

# Extraflame®

## Riscaldamento a Pellet



UK

### THERMO PRODUCTS USER MANUAL

**MADE IN ITALY**  
design & production

**VIRNA IDRO.16**

## APPLY TECHNICAL DATA LABEL

## ATTENTION



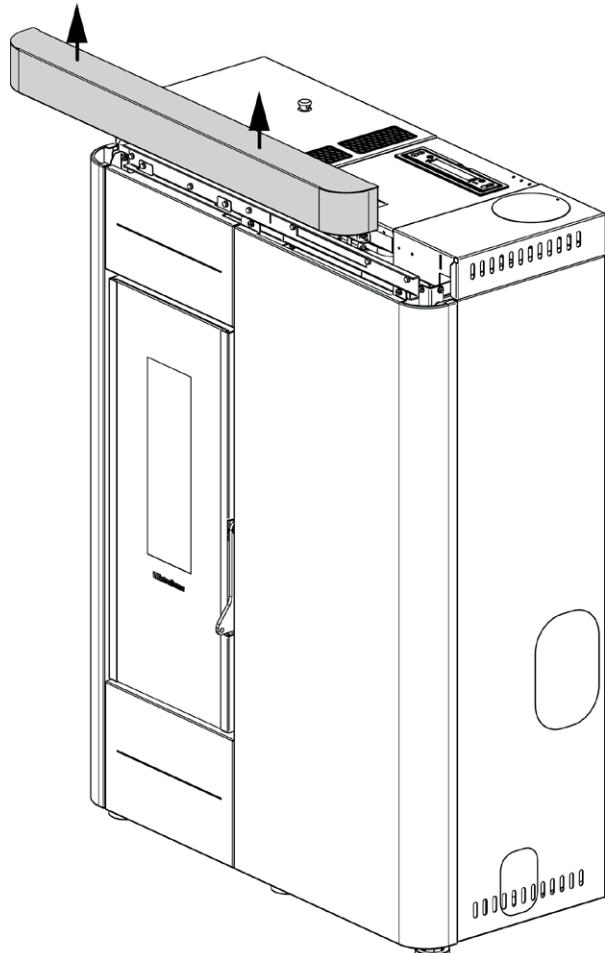
**SURFACES CAN BECOME VERY HOT!  
ALWAYS USE PROTECTIVE GLOVES!**

*During combustion, thermal energy is released that significantly increases the heat of surfaces, doors, handles, controls, glass, exhaust pipes, and even the front of the appliance. Avoid contact with those elements if not wearing protective clothing (protective gloves included). Make sure children are aware of the danger and keep them away from the stove during operation.*

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ITALIANO	ENGLISH	FRANÇAIS
ATTENZIONE TASSATIVO PRIMA DI MOVIMENTARE LA STUFA TOGLIERE IL RIVESTIMENTO INDICATO PER EVITARE DANNI.	WARNING BEFORE HANDLING THE STOVE, THE COVERING INDICATED MUST BE RE- MOVED TO AVOID DAMAGE.	ATTENTION IMPÉRATIF AVANT DE DÉPLACER LE POËLE, RETIRER LE REVÊTEMENT INDICÉ POUR ÉVITER TOUT DOMMAGE.
DEUTSCH	ESPAÑOL	PORTUGUÊS
ACHTUNG PFLICHT BEVOR DER OFEN BEWEGT WIRD, MUSS DIE ANGEZEIGTE VERKLEIDUNG ENTFERNT WERDEN, UM SCHÄDEN ZU VERMEIDEN.	ATENCIÓN TAXATIVO ANTES DE MANEJAR LA ESTUFA QUI- TE EL REVESTIMIENTO INDICADO PARA EVITAR DAÑOS.	ATENÇÃO OBRIGATÓRIO ANTES DE MOVIMENTAR O AQUECEDOR, RETIRAR O REVESTIMENTO INDICADO PARA EVITAR DANOS.
EESTI	DANSK	HRVATSKI
KOHUSTUSLIK TÄHELEPANU ENNE PLIIDI TEISALDAMIST EEMALDAGE VOO DER NÄIDATUD KAHJUSTUSTE VÄLTIMISEKS.	OBS FJERN DET ANGIVNE DÆKSEL, INDEN OVNNEN FLYTTES FOR AT UNDGÅ SKADE.	OBAVEZNA PAŽNJA PRIJE PREMJEŠTANJA ŠTEDNJAKA UKLONITE OBLOGU OZNAČENO ZA IZBJEGAVANJE OŠTEĆENJA.
SLOVENSKI	NEDERLANDS	POLSKI
OBVEZNA POZOR PRED PREMI- KANJEM PEČI ODSTRANITE OBLOGO PRIKAZANA ZA PREPREČEVANJE ŠKODE.	IMPERATIEVE AANDACHT VOORDAT U DE KACHEL VERPLAATST VERWIJDER DE AANGEGEVEN KAP OM SCHADE TE VOO RKOMEN.	OBOWIĄZKOWA UWAGA! PRZED PRZENIESIENIEM PIECA ZDEJMIIJ OBUDOWĘ WSKAZANY, ABY UNIKNĄĆ USZKODZEŃ.
SLOVENSKÉ	EESTI	LIETUVA
POVINNÁ POZOR PRED PREMIESTNENÍM KACHLÍ ODSTRÁŇTE OBKLAD OZNAČENÉ, ABY NEDOŠLO K POŠKODENIU.	OLULINE TÄHELEPANU ENNE PLIIDI TEISALDAMIST EEMALDAGE KATE NÄIDATUD KAHJUSTUSTE VÄLTIMISEKS.	PRIVALOMAS DĒMESIS PRIEŠ PERKELDAMI VIRYKLĘ, NUIMKITE APVALKALĄ NURODOMA, KAD BŪTŲ IŠVENGTĄ ŽALOS.



*We thank you for having chosen our company; our product is a great heating solution developed from the most advanced technology with top quality machining and modern design, aimed at making you enjoy the fantastic sensation that the heat of a flame gives, in complete safety.*

## **WARNINGS**

This instructions manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to another owner or user, or if transferred to another place. If it is damaged or lost, request another copy from the area technician. This product is intended for the use for which it has been expressly designed. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

**Installation must be performed by qualified staff, which assumes complete responsibility for the definitive installation and consequent good functioning of the product installed. One must also bear in mind all laws and national, regional, provincial and town council Standards present in the country in which the appliance has been installed, as well as the instructions contained in this manual.**

**The use of the appliance must comply with all local, regional, national and European regulations.**

**The Manufacturer cannot be held responsible for the failure to comply with such precautions.**

**After removing the packaging, ensure that the content is intact and complete. Otherwise, contact the dealer where the appliance was purchased. All electric components that make up the product must be replaced with original spare parts exclusively by an authorised after-sales centre, thus guaranteeing correct functioning.**

## **SAFETY**

- ♦ **THE APPLIANCE MAY BE USED BY CHILDREN 8 YEARS OF AGE OR OLDER AND INDIVIDUALS WITH REDUCED PHYSICAL, SENSORY, OR MENTAL CAPACITIES OR WITHOUT EXPERIENCE OR THE NECESSARY KNOWLEDGE, PROVIDED THAT THEY ARE SUPERVISED OR HAVE**

RECEIVED INSTRUCTIONS ON SAFE USE OF THE APPLIANCE AND THAT THEY UNDERSTAND THE INHERENT DANGERS.

- ◆ THE GENERATOR MUST NOT BE USED BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY AND MENTAL CAPACITIES OR WHO ARE UNSKILLED PERSONS, UNLESS THEY ARE SUPERVISED AND TRAINED REGARDING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.
- ◆ THE CLEANING AND MAINTENANCE REQUIRED BY THE USER MUST NOT BE PERFORMED BY CHILDREN WITHOUT SUPERVISION.
- ◆ CHILDREN MUST BE CHECKED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.
- ◆ DO NOT TOUCH THE GENERATOR WHEN YOU ARE BAREFOOT OR WHEN PARTS OF THE BODY ARE WET OR DAMP.
- ◆ IT IS FORBIDDEN TO MODIFY THE APPLIANCE IN ANY WAY.
- ◆ DO NOT PULL, REMOVE, TWIST THE ELECTRICAL CABLES COMING OUT OF THE PRODUCT EVEN IF IT IS DISCONNECTED FROM THE MAINS.
- ◆ IT IS ADVISED TO POSITION THE POWER SUPPLY CABLE SO THAT IT DOES NOT COME INTO CONTACT WITH HOT PARTS OF THE APPLIANCE.
- ◆ THE POWER SUPPLY PLUG MUST BE ACCESSIBLE AFTER INSTALLATION.
- ◆ DO NOT CLOSE OR REDUCE THE DIMENSIONS OF THE AIRING VENTS IN THE PLACE OF INSTALLATION. THE AIRING VENTS ARE ESSENTIAL FOR CORRECT COMBUSTION.
- ◆ THE COMBUSTION CHAMBER DOOR MUST ALWAYS BE CLOSED WHEN THE STOVE IS OPERATING AND MUST ONLY BE OPENED TO ADD FUEL, LIGHT AND CLEAN IT.
- ◆ THE HEARTH DOOR MUST ALWAYS BE CLOSED DURING NORMAL FUNCTIONING OF THE PRODUCT.
- ◆ WHEN THE APPLIANCE IS FUNCTIONING AND HOT TO THE TOUCH, ESPECIALLY ALL EXTERNAL SURFACES, ATTENTION MUST BE PAID
- ◆ CHECK FOR THE PRESENCE OF ANY OBSTRUCTIONS BEFORE SWITCHING THE APPLIANCE ON FOLLOWING A PROLONGED PERIOD OF INACTIVITY.
- ◆ THE GENERATOR HAS BEEN DESIGNED TO ADJUST ITSELF AUTOMATICALLY IN PARTICULAR OPERATING CONDITIONS
- ◆ THE GENERATOR HAS BEEN DESIGNED TO FUNCTION IN ANY CLIMATIC CONDITION. IN PARTICULARLY ADVERSE CONDITIONS (STRONG WIND, FREEZING) SAFETY SYSTEMS MAY INTERVENE

THAT SWITCH THE GENERATOR OFF. IF THIS OCCURS, CONTACT THE TECHNICAL AFTER-SALES SERVICE AND ALWAYS DISABLE THE SAFETY SYSTEMS.

