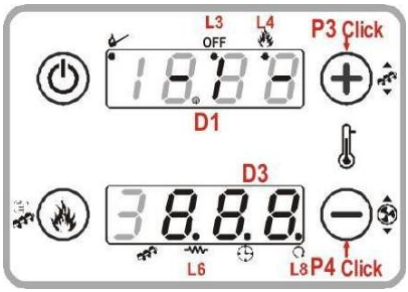
P1 button saving activates ignition and extinction.
Ignition is indicated by LEDs flashing first then remain permanent - **L1.**
The operating mode is signaled by light Lead Permanent **L4.**
The modular mode is denoted by LED flashing light **L4.**

The deletion is signaled by the LED light L3 flashing, and the final erasure process is signaled by the L3 LED light**.**

6.4.2. Setting combustion degrees

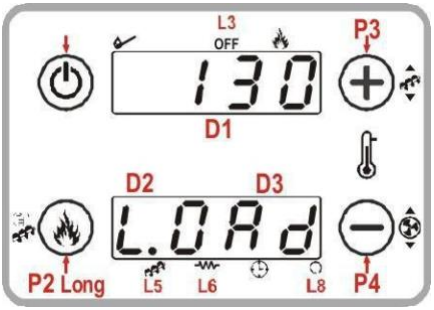
Pressing **the P2 button:** display **D2** Clip.
When you repeatedly tap on the **P2 button,** the degree changes its values.
For example: **1 – 2 – 3 – 4 – 5 – A**
(**A=** Ardere automata)
After 3 seconds, the new value is saved and displayed on the screen.

6.4.3 Thermostat setting



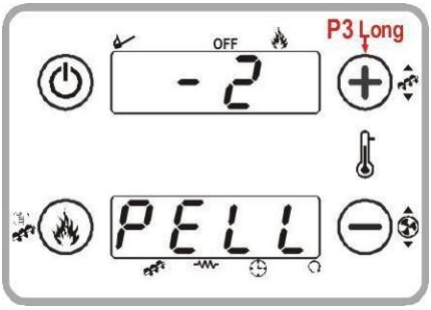
Tapping the **P3** or **P4** button: Display **D3** clip.
When you repeatedly press **the P3/P4** buttons, the thermostat value increases, or Decreases.
After 3 seconds, the new value will be saved and switch to the current temperature value of the fireplace.

6.4.4. Manual pellet feed



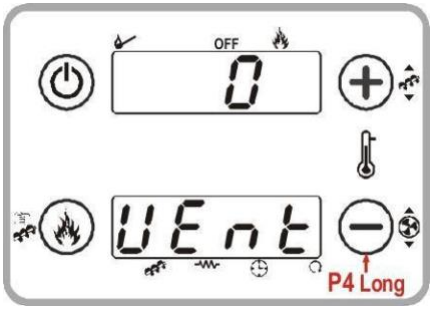
Holding **down the P2** button activates a manual pellet feed. At the bottom of the display is indicated the current mode. At the top, specify the previous feeding mode. To stop, press any button that it is.
The power supply turns off automatically after 300 seconds.

6.4.5. Correction of pellet residue feed



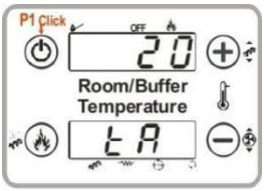
It is activated by holding down the **P3 button.**
At the bottom of the display you can see **the PELL.**
Display **D1** indicates a flashing value. From the buttons**, the value of P3 / P4** increases or decreases within the limits: **– 7 ÷ 7**.
The default value is set to "**0**".
After 3 seconds, the new value is saved and indicated on the display.

6.4.6. Fan correction



It is activated by long pressing the **P2 button**.
At the top of the display is indicated **UEnt.**
The display **D1** displays a blinking value.
From the buttons**, the value of P3 / P4** increases or decreases within the limits:
– 7 ÷ 7.
The default value is set to "**0**".
After 3 seconds, the new value is saved and indicated on the display.

