

**1. GENERAL INFORMATION**

- 1.1. Introduction
- 1.2. Using the manual
- 1.3. Safety rules
- 1.4. Technical description
- 1.5. Permissible use and fuel
- 1.6. Accessories supplied
- 1.7. Reference standards
- 1.8. Dataplate
- 1.9. Stove decommissioning
- 1.10. Instructions for requesting assistance and replacement parts

**2. TRANSPORT AND INSTALLATION**

- 2.1. Packing, handling, shipment and transport
- 2.2. Place of installation, positioning and fire-prevention safety
- 2.3. Air inlet
- 2.4. Fume exhaust
  - 2.4.1. Types of installation
- 2.5. Brazier and turbulator position check
- 2.6. Electrical connection
- 2.7. Wiring diagram
- 2.8. Wiring diagram for zone system
- 2.9. Plumbing connections
- 2.10. Emergency

**3. STOVE SAFETY**

- 3.1. Safety distance from flammable materials.
- 3.2. Fume exhaust safety
- 3.3. Combustion chamber overpressure safety
- 3.4. Overheating - pellet hopper temperature safety thermostat
- 3.5. Safety against flare-back in the pellet chute
- 3.6. Overcurrent electrical protection device
- 3.7. Power failure safety
- 3.8. Water circuit overpressure safety
- 3.9. Fume fan failure

**4. STOVE USE**

- 4.1. Introduction
- 4.2. Description of control panel
- 4.3. Lighting
  - 4.3.1 Check before lighting
  - 4.3.2 Startup stage
- 4.4. Work stage
  - 4.4.1 Modifying the room temperature setting
  - 4.4.2 Modifying the water temperature setting
  - 4.4.3 Restart from STAND-BY
  - 4.4.4 Cleaning the brazier
  - 4.4.5 Water heater with heat exchanger quickly
  - 4.4.6 Water heater with storage tank
  - 4.4.7 System with puffer / heat storage
- 4.5. Shutting down

**4.6 Menu**

- 4.6.1 menu 01 – adjust fans
- 4.6.2 menu 02 – set clock
- 4.6.3 menu 03 – enable chrono
- 4.6.4 menu 04 – select language
- 4.6.5 menu 05 – standby mode
- 4.6.6 menu 06 – buzzer
- 4.6.7 menu 07 – initial loading
- 4.6.8 menu 08 – stove status
- 4.6.9 menu 09 – settings by technician

**4.8 Remote control**

- 4.7.1 replacing the battery

**4.8 Thermostat – external chronothermostat****4.9 Idle period (end of season)****5 STOVE CLEANING**

- 5.1 Cleaning the brazier
- 5.2 Cleaning the ash pan
- 5.3 Cleaning the glass
- 5.4 Cleaning the fume extractor and combustion chamber
- 5.5 Cleaning the air flow meter
- 5.6 Cleaning the ceramic surfaces (ceramic models)
- 5.7 Cleaning the flue - flue connection
- 5.8 Cleaning the exchanger with turbulator-shaker device

**6 MAINTENANCE**

- 6.1 Introduction
- 6.2 Removing the ceramic cladding
- 6.3 Removing the steel cladding
- 6.4 Stove internal parts
- 6.5 Electrical components
- 6.6 Plumbing components

**7 TROUBLESHOOTING**

- 7.1 Alarm management

**8 ENCLOSURES**

- 8.1 CE marking information

# 1 GENERAL INFORMATION

## 1.1 Introduction

Dear Customer,

First of all we wish to thank you for the trust placed in us by purchasing one of our products. Please read and carefully follow the advice given in this installation, use and maintenance manual in order make best use of the product.

## 1.2 Using the manual


The Manufacturer reserves the right to make technical or aesthetic changes to the products at any time without notice.

Stove installation, use and maintenance operations must comply with the requirements given in this manual as well as the European, National, Regional, Provincial and Municipal regulations.

The drawings, measurements, diagrams and any other configurations are given only by way of example.

This manual is an integral part of the product; make sure it always stays with the stove, even if sold, transferred to another owner or installed in another place, so that it can be consulted at any time.

If lost or damaged, ask the Authorised Service Centre for a copy so that the stove always has its own manual.

	This symbol indicates the presence of an important message; failure to pay attention to it can result in serious damage to the stove and even injury
	Pay special attention to " <b>words in bold face</b> "

## 1.3 Safety rules.

- Read the use and maintenance manual before installing, lighting and servicing the stove.
- Have installation, the electrical connection, testing and maintenance carried out by a qualified and/or authorised technician.
- Connect the stove to an approved flue by means of an inspectionable terminal; several units can be connected only if allowed by the local regulations and by the flue inspection Body.
- Connect the stove to the suction system by means of a pipe or air inlet from outside.
- Connect the stove to an approved 230 V-50 Hz electrical socket.
- With the TERMO model, connect the unit to the heating system; under no circumstances can it be used without the water connection and without water in the heating chamber.
- Make sure the electrical system and the sockets are suitable for the maximum absorption of the unit, specified on the label and in this manual.
- The stove must be unplugged and cold before carrying out any maintenance.
- Do not use flammable liquids or substances to light the stove or rekindle the flame: when the stove is lit, pellet ignition is automatic.
- The pellet stove must only be fed with wood pellets having the characteristics described in this manual.
- The stove must not be used as an incinerator.
- Never block the combustion air inlet and fume outlet openings.
- Do not handle easily flammable or explosive substances near the stove while it is operating.
- Do not remove the pellet hopper protection grille.
- Do not operate the stove with the fire door open and/or the glass damaged or broken.
- During operation the intense heat generated by combustion of the pellets makes the external surfaces of the stove very hot, and in particular the fire door, handle and flue pipe. Therefore avoid contact with these parts without suitable protection.
- Keep objects that are flammable and/or not heat resistant at a suitably safe distance.
- Clean the brazier regularly every time the stove is lit or whenever reloading pellets.
- Avoid the creation of smoke and unburnt products during lighting and/or normal operation; an excessive accumulation of unburnt pellets in the brazier must be eliminated manually before relighting the stove.
- Have the pipe and smoke baffles inside the combustion chamber cleaned regularly by qualified personnel.
- Warn children and guests about the hazards described above.
- In case of operation problems, the stove can be relit only after eliminating the cause of the problem.
- Any tampering and/or unauthorised replacements with non-original parts of the stove can create a risk for the user's safety and relieves the manufacturer of any civil or penal liability.
- Only use original replacement parts recommended by the manufacturer.



*The manufacturer declines any liability for problems, damage or accidents caused by failure to follow or apply the instructions contained in this manual.*

## 1.4 Technical description

The stove works exclusively on pellets and enables easy installation with the heating system. The stove's automatic control systems guarantee optimum heat output and complete combustion; there are also safety systems to guarantee safe operation for the stove parts and for the user.

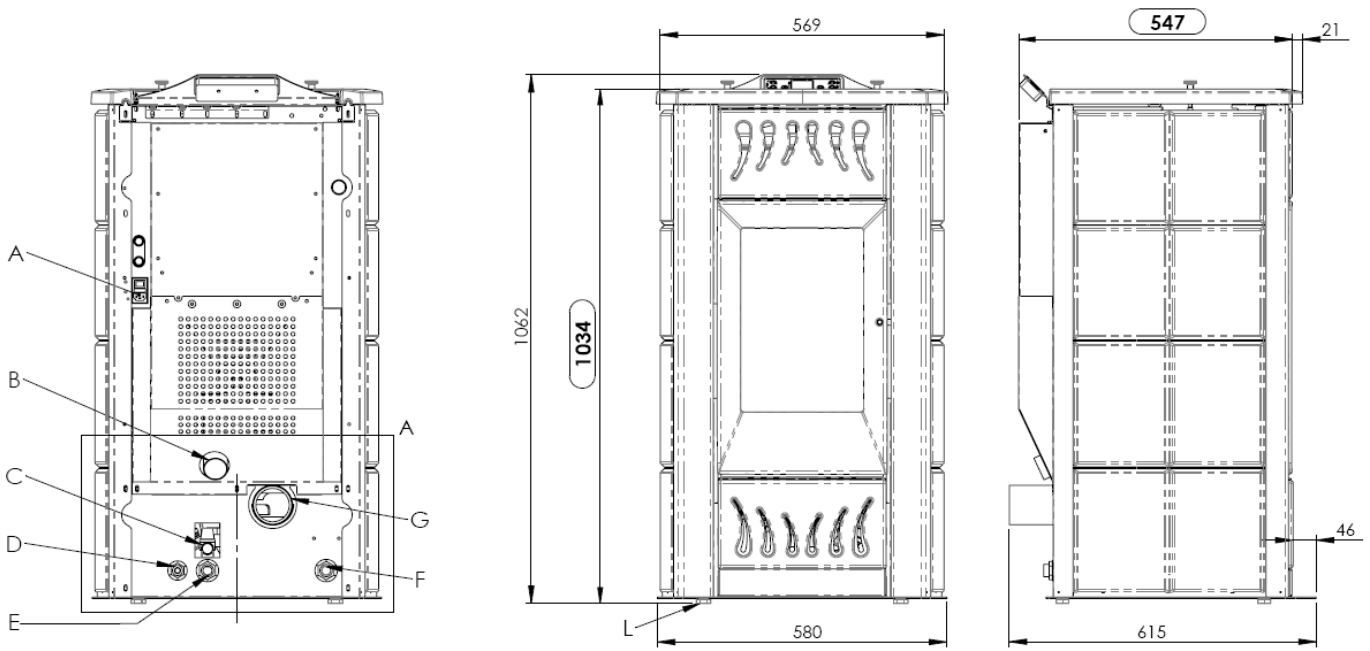
When correctly installed, the unit works in any outside climatic conditions, and in any case in critical conditions (strong wind, frost, etc.) the safety systems can cut in, shutting down the stove.

Structure	steel and cast iron	
Combustion chamber	steel	
Heat output nominal - reduced	Nom. output <b>17.4 kW</b>	Red. output <b>5.7 kW</b>
Heat output in H <sub>2</sub> O production Nom. output- Red. output	Nom. output <b>15.0 kW</b>	Red. output <b>4.29 kW</b>
Heat output in air heating Nom. output- Red. output	Nom. output <b>2.35 kW</b>	Red. output <b>1.42 kW</b>
Hourly consumption Nom. output- Red. output	Nom. output <b>3.92 kg/h*</b>	Red. output <b>1.23 kg/h.*</b>
Efficiency Nom. output- Red. output	Nom. output <b>93.96 %</b>	Red. output <b>97.9 %</b>
Fume outlet temperature Nom. output- Red. output	Nom. output <b>134.6 °C</b>	Red. output <b>58.1 °C</b>
CO emissions at 13% O <sub>2</sub>	Nom. output <b>0.01 %</b>	Red. output <b>0.04 %</b>
Flue gas flow	Nom. output <b>9.5 g/s</b>	Red. output <b>3.1 g/s</b>
Dust emissions at 13% O <sub>2</sub>	Nom. output <b>11.3 mg/m<sup>3</sup></b>	Red. output <b>36.4 mg/m<sup>3</sup></b>
Min. draught	<b>10 Pa</b>	
Fume outlet pipe	<b>Ø 80 mm</b>	
Air inlet pipe	<b>Ø 50 mm</b>	
Electrical power supply	<b>230V/50 Hz</b>	
Electrical power input	<b>420 W max. in lighting stage</b> <b>140 W for normal operation</b>	
Min. safety distance rear, right / left side floor	<b>200 – 200 – 0 mm</b>	
Expansion tank capacity	<b>8 litres</b>	
Heating chamber capacity	<b>18.5 litres</b>	
Max. working pressure	<b>2 bar</b>	
Dimensions (mm)	<b>H x W x D = 1030 x 580 x 547mm ( steel vers.)</b> <b>H x W x D = 1034 x 585 x 547mm( ceramic vers. )</b>	
Stove weight	<b>130kg (steel vers.) –142kg (ceramic vers.)</b>	
Hopper capacity	<b>20 kg</b>	
Max. heatable volume	<b>400 m<sup>3</sup> **</b>	

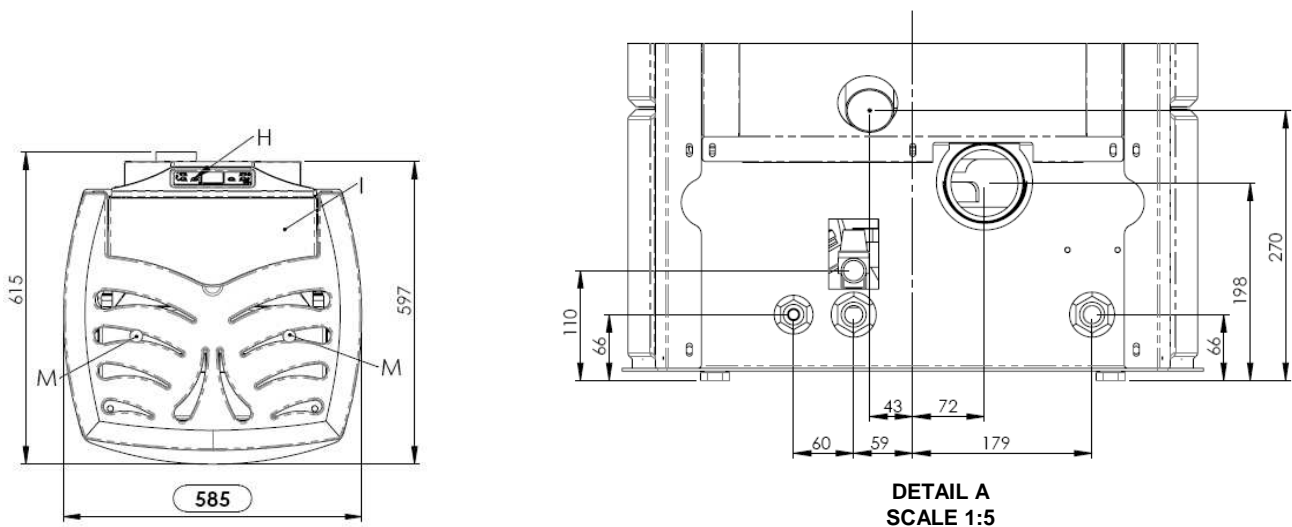
\* Pellet consumption can vary according to the type of pellets used.

\*\* Considering 35 W/h per m<sup>3</sup>. The building's energy requirement can vary according to the insulation, type and climatic zone.