- ◆ IN THE EVENT THE FLUE CATCHES FIRE, USE SUITABLE SYSTEMS FOR SUFFOCATING THE FLAMES OR REQUEST HELP FROM THE FIRE BRIGADE.
- ◆ THIS APPLIANCE MUST NOT BE USED TO BURN WASTE
- ◆ NEVER USE PETROL, KEROSENE, LIGHTER FUEL, ETHANOL OR SIMILAR LIQUIDS TO START OR "RELIGHT" THE GENERATOR.
- ◆ DURING THE FILLING PHASE DO NOT PUT THE BAG OF PELLETS INTO CONTACT WITH THE PRODUCT
- ◆ THE MAJOLICAS ARE TOP QUALITY ARTISAN PRODUCTS AND AS SUCH CAN HAVE MICRO-DOTS, CRACKLES AND CHROMATIC IMPERFECTIONS. THESE FEATURES HIGHLIGHT THEIR VALUABLE NATURE. DUE TO THEIR DIFFERENT DILATION COEFFICIENT, THEY PRODUCE CRACKLING, WHICH DEMONSTRATE THEIR EFFECTIVE AUTHENTICITY. TO CLEAN THE MAJOLICAS, IT IS RECOMMENDED TO USE A SOFT, DRY CLOTH. IF A DETERGENT OR LIQUID IS USED, THE LATTER COULD PENETRATE INSIDE THE CRACKLES, HIGHLIGHTING THEM.
- ◆ SINCE THE PRODUCT CAN TURN ON AUTOMATICALLY THANKS TO THE TIMER, OR REMOTELY USING THE DEDICATED APPLICATIONS, IT IS STRICTLY FORBIDDEN TO LEAVE ANY COMBUSTIBLE OBJECT WITHIN THE SAFETY DISTANCES INDICATED ON THE TECHNICAL DATA PLATE.
- ◆ INTERNAL COMBUSTION CHAMBER PARTS CAN BE SUBJECT TO EXTETICAL WARN, IT DOESN'T AFFECT THE FUNCTIONALITY

## ROUTINE MAINTENANCE

Based on Decree 22 January 2008 n°37 art.2, routine maintenance means interventions aimed at reducing degradation due to normal use, as well as dealing with accidental events entailing the need of first interventions, which however do not modify the structure of the system upon which one is intervening or its intended use according to the requirements laid down by the technical standards in force and by the manufacturer's use and maintenance manual.

## HERMETICALLY SEALED INSTALLATION

Virna Idro is a fully sealed product with respect to the environment in which it is installed. This means that it is ideal for passive houses because it does not take air in from within the house.

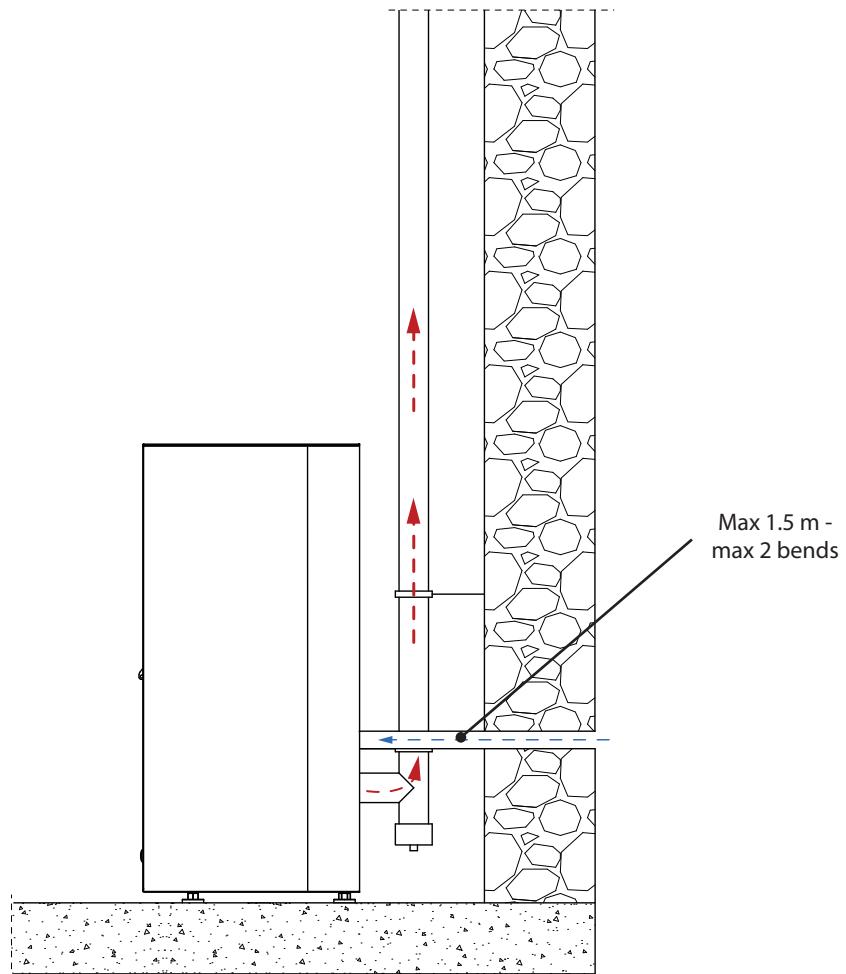
### COMBUSTION AIR

To ensure the stove remains hermetically sealed, the connection pipe for the combustion air must be directly connected to the exterior, using special pipes and sealed connectors.

### FUMES EXHAUST SYSTEM

- If the generator has a fumes temperature of less than 160°C+ room temperature due to the high performance (refer to technical data), the fumes exhaust system must be completely waterproof.
- If there is a possibility that fumes may condense, an external inspection hatch must be fitted.

#### INSTALLATION EXAMPLE



One must also bear in mind all laws and national, regional, provincial and town council standards present in the country in which the appliance has been installed, as well as the instructions in this manual.

# INSTALLATION

## GENERAL

The support surfaces and/or points must have a suitable load-bearing capacity to support the weight of the appliance, of the accessories and coatings. The generator must be on the level for correct operation.

The flue extraction and hydraulic connections must be carried out by qualified personnel who must issue documentation of conformity according to the regulations of the country of installation.

**The installer must give the owner or their representative, the declaration of system conformity, in accordance with current legislation, including:**

- 1) the use and maintenance manual of the appliance and of the system components (such as for example, the smoke ducts, chimney, etc.);
- 2) photocopy or photograph of the chimney plaque;
- 3) system booklet (where applicable).

*The installer must ask to be issued with a receipt stating that the documentation has been provided, and must keep it with a copy of the technical documentation relating to the installation.*

If installed in a condominium, the administrator must be consulted beforehand.

If necessary, check the exhaust fume emissions after installation. Any inspection point included should be watertight.

## COMPATIBILITY

Installation in premises with fire hazards is forbidden. Installation in residential premises where the following situations occur is also prohibited:

1. where there are liquid fuel-operated appliances with continuous or intermittent operation, which draw the combustion air in the room in which they are installed.
2. where there are type B gas appliances intended for room heating, with or without production of DHW and in adjacent and adjoining premises.
3. where, in any case, the pressure difference measured during installation between the internal and external environment is greater than 4 Pa.

N.B.: Watertight appliances can also be installed in the cases indicated by points 1, 2 and 3 of this paragraph.

## INSTALLATIONS IN BATHROOMS, BEDROOMS AND STUDIO FLATS

Installation in bathrooms, bedrooms and studio flats is only allowed for sealed or closed hearth appliances with ducted combustion air taken from the outside.