6.4.7. Display



It is activated by pressing **the P1 button.**

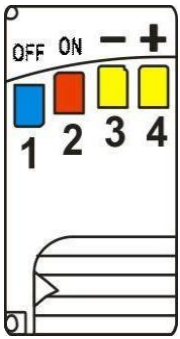
tA = chamber temperature

tF = flue gas temperature

UF = fan speed [RPM/Volt]

HF02+ Commodity Code

6.4.8. Remote control



Button 1 (blue) activates the deletion.

Button 2 (red) activates the ignition.

Buttons **3** (yellow) / **4** (yellow) reduce / increase the degree of burning.

Code modification:

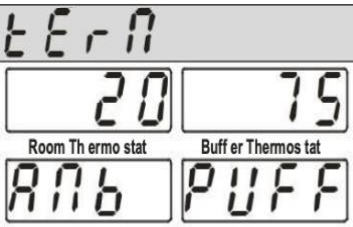
Remote control: Open the battery compartment cover.

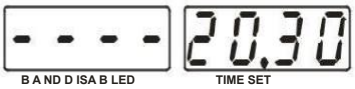
Thermoregulator: disconnect the power (230 V AC). Turn on the power from the ON button and simultaneously press the button on the remote control for 5 seconds until you hear the signal.

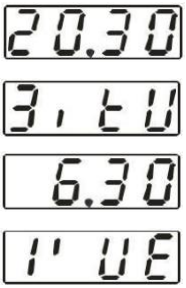
6.5. User menu (2)

Press the P2 **and** P4 **buttons for 3 (three) seconds simultaneously** to open the user menu (2).

- To view the menu, press **P3** or **P4.**
- To get the submenu, press **P2.**
- To change the values, press: P3 buttons (to increase values) and **P4** (to decrease values).
- To exit the menu, press **the P1 button**.

6.5.1. Thermostats	
Room thermostat/buffer thermostat function Allows you to set the temperature of the room thermostat P26=0 and A19=1 Or the buffer thermostat function **P26=1**	

6.5.2. Chrono function Turn the system on/off	
-1- Start Schedule setting. Press the **P2** button to open the menu. Press the P3/P4 buttons to see the option: **ON =** the beginning of programming; **OFF =** Discontinuation of programming. To confirm: P2 to exit: P1.	
-2- Programming This allows you to set three time periods every day of the week Choose  . After that, press the P2 button to enter. Using the P3/P4 buttons, you can view the set time periods. <u>Top display</u> indicates: TIME *(ORA)* Setup - - - - if the set time period is disabled. <u>The lower display indicates</u> : DAY / TIME PERIOD/ ON / OFF *(ZI / PERIOADA DE TIMP / PORNIT / OPRIT)*	  

Hold the P1 button: on / off for the selected period of time.	
Appointm ent - Set the selected time one day in advance to ON, at the desired value: for example, 20.30 - - Set the time to OFF, one day in advance, at 10:30 a.m. 23:59 - Set the next day's START time to 00:00 - Set the OFF time for the next day to the desired value. For example: 6:30 The boiler starts operating at 20:30 on Tuesday and stops at 6.30pm on Wednesday.	

	dAtE
6.5.3. Time and day of the week	
This allows you to set the current time and day of the week.	

	tELE
6.5.4. Radio remote control	
ON / OFF	

6.6. Mode of operation

Timer	Team		Fan	Screw	Heater
6.6.1. Off					
	if temp. the amount of combustion gases is > **Th01**	→ Enter **DELETE** *(STINGER)* mode	**TORN OFF**	**TURN OFF**	**TURN OFF**
	if temp. water is > **Th25**	→ Log in **LOCK** mode			
6.6.2. Check up					
T01	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	**Full velocity**	**TURN OFF**	**TURN OFF**
6.6.3. Pre-heating					
T02	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	**U01**	**TURN OFF**	**ON**
6.6.4. Pre-loading					
T03	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	**U01**	**ON**	**ON**
6.6.5. Fixed Phase					
T04	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	**U01**	**C01**	**ON**
6.6.6. Variable phase					
T05	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	I- Ignition **U01** II - Ignition **U10**	I- Ignition **C01** II - Ignition **C10**	**On** If temp. the amount of combustion gases is < **Th02**
	if temp. the amount of combustion gases is > **Th06**	→ Enter **STABILIZATION** *(STABILIZARE)* mode			
Order by T05	if temp. the amount of combustion gases is > **Th06**	→ repeat again Ignition (Ignition)			
		→ Enter **STOP** mode - error **Er12** after the number of attempts has been exhausted			