**TERMO-FOCUS pellet heating stove dimensions**

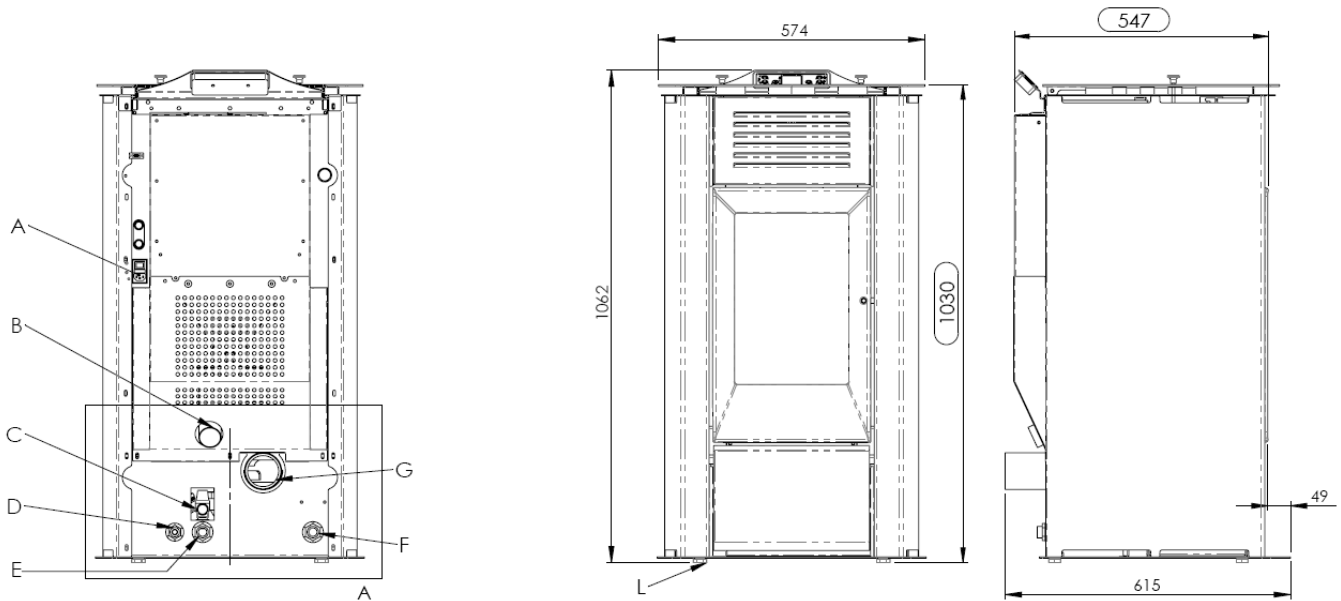


**Termo-FOCUS ceramic stove dimensions**

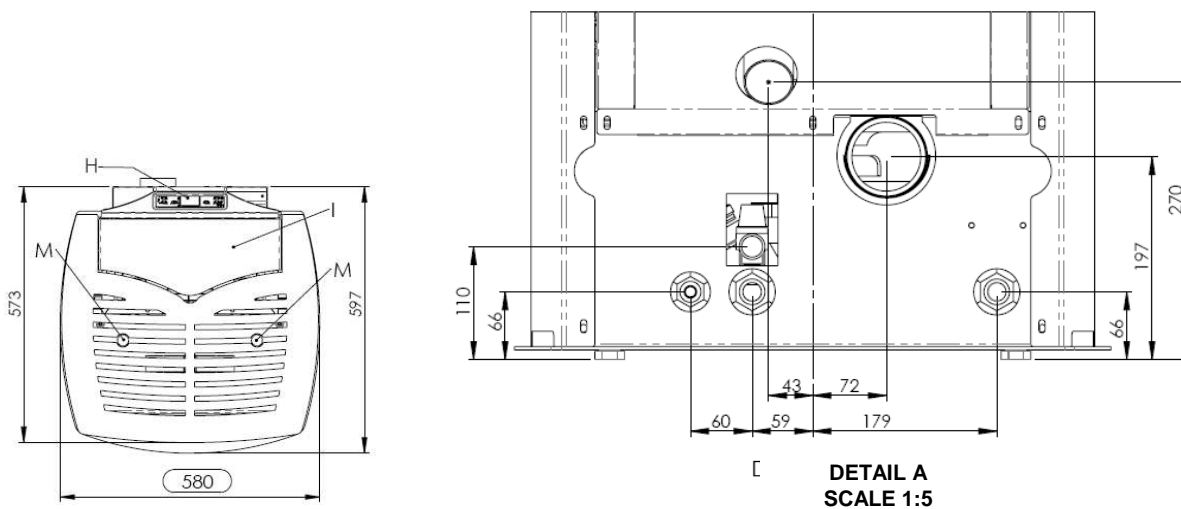


**Key:**

- A - Power cable connection
- B - Combustion air inlet
- C - Water drain in overpressure (1/2" female)
- D - Water supply connection
- E - System return (3/4" male)
- F - System delivery (3/4" male)
- G - Ø80 mm flue pipe connection
- H - Control panel model F047
- I - Pellet hopper door
- L - Adjustable feet
- M - Turbulator shaker knobs



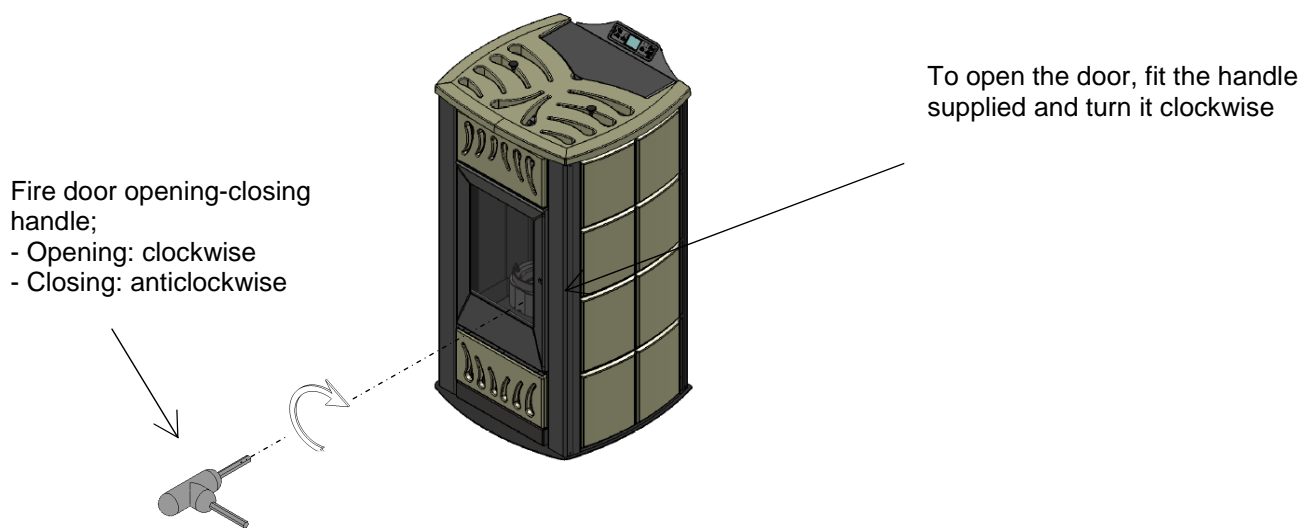
**Termo-FOCUS steel stove dimensions**



**DETAIL A  
SCALE 1:5**

**Key:**

- A - Power cable connection
- B - Combustion air inlet
- C - Water drain in overpressure (1/2" female)
- D - Water supply connection
- E - System return (3/4" male)
- F - System delivery (3/4" male)
- G - Ø80 mm fume exhaust pipe connection
- H - Control panel model F047
- I - Pellet hopper door
- L - Adjustable feet
- M - Turbulator shaker knobs

**TERMO FOCUS HR pellet heating stove fire door opening - closing****1.5 Permissible use and fuel**

The pellet stoves work exclusively on pellets in different types of wood complying with Standard **DIN plus 51731** or **UNI CEN/TS 14961** or **Ö-Norm M 7135** or having the following characteristics:

Heat value	<i>min. 4.8 kWh/kg (4180 kcal/kg)</i>
Density	<b>680-720 kg/m<sup>3</sup></b>
Moisture	<i>max. 10% weight</i>
Diameter:	<b>6 ±0.5 mm</b>
Ash percentage	<i>max. 1.5% weight</i>
Length:	<i>min. 6 mm- max. 30 mm</i>
Composition:	<b>100% untreated wood from the wood industry or post consumer without added binding substances or bark, complying with current regulations</b>
Packing	<i>in bags made from environmentally friendly or biodegradable material or paper</i>

The pellet hopper is at the back of the stove. The door is located in the top part and pellet loading occurs manually only with the stove off, making sure not to overfill.

The use of pellets with characteristics different from those tested by the technician during first lighting involves a new setting of the stove pellet loading parameters; this operation is not covered by the warranty.



- *Store the pellets in a dry place.*
- *For reasons of regular and efficient operation, pellets or other fuels cannot be manually loaded in the brazier*
- *Do not load non-conforming fuels in the hopper.*
- *Do not load foreign bodies such as containers, boxes, bags, metals, etc., in the hopper.*
- *The use of poor quality and non-conforming pellets damages and compromises stove operation, invalidating the warranty with the exclusion of liability of the manufacturer.*

**1.6 Accessories supplied**

The supply includes:

- Electrical power cable;
- Installation, use and maintenance manual;
- Opening - closing key;
- Remote Control.



## 1.7 Reference standards

- Standard UNI 10683:2005** : Installation requirements for heat generators burning wood or other solid biofuels;
- Standard UNI EN14785:2006** : Requirements for design, manufacture, construction, safety and performance, instructions and marking, together with the relevant test methods for approval of *units burning pellets*;
- Standard CEI EN 60335-1** : Safety of electrical appliances for domestic and similar use - part 1;
- Standard CEI EN 60335-2-102** : Safety of electrical appliances for domestic and similar use - part 2;
- Standard CEI EN 55014-1** : Electromagnetic resistance - Requirements for electrical appliances, electric tools and similar electric equipment - Part 1: Emission of interference;
- Standard CEI EN 55014-2** : Electromagnetic resistance - Requirements for electrical appliances, electric tools and similar electric equipment - Part 2: Immunity; Product family standard;
- Standard CEI EN 61000-3-2** : Limits for harmonic current emissions (Input current  $\leq 16$  A per phase);
- Standard CEI EN 61000-3-3** : Limitation of voltage fluctuations and flicker in low voltage supply systems for equipment with nominal current  $\leq 16$  A;
- Standard CEI EN 62233** : Measuring methods for electromagnetic fields of electrical household appliances and similar with reference to human exposure.
- Standards DIN plus 51731 – UNI CEN/TS 14961 - Ö-Norm M 7135** : Standards regarding the specifications and classification of pellets.

## 1.8 Dataplate

The dataplate is visible on the inside of the pellet hopper door or on the back of the stove. It gives the following data:

- |   |  |
|---|--|
| ▶ Model   | ▶ Electrical power input                   |
| ▶ Serial number   | ▶ Flue pipe size                           |
| ▶ Type of fuel  | ▶ Inlet pipe size                          |
| ▶ Nominal and reduced heat output                       | ▶ Min. draught                             |
| ▶ Consumption at nominal output and reduced output      | ▶ Stove external dimensions                |
| ▶ Fume temperature at nominal output and reduced output | ▶ Plumbing connection sizes                |
| ▶ Thermal efficiency                                    | ▶ Safety distance from flammable materials |
| ▶ Power supply voltage                                  | ▶ Weight                                   |

## 1.9 Stove decommissioning

When definitively deciding to not to use the stove any more, we recommend to disconnect the power supply and to empty the pellet tank completely. In order to eliminate the stove, it is necessary to package it with a strong packaging and then take contact with local organisation which follows the selling off operations respecting the local rules. Otherwise we recommend to back the stove directly to the distributor when buying a similar new one.



*On the basis of Article 13 by Legislative Decree n° 51 of 25th July 2005 actuation of the European Directive 2002/96/CE of 23rd February 2003 on waste electrical and electronic equipment. It is connected to the policy and action which aim to the prevention of waste electrical and electronic equipment, named **RAEE**, and in addition, the reuse, recycling and other forms of recovery of such wastes so as to reduce the disposal of waste. It also seeks to improve the environmental performance of all operators involved in the life cycle of electrical and electronic equipment.*

The picture of the bin crossed is labelled on the equipment, and it means that when the device is out of use it has to be kept separated by other wastes.

## 1.10 Instructions for requesting assistance and replacement parts

To request any assistance and/or replacement parts contact your dealer, area importer or the nearest authorised service centre, clearly specifying the following: stove model, serial number, date of purchase, list of replacement parts, details of faults or malfunctioning.



- All operations on components must be carried out by authorised and/or qualified personnel.
- Make sure all electrical connections are disconnected and that the stove is cold before any work on it.
- Only use original replacement parts.

## 2 TRANSPORT AND INSTALLATION

### 2.1 Packing, handling, shipment and transport

The stove complete with packing can be lifted using a lift truck, inserting the forks (of suitable length) in the special spaces in the wooden pallet. Make sure the equipment used for lifting and transport can take the weight of the stove, specified on the dataplate and in this manual.

Avoid taking the load in areas where it could be a danger if dropped.

Open the packing, remove the stove from the pallet and position it in the required place, making sure it complies with that provided for.

Set the stove down on the floor carefully without bumping and position it in the required place. Make sure the floor can take the weight of the stove, otherwise consult a specialised technician.

Disposal or recycling of the packing must be carried out by the end-user in compliance with the current local regulations.

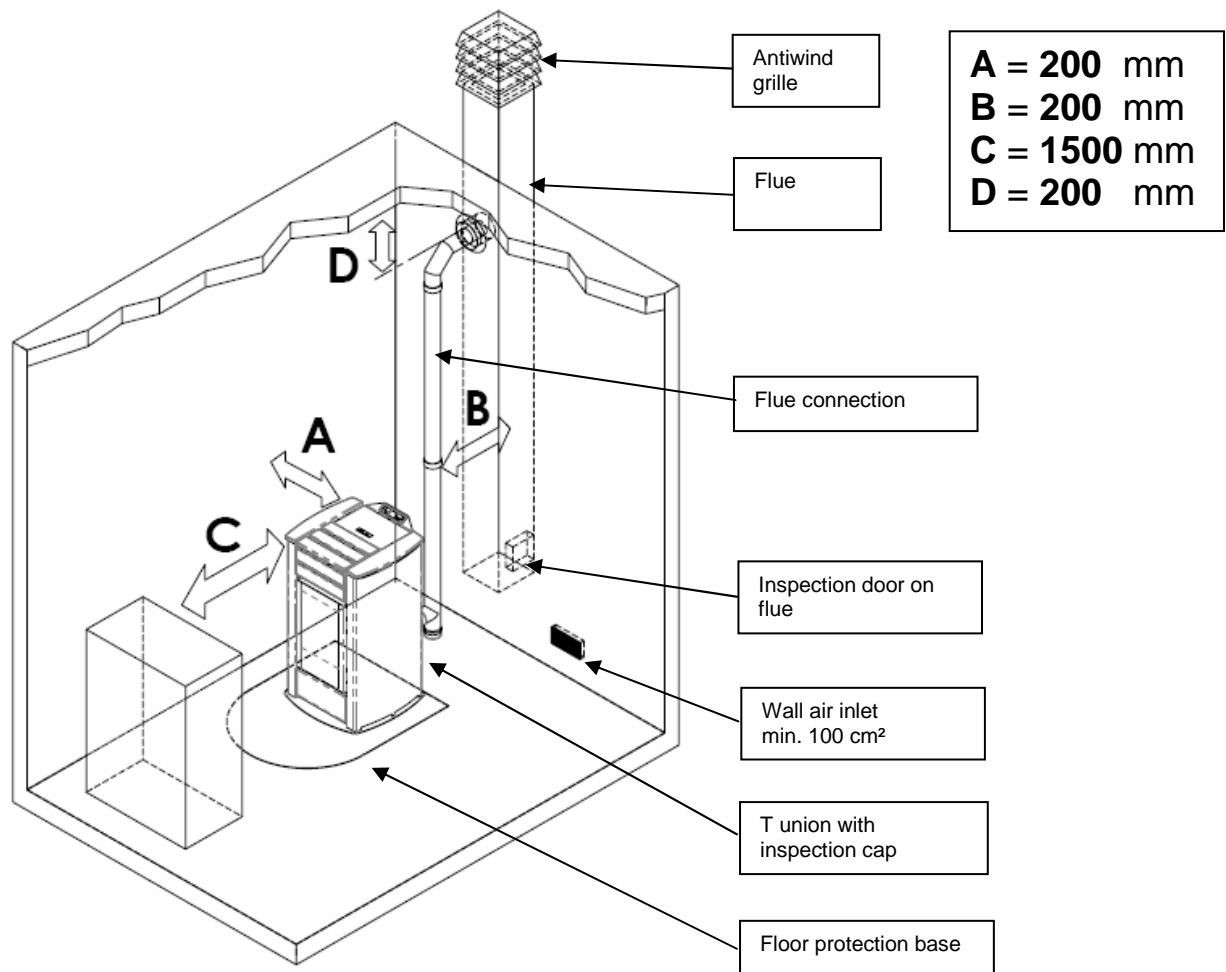
## 2.2 Place of installation, positioning and fire-prevention safety

The place of installation must be sufficiently ventilated to allow the removal of any combustion smoke leaks.

The unit is suitable for operation in domestic environments with min. temperature of 0°C; it comes complete with an antifreeze function that activates the heating pump for system water temperatures below 6°C, safeguarding: the heating chamber, heating/DHW circuit. The antifreeze function is active only when the stove is electrically powered.

To prevent the risk of fire, the structures surrounding the stove must be protected from the heat. For example, floors in wood or flammable material must be suitably protected with steel panels or toughened glass. Any wooden boards or beams above or crossed by the flue must be suitably protected in conformity with the requirements of the specific current installation standards. Suitable fire-prevention devices should be arranged for any eventuality.