## MINIMUM DISTANCES FROM COMBUSTIBLE MATERIALS

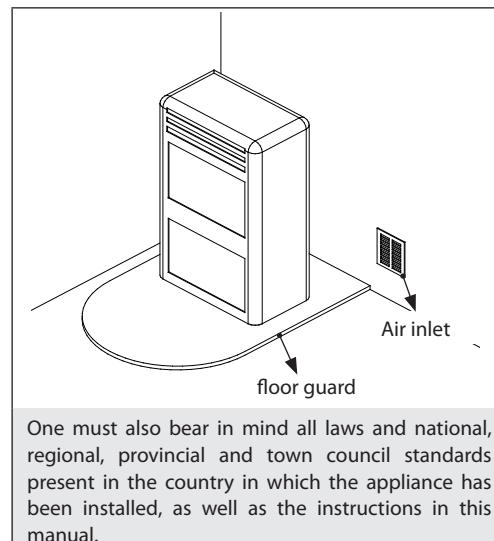
Installation next to combustible or heat-sensitive materials is permitted, provided that suitable safety distances are maintained, as specified in the CEMI (CE Marking Information), the Declaration of Performance (DoP) and the label at the beginning of the manual (page 2).

We suggest using non-combustible material for the side and rear walls and support surface on the floor.

If the floor is made of combustible material, it is recommended to use a non-combustible protective layer, which must cover the area under the appliance and extend forward by at least the distance specified as  $d_r$ .

For installation near non-flammable materials, a minimum side and rear clearance must be maintained, as indicated by the distance marked  $d_{non}$ .

For products with rear spacers, installation flush with the wall is allowed at the rear only.



One must also bear in mind all laws and national, regional, provincial and town council standards present in the country in which the appliance has been installed, as well as the instructions in this manual.

## MAINTENANCE PREPARATION

It might be necessary to place the product away from adjacent walls for maintenance operations. This operation must be carried out by a technician who is qualified to disconnect the flue gas evacuation ducts and subsequent connection. For generators connected to the plumbing system, a connection must be provided between the system and the stove that allows the generator to be moved at least 1 metre away from adjacent walls during extraordinary maintenance work performed by a qualified technician

## INSTALLATION OF INSERTS

When installing inserts, it is necessary to prevent access to the internal parts of the appliance, and when removing them, it must not be possible to access live parts.

Any wiring, such as the power cable or room probes, must be positioned in such a way that they are not damaged when the insert is moved and do not come into contact with hot parts. If a cavity made of combustible material is installed, it is advisable to take all the safety precautions indicated in the installation regulations

## VENTILATION AND AERATION OF THE INSTALLATION PREMISES

Ventilation, in the case of a non-watertight generator and/or non-watertight installation, must be carried out respecting the minimum area indicated below (considering the largest of the values suggested):

Appliance categories	Reference standard	Percentage of the net opening section with respect to the appliance fumes outlet section	Minimum net opening value of the ventilation duct
Pellet stoves	EN 16510-1; EN 16510-2-6	-	80 cm <sup>2</sup>
Boilers	EN 303-5	50%	100 cm <sup>2</sup>

**The difference in pressure between the generator installation rooms and the exterior must always be  $\geq -4$  Pa under any condition (e.g.  $-3$  Pa is an acceptable value), including in the presence of extraction hoods and/or controlled forced ventilation systems**

The air inlets must meet the following requirements:

- ◆ They must be protected with grids, metal mesh, etc., but without reducing the net useful section;
- ◆ They must be made so as to make the maintenance operations possible;
- ◆ Positioned so that they cannot be obstructed;

The inflow of clean, uncontaminated air can also be obtained from a room next to the installation room (indirect ventilation and aeration) as long as this flow can occur freely through permanent openings communicating with the outside.

The adjacent room cannot be used as a garage, warehouse of combustible material or for any other activity with a fire hazard, bathroom, bedroom or common room of the building.

## FLUE DISCHARGE

The heat generator works under a vacuum and is fitted with an outlet fan for fumes extraction. The exhaust system must be used by the generator only. No flue discharges shared with other devices are allowed.

The components of the flue gas evacuation system for combustion products must be chosen and sized in accordance with current regulations, depending on the specific situation at the place of installation.

The following checks are recommended:

- ◆ The flue system must be assessed in accordance with the following technical standards (where applicable): EN 15287-1, EN 15287-2, EN 13063-1, EN 13063-2, EN 1457, EN 1806, EN 1856-1, EN 1856-2 and EN 13384-1;
- ◆ The correct operation of the flue system must be checked in accordance with the EN 13384-2 Standard based on the specific situation at the place of installation;
- ◆ The installation of watertight appliances must also take the EN 13063-3 and EN 14989-2 standards into account;
- ◆ The components of the flue gas evacuation system for combustion products must be chosen and sized in accordance with current regulations, depending on the specific situation at the place of installation.
- ◆ The following checks are recommended:
  - ◆ The flue system must be assessed in accordance with the following technical standards (where applicable): EN 15287-1, EN 15287-2, EN 13063-1, EN 13063-2, EN 1457, EN 1806, EN 1856-1, EN 1856-2 and EN 13384-1;
  - ◆ The correct operation of the flue system must be checked in accordance with the EN 13384-2 standard based on the specific situation at the place of installation;
  - ◆ The installation of watertight appliances must also take the EN 13063-3 and EN 14989-2 standards into account;
  - ◆ The length of the horizontal section should be minimal and, in any case, no longer than 2 metres, with a minimum upward gradient of 3%
  - ◆ The number of direction changes including the one due to the use of the "T" element must not be more than 4.
  - ◆ A "T" fitting with a condensation collection cap must be included at the base of the vertical section.
  - ◆ The vertical pipe can be on the inside or outside of the building. If the flue is fitted in an existing chimney, it must be certified for solid fuels.
  - ◆ If the flue is outside the building, it must always be insulated.
  - ◆ The flue must have at least one sealed outlet for possible fume sampling.
  - ◆ All the sections of the flue pipe must be accessible for inspection.
  - ◆ Inspection openings must be included for cleaning.

If metal pipes are used, they must comply with the following requirements (EN 1856-1 and EN1856-2):

- ◆ Flue - Temperature class, (as indicated in the technical data sheet) soot fire resistance
- ◆ Flue pipe - Temperature class, at least T250, Pressure class, P1 (not indicated in the technical datasheet)

## CHIMNEY COWL

The chimney caps must meet the following requirements:

- ◆ they must have a useful outlet section no less than double of that of the chimney/ducted system on which it is installed;
- ◆ they must be adapted in order to prevent the penetration of rain and snow in the chimney/ducted system;
- ◆ they must be built so that, in the event of winds coming from all directions and from any angle, the expulsion of combustion products is in any case ensured;

## SHARED CHIMNEY FLUE

Check on the CE Technical Data Sheet whether the product is suitable for installation in a shared chimney flue (i.e. with multiple connection).

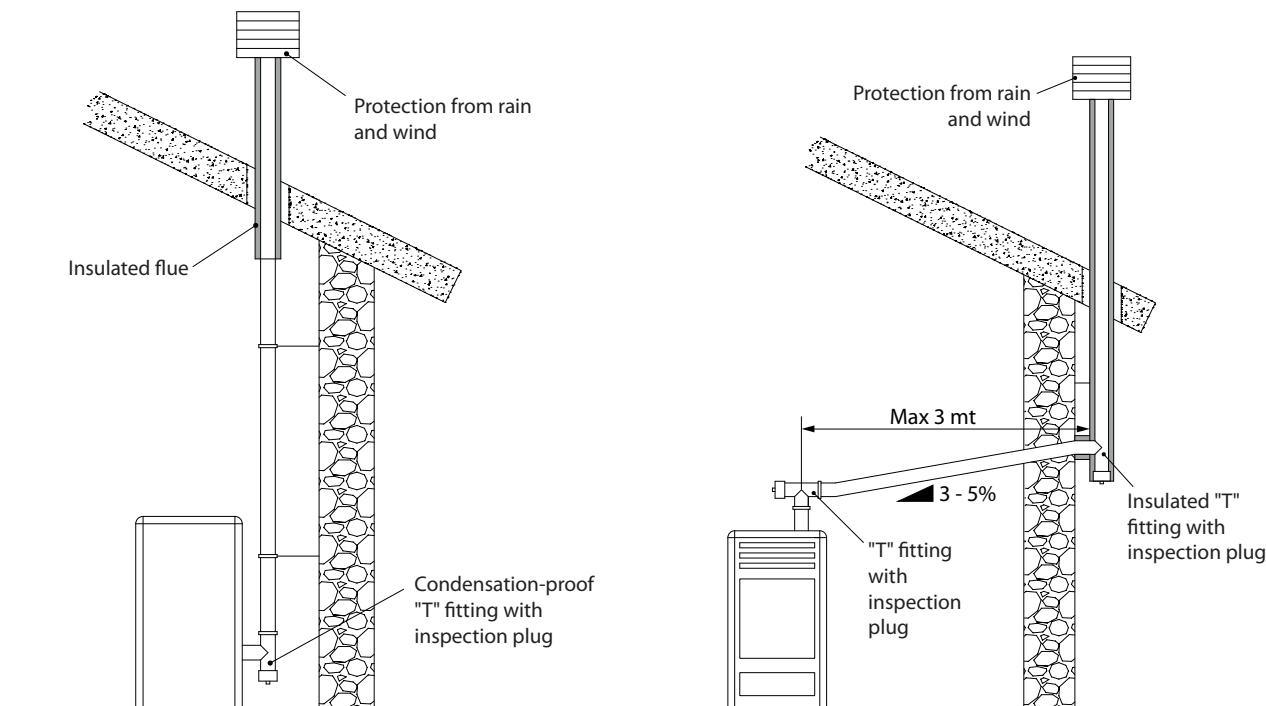
Suitable devices can be installed in shared flue systems provided that:

- ♦ installation in a shared chimney flue (i.e. with multiple connection) is allowed in the place of installation;
- ♦ the requirements of national and regional Standards are strictly complied with [for GERMANY, for example, DIN EN 13384-2, DIN V 18160-1, DIN 18896 and MFeuV-2007 (Muster-Feuerungsverordnung)];
- ♦ the installer or district chimney sweep has inspected and approved the installation conditions.