6.6.7. Stabilisation					
Timer	Team		Fan	Screw	Heater
T06	if temp. the amount of combustion gases is > **Th09**	→ Enter **NORMAL** mode	**U02**	**C02**	**On** If temp. the amount of combustion gases is < **Th02**
	if temp. the amount of combustion gases is > **Th06**	→ repeat again Ignition (Ignition)			
		→ Enter the STOP phase **(Extinguishing** *phase)* - error **Er12** after the number of attempts has been exhausted			
Order by T06	if temp. the amount combustion gases is > **Th06+d01**	→ Enter **NORMAL** mode			

6.6.8. Recover ignition

The command switches to Restore Ignition:

- After the restoration of the power supply, after its initial start-up; when combustion of gases temperature > **Th06+D01**

Pressing the ON/OFF buttons when the fireplace is in OFF mode**.**

Timer	Order		Fan	Protractor	Heater
T16 Order dupaT16	if temp. the amount of combustion gases is > **Th01** Thermostat	→ Wait and keep **deleting**	**U09**	**OFF**	**ON**
	if temp. the amount of combustion gases is > **Th01** Thermostat	→ Turn on the **T16** timer for final cleaning	**Full speed**		
	if temp. the amount of combustion gases is > **Th01** Thermostat	→ go to Check Up **mode**			

6.6.9. Regim normal (normal)					
Parameter	Command		Fan	Protractor	Heater
T14 Command after T14	if temp. the amount of combustion gases is > **Th03** Thermostat or if the combustion gas temperature is **< Fire thermostat** capacity used	→ Launches the T14 timer for pre-deletion in standby mode	**User's Power**	**User's Power**	**OFF**
	→ switch to **deletion** with error **Er03**				
	if temp. the amount of combustion gases is > **Th03** thermostat				
	if water temp. > **Boiler thermostat**	→ Enter Modulation **(Modulation)**			
A01=1	Daca temp. Room > **room thermostat**				
A07=1	If the entrance to the AUX is open				
A01=2	If temp. room > Room thermostat	→ Enter readiness mode **(Standby)**			
A07=2	if the entrance to the AUX is open				
	Temperature buffer > **thermostat** **Buffer P26 = 1**				
T15 Order after T15	if temp. the amount of combustion gases is > **Th08** thermostat if temp. water is > **Th25** thermostat	→ Starteaza Timer **T15**			
	→ Enter the deletion phase to ensure **security**				

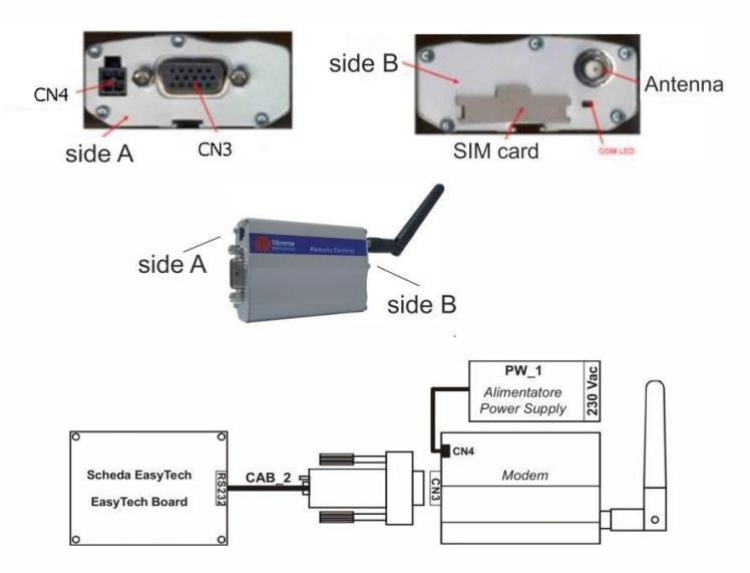
	6.6.10. Modulation						
Parameters	Team		Fan	Protractor		Heater	
T14 T14 control	If temp. the number of combustion gases is **< Th03** Thermostat or, if temp. gas combustion is **< Fire thermostat** for used power	→ Timer **T14** starts for pre-deletion in standby mode	**A06=1 U11**	**A06=0 U03**	**A06=1 C11**	**A06=0 C03**	**OFF**
	→ enter **Shutdown** and Error **Er03**						
T15 T15 Control after T15	If temp. the number of combustion gases is **< Th03** Thermostat, if temp. water **> Th25** thermostat	→ The timer T15 starts					
	→ enter **Shutdown** and Error **Er05**						
A13=1	if during **T43** temp. Water **> Fireplace thermostat+d23**	→ Enter Standby **Ready**					