The minimum front distance for the protection of flammable objects is 1.5 m. The minimum safety distances from flammable materials must be at least 0.2 m and in any case comply with the following table:



Every installation must provide for an easily accessible technical space for periodical maintenance.

The stove is provided with 4 adjustable feet to facilitate positioning on not perfectly flat floors. To adjust the height, tilt the stove slightly and turn the feet as required.

The stove is supplied with the ambient sensor fixed through a wrapper on the back of the stove; we recommend to remove the wrapper and to locate the sensor in the best position possible as to improve the temperature registration in accordance with the ambient context and the length of the cable.

As for temperature registration done at a certain distance we recommend to install the ambient thermostat/ambient programming clock-thermostat – see. par.4.8.



- *The stove cannot be installed in bedrooms, bathrooms and in general in rooms where another heating unit is already installed without an independent air inflow.*
- *With wooden floors, install a floor protection base in conformity with the current regulations. Suitable fire-prevention devices should be arranged for any eventuality.*
- *Do not install the stove in places with an explosive atmosphere.*



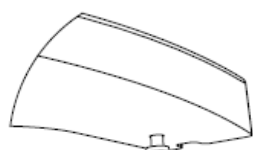
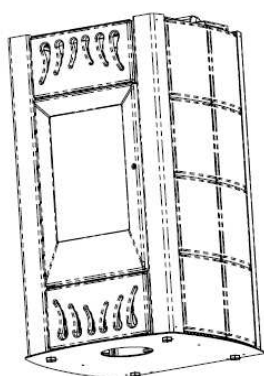
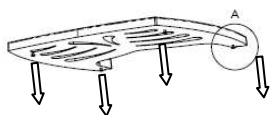
The appropriately wrapped and protected cover is inside the packing: unpack it carefully, check the integrity of the part and install it after placement of the stove, as follows:

**X**-check the screws in the threaded inserts on the bottom of the cover and adjust the distance for inserting the top stove supports in the slots.

**Y**-fit the cover from the rear side, inserting the screw heads in the respective seats of the supports as shown in the figure.

**Z**-secure the cover in place, fixing the rear stops as shown in the figure.

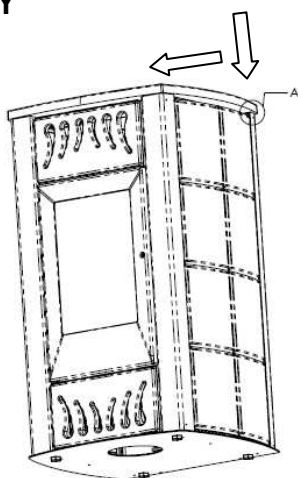
**X**



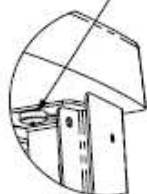
DETAIL A  
SCALE 1:2

Fixing screws

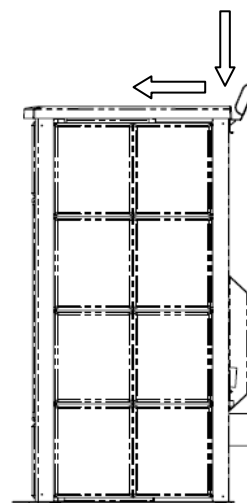
**Y**



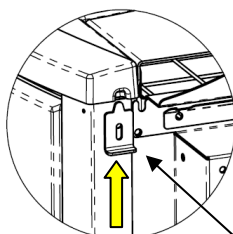
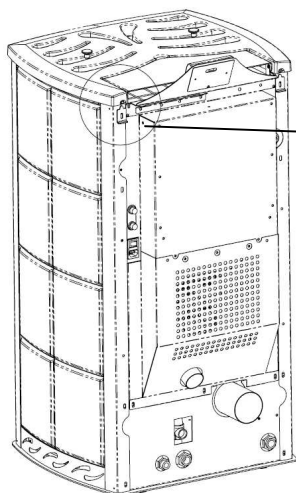
SCREW INSERTED



DETAIL A  
SCALE 1:2



**Z**



Rear stops

## 2.3 Air inlet

The stove air inlet pipe or intake is located at the back and is round and 50 mm in diameter.

The combustion air can be sucked:

- ▶ from the room, provided there is a wall air inlet near the stove, communicating with the outside and of minimum area 100 cm<sup>2</sup> suitably protected externally by a grille;
- ▶ or with connection directly to the outside with a suitable pipe of inside diameter 50 mm and max. length 1.5 m.

## 2.4 Fume exhaust

Fumes can be exhausted through a connection to a conventional flue.



- *The installer must check the efficiency and state of the flue and its conformity with the local, national and European regulations.*
- *Certified pipes and connections with adequate seals guaranteeing their tightness must be used.*
- *In case of fire, shut down the stove, promptly call the fire department, and avoid continual attempts to extinguish it.*

### 2.4.1 Types of installation

Listed below are definitions and requirements for correct installation of an exhaust flue in accordance with Italian Standard UNI10683:

**FLUE** : a vertical duct for collecting and expelling, at an appropriate height from ground, the fumes coming from a single unit and, where permitted, more than than one.

**FLUE technical requirements** :- it must be fumetight, isolated and insulated depending on its use;

- it must have a mainly vertical path with axis deviation < 45°;
- it must be at a suitable distance from flammable materials with insulation or air gap;
- it must preferably have a constant, free and independent round internal section;
- it is advisable for the flue to have an inspectionable chamber for the collection of solid materials
- and any condensate, placed under the beginning of the fume duct.

**FLUE CONNECTION or DUCT**: duct or connection element between the unit and flue for evacuation of fumes.

**DUCT technical requirements**: - it must not cross rooms in which the installation of combustion units is not allowed;

- flexible metal tubes or fibre cement pipes are prohibited;
- the use of counter-sloping elements is prohibited;
- horizontal sections must have an upward slope of at least 3°;
- the length of the horizontal section must be minimal and not more than 3 m;
- there must not be more than 3 changes of direction, without the T union;
- with change of direction > 90° a max. of 2 bends can be used with length in horizontal projection not exceeding 2 m
- the fume duct must have a constant section and allow the recovery of soot.

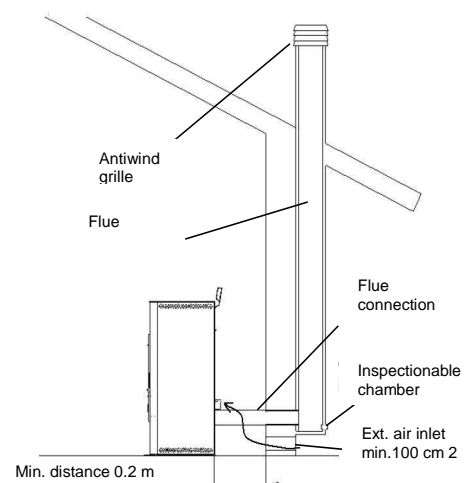
**CHIMNEY CAP**: a device placed on the top of the flue to facilitate the dispersion of fumes into the atmosphere.

**CHIMNEY CAP technical requirements** : - it must have a section equivalent to that of the flue;

- it must have a useful section not less than double the internal section of the flue;
- it must prevent the entry of rain and foreign bodies and ensure the discharge of fumes in any atmospheric condition;
- it must ensure an adequate dilution of fumes and be positioned outside the backflow area;
- it must be without mechanical means of suction.



*The direct discharge of fumes must take place on the roof and not towards closed spaces (even open air).*



## 2.5 Turbulator and baffle position check

Before lighting the stove make sure the brazier is in the correct position, i.e. fitted in the special slots. Also make sure the turbulator shaker device is resting in a lower position. An incorrect position of the brazier and/or turbulators can result in malfunctioning and excessive blackening of the glass.



At every stove lighting check the correct position of the brazier and turbulator shaker device.

## 2.6 Electrical connection

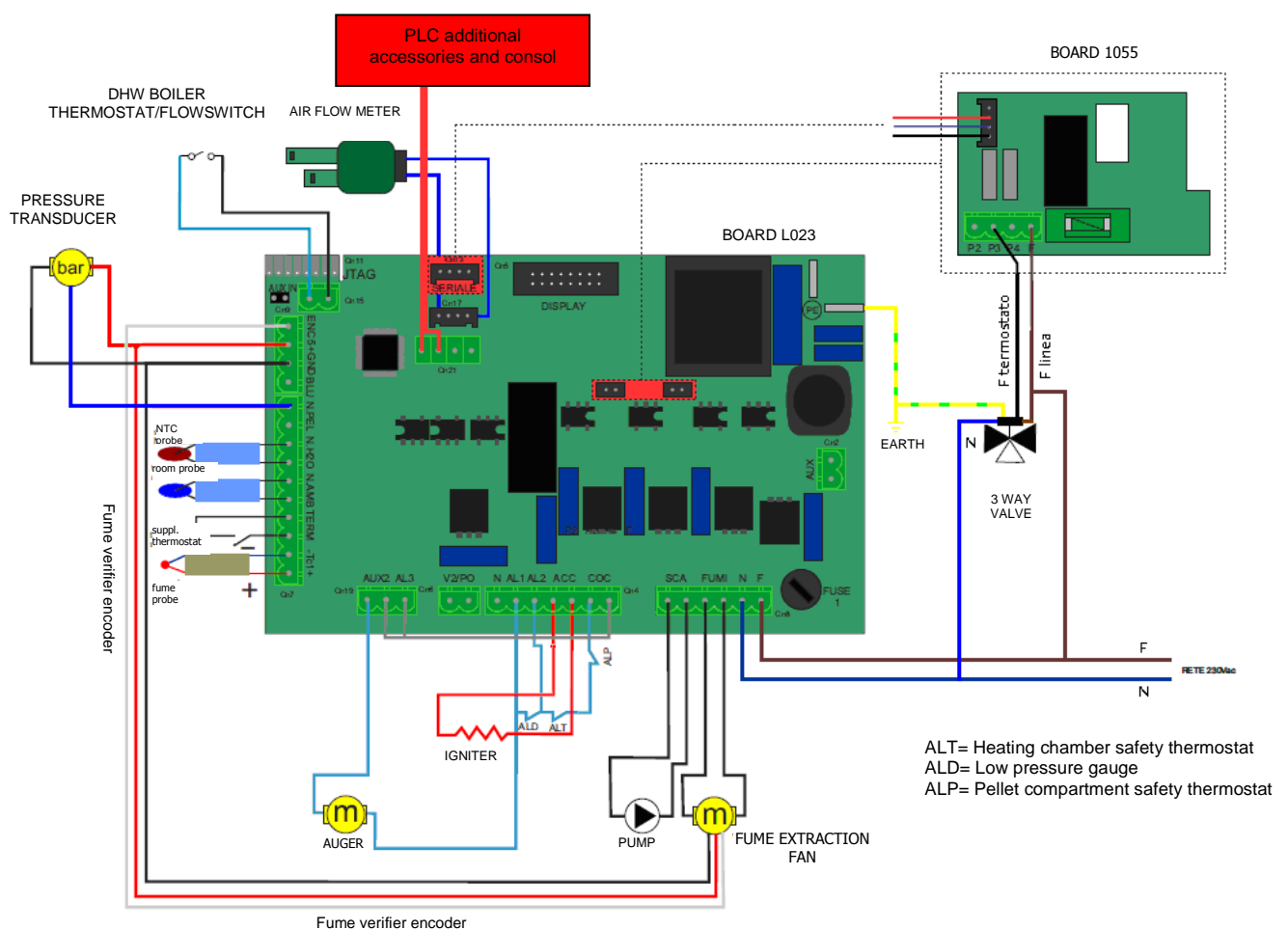
Connect one end of the power cable to the rear socket of the stove, and the other to the wall socket. The voltage supplied by the system must match that specified on the stove dataplate and in the technical data section of this manual.

During stove idle periods it is advisable to remove the power cable.



- Make sure the electrical system is equipped with an earth and differential switch in accordance with the current Regulations.
- The power cable must never touch the stove exhaust pipe.

## 2.7 Wiring diagram



## 2.8 Wiring diagram for zone system

Before installing the heating stove in the house, check the type of heating system; in case of several zones, a special electronic controller for multi-zone circuits, available as an optional, must be installed. This is to prevent overheating of the heating chamber due to possible simultaneous closing of the zone valves and consequent stopping of hot water flow.

## 2.9 Plumbing connections

The heating capacity of the unit must be previously established by calculating the building's heat requirement according to current regulations. The system must be provided with all the components for correct and regular operation; in fact according to the rules of proper workmanship in installation, shutoff valves and non-return valves allowing the stove to be isolated in case of maintenance and/or checks, must be interposed between the stove and the heating system.

Proceed slowly during heating chamber water filling, to allow correct and complete evacuation of the air from the vent.

The pellet stove has an internal heating water circuit complete with circulating pump, safety valves, air vent, temperature probes and pressure transducer.

If the heating system is managed in zones a multi-zone controller, available on request, must be installed.

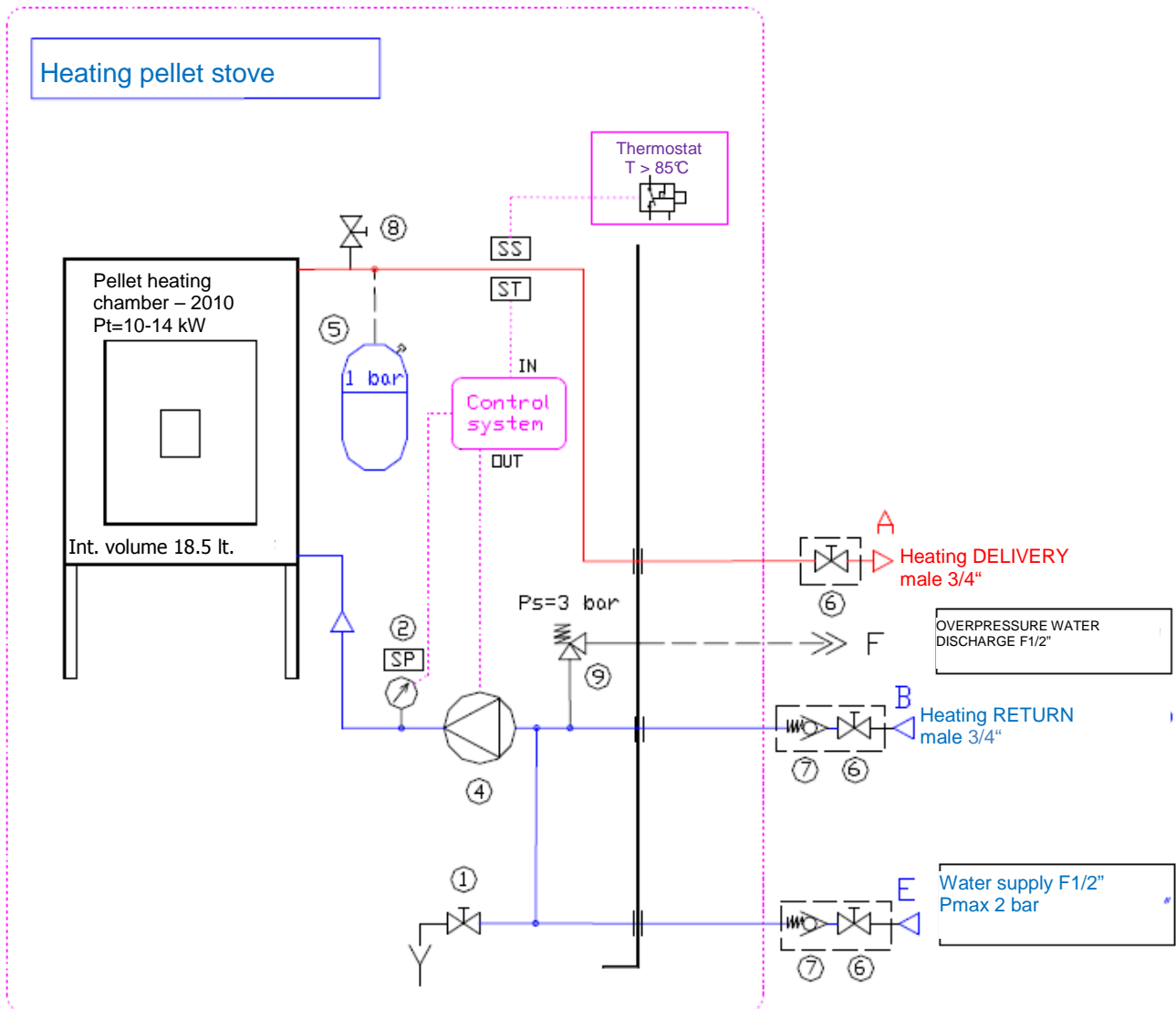
To connect the heating stove to a DHW system it is advisable to contact a competent technician in order to best optimise the plumbing connections and the performance of the entire system without compromising stove operation. For the connection to the DHW circuit it is necessary to install a monostable 3-way valve outside the stove whereas the circuit is not functional with the DHW pump.