Please also remember the following indications, which the end user must comply with:

- ♦ The device can be operated only with the doors closed.
- ♦ The doors and all setting devices must remain closed when the device is not on (except for cleaning and maintenance operations).

### EXAMPLES OF CORRECT CONNECTION TO THE CHIMNEY



## CONNECTION TO THE ELECTRICITY GRID

The generator is supplied with a power cable for connection to a 230V 50 Hz socket, possibly with a circuit breaker. The power socket must be easily accessible.

The electrical system must be compliant; check the efficiency of the grounding circuit in particular. Inadequate grounding of the system can cause a malfunction for which the manufacturer is not responsible.

Power fluctuations over 10% may cause product malfunctions.

## HYDRAULIC SYSTEM

Certain concepts referring to the Italian Standard UNI 10412-2 (2009) are described in this chapter.

As previously described, when installing, all national, regional, provincial and council Standards in force provided by the country in which the appliance has been installed must be complied with.

During installation of the generator it is MANDATORY to adjust the system with a manometer in order to display the water pressure.

**TABLE OF SAFETY DEVICES FOR CLOSED VESSEL SYSTEM AND NOT PRESENT IN THE PRODUCT**

Safety valve	✓
Pump control thermostat (it is managed by the water probe and the board program)	✓
Water temperature indicator (display)	✓
Pressure transducer with display	✓
Automatic circuit breaker adjustment switch (managed by board program)	✓
Pressure transducer with minimum and maximum pressure switch alarm	✓
Water overheating automatic circuit breaker switch (block thermostat)	✓
Circulation system (pump)	✓
Expansion system	✓

**Pay attention to the correct sizing of the system:**

- generator power compared to the thermal requirement
- possible need for a buffer tank

## INSTALLATION AND SAFETY DEVICES

The installation, relative system connections, commissioning and inspection of correct functioning must be carried out perfectly, in full compliance with Standards in force, national, regional and municipal, as well as these instructions. For Italy, installation must be carried out by professionally qualified staff (Ministerial Decree dated 22.01.08 n°37).

**The manufacturer declines all responsibility for damage to objects and/or persons caused by the system.**

### TYPE OF SYSTEM

- There are 2 different types of system:
- Open vessel system and closed vessel system.
- The product has been designed and made to work with closed vessel systems.



**CHECK THAT THE PRELOAD OF THE EXPANSION VESSEL IS SET TO 1.5 BAR.**

### SAFETY DEVICES FOR CLOSED VESSEL SYSTEM

In accordance with the UNI 10412-2 (2009) regulation in force in Italy, all the closed systems must be fitted with: safety valve, pump control thermostat, temperature indicator, pressure indicator, automatic circuit breaker block switch (block thermostat), circulation system, expansion system, and safety dissipation built-in to the generator with thermal safety valve (self-activated), if the appliance does not have a temperature self-adjustment system.

## DISTANCES OF SAFETY DEVICES ACCORDING TO THE STANDARD

The temperature safety sensors must be in place on the machine at a distance no greater than 30 cm from the flow connection. Whenever the generators lack a device, those missing can be installed on the generator flow pipe, within a distance no greater than 1 m from the machine.

## COMMISSIONING CHECKS

Before connecting the boiler:

- a) wash all system piping thoroughly in order to remove any residues which might compromise the correct functioning of certain system components (pumps, valves, etc.).
- b) The company recommends installing a magnetic filter in the generator return, to increase the operational life of the boiler, make it easier to remove impurities and increase the overall efficiency of the system.

It is also advisable to perform an inspection using appropriate instruments, to check for any stray currents that may cause corrosion.

- c) check to verify that the flue has adequate draught, that it is not narrowed and that other appliances do not discharge into the flue. This is to prevent unexpected power increases. The flue fitting can be mounted between the boiler and the flue only after this inspection. An inspection of the connections with pre-existing flues is recommended.

## ANTI-CONDENSATION DEVICE (MANDATORY)

Make sure a suitable anti-condensate circuit has been realised, which guarantees an appliance return temperature of at least 55°C. The automatic thermostatic valve, for instance, is used in solid fuel boilers as it prevents cold water from returning into the exchanger. A high return temperature allows efficiency improvement, reduces formation of smoke condensation and prolongs the generator's life span. The manufacturer recommends using the 55°C model with 1" hydraulic connections.

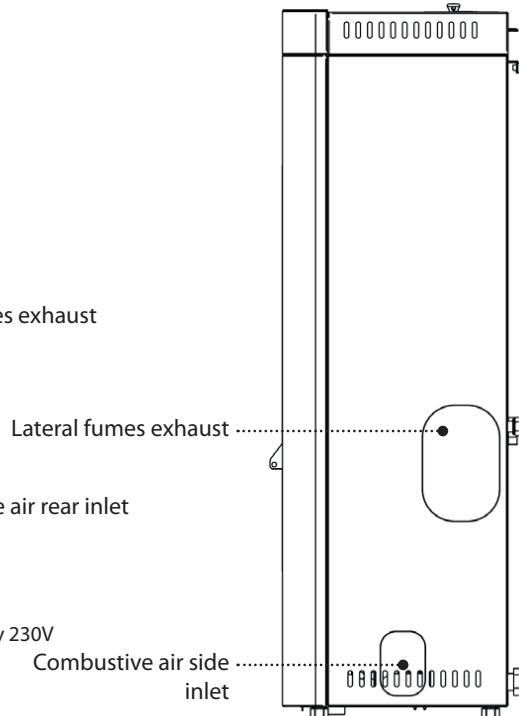
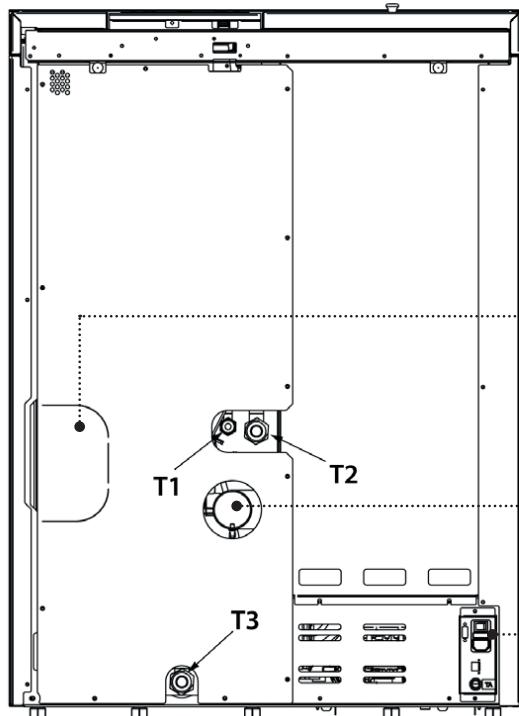
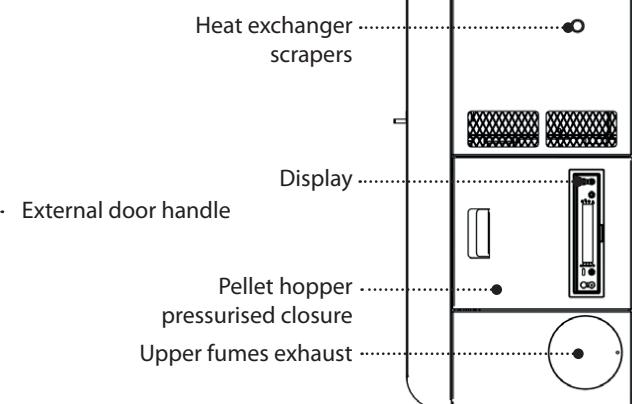
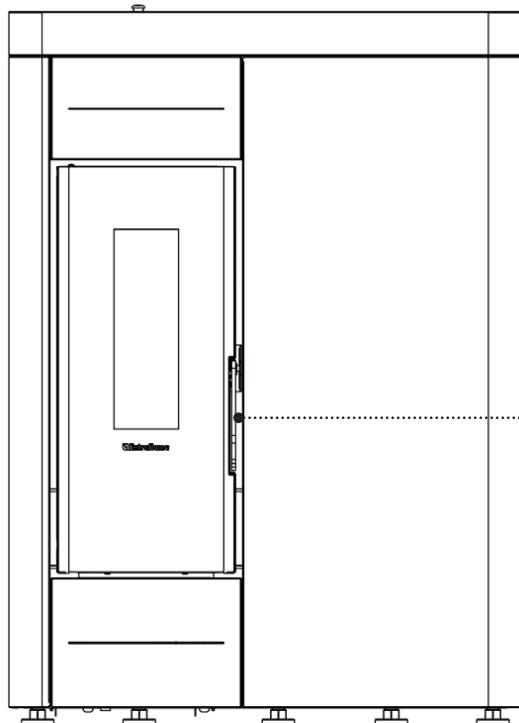
For the products with the \*PWM pump control thermostat, installation is considered equivalent to the realisation of a suitable anti-condensate circuit in the case where:

- the heat generator pump is the only one in the installation, or
  - there is a plate heat exchanger between the heat generator and the installation, or
  - there is a hydraulic compensator or an inertial storage tank (buffer) between the heat generator and the installation

\*Check technical data sheet on website.