6.6.11. Standby mode					
Parameters	Team		Fan	Protractor	Heater
T13 Shutdown	If temp. flue gases **> Th28** thermostat	→ Timer **T13 starts**			
	If temp. flue gases **> Th28** thermostat	→ Waiting	**U09**		
T13 control				**OFF**	**OFF**
T16 Cleaning	If temp. flue gases **> Th28** thermostat	→ The timer **T16 starts**	**Full speed**		
	→ Intra standby mode IZSL		**OFF**		
T16 control					
6.6.12. Extinguishing					
T13 Shutdown	If temp. flue gases **> Th01** thermostat	→ Timer **T13 starts**			
	If temp. flue gases **> Th01** thermostat	→ Waiting	**U09**	**OFF**	**OFF**
T13 control					

T16 Cleaning	If temp. combustion gases < **Th01** Thermostat	→ The timer **T16 starts**	**Full speed**		
	→ Enter **OFF** error-free		**OFF**		
T16 control	→ Enter **Block** with possible errors				
6.6.12. Block					
Team			Fan	Protractor	Heater
To exit: Press the P1 button for 3 seconds If there are no other locking conditions → Enter OFF mode			**OFF**	**OFF**	**OFF**

6.7. Functions

6.7.1. Modem control (not included in the basic package)



The team manages the modem's communication with the fireplace via SMS for ignition, extinguishing, status operations, and provides information when an alarm occurs. The modem connects to the command via RS232. It is supplied with a power cord.

- Using the SIM card of the modem incurs expenses for the phone card;
- The modem command is activated by parameter A50 = 1;
- The modem is supplied without a SIM card.

The user can send SMS to the SIM card of the modem with a command in uppercase or lowercase letters.

Begin	Let the fireplace light up in the off position. The modem sends back an SMS message to the number from which it received a command with a status or error code.
Stop	Let the fireplace stop working. The modem sends back an SMS message to the number from which it received a command with a status or error code.

Status **(Statutes)**	The modem sends back an SMS message to the number from which it received an order with a status or error code.
To learn **(Memoreaza)**	The fireplace has memorized the number from which the message is sent, and Send a message if an error occurs. The modem sends back an SMS message to the number from which it received a command with a status or error code.

6.7.2. Order in case of lack of power supply

If the power supply is interrupted, the system saves the main data.

When food is restored, the system retains the date and:

- if the fireplace was on and the temperature of the combustion gases was Th06+d01, turn on the ignition mode.

From the P1 button in this function can accelerate the entry of the fireplace; if the thermofireplace was turned on, and the temperature of the flue gases was lower

- if the thermofireplace was turned on and the temperature of the combustion gases was below **Th06+d01**, the fireplace goes into extinguishing mode and the command shows an error **Er15**;
- if the power shortage continues for a longer time (about a week), the system passes into a HILE block (BLOCK with the message Error **Er11**, with incorrect values: DAY and TIME (TIME).

When you reset the P1 button, the time value starts flashing and can be set correctly.

6.7.3. Retention and transition to different degrees of combustion

When the control switches from the ignition mode to the operating mode (normal), the degree of combustion begins from grade 1. Upon reaching the set value, this value can be saved (delayed) by setting the time from the T18 timer **.**

The rest of the manual or automatic changes in degrees of combustion are ordered and can be delayed from the **T17 timer.**

6.7.4. Periodic cleaning

When the thermofireplace starts working, the automatic command begins to clean it. Using timer **T07** (minute) intervals, switch to periodic cleaning mode according to the parameters C08 and **U08** for timer **T08** (seconds).