To connect the DHW system 3-way solenoid valve it is necessary to request the optional: supplementary electronic board model '1055' for management of commands as well as possible software upgrading.



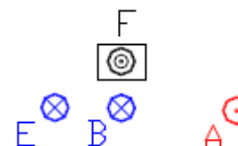
*During stove transport the gaskets in the plumbing system may come loose and/or break, causing water leaks during normal operation; therefore make sure to check the tightness of the circulating pump and heating chamber connection rings and vent the residual air during water filling and after the first hours of operation.*

## Hydraulic diagram - heating pellet stove ref. COLA 10-14kW-06-2010



## KEY

- |                                    |  |
|------------------------------------|--|
| ① Drain cock                       | ⑧ Circuit / heating chamber air ven  |
| ② Pressure sensor / Pressure gauge | ⑨ Safety valve P max 3 bar   |
| ④ Circulating pump                 | SS Safety sensor T > 85°C  |
| ⑤ Membrane pressure vessel         | ST Water temperature sensor  |
| ⑥ Shutoff valve / Cock             | SP Circuit pressure sensor   |
| ⑦ Non-return valve                 | Valves to be included in system during installation – not supplied with the unit |

Arrangement  
PLUMBING CONNECTIONS on back of stove

## 2.10 Emergency

Suitable fire-prevention devices should be arranged for any eventuality.  
In case of a fire, proceed as follows:



- Immediately disconnect the plug.
- Extinguish the fire using fire-extinguishers (powder).
- Call the fire department immediately.
- Do not use jets of waters to extinguish the fire.

### 3 STOVE SAFETY

#### 3.1 Safety distance from flammable materials

To prevent the risk of fire, stove positioning must respect a minimum distance from flammable materials, according to that given in the technical table of the manual and on the dataplate.

Pay attention to the type of floor: for delicate and flammable materials it is advisable to use plates in steel or toughened glass as a support base (see section 2 - Transport and Installation). In case of particularly fragile objects such as furniture, curtains or sofas, increase the stove distance considerably.

#### 3.2 Fume exhaust safety

In normal operation the combustion chamber is in a negative pressure, guaranteeing seal against possible smoke leaks in the room. If a certain vacuum level is not reached or the fume exhaust outlet is blocked, the vacuum switch detects the lack of a negative pressure inside the combustion chamber or the air flow meter detects a lack of air flow and, through the electronic controller, switches off the auger rotation motor, signalling the anomaly with a message on the control panel 'AL8 NO NEG PRESS' or 'AL9 INSUF DRAUGHT'.

#### 3.3 Combustion chamber overpressure safety

Any and/or sudden overpressures in the combustion fumes inside the chamber and fume exhaust ducts are discharged by opening of the safety valves located on the heat exchanger. During normal operation these valves are kept closed by their weight and the negative pressure in the combustion chamber, guaranteeing a seal against any smoke escaping.



*Periodically check closing, the integrity of the device and its operation.*

#### 3.4 Overheating - safety thermostats



On the front and bottom of the hopper, and precisely on the pellet chute and on the top part of the heating chamber, there are two temperature probes connected to the respective safety thermostats that automatically shut off the pellet supply in case of excessive heating. In this case the extractor and/or fans continue working, allowing the stove to cool down rapidly. The fault is displayed on the control panel with a message 'AL 7 THERMAL SAF'. In case of activation, proceed as follows:

- ▶ Allow the stove to cool down for at least 45 minutes.
- ▶ Reset the thermostat by pressing the button near the switch on the back of the stove (figure opposite).
- ▶ Restart the stove normally.

Pellet hopper thermostat activation temperature : > 85°C

Heating chamber thermostat activation temperature : > 95°C

#### 3.5 Safety against flare-back in the pellet chute

The solutions preventing flare-back are:

- ▶ negative pressure in the combustion chamber see par. 3.2.
- ▶ the siphon shape of the pellet chute.
- ▶ the hopper temperature safety see par. 3.4.

#### 3.6 Overcurrent protection device

The unit is protected against overcurrent by 2A fuses on the power supply of the main stove switch located at the back.

#### 3.7 Power failure safety

A temporary power failure does not limit stove safety and the hopper temperature does not reach high values (< 85°C), given the small quantity of pellets burning in the brazier.

This anomaly can result in some smoke briefly escaping into the room, which does not involve any risk.



*Do not tamper with the safety devices.*



### 3.8 Plumbing circuit overpressure safety

A possible overpressure of the water inside the chamber, by  $P > 3$  bar, is discharged through activation of the safety valve installed in the plumbing system inside the stove.



*Do not tamper with the safety devices.*

### 3.9 Fume extractor fan failure

If the fume extractor fan stops for any reason, the electronic controller instantly stops the pellet feed, displaying the message 'AL4 FAN FAIL'.

## 4 STOVE USE

### 4.1 Introduction

The pellet stove has the advantage of combining heat from a wood flame with the convenience of automatic management of temperature and the possibility of weekly programming of lighting and shutdown.

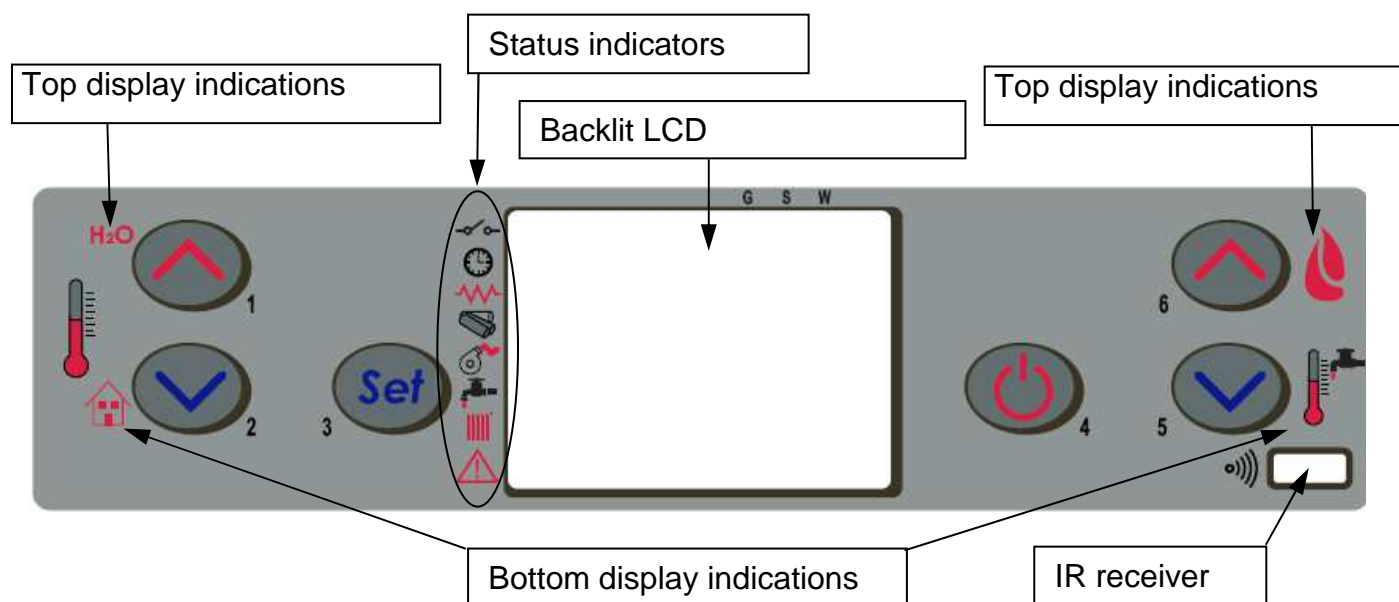
Connection to an external thermostat and/or chronothermostat is possible for detecting the temperature in a different place from where the stove is installed.

For safe and reliable use:

- when lighting and using the stove the first time, unpleasant odours may be created, therefore air the room thoroughly;
- the hopper must only be filled with pellets; make sure the bag does not come into contact with the hot surfaces of the stove;
- do not put any fuel other than the prescribed pellets in the hopper;
- the stove must not be used as a waste incinerator;
- the stove must only operate with the fire door always closed.
- the fire door seals must be checked periodically to prevent air from entering;
- to guarantee efficient performance and correct operation it is necessary to carry out periodical cleaning of the brazier every time pellets are loaded;
- when lighting the stove for the first time, allow it to heat up gradually by setting low operating temperatures (see section on temperature setting);
- during lighting, operation and shutdown, the stove may creak a little due to the heat expansion.

### 4.2 Description of control panel

The control panel comprises a backlit LCD, on/off button 'P4', SET/MENU button 'P3', four menu buttons 'P1', 'P2', 'P5', 'P6', and seven stove operation status LEDs.



The panel enables stove lighting and shutdown, adjustment during operation and the setting of management and maintenance programmes.

The display shows all the information on stove operation status.

To access the menus, proceed as follows:

- press the SET button 'P3';
- press the buttons 'P5', 'P6' repeatedly to scroll the various menus;
- press one of the increase/decrease buttons 'P1', 'P2', to set the required parameter;
- press the SET button 'P3' to confirm the parameter value.









On accessing the menu it is possible to obtain the various types of displays and carry out the available settings depending on the access level.

Given below is the table of controls and respective messages displayed during programming or setting operation parameters:

Button	Description	Mode	Action	Top display	Bottom display	Limits
1	Increase temperature	TEMPERATURE SETTING	Increases the room and water thermostat temperature value	SET H <sub>20</sub> /aria	Temperatura	aria 7°C + 40°C acqua 30°C - 80°C
		PROGRAMMING	Increases the selected parameter	Parametro selezionato	Valore parametro	-
		WORK	Displays temperatures	Temperatura fumi	Temperatura acqua	-
2	Decrease temperature	TEMPERATURE SETTING	Decreases the room and water thermostat temperature value	SET H <sub>20</sub> /aria	Temperatura	aria 7°C + 40°C acqua 30°C - 80°C
		PROGRAMMING	Decreases the selected parameter	Parametro selezionato	Valore parametro	-
		WORK	Displays stove operation status	Pressione nel circuito acqua	giri ventola fumi	-
3	Setting/menu		Access the temperature SETTING and user and technician parameters menu by successive pressing	SET/ parametro	Temperatura/ valore	-
4	ON/OFF reset	WORK	Press for 2 seconds to switch the stove on or off (if off or on)	Visualizza lo stato raggiunto	-	-
		BLOCK	Resets the stove and returns it to off status	OFF	-	-
		PROGRAMMING	Exits the programming menu at any point of modification. The changes are saved	-	-	-
5	Decrease power	WORK	Decrease output or the DHW boiler water thermostat Temperature value (if enabled)	Livello potenza	Temperatura ambiente	1 - 9
6	Increase power	WORK	Increase output or the DHW boiler water thermostat Temperature value (if enabled)	Livello potenza	Temperatura ambiente	1 - 9

The Figure opposite describes the meaning of the status indicators in the left part of the display.

Activation of one of the segments on the display signals activation of the corresponding device according to the list opposite.

	External contact
	Chrono
	Electrical element
	Auger
	Fume extractor
	DHW circuit activation
	HEATING circuit activation
	ALARM

## 4.3 Lighting

### 4.3.1 Check before lighting

Before lighting the stove:

- make sure you have read and understood that given in the manual;
- the hopper must be filled with pellets;
- the combustion chamber must be clean;
- the brazier must be completely free, cleaned of any combustion residuals and correctly fitted in the brazier holder;
- check hermetic closing of the fire door and ash pan;
- check the connection of the power cable and switching to ON/1 of the switch located on the back of the stove.
- check opening of the delivery and return shutoff valves as well as the water circuit pressure.

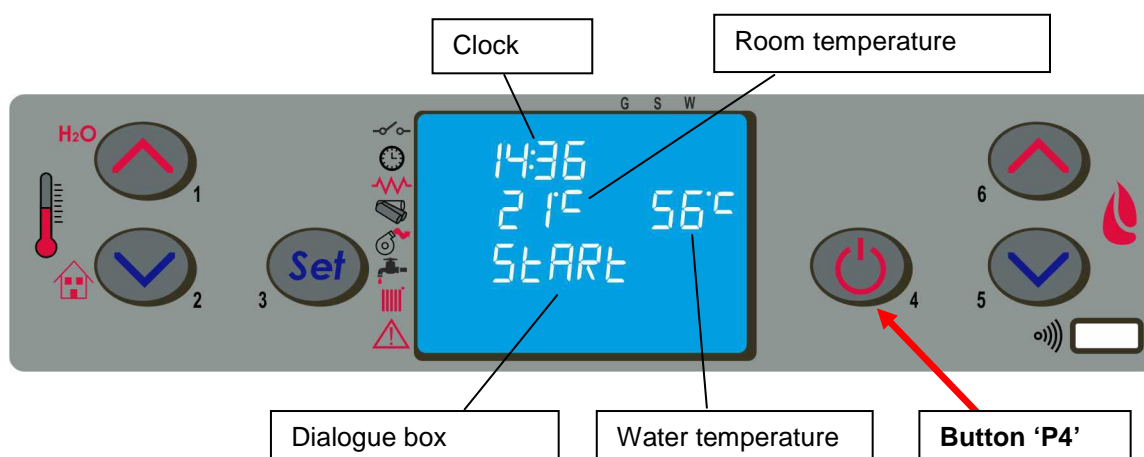


- At first startup, remove all the components (instructions/label) that could burn from the stove firebox and glass.
- Any lightings done after long stove idle periods require the renewal of any pellets that have been inside the hopper for a long time, in being a damp fuel no longer suitable for combustion, and complete cleaning of the combustion chamber.

### 4.3.2 Startup stage

To light the stove, press the button 'P4' for 3 seconds: the message 'START' will appear on the display.

The stage is automatic and managed entirely by the electronic controller without the possibility of changing the parameters.



The stove carries out the startup stages in sequence according to the procedures defined by the parameters that manage levels and times, reaching the work condition unless anomalies or alarms occur, according to the following table:

Status	Duration	Devices				Conditions for going to next status
		Igniter	Fume exhaust	Auger	Exch.	
OFF	-	OFF	OFF	OFF	OFF	ON/OFF
START - CLEANING	40"	ON	ON	OFF	OFF	After time Pr40
PELLET PREFILL	Pr40	ON	ON	ON	OFF	After time Pr41
WAITING FLAME	Pr41	ON	ON	OFF	OFF	After time Pr41
PELLET LOAD	-	ON	ON	ON	OFF	Fume temperature > Pr13
FIRE PRESENT	Pr02	OFF	ON	ON	ON	After after time Pr02
WORK	-	OFF	ON	ON	ON	Room temperature < SET temperature Fume temperature < Pr14
MODULATES WORK	-	OFF	ON	ON	ON	Room temperature < SET temperature Water temperature < water SETTING Fume temperature < Pr14
BRAZIER CLEANING	Pr12	OFF	ON	ON	ON	Every Pr03
WORK	-	OFF	ON	ON	ON	ON/OFF to switch off
FINAL CLEANING	Pr39 (*)	OFF	ON	OFF	-	(*) Pr39 Starts from when fume T.< Pr13

After a certain time has elapsed, if the fume temperature has not reached the minimum permissible value the stove goes in alarm status.