Valve on sale as an accessory (optional)

## VIRNA IDRO.16 DETAILS



### HYDRAULIC INSTALLATION

T1	3 bar safety drain
T2	Boiler flow/output
T3	Boiler return/input

## FEATURES

Water content of the thermo-product heat exchanger (l)	19
Volume of expansion vessel integrated into thermo-product (l)	*8
3 bar safety valve integrated into the thermo-product	YES
Minimum and maximum pressure switch integrated into the thermo-product	YES
PWM Pump integrated into the thermo-product	YES
Pump max. head (m)	6

\* ENVISION ANY INTEGRATIVE EXPANSION VESSEL ON THE BASIS OF THE SYSTEM WATER CONTENT.



**CONSULT THE HYDRAULIC DIAGRAMS MANUAL FOR THE DETAILS OF THE CIRCULATOR INSTALLED.**

## CHECKS AND MEASURES FOR COMMISSIONING

### CAUTION!

FOR CORRECT GENERATOR OPERATION, THE HYDRAULIC SYSTEM PRESSURE MUST BE BETWEEN 0,6 AND 2,5 BAR.

Whenever the pressure detected by the digital pressure switch is lower than 0,6 or over 2,5 bar, the boiler goes into alarm mode. By taking the pressure of the water within standard values, the alarm can be reset by pressing the ON/OFF key for 3 seconds (The alarm can be reset only if the fumes motor has stopped and 15 minutes have passed since the alarm was displayed)

### THE PELLET LOAD MOTOR DOES NOT FUNCTION:

It is normal that there is air inside the circuit due to filling the system.

On the 1st ignition cycle, the movement of the water causes the air bubbles to move and be bled by the system automatic venting. This can cause the pressure to drop and the minimum pressure switch to intervene, which interrupts operation of the pellet conveying motor and therefore operation of the heat generator.

The system must be bled several times to eliminate the air and loaded when the pressure is too low.

It is not an anomaly, but normal phenomenon, due to filling. Following filling, the system must always be bled using the relevant vents in the circuit and having the machine perform the "air vent" function. (Following commissioning and with the machine cold, activate the "air vent" function again. - see "SETTINGS" chapter)

### BULB THERMOSTATS - REARM

Reset the thermostat by pressing the dedicated button. If the problem persists, contact a Technical Support Centre. (see REARM chapter).

## STOVE POSITIONING

To ensure the stove works correctly, it should always be positioned so that it is perfectly level, using a spirit level.

## NOTE FOR CORRECT OPERATION

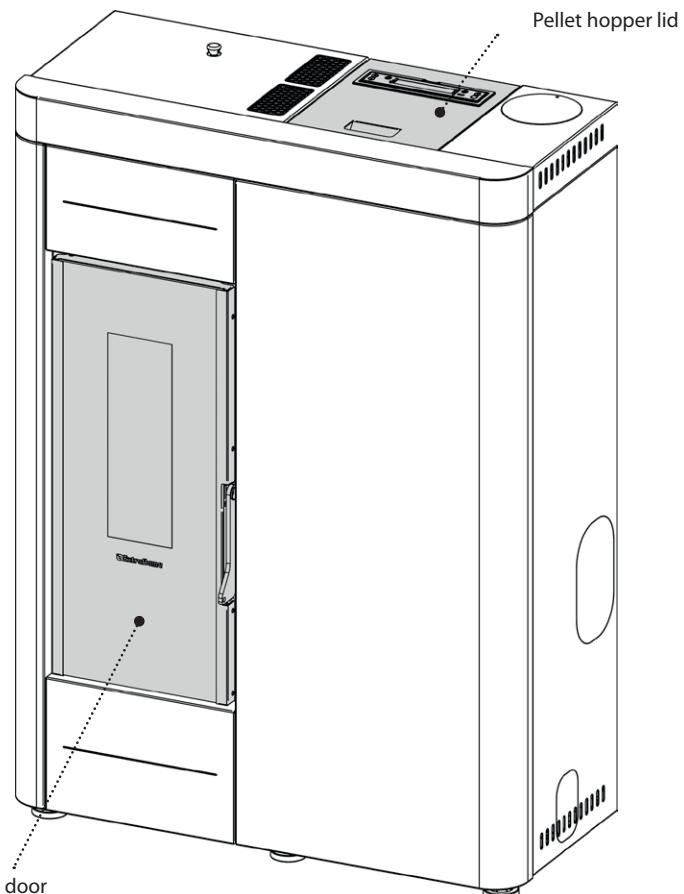
The following indications must be respected for correct pellet stove operation:

Both during the functioning and when the stove is not in use, all the machine doors (pellet hopper, fire door, ash drawer) must always remain closed. The machine doors can only be opened for the time required to load the pellet and for maintenance. Failure to comply with the above during operation will cause the display to show the following:

### "CLOSE HOPPER - STOVE DOOR"

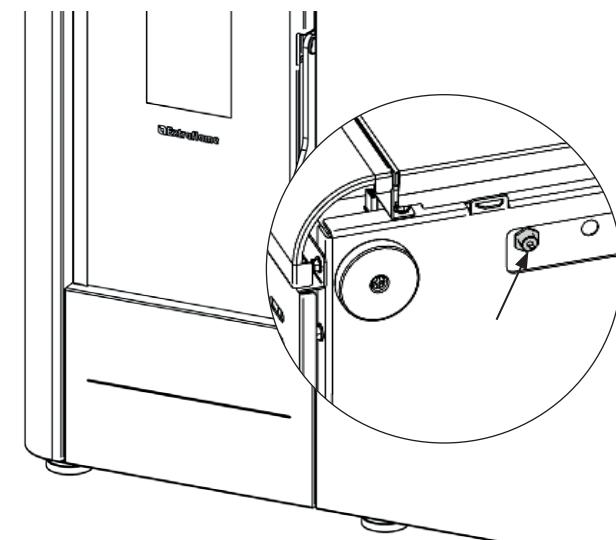
This indication means that you have 60" to close the hatch/door and the pellet lid.

If not, during ignition the stove will go into "DEPR ALARM" mode, while during normal operation the stove will go into "COOLING - WAITING TIME" mode and then re-start automatically when the correct conditions are present (stove cold, etc.).



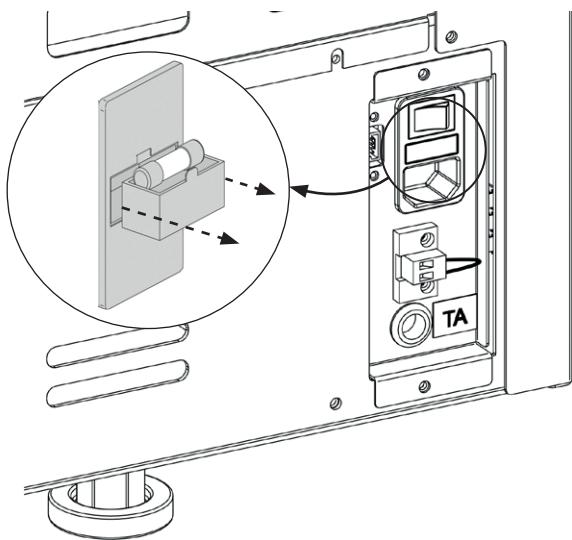
### BULB THERMOSTAT REACTIVATION

The figure below shows the rearm position. Reset the thermostat by pressing the dedicated button. If the problem persists, contact a Technical Support Centre.



### FUSE

If the stove is not powered, have the condition of the fuse checked by a qualified technician.



## PELLETS AND LOADING

Pellets are made by subjecting wood shavings i.e. the rejects of pure unpainted wood from sawmills, carpentry products and products from other activities connected to wood working and transformation, to very high pressures.

This type of fuel is fully ecological as no glues are used for its compaction. In fact, pellet compactness is guaranteed over time by a natural substance found in wood: lignin.

In addition to being an ecological fuel, making best use of wood residue, pellets also have a series of technical advantages.

While wood has a calorific value of 4.4 kWh/kg (with 15% moisture, therefore after approximately 18 months of curing), that of pellets is 5 kWh/kg.