6.7.5. Automatic control of combustion power steps

To set the combustion, the user can set: AUTOMATIC METHOD [A] The combustion rate is automatically set depending on the water temperature and the parameter set for the thermostat:

- Water temperature ≤ **thermostat –d08**
  → The order passes into maximum burning;
- **Termostat –d08 <** Water temperature **< Termostat**
  → The degree of combustion is reduced to reach the temperature set pressostat;
- Temperatura apa ≥ **Termostat**
  → The command enters a burning rate of 1 if **A06=0** or modulation if **A06=1.**

EXAMPLE:	**A06 = 1**	**Modality = [A]**	**Termostat =75 °C**	**d08 = 5 °C**	**P03 = 5**

Apei temperature °C	**≤ 70**	**71**	**72**	**73**	**74**	**≥75**
Combustion rate	**Capacity 5**	**Capacity 4**	**Capacity 3**	**Capacity 2**	**Capacity 1**	**Capacity 1**

6.7.6. Adjustment for the supply of pellets

The user can correct the start time of the auger by performing the following actions (intervals):

- 7 ÷ 7

P15 is the percentage of correction / step values and corrects the factory-set operating parameters.

C03=2.0	**C03=2.0**	**C03=2.0**	**C03=2.0**	**C03=2.0**	**C03=2.0**	**C03=2.0**	**C03=2.0**
C03=1.8	**C03=1.8**	**C03=1.8**	**C03=1.8**	**C03=1.8**	**C03=1.8**	**C03=1.8**	**C03=1.8**

The determined values are between: **P27 ÷ P05.**

6.7.7. Fan control correction

The user can adjust the fan speed in the range: **-7 ÷ 7 P16** is the percentage of the change value.

U03=1000 U03=1150	U03=1000 U03=1150	U03=1000 U03=1150	U04=1200 U04=1380	U05=1400 U05=1610	U06=1600 U06=1840	U07=1800 U07=2070	U11=900 U11=1035

The values determined are between: **P14 ÷ P30**

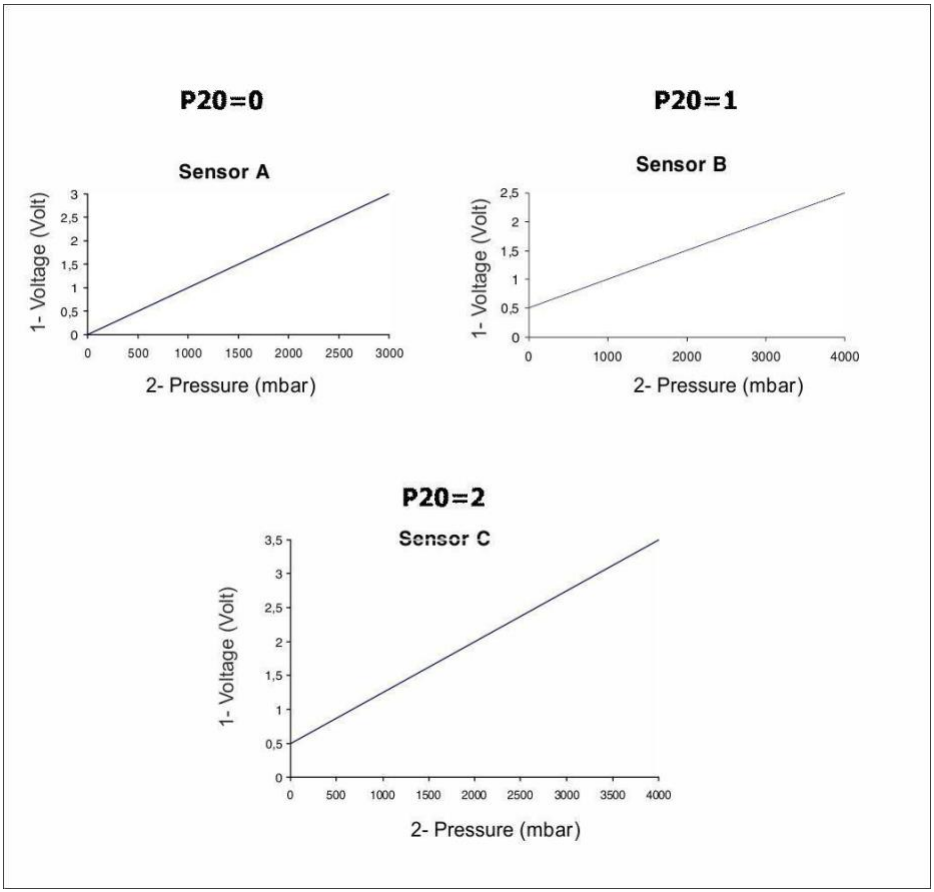
6.7.8. Internal combustion fan control.