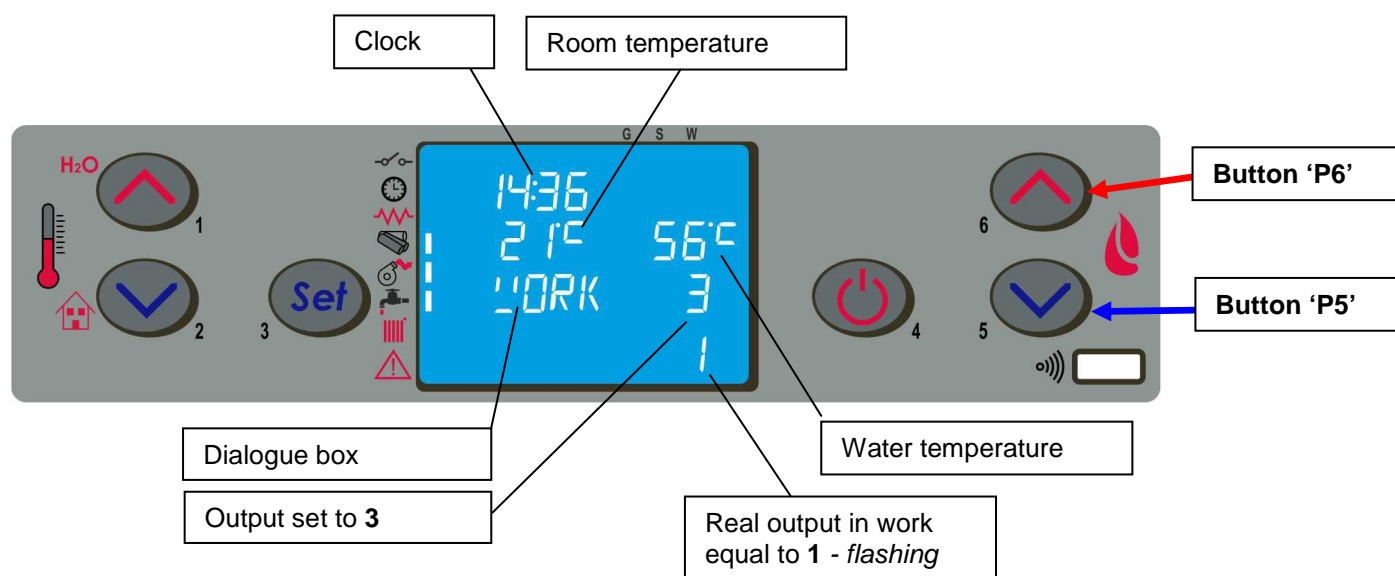


- Do not use flammable liquids to light the stove.
- In case of persistent failed lighting, contact the Service Centre.

As an alternative it is possible to switch-on the stove if you press the buttons P4 and P5 at the same time for 3 seconds. È possibile accendere la stufa premendo contemporaneamente il pulsante P4 e P5 per 3 secondi. On the display it will appear "Waiting for request". In this way the stove is in stand-by and it starts again only when it recognises a demand for warming the ambient or the sanitary water (if available).

#### 4.4 Work stage

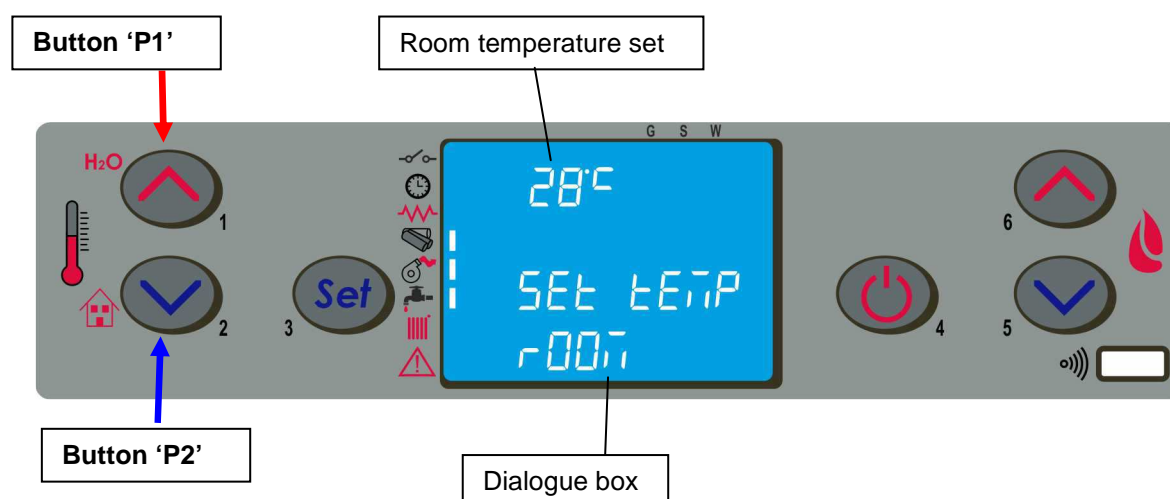
After the 'STARTUP' stage, the stove goes to the 'WORK' mode which represents the normal operation mode. The user can adjust the heat output from the max. value of 5 to a min. of 1 with the buttons 'P5' and 'P6'.



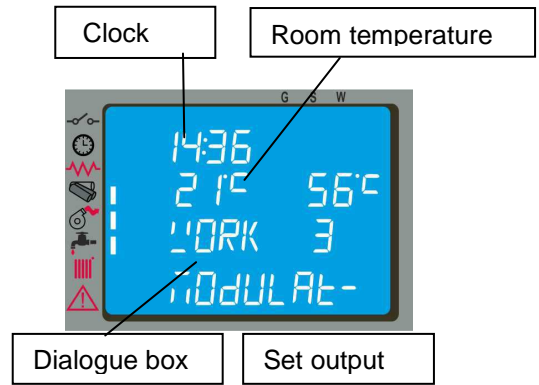
- Make sure to check the pellet level in the hopper so that the flame does not go out due to lack of pellets.
- Make sure the stove is off when loading pellets.
- The pellet hopper lid must always remain closed; it must only be opened when loading fuel.
- The bags of pellets must be kept at least 1.5 m from the stove.

##### 4.4.1 Modifying the room temperature setting

To modify the room temperature just select the MODIFY ROOM SET mode by pressing the button P2. Then use the buttons 'P1' and 'P2': the display shows the current SET temperature status.

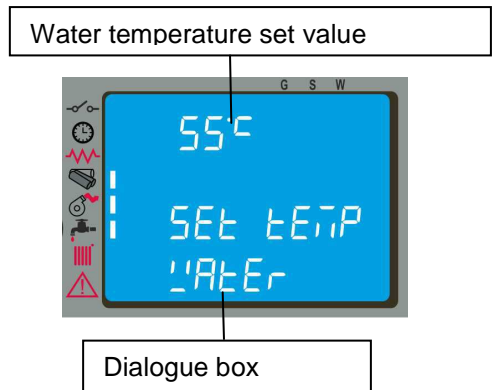


When the fume temperature rises the maximum value set, the display will show the message 'MODULA F' ('MODULATION F') and the stove starts the modulation of the flame automatically. On the contrary when the temperature goes over 280°C the display will show the alarm 'ALARM HOT FUMI' ('ALARM HOT FUMES') and the stove will start the switch-off procedure.

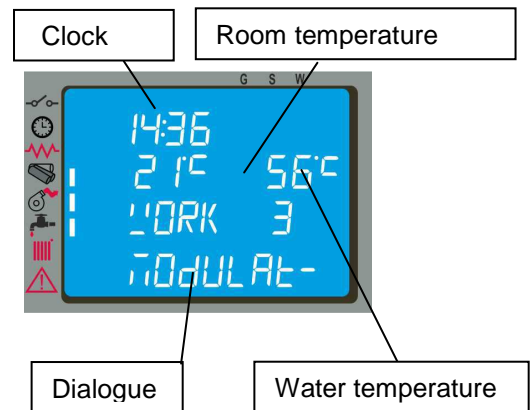


#### 4.4.2 Modifying the water temperature setting

To modify the water temperature just select the MODIFY WATER SET mode by pressing the button P1. Then use the buttons 'P1' and 'P2' : the display shows the current SET temperature status.



When the water temperature has reached the set value, as a condition also at the same time as that described in par.4.4.1, the output is automatically brought to the min. value, **MODULATION** status.



As for idro model stove, when the water temperature parameter can't be reached, the activation of led [ A ] starts.

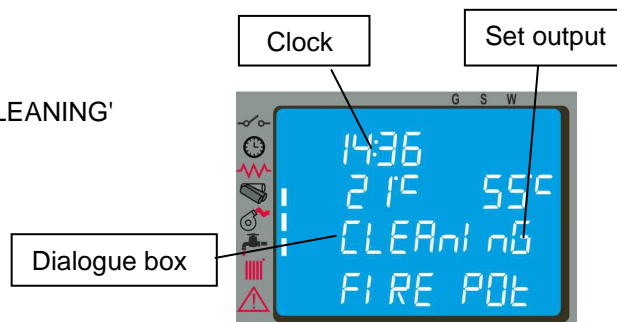
#### 4.4.3 Restart from STANDBY

After shutdown, the stove goes to cooling status, bringing the fume extractor speed to the set value for brazier cleaning. Relighting occurs as soon as the room temperature reach the SET value.



#### 4.4.4 Cleaning the brazier

During normal operation in work mode, the 'BRAZIER CLEANING' mode is activated at fixed intervals for a set duration.





#### 4.4.5 Water heater with heat exchanger quickly

When hot water is required, the display shows the word SCAM HEALTH and LED lights shown from the tap. The function, however, is only executed if the stove is lit, and has reached a sufficient temperature inside the camera. In the remaining cases the service is not provided.

#### 4.4.6 Water heater with storage tank

This type of installation requires the use of an external thermostat, which measures the temperature of the water of the kettle. When the temperature drops below the set temperature of SET in the external thermostat activates the function of health, the display shows the message of the stove and boiler HEALTH LED lights shown from the tap until the request is satisfied.

If the stove is in the HOLD step REQUEST automatically turns on and you put in WORK. Once the temperature of water in the camera work, you turn the water supply to the boiler.

SET When the temperature of the tank is met, the oven converts waste heat to the heating for about 2 minutes and then, if there is another request, it waits or REQUEST MODULATION, according to the settings ( see prg. 4.6.5). If the stove is in the OFF state, no lights and does not provide the service.

#### 4.4.7 System with puffer / heat storage

This type of installation requires the use of an external thermostat, which measures the temperature of the puffer. When the temperature is lowered below the temperature of SET set in the external thermostat, in the stove display shows the message WATER PUFFER or BOILER WATER and light up the 2 LEDs respectively indicated by the tap and from the radiator as it can meet the plant heating system.

If the stove is in the HOLD step REQUEST automatically turns on and goes into WORK and reached the working temperature of the water in the camera, you turn the water supply to the puffer.

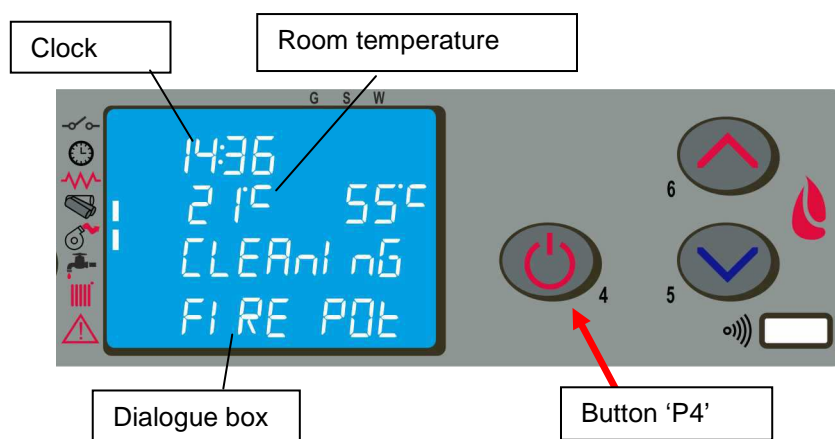
SET When the temperature of the puffer is satisfied, the stove is placed in a HOLD REQUEST (it is recommended to set the function ON STAND-BY, see prg. 4.6.5).

If the stove is in the OFF state, no lights and does not provide the service.

### 4.5 Shutting down

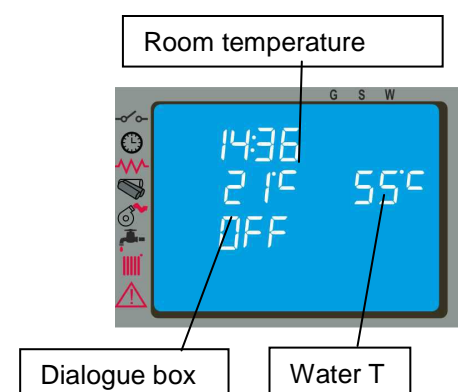
To shut down the stove, just press the button 'P4' for about 2 seconds.

The auger is immediately stopped and the fume extractor is brought to high speed, making the message '**CLEANING**' appear on the display.



At the end of the operation the message '**OFF**' appears in the dialogue box.

During the shutdown stage the stove cannot be restarted until the fume temperature has fallen below a set value for a fixed time, with the message '**WAITING COOL**' appearing in the dialogue box.





## 4.6 Menu

Press the button 'P3' (SET) to access the menu; this is divided into various items and levels for accessing the settings of the electronic controller.

The following table summarises the menu structure with the selections available to the user.

<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Level 4</i>	<i>Value</i>	
<b>02 – set clock</b>	01 - day			Day	
	02 - hours			Hours	
	03 - minutes			Minutes	
	04 - day			Day	
	05 - month			Month	
	06 - year			Year	
<b>03 – set chrono</b>	<b>01 – enable chrono</b>				
		01 – enable chrono		on / off	
	<b>02 – day program</b>				
		01 – day chrono			on / off
		02 – start 1 day			time
		03 – stop 1 day			time
		04 – start 2 day			time
		05 – stop 2 day			time
	<b>03 – week program</b>				
		01 – week chrono			on / off
		02 – start 1 day			time
		03 – stop 1 day			time
		04 – Monday prog 1			on / off
		05 – Tuesday prog 1			on / off
		06 – Wednesday prog			on / off
		07 – Thursday prog 1			on / off
		08 – Friday prog 1			on / off
		09 – Saturday prog 1			on / off
		10 – Sunday prog 1			on / off
		11 – start prog 2			time
		12 – stop prog 2			time
		13 – Monday prog 2			on / off
		14 – Tuesday prog 2			on / off
		15 – Wednesday prog			on / off
		16 – Thursday prog 2			on / off
		17 – Friday prog 2			on / off
		18 – Saturday prog 2			on / off
		19 – Sunday prog 2			on / off
		20 – start prog 3			time
		21 – stop prog 3			time
		22 – Monday prog 3			on / off
23 – Tuesday prog 3				on / off	
24 – Wednesday prog				on / off	
25 – Thursday prog 3				on / off	
26 – Friday prog 3				on / off	
27 – Saturday prog 3				on / off	
28 – Sunday prog 3				on / off	
29 – start prog 4				time	
30 – stop prog 4				time	
31 – Monday prog 4			on / off		

		32 – Tuesday prog 4		on / off
		33 – Wednesday prog		on / off
		34 – Thursday prog 4		on / off
		35 – Friday prog 4		on / off
		36 – Saturday prog 4		on / off
		37 – Sunday prog 4		on / off
	<b>04 – week-end</b>			
		01 – week-end		on / off
		02 – start 1		
		03 – stop 1		
		04 – start 2		
		05 – stop 2		
<b>04 – select language</b>				
	01 - Italian			set
	02 - French			set
	03 - English			set
	04 - German			set
<b>05 – standby mode</b>				on / off
<b>06 – buzzer</b>				on / off
<b>07 – initial loading</b>				set
<b>08 – stove status</b>				-

#### 4.6.1 Menu 01 – adjust fans

The item of menu 01, if enabled, adjusts the speed of the supplementary fans (**not available**).

#### 4.6.2 Menu 02 – set clock

Before operating with the stove it is necessary to set the current time and date so that there is a reference for possible chrono programming.

The electronic control device has a lithium battery mod. CR2032 of 3 Volt inside. It allows the internal clock to last over 4-5 years; if the clock signal does not appear when the stove is off or when switching the stove again a series of "0000" appears, it means it has to be substituted and you need to call one of our service point authorised for its substitution.

#### 4.6.3 Menu 03 – enable chrono

Allows all chronothermostat functions to be enabled/disabled.

Regarding the selection and entering of times, use the six buttons, following the table in par. 4.2.