Pellet density is about 650 kg/m<sup>3</sup> and water content is equal to 8% of its weight. For this reason pellets do not need to be cured to obtain a sufficient heat yield.

The pellets used must be class **A1** certified according to standard **ISO 17225-2 (ENplus-A1, DIN Plus or NF 444** of the following category: "High quality NF biocombustible wood pellets").

**UNI EN 303-5** with the following characteristics: water content  $\leq 12\%$ , ash content  $\leq 0.5\%$  and lower calorific value  $>17$  MJ/kg (in the case of boilers).

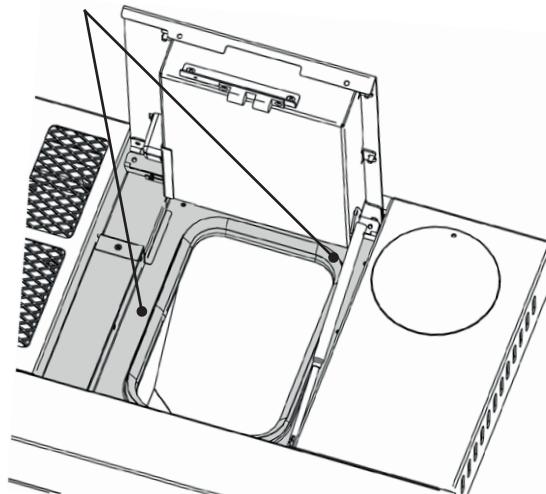
The Manufacturer recommends using pellets with a diameter of 6mm with its products.

### PELLET STORAGE

To guarantee combustion without problems, the pellets must be kept in a dry place.

Open the tank lid and load the pellets using a scoop.

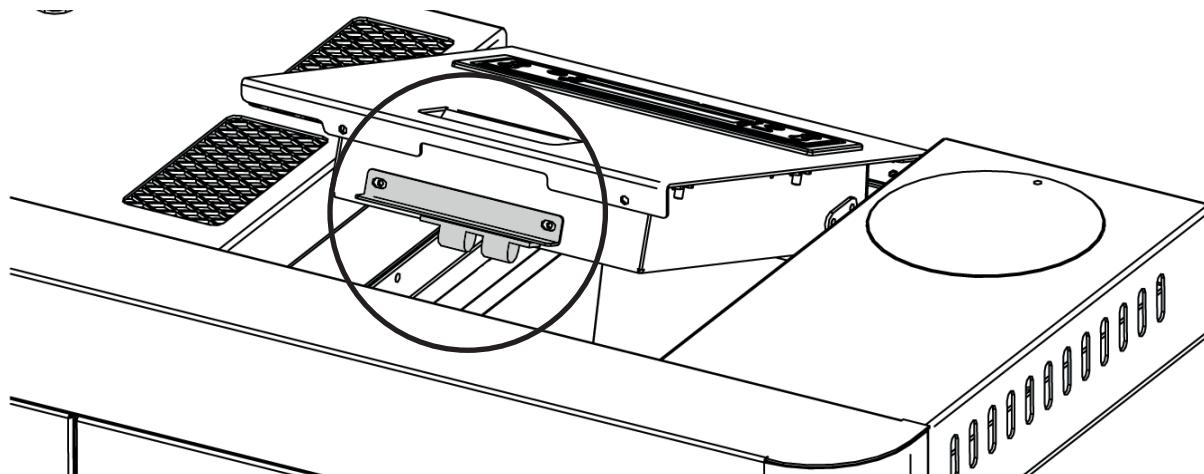
Keep clean



**THE USE OF POOR QUALITY PELLETS OR ANY OTHER MATERIAL DAMAGES THE FUNCTIONS OF THE GENERATOR AND MAY INVALIDATE THE WARRANTY AND RELIEVE THE MANUFACTURER OF ALL RESPONSIBILITY.**

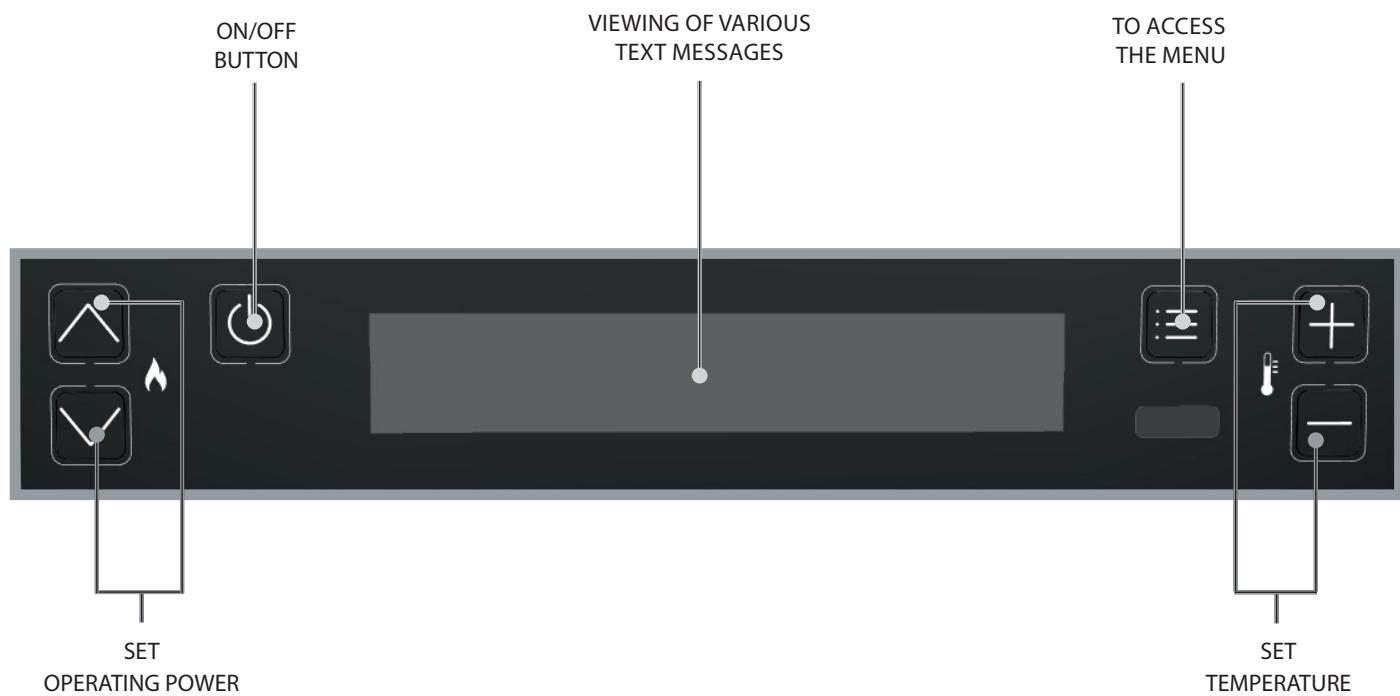
## PELLET TANK - PRESSURE CLOSURE.

During the operation of the stove, the pellet tank cover must always remain closed.



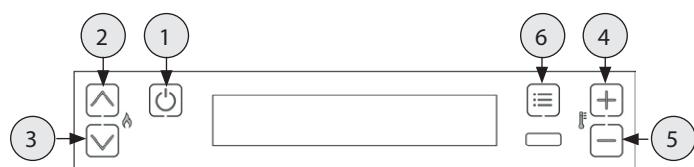
**DO NOT PLACE THE BAG DIRECTLY ON THE STOVE WHEN LOADING THE HOPPER!  
ALWAYS USE A SCOOP TO LOAD THE HOPPER. DO NOT RUB AGAINST OR PLACE WEIGHTS ON THE HOPPER SEAL,  
KEEP THE HOPPER LID SUPPORTING SURFACE CLEAN AT ALL TIMES. CHECK THE CONDITIONS OF THE SEAL  
FREQUENTLY. IN CASE OF DETERIORATION, CONTACT YOUR LOCAL AUTHORISED TECHNICIAN.**