From parameter **P25** set the fan speed.

P25=0	Fan without encoder: the speed is set according to the voltage set value [Volt]. The step of the modification is 5 volts.
P25=1	Coder fan: The speed is set as the speed function [RPM]. In the presence of a signal and the impossibility of setting speeds, the system stops working and displays an Error Er08 alarm.
P25=2	Coder fan: The speed is set as the speed function [RPM]. In the presence of a signal and the impossibility of setting speeds, the system stops working and displays an error Er08. If the sensor fails and there is no signal, the thermofireplace stops working - Error Er07. When you reset the P1 button, the command AUTOMATICALLY enters the parameter P25=0.

6.7.9. Configuring the pressure sensor setting

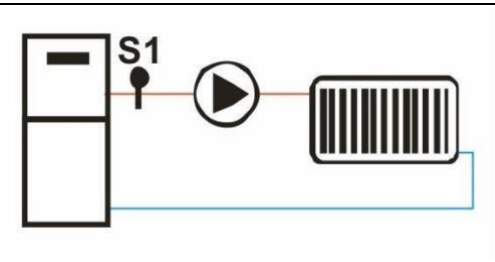
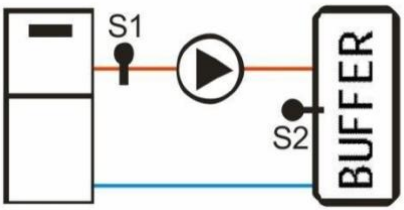
The user can correct the start time of the auger in steps: – 7 ÷ 7



1- voltage (volts); 2 – Pressure (mbar)

6.7.10. Installation control

Example:

P26=0 Th18= 5 °C Th19= 50°C Th21= 80°C	
P26=1 Th18= 5 °C Th19= 40 °C Th21= 80 °C Th47= 8 °C	

7. Cleaning and maintenance

Regularly clean the pellet fireplace and flue gas system.
This guarantees its effective operation.
IMPORTANT! When cleaning a thermofireplace, do not use acidic preparations or liquids that can easily ignite.

7.1. Cleaning and maintenance of pipes for the evacuation of flue gases

Tar is a liquid that is formed in case of poor combustion after a low temperature in the pipe for the discharge of flue gases. In its presence, it is recommended to carefully insulate the flue gas pipe. Submission tar can cause a fire.

It is recommended to check and clean the flue gas evacuation system at least once during the cold season.

ATTENTION! The flue gas exhaust system (chimney) must be checked and cleaned before the pellet fireplace is first put into operation.

7.2. Cleaning and maintenance of a pellet fireplace

Maintenance and cleaning of the pellet fireplace should be carried out regularly.
Periodically clean its outer surface, glass, doorknob and ash drawer.

Clean the burner daily.

Every month, clean the pellet tank, remove sawdust deposits. Clean the fireplace thoroughly after burning 800 to 1,000 pounds of pellets or do it at least once a year.

ATTENTION! When cleaning a thermofireplace, observe the following steps:

- extinguish the thermofireplace;
- wait for the thermofireplace to cool down;
- disconnect it from the power supply;
- Do not use preparations that can easily ignite when cleaning the thermofireplace.

When checking the thermofireplace, the allowed serum must perform the following actions:

- cleaning the vacuum cleaner and fan;
- cleaning the burner in the most hard-to-reach places;
- checking the ignition system and the pellet sediment supply system;
- checking the condition of the door cord and, if necessary, replacing it;
- dismantling and cleaning the connection of the flue gas exhaust system "T";
- checking all electronic parameters;
- issuing a report for inspection.;

Cleaning the outer surface

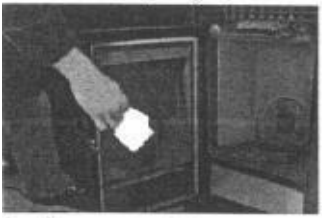
To clean the outer surface of the thermofireplace, use a soft cloth and preparations that do not damage the surface.