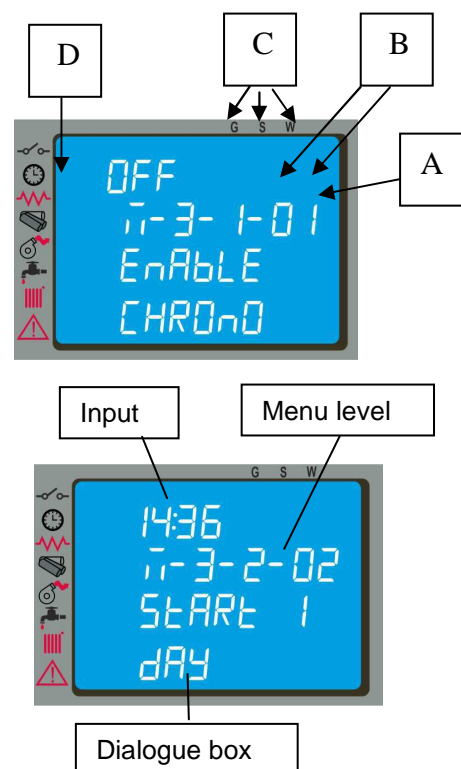
It allows to enable and disable all the thermostat functions programmed; with the set ON you activate this function and it appears the led [ D ] related to it.

When the daily, weekly, or week-end program is set you can see on the upper right side of the display it appears the led [C].

By accessing the submenu: **DAY PROGRAM**, the daily chronothermostat functions can be enabled/disabled and set.

It is possible to set two operation phases delimited by the times set according to the following table where the OFF setting tells the clock to ignore the command.

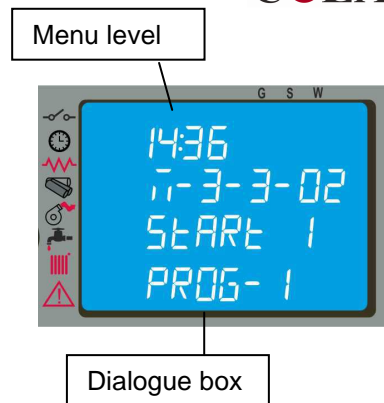
Selection	Meaning	Possible values
START 1	Activation time	ora - OFF
STOP 1	Deactivation time	ora - OFF
START 2	Activation time	ora - OFF
STOP 2	Deactivation time	ora - OFF



By accessing the submenu: **WEEK PROGRAM** it is possible to enable/disable and set the weekly chronothermostat functions. The weekly programmer has 4 independent programmes whose final effect consists of a combination of the 4 programmings. The weekly programmer can be activated/deactivated; also, by setting OFF in the times field, the clock ignores the corresponding command.

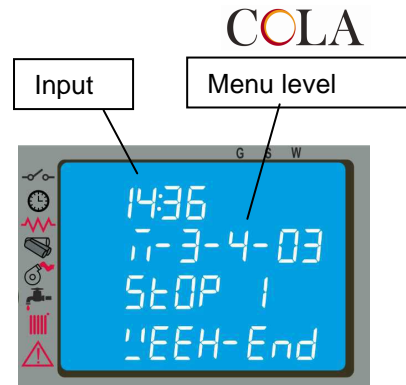


Carry out programming making sure not to overlap the hours of activation and/or deactivation on the same day in different programmes.



<b>PROGRAMME 1</b>			
<i>Menu level</i>	<i>Selection</i>	<i>Meaning</i>	<i>Possible values</i>
03-03-02	START PROG 1	<i>Activation time</i>	ora - OFF
03-03-03	STOP PROG 1	<i>Deactivation time</i>	ora - OFF
03-03-04	LUNEDI PROG 1	<i>Reference day</i>	on/off
03-03-05	MARTEDI PROG 1		on/off
03-03-06	MERCOLEDI PROG 1		on/off
03-03-07	GIOVEDI PROG 1		on/off
03-03-08	VENERDI PROG 1		on/off
03-03-09	SABATO PROG 1		on/off
03-03-10	DOMENICA PROG 1		on/off
<b>PROGRAMME 2</b>			
<i>Menu level</i>	<i>Selection</i>	<i>Meaning</i>	<i>Possible values</i>
03-03-11	START PROG 2	<i>Activation time</i>	ora - OFF
03-03-12	STOP PROG 2	<i>Deactivation time</i>	ora - OFF
03-03-13	LUNEDI PROG 2	<i>Reference day</i>	on/off
03-03-14	MARTEDI PROG 2		on/off
03-03-15	MERCOLEDI PROG 2		on/off
03-03-16	GIOVEDI PROG 2		on/off
03-03-17	VENERDI PROG 2		on/off
03-03-18	SABATO PROG 2		on/off
03-03-19	DOMENICA PROG 2		on/off
<b>PROGRAMME 3</b>			
<i>Menu level</i>	<i>Selection</i>	<i>Meaning</i>	<i>Possible values</i>
03-03-20	START PROG 3	<i>Activation time</i>	ora - OFF
03-03-21	STOP PROG 3	<i>Deactivation time</i>	ora - OFF
03-03-22	LUNEDI PROG 3	<i>Reference day</i>	on/off
03-03-23	MARTEDI PROG 3		on/off
03-03-24	MERCOLEDI PROG 3		on/off
03-03-25	GIOVEDI PROG 3		on/off
03-03-26	VENERDI PROG 3		on/off
03-03-27	SABATO PROG 3		on/off
03-03-28	DOMENICA PROG 3		on/off
<b>PROGRAMME 4</b>			
<i>Menu level</i>	<i>Selection</i>	<i>Meaning</i>	<i>Possible values</i>
03-03-29	START PROG 4	<i>Activation time</i>	ora - OFF
03-03-30	STOP PROG 4	<i>Deactivation time</i>	ora - OFF
03-03-31	LUNEDI PROG 4	<i>Reference day</i>	on/off
03-03-32	MARTEDI PROG 4		on/off
03-03-33	MERCOLEDI PROG 4		on/off
03-03-34	GIOVEDI PROG 4		on/off
03-03-35	VENERDI PROG 4		on/off
03-03-36	SABATO PROG 4		on/off
03-03-37	DOMENICA PROG 4		on/off

By accessing the submenu: **WEEK-END PROGRAM** it is possible to enable/disable and set the week-end (Saturday - Sunday) chronothermostat functions.



*Activate WEEK-END programming only after deactivating the weekly programming.*

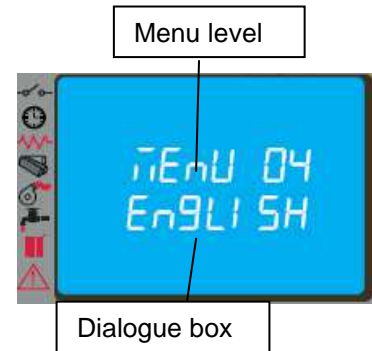
*In order to avoid unwanted start and shutdown operations, activate only one programme at a time.*

*Deactivate the daily programme if the weekly programme is required; with this setting it is advisable to deactivate the week-end programme.*

#### 4.6.4 Menu 04 – select language

With this selection it is possible to select the dialogue language from those available entered in the menu, and namely:

- ITALIAN
- FRENCH
- ENGLISH
- GERMAN



#### 4.6.5 Menu 05 – standby mode

With the selection of STANDBY mode ( ON selection ) the stove shuts down automatically after the room temperature or the water temperature has remained above the SET value for a fixed time.

The next automatic relighting will be possible only when the room temperature or the water temperature falls below the set value entered in the parameters table (default 2°C).

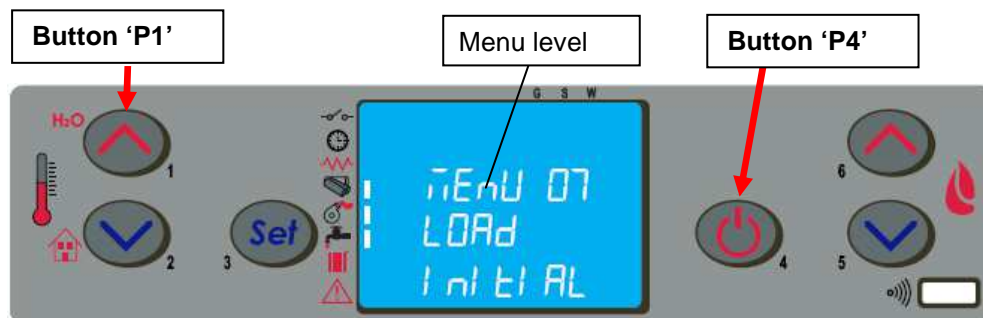
The manual commands from the control panel or remote control have priority over programming.

#### 4.6.6 Menu 06 – buzzer

With this selection it is possible to activate/deactivate stove acoustic signalling.

#### 4.6.7 Menu 07 – initial loading

The setting of LOAD INITIAL allows pellet preloading for a time equal to 90 sec. with the stove off or cold. It is started with the button P1 and stopped with the button P4.



#### 4.6.8 Menu 08 – stove status

With this selection it is possible to display the instantaneous stove status giving the operating status of the various devices connected to it; various pages placed in succession are available for monitoring.

#### 4.6.9 Menu 09 – settings by technician

This selection is reserved for the authorised technician of the COLA service centre.

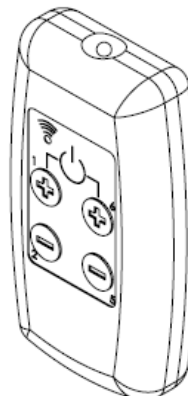
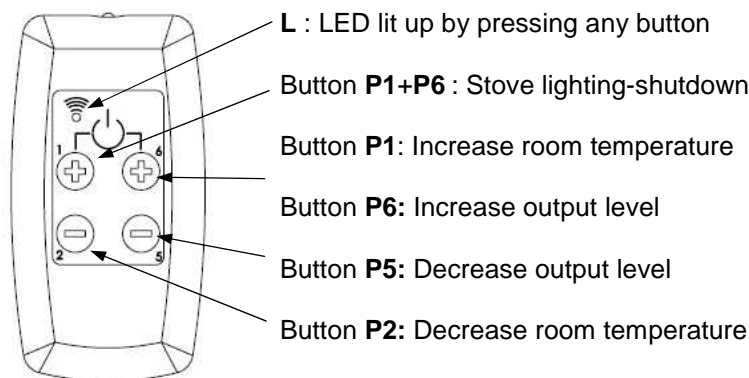


*Modification of the technical parameters of menu 09 must be done by authorised and competent personnel; any changes made at random can cause serious damage for which COLA declines any liability.*

## 4.7 Remote control

The remote control works with the settings made in the control panel and allows stove lighting-shutdown, and adjustment of the required output and temperature. Since this device transmits through an infrared diode, it must be pointed at the receiver unit in the control panel.

The remote control allows the following operations:



### 4.7.1 Replacing the battery

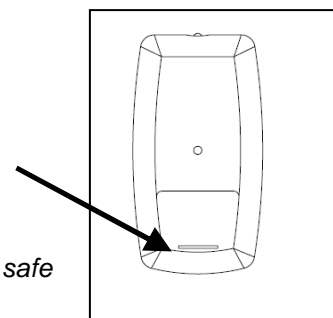
The remote control comes without the battery; it works with a battery placed in the lower part of the device.

To fit or replace the battery, proceed as follows:

- Open the cover on the back of the remote control;
- Replace the 12V battery model p23ga, respecting the polarity;
- Close the remote control;
- Check that it works properly;



- Keep the remote control away from heat sources and water.
- The battery of the remote control must be replaced and disposed of in a safe way, respecting the local regulations.



## 4.8 Thermostat - external chronothermostat

The unit controls the room temperature by means of its own digital thermostat whose function is to detect the temperature through a probe and lower the heat output when the set temperature is reached.

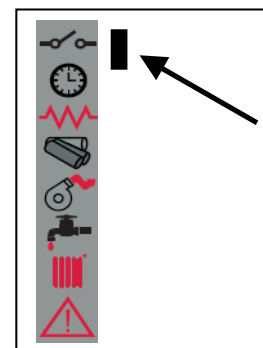
To use an external thermostat, contact an authorised technician and proceed as follows:

- turn off the power by means of the main switch on the back and detach the power cable;
- remove the side panelling to access the electronic controller;
- referring to the wiring diagram, connect the two thermostat wires to the respective board TERM terminals;
- refit everything and check correct operation.

The setting procedure is as follows:

- **external thermostat**: SET the room temperature to 7°C;
- **external chronothermostat**: SET the room temperature to 7°C and disable the chrono functions from the menu 03-01.

All the menu functions do not change for each of the settings and signalling of the connection occurs with lighting up of the segment LED on the status bar of the display.



## 4.9 Idle period (end of season)

If the stove is not used for long periods, or at the end of each season, it is advisable to proceed as follows:

- remove all the pellets from the hopper;
- disconnect the power supply;
- clean thoroughly and, if necessary, have any damaged parts replaced by qualified personnel;
- protect the stove from dust with suitable covering;
- store in a dry and safe place protected from atmospheric agents.

## 5 STOVE CLEANING

Stove cleaning is very important to prevent: blackening of the glass, poor combustion, deposits of ash and unburnt products in the brazier, reduced thermal efficiency.

The stove must only operate with the fire door closed.

The fire door seals must be checked periodically to prevent any air from entering; the combustion chamber and pellet duct work in a negative pressure and the fume exhaust in a positive pressure.

Routine cleaning is normally carried out by the customer following the instructions in the manual, whereas extraordinary maintenance, at least once a year, must be performed by the authorised Service Centre.



- Cleaning operations for all parts must be carried out with the stove unplugged and cold;
- Dispose of cleaning waste in accordance with the current local regulations;
- The stove must not be operated without its cladding;
- Avoid the creation of smoke and unburnt products during lighting and/or normal operation.

Given below are the control and/or maintenance operations for correct stove use and operation.

Parts / Period Type of cleaning	1 day routine cleaning	2-3 days routine cleaning	1 month routine cleaning	2-3 months routine cleaning	1 year extraordinary cleaning: carried out by the Service Centre
Brazier	■				
Ash compartment-pan		■			
Door glass		■			
Heating chamber tube bundle			■		■
Manifold – fume extractor				■	■
Glass - door seal					■
Pipe - flue connection					■

### 5.1 Cleaning the brazier

Remove the brazier and the ash deposited in the combustion chamber and brazier holder. A suitable vacuum cleaner may be used for this purpose. This operation must be carried out **daily**, especially in case of accumulated unburnt matter, to ensure perfect combustion conditions, since the brazier holes allow the flow of combustion air.



The brazier must rest on the brazier holder and precisely on the entire ring band without air gaps.

### 5.2 Cleaning the ash pan

The ash container is located directly under the brazier - brazier holder. To clean it, open the fire door and remove the ash and any combustion residuals using a suitable vacuum cleaner.

Close the door after cleaning. The ash container can be cleaned **every 2-3 days** depending on stove use.

### 5.3 Cleaning the glass

The glass can be cleaned using a damp cloth and specific non-abrasive detergents.

Special slots between the glass, glass stops and fire door at the top and bottom allow air to circulate on the inside surface of the glass. These slots must be kept clean of any deposits of ash and dust. Therefore periodically clean all around the glass, on the inside and outside of the door.



## 5.4 Cleaning the fume extractor and combustion chamber

The combustion chamber must be cleaned at least **once a year**, removing all combustion residuals from the internal fume pipes and flueways. To carry out this operation, it is necessary to remove the stove top cover, and the heating chamber cover, undoing the fixing screws, then clean the turbulators and internal fume pipes.

Also make sure to clean the fume extractor located under the chamber, accessed by removing the front door down the chamber.

**Every 3-4 months** clean the inside walls of the combustion chamber using suitable equipment (brushes) and replace the vermiculite wall if necessary.

**Every 1800 hours of operation**, by means of a message '**SERVICE DUE**', the stove signals the need for extraordinary maintenance (not under warranty) to be performed by qualified personnel who will carry out complete cleaning and reset the message.



*Any knocking or forcing can damage the fume extractor, making it noisy during operation; therefore it is advisable to have this operation carried out by qualified personnel.*

## 5.5 Cleaning the air flow meter

The air flow meter (it measures the flow of combustion air) installed inside the inlet pipe requires periodical internal cleaning every 3-4 months, using suitable equipment (blowing compressed air or suitable brushes).

## 5.6 Cleaning the ceramic surfaces (ceramic models)

The ceramic tiles are handicraft products and therefore may have minor surface imperfections such as tiny spots or slight colour differences. It is advisable to use a soft dry cloth to clean the ceramic surfaces; the use of detergents could highlight any flaws.