## CONTROL BOARD

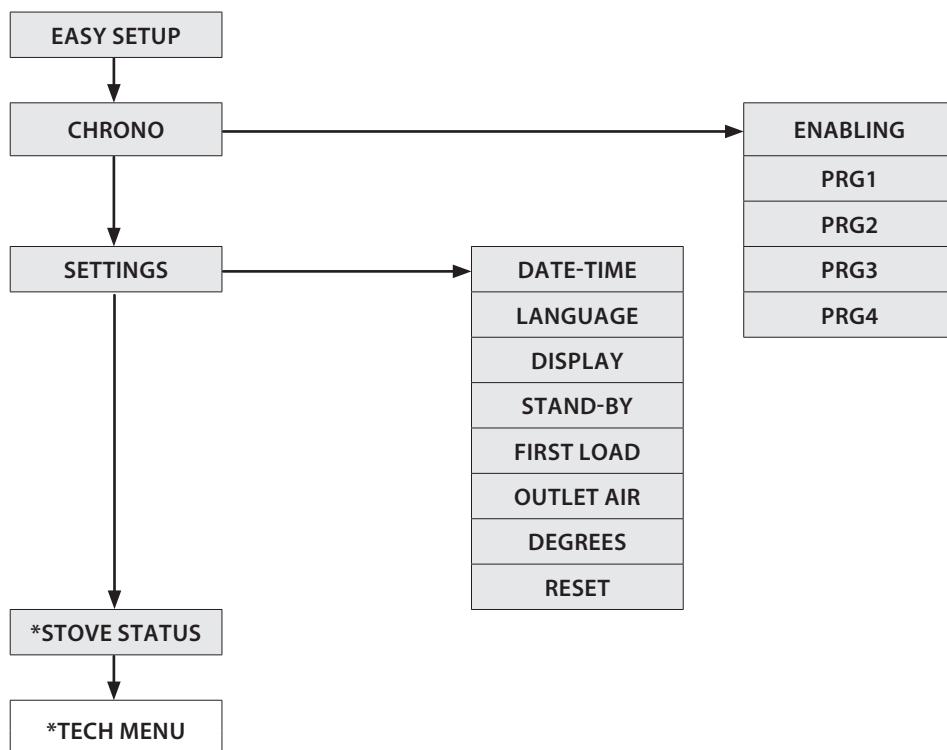


ICON KEY			
	Indicates the presence of an alarm. Off: indicates there are no alarms On: indicates the presence of an alarm		Indicates the weekly programming status Off: deactivated. On: activated.
<b>BT</b>	Not in use	<b>WI-FI</b>	Not in use
	Indicates contact of the external additional thermostat Closed contact: the contact of the external additional thermostat is closed. Open contact: the contact of the external additional thermostat is open.	<b>STBY</b>	<b>STAND BY</b> function icon Off: deactivated. On: activated.
	Indicates the stove power. Flame on: stable power. Flame flashing: the power is increasing or decreasing.		It indicates the operation of the pump. Off : pump stopped. On : pump active. Flashing : electronic anti-condensation function active.
	It indicates the operation of the tangential fan. Off : ventilation not active. On : ventilation active. Flashing: ventilation at reduced speed for compensation.		Not in use

## GENERAL MENU



- (1) Go back - exit
- (2) (3) Scroll parameters: next (2); previous (3)
- (4) (5) Modify data settings: increase (4); decrease (5)
- (6) Confirm - access menu



## GENERAL WARNINGS

### Advice to follow for the first start-ups of the product:

During the first hours of operation, there may be some smoke or odours, but they are due to the normal "thermal break-in" process. During this process, the duration of which changes depending on the product, it is recommended to:

- ◆ Ventilate the room well
- ◆ If present, remove any majolica or natural stone parts from the top of the product
- ◆ Activate the product at the maximum power and temperature
- ◆ Avoid remaining in the room for a long time
- ◆ Do not touch the surfaces of the product

### Notes:

The process is completed after a few heating/cooling cycles. Do not use for the combustion of elements or substances other than those indicated in the manual.

### Before turning on the product, it is necessary to perform the following checks:

- ◆ If it is intended to be connected to a hydraulic system, it must be complete and fully functional and in compliance with the instructions given in the product manual and with the relevant regulations in force.
- ◆ The pellet hopper must be completed loaded
- ◆ The combustion chamber and the burn pot must be clean
- ◆ Make sure that the fire holder, the ash pan and the pellet hopper close hermetically (if present in the hermetic version); they must be closed and there must be no foreign bodies in the sealing elements and gaskets.
- ◆ Check that the power cord is properly connected
- ◆ The switch (if present) must be set to position "1".

The company has an optional additional board that allows the appliance the following further functions when managing the system. The table below indicates the various possibilities that the optional can offer. Contact the dealer for further details. The connection must be made by a qualified technician directly on the board.

DHW Storage Management	✓
Buffer Tank Management	✓
3 heating areas	✓
Instant DHW option	✓
Buffer tank pump or 4th heating area management	✓
Anti-legionella management for DHW storage	✓
DHW storage chrono management	✓
Auxiliary output management and control	✓

## REMOTE CONTROL

The remote control allows you to adjust all the functions that are normally possible with the LCD display. The various functions are outlined in detail in the table below:



<b>1</b>	<b>ON/OFF</b>	Prolonged pressure turns the stove on or off.
<b>2</b>	<b>POWER INCREASE</b>	Increases operating power
<b>3</b>	<b>POWER DECREASE</b>	Decreases operating power
<b>4</b>	<b>T° INCREASE</b>	Increases the SET THERMOSTAT. If included with the model, prolonged pressure enables/disables the comfort function.
<b>5</b>	<b>T° DECREASE</b>	Decreases the SET THERMOSTAT.
<b>6</b>	<b>ENABLES/DISABLES CHRONO</b>	Enables/disables chrono
<b>7</b>	<b>1h</b>	Not in use
<b>8</b>	<b>MENU</b>	Access user menu
<b>9</b>	<b>INCREASE</b>	Increases the value displayed
<b>10</b>	<b>ESC KEY</b>	Exit any program or view, returning to start menu without saving data.
<b>11</b>	<b>BACK</b>	Goes back in display of the various menus
<b>12</b>	<b>CONFIRM KEY</b>	Confirms adjustments made during user menu programming stage
<b>13</b>	<b>FORWARD</b>	Goes forward in the various menus
<b>14</b>	<b>ENABLE F1 FUNCTION</b>	Key pre-configured for future applications
<b>15</b>	<b>DECREASE</b>	Decreases the value displayed
<b>16</b>	<b>STOVE STATUS</b>	Displays the general status of the stove

NB: the numbers shown on the remote control are for information purposes and are not on the remote control supplied with the stove.

## BATTERY TYPE AND REPLACEMENT

The battery is housed in the lower part of the remote control.

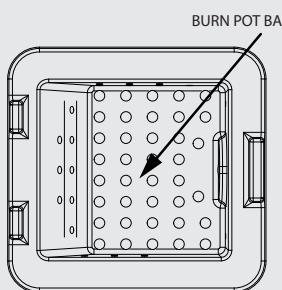
To replace it, extract the battery holder, remove or insert the battery following the symbols printed on the remote control and the battery. One 3V CR2025 lithium coin battery is required to operate the remote control.

Used batteries contain metals that are harmful to the environment, and therefore must be disposed of separately in special containers.

**IF THE REMOTE CONTROL IS SWITCHED OFF DUE TO NO BATTERY INSTALLED, THE STOVE CAN BE CONTROLLED FROM THE COMMAND PANEL LOCATED ON THE UPPER PART OF THE STOVE. WHEN CHANGING THE BATTERY, MAKE SURE YOU FOLLOW THE SYMBOLS PRINTED ON THE INNER SLOT OF THE REMOTE CONTROL.**



**MAKE SURE THAT THE BOTTOM OF THE BURN POT IS FREE FROM RESIDUE AND DEPOSITS. THE HOLES AT THE BOTTOM MUST BE COMPLETELY FREE TO GUARANTEE CORRECT COMBUSTION. IT IS POSSIBLE TO USE THE FUNCTION "EASY SETUP" TO ADAPT COMBUSTION TO THE REQUIREMENTS DESCRIBED.**



## COMMISSIONING SETTINGS

After connecting the power cord at the back of the generator, turn the switch (if any) to position (I). The switch is used to power the heat generator board.

### DATE-TIME

This menu allows the date and time to be set.

#### CONTROLS PROCEDURE

- ◆ Press key 6.
- ◆ Press 3 until **SETTINGS** appears and confirm by pressing 6.
- ◆ Confirm **DATE-TIME** by pressing 6 and using 4 and 5 to set the day.
- ◆ Continue by pressing 6.
- ◆ Use the same procedure with 4 or 5 to choose the setting and 6 to move continue, to set the hour, minutes, date, month and year.
- ◆ Press key 6 to confirm and key 1 to return to the previous menus to the initial state.

### LANGUAGE

This menu allows the preferred language to be selected.

The languages available are: Italiano - English - German - French - Spanish - Portuguese

#### CONTROLS PROCEDURE

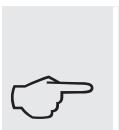
- ◆ Press key 6.
- ◆ Press 3 until **SETTINGS** appears and confirm by pressing 6.
- ◆ Press 3 until **LANGUAGE** appears and confirm by pressing 6.
- ◆ Select the language with keys 4 or 5.
- ◆ Press key 6 to confirm and key 1 to return to the previous menus to the initial state.

### DEGREES

This menu allows you to set the temperature unit of measurement. The value is preset to °C.

#### CONTROLS PROCEDURE

- ◆ Press key 6.
- ◆ Press 3 until **SETTINGS** appears and confirm by pressing 6.
- ◆ Press 3 until **DEGREES** appears and confirm by pressing 6.
- ◆ Use keys 4 and 5 to select Celsius or Fahrenheit.
- ◆ Press key 6 to confirm and key 1 to return to the previous menus to the initial state.