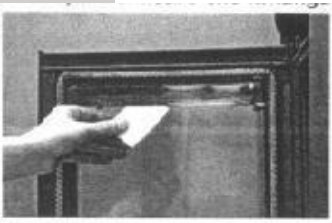
Thermofireplace glass cleaning

The glass is automatically cleaned during the operation of the pellet fireplace. However, after the thermofireplace works for several hours, the glass may become dirty inside it. The reason may be the quality of the granules or a malfunction of the flue gas exhaust system.

The glass of the fireplace is cleaned when it is turned off and cooled.

Use cotton fabric with a little preparation for cleaning windows.





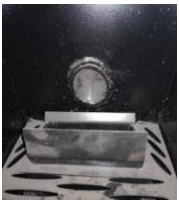
Checking / replacing the door cord of a thermofireplace

The wire guarantees an airtight closing of the door and the correct operation of the pellet fireplace. Regularly check the condition of the cord. If you notice a malfunction, contact the authorized service to replace the wire with a new one. The wire is not covered by the product warranty, it falls into the category of "consumables".

Draining ash from a thermofireplace

At the bottom of the thermofireplace is an ash drawer. Clean the drawer daily. For this, the thermofireplace must be turned off and cooled. Dispose of the ash in a non-incendiary container with a lid.

Burner cleaning

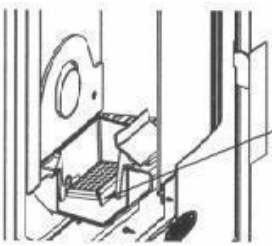


Throw ash from the burner daily, once a day, using a vacuum cleaner. A clean burner guarantees the correct operation of the pellet fireplace. If during the operation of the pellet burner you notice that there is a lot of dust and sawdust in the pellet tank, turn off

Immediately thermofireplace and clean the tank and burner.

After that, again fill the tank with granules. If you again notice in the tank that a lot of dust and sawdust accumulates, you need to change the granules!

If the holes in the burner are filled with impurities, it must be opened and cleaned.



Cleaning the pellet tank

It is recommended to clean the tank period (at least once a month). Cleaning is carried out in this way: empty the pellet tank, then clean it with the help of a vacuum cleaner.

Cleaning the silicone hose for the pressure switch

It is recommended to clean the pressure switch hose at least once a year.

Cleaning the flue gas exhaust system

It is recommended to clean the flue gas exhaust system at least once a year.

1) dismantling the cover of smoke pipes;

2) Cleaning the precipitated tar with a wire brush

3) cleaning tar from smoke pipes through an inspection hole on both sides of the

After cleaning, close the system. After using poor-quality granules, we recommend that you do this cleaning once a month.

Inspection and cleaning of the fresh air access system

At the beginning of each cold season, the condition of the fresh air access system should be checked. Eliminate all violations in the operation of this system.

Inspection and cleaning of the flue gas exhaust system

At the beginning of each cold season, the flue gas exhaust system must be cleaned. If the electrical cable has failed, it must be replaced.

8. SERVICE

After purchasing a pellet fireplace, you need to contact an authorized service for installation and commissioning. The authorized service will fill in the warranty and service book and product.

9. WARRANTY CONDITIONS

The warranty conditions are described in the warranty and service book attached to the kit.

10. RECYCLING AND DISPOSAL

Hand over the rest of the packaging material for recycling according to local devices and requirements.

At the end of the period of operation of each product, its components must be disposed of in accordance with regulatory requirements.

According to Directive 2002/96/EC on electrical and electronic equipment, it must be disposed of outside landfills. They must be handed over for processing to an approved establishment corresponding to the preservation of the surrounding mendy.

Old appliances must be collected separately from other recyclable waste containing substances that are harmful to health and the environment.

Metal parts, as well as non-metallic parts, are sold to licensed organizations for the collection of metal and non-metallic waste for recycling. They shall not be considered as municipal waste.