## 5.7 Cleaning the flue - flue connection

The flue connection must be cleaned at least once a year or whenever necessary.

Cleaning requires the suction and removal of the residuals in all the vertical and horizontal sections as well as the bends from the stove to the flue.

It is advisable to also clean the flue every year, to ensure correct and safe evacuation of fumes.

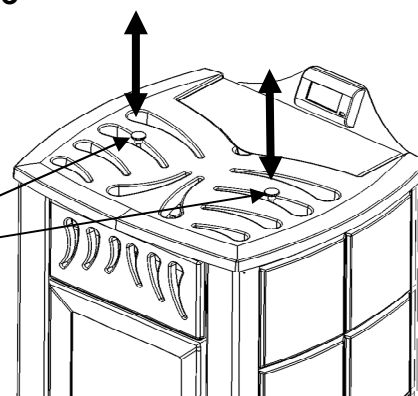
## 5.8 Cleaning the exchangers with turbulator-shaker device

The fume ducts inside the heating chamber must be cleaned at least once a day by operating the two knobs repeatedly with an upward and downward movement.



*Carry out this operation with the stove off and cold.*

RH - LH control knobs of the turbulator-shaker device in heating stove operation low position.



## 6 MAINTENANCE

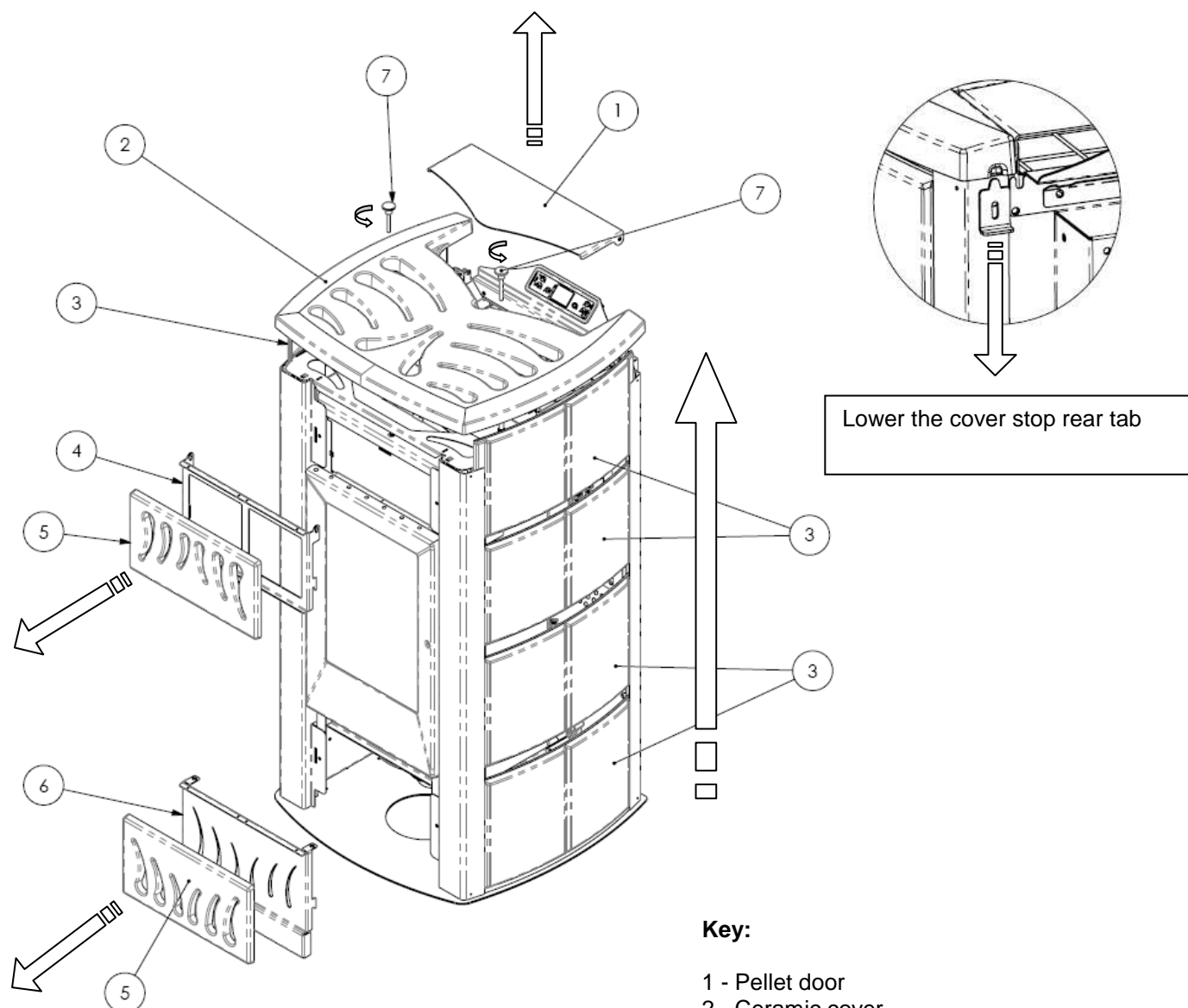
### 6.1 Introduction

Operations on the internal parts of the stove must be carried out by qualified personnel. Contact the nearest authorised service centre.



*Make sure the stove is unplugged and cold before carrying out any work on it.*

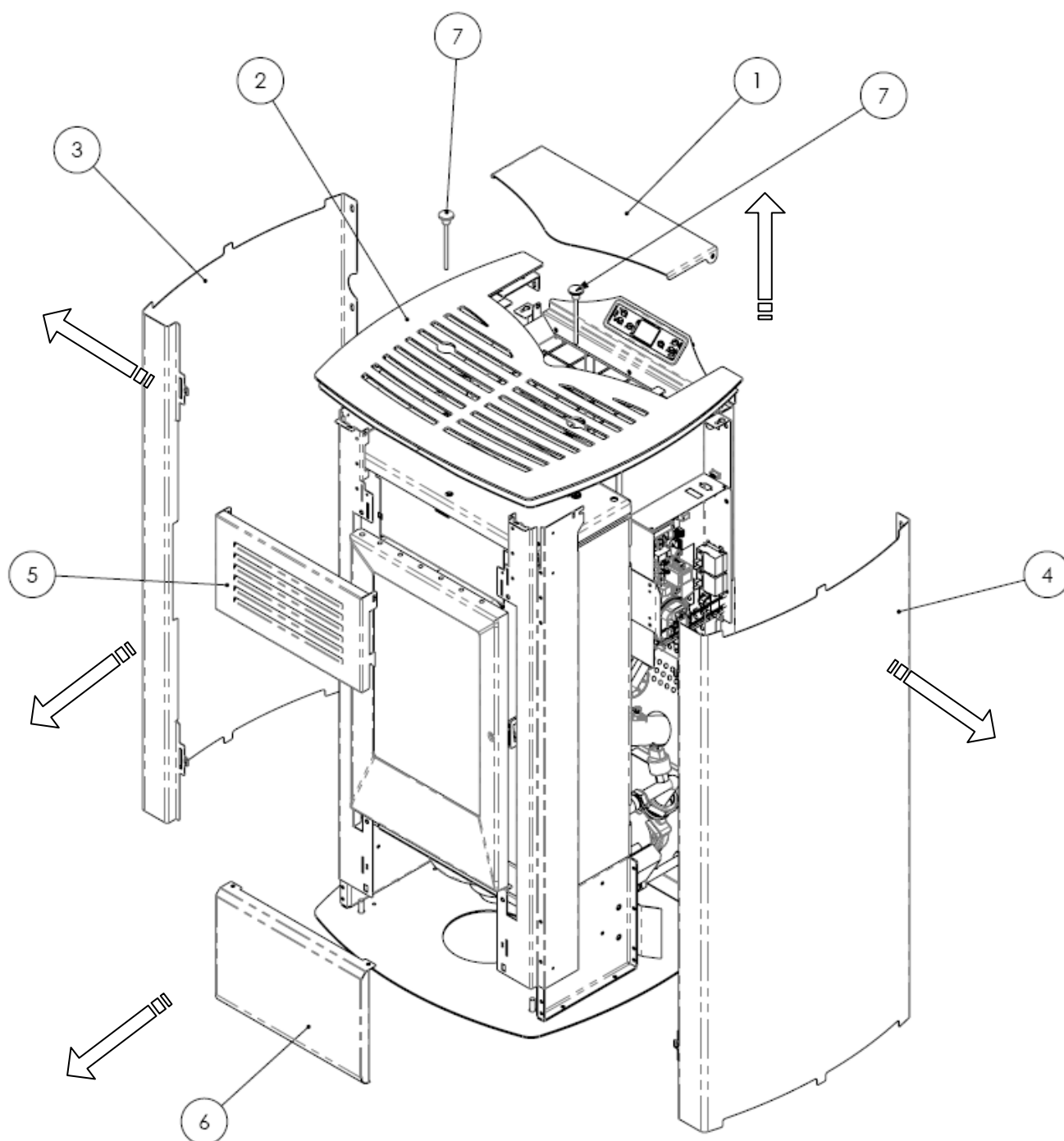
### 6.2 Removing the ceramic cladding



#### Key:

- 1 - Pellet door
- 2 - Ceramic cover
- 3 - Side ceramic
- 4 - Top front panel support
- 5 - Top-bottom front ceramic panels
- 6 - Bottom front panel support
- 7 - Extensions with knob for turbulators

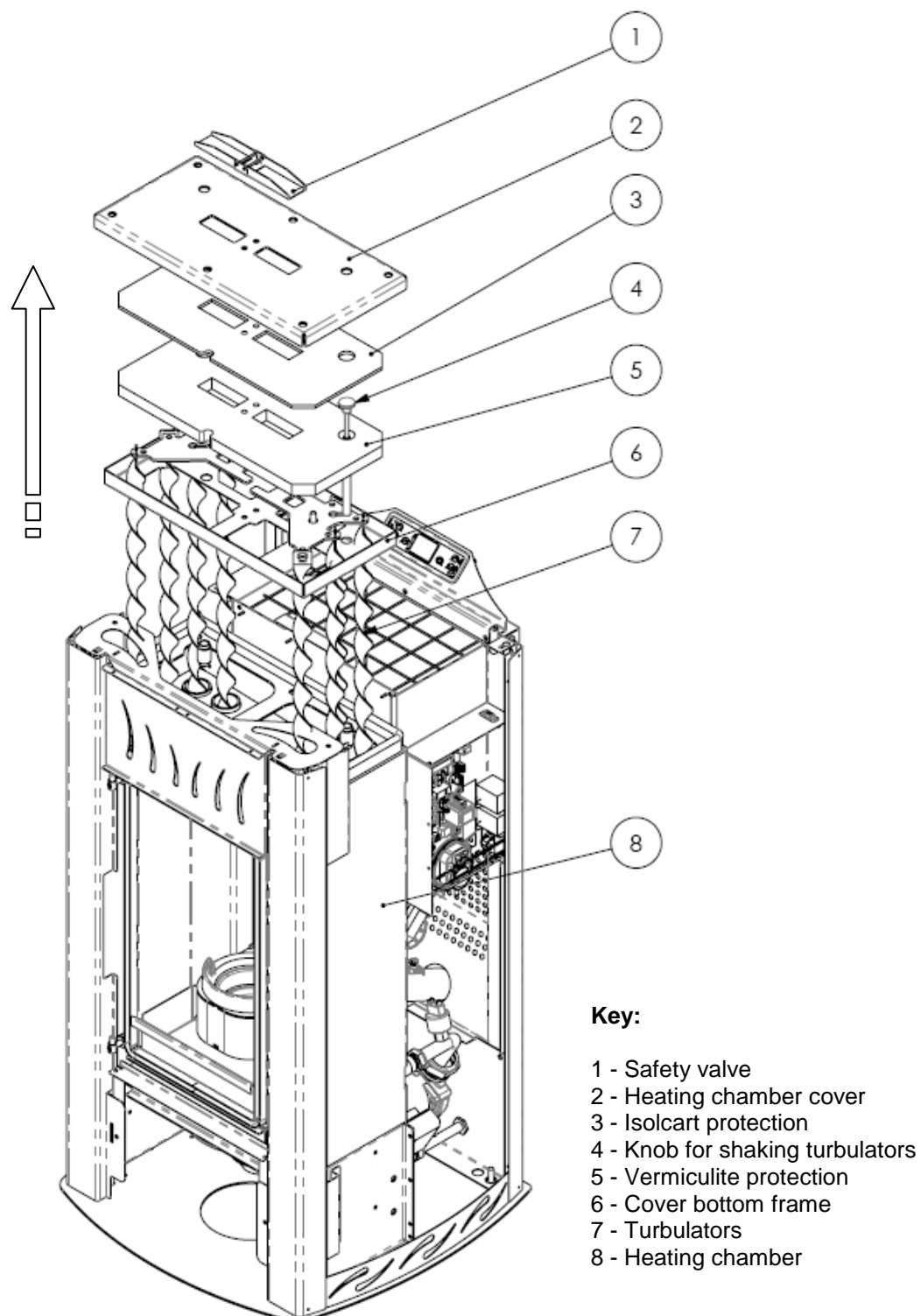
### 6.3 Removing the steel cladding



**Key:**

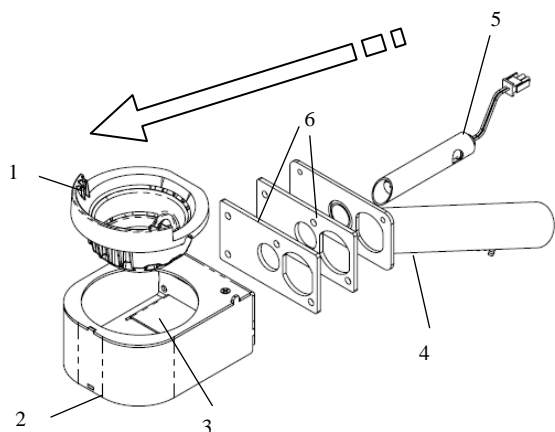
- 1 - Pellet hopper door
- 2 - Steel top cover
- 3 - Right side panel
- 4 - Left side panel
- 5 - Top front panel
- 6 - Bottom front panel
- 7 - Extensions with knob for turbulators

## 6.4 Stove internal parts

Exploded view of **TERMO-FOCUS HR** stove combustion chamber and parts

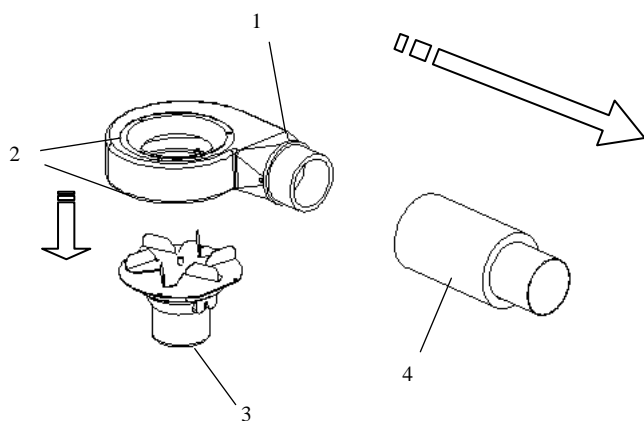
**Exploded views of:**

- 1 - Brazier assembly
- 2 - Fume extractor assembly
- 3 - Auger assembly



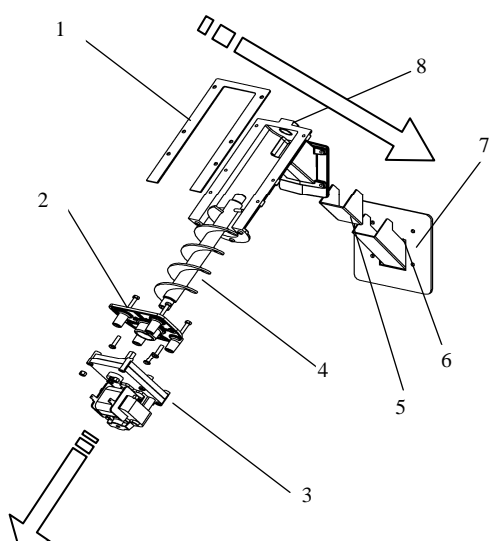
**Key:**

- 1 - Brazier
- 2 - Welded brazier holder
- 3 - Internal smoke baffle
- 4 - Combustion air welded inlet pipe assembly
- 5 - Electrical element
- 6 - Seals



**Key:**

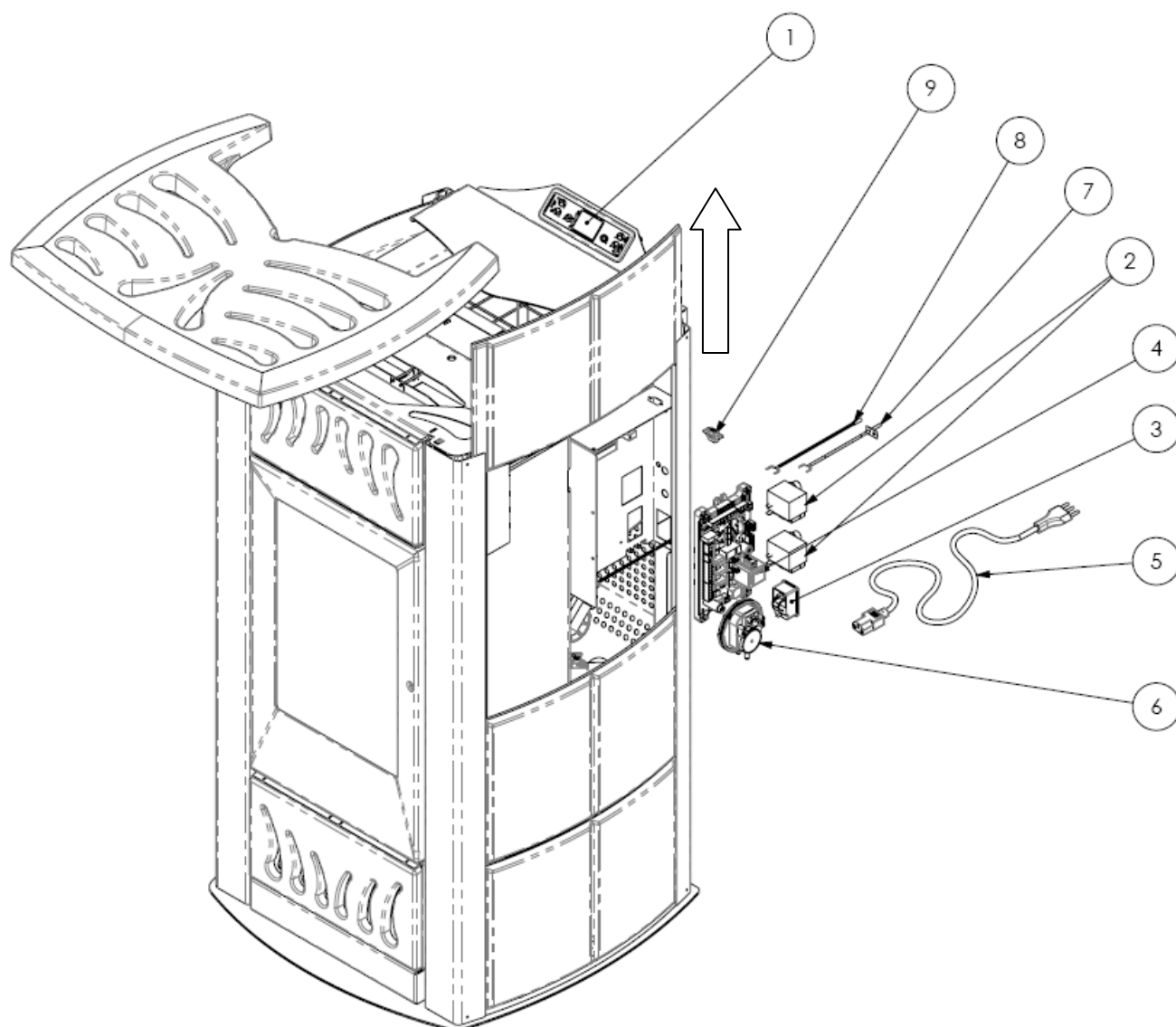
- 1 - Fume extractor volute
- 2 - Thermal seal
- 3 - Fume extractor motor
- 4 - Fume exhaust pipe



**Key:**

- 1 - Conveyor - hopper seal
- 2 - Gearmotor support flange
- 3 - Gearmotor
- 4 - Auger
- 5 - Seal for chute
- 6 - Pellet chute
- 7 - Conveyor-chamber seal
- 8 - Pellet conveyor

## 6.5 Electrical components

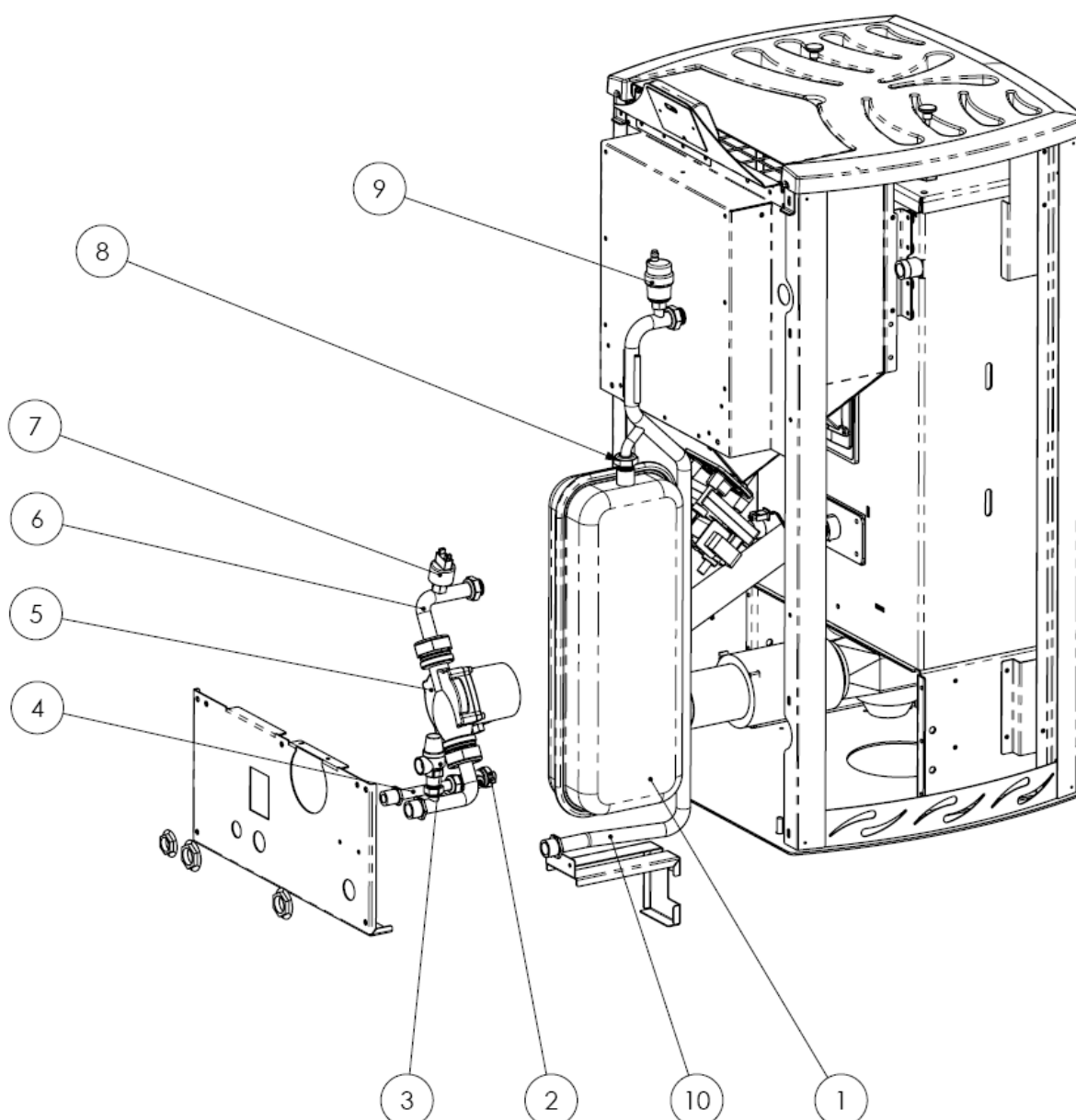


### Key:

- 1 - Control panel model F047
- 2 - Safety thermostat
- 3 - ON-OFF switch with fuses
- 4 - Electronic board
- 5 - Power cable
- 6 - Vacuum switch
- 7 - Fume probe
- 8 - Room probe
- 9 - Serial connection



## 6.6 Plumbing components

**Key:**

- 2- Membrane expansion tank
- 3- System drain cock
- 4- Safety valve
- 5- System filling connection
- 6- Heating circulating pump
- 7- Heating chamber - pump return
- 8- Pressure transducer
- 9- Expansion tank connection
- 10- Air venting valve
- 11- Delivery pipe

## 7 TROUBLESHOOTING

### 7.1 Alarm management

Alarms are indicated by an acoustic signal (if activated) and a message on the control panel.

In case of an alarm, shut down the stove, eliminate the cause and restart the stove according to the normal procedure described in this manual.

**Every alarm status causes immediate stove shutdown.**

The alarms, with causes and cures, which can appear on the control panel are listed below:


<b>ALARMS - MESSAGES</b>			
<b>Signalling</b>	<b>Fault</b>	<b>Possible causes</b>	<b>Cures</b>
<b>AL 1 POWER FAILURE</b>	-The stove does not start.	-No power during the lighting stage.	-Turn the stove OFF by pressing the button P4 and repeat the lighting procedure. -Other reinstatement operations must be carried out by a service centre.
<b>AL 2 FUME PROBE</b>	-Occurs in case of a fume temperature probe fault. -The shutdown procedure is activated.	-Faulty probe -The probe is disconnected from the board.	-Reinstatement operations must be carried out by a service centre.
<b>AL 3 HOT FUMES</b>	-Occurs if the fume probe detects a fume temperature above 280°C. -The shutdown procedure is activated.	-Faulty tangential fan. -No power to tangential fan. -Too many pellets.	-Adjust the pellet flow. -Other reinstatement operations must be carried out by a service centre.
<b>AL 4 FAN FAIL</b>	-Occurs when the exhaust fan is faulty. -The shutdown procedure is activated.	-The fume fan is blocked. -Faulty speed control sensor. -No power to fume fan.	-Reinstatement operations must be carried out by a service centre.
<b>AL 5 NO IGNITION</b>	-No flame in ignition stage. -The shutdown procedure is activated.	-The pellet hopper is empty. -The electrical element is faulty, dirty or not correctly positioned. -Pellet load setting incorrect.	-Check pellets in hopper. -Check the lighting procedures. -Other reinstatement operations must be carried out by a service centre.
<b>AL 6 NO PELLETS</b>	-Brazier not fed with pellets.	-The pellet hopper is empty. -The pellet feed gearmotor has to adjust. -The gearmotor does not feed pellets.	-Check pellets in hopper. -Adjust the pellet flow -Other reinstatement operations must be carried out by a service centre.
<b>AL 7 THERMAL SAF</b>	-Occurs in case of cutting in of auger duct temperature or heating chamber water temperature safety thermostat. -The system is stopped.	-The safety thermostat has detected a temperature above the setting threshold due to overheating of the bottom part of the hopper or the heating chamber water, blocking gearmotor operation.	-Check the cause of excessive overheating. -Reset the relevant safety thermostat by pressing the reset button.

Signalling	Fault	Possible causes	Cures
<b>AL 8 NO NEG PRESS</b>	-In the work stage the stove detects a pressure below the vacuum switch setting threshold. <i>-The system is stopped.</i>	-The combustion chamber is dirty. -The fume duct is obstructed. -The fire door is not closed. -The overpressure valves are open-stuck. -Faulty vacuum switch.	-Check cleanness of the fume duct and combustion chamber. -Check hermetic closing of the door. -Check closing of the overpressure valves. <i>-Other reinstatement operations must be carried out by a service centre.</i>
<b>AL 9 INSUFF DRAUGHT</b>	-Appears when the combustion air flow is below a certain threshold.	-The combustion chamber is dirty. -The fume duct is obstructed. -The fire door is not closed. -The overpressure valves are open-stuck. -Faulty air flow meter.	-Check cleanness of the fume duct and combustion chamber. -Check hermetic closing of the door. -Check closing of the overpressure valves. <i>-Other reinstatement operations must be carried out by a service centre.</i>
<b>AL E WATER PRESSURE</b>	-Occurs when the water pressure does not come within the values for correct operation. <i>-The system is stopped.</i>	-Occurs when the pressure transducer on the water circuit detects a pressure below or above the fixed limits.	-Check the cause of the problem, restoring the circuit pressure by bringing it to the normal operating value.
<b>AL b AUG TRIAC ERROR</b>	-Occurs when the gearmotor works continuously and for more than 60 sec. <i>-The system is stopped.</i>	-The controller detects a faulty gearmotor control relay (contacts stuck).	<i>-Reinstatement operations must be carried out by a service centre.</i>
<b>AL c WATER PROBE</b>	-Occurs in case of a water temperature probe fault. <i>-The shutdown procedure is activated.</i>	-Faulty probe -The probe is disconnected from the board.	<i>-Reinstatement operations must be carried out by a service centre.</i>
<b>AL d HOT WATER</b>	-Occurs when the water temperature has exceeded the fixed limits. <i>-The system is stopped.</i>	-Occurs when the temperature probe in the heating chamber detects a value above 92°C.	-Check the cause of the problem, restoring the temperature by bringing it to the normal operating value.
<b>WAITING COOL</b>	-Occurs on relighting the stove immediately after having shut it down.	-Reset attempt in shutdown stage with stove hot in cooling stage.	-Alarm reset is possible only after shutdown.
<b>AIR FLOW METER FAILURE</b>	-Occurs when the air flow meter is disconnected.	-The controller does not detect the quantity of combustion air and does not shut down the stove; it only excludes the air flow meter functions.	<i>-Reinstatement operations must be carried out by a service centre.</i>
<b>FROST RISK</b>	-Occurs when the water temperature falls below a certain value.	-The stove control detects the water temperature below 6°C and displays a message.	-The pump starts in order to move the water inside the heating circuit. <i>- Monitor the water temperature so that it does not fall below 0°C.</i>
<b>SERVICE DUE</b>	-Occurs when the stove has exceeded 1800 hours of operation since the previous servicing.	-Extraordinary maintenance notice.	<i>- Cleaning - extraordinary maintenance and reinstatement operations must be carried out by a service centre.</i>

The Manufacturer reserves the right to make technical or aesthetic changes to the products at any time without notice. The drawings, measurements, diagrams and any other configurations are given only by way of example.

## 8 ENCLOSURES

## CE MARKING INFORMATION

		
<b>COLA</b>		
2012		
<b>EN 14785 : 2006</b>		
Wood pellet-burning domestic heating appliances Ref. <b>TERMO FOCUS HR</b>		
<b>Min. safety distance from flammable materials rear - right/left side - floor</b>	:	<b>200 - 200 - 0 mm</b>
<b>CO emissions at 13% O2 in fumes</b>	:	<b>Nom. output : 0.01 % Red. output : 0.04 %</b>
<b>Dust emissions at 13% O2 in fumes</b>	:	<b>Nom. output : 11.3 mg/m3 Nom. output : 36.4 mg/m3</b>
<b>Max. water operating pressure</b>	:	<b>2 bar</b>
<b>Flue gas temperature</b>	:	<b>Nom. output : 134.6 °C; Red. output : 58.1 °C</b>
<b>Nominal and reduced heat output</b>	:	<b>Nom. output : total 17.4 kW water heating : 15.0 kW room heating : 2.35 kW Red. output : total 5.7 kW water heating : 4.29 kW room heating : 1.42 kW</b>
<b>Efficiency</b>	:	<b>Nom. output : 93.6 % Red. output : 97.97 %</b>
<b>Types of fuel</b>	:	<b>Wood pellets</b>
<b>Electrical power</b>	:	<b>420 W – 140 W</b>
<b>Rated voltage</b>	:	<b>230 V</b>
<b>Rated frequency</b>	:	<b>50 Hz</b>