#### NO IGNITION

**THE APPLIANCE MAY FAIL TO LIGHT BECAUSE THE AUGER IS EMPTY AND NOT ALWAYS ABLE TO LOAD THE BURN POT WITH THE NECESSARY QUANTITY OF PELLETS IN TIME TO REGULARLY IGNITE THE FLAME. IF THE PROBLEM OCCURS AFTER ONLY A FEW MONTHS OF OPERATION, CHECK THAT THE ROUTINE CLEANING DESCRIBED IN THE STOVE BOOKLET HAS BEEN CARRIED OUT CORRECTLY.**

## OPERATION AND LOGIC

### IGNITION

Once the points listed previously have been checked, press key 1 for three seconds to ignite the stove. 15 minutes are available for the ignition phase. After ignition and having reached the control temperature, the stove interrupts the ignition phase and passes to STARTING.

### PREPARATION

During the start-up phase, the stove stabilises combustion, increasing it progressively, to then start ventilation and pass on to WORK.

### WORK

During the work phase, the stove reaches the set power set; see following item.

### SET POWER

Set the operating power from 1 to 5 (using keys 2 and 3).

Power 1 = minimum level - Power 5 = maximum level.

### SET H2O

Set the boiler temperature from 65 to 80°C (using keys 4 and 5).

### PUMP OPERATION

The pump activates water circulation when the t° of the water inside the stove reaches approx. 60°C. As the pump always functions above 60°, it is recommended to keep a heating area open at all times to allow for uniform operation, preventing blocks due to overheating. Normally this area is defined as the "safety zone".

### BLOW

During the working phase, the stove has an internal timer, which after a pre-set period of time cleans the burn pot.

This phase is shown on the display, it lowers the stove power level and increases the flue gas exhaust motor for a programmed period of time.

When the cleaning phase is finished, the stove will re-start automatically and continue the working phase, returning to the selected power level.

### MODULATION and H-OFF

As the water temperature approaches the set point, the boiler starts to modulate automatically bringing itself to the minimum power. If the temperature increases beyond the set point, it will automatically switch off indicating H-OFF, and will automatically go back on when the temperature drops below the set point.

### SWITCH-OFF

Press key 1 for three seconds.

Once this operation has been performed, the appliance automatically enters the switch-off phase, blocking the supply of pellets.

**The flue gas exhaust motor and the hot air flow motor will remain on until the stove temperature has dropped below the default parameters.**

### RE-IGNITION

The stove can only be re-ignited automatically or manually when the cooling cycle conditions and the preset timer have been satisfied.

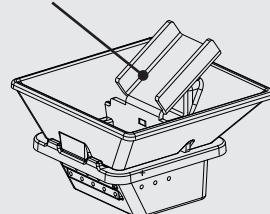


**DO NOT USE ANY INFLAMMABLE LIQUIDS FOR IGNITION!  
DO NOT ALLOW THE BAG OF PELLETS TO COME INTO CONTACT WITH THE BOILING HOT STOVE DURING THE FILLING PHASE!  
IN THE EVENT OF CONTINUED FAILURE TO LIGHT, CONTACT AN AUTHORISED TECHNICIAN.**



**IT IS PROHIBITED TO USE THE APPLIANCE WITHOUT THE PARTITION AND/ OR FLAME GUARD (SEE FIGURE ON SIDE). REMOVAL WILL COMPROMISE THE SAFETY OF THE PRODUCT AND RESULT IN THE IMMEDIATE NULLIFICATION OF THE WARRANTY PERIOD. IN THE CASE OF WEAR OR DETERIORATION, REQUEST AFTER-SALES ASSISTANCE FOR REPLACEMENT OF THE PART (REPLACEMENT THAT IS NOT UNDER GUARANTEE AS THE COMPONENT IS SUBJECT TO WEAR).**

Upper BURN POTPARTITION



## ADDITIONAL THERMOSTAT

### **N.B. : INSTALLATION MUST BE PERFORMED BY AN AUTHORISED TECHNICIAN**

There is a possibility to control the temperature of a room adjacent to the room where the stove has been placed; simply connect a thermostat following the procedure described in the following section (it is advisable to place the optional mechanical thermostat at a height from the ground equal to 1.50m). Stove operation with the external thermostat connected in the clamp TA can be different depending on the activation or deactivation of the STAND-BY function.

**By factory default, the clamp TA is jumpered, therefore it always has closed contact (on request).**

### **ADDITIONAL THERMOSTAT FUNCTIONING WITH STAND-BY ACTIVE**

When the STAND-BY function is active, the STBY icon will be on. When the contact or external thermostat is not satisfied (open contact / temperature reached), the stove will switch off. As soon as the contact or external thermostat switches to the "not satisfied" status (closed contact / temperature to be reached) it will re-ignite.

**NB: stove operation depends on the temperature of the water inside the stove and relative factory setting restrictions. If the stove is in H-OFF (water temperature reached), any additional contact or thermostat request will be ignored.**

### **ADDITIONAL THERMOSTAT OPERATION WITH STAND-BY DEACTIVATED**

When the STAND-BY function is not active, the STBY icon will be off.

When the contact or external thermostat is satisfied (open contact / temperature reached), the stove will go to minimum. As soon as the contact or external thermostat switches to the "not satisfied" status (closed contact / temperature to be reached) the stove will start to work again at the pre-set power.

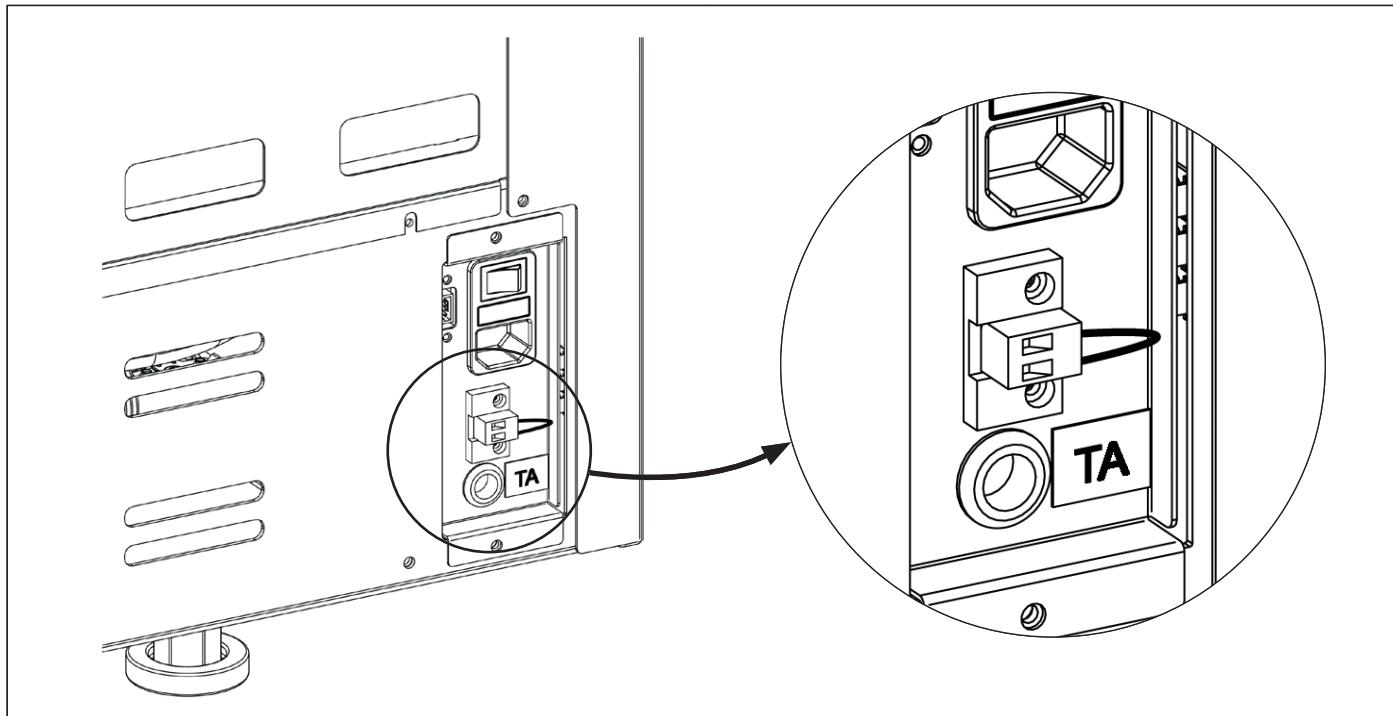
**NB: stove operation depends on the temperature of the water inside the stove and relative factory setting restrictions. If the stove is in H-OFF (water temperature reached), any additional contact or thermostat request will be ignored.**

### **ADDITIONAL THERMOSTAT INSTALLATION**

- ◆ A mechanical or digital thermostat with a "normally open" input is required.
- ◆ Remove the plug from the socket.
- ◆ Using the figure to the side as a reference, connect the two thermostat cables (clean contact - no 230 V!).
- ◆ Connect the power to the stove again.



**TO ACTIVATE STAND-BY, REFER TO THE "SETTINGS" CHAPTER**



## EASY SETUP

The volumetric weight of the pellet is the ratio between the weight and the volume of the pellet. This ratio may change while keeping the quality of the pellet unchanged. By using the EASY SETUP function, it is possible to dose the pellets by increasing or decreasing the preset values.

In the stove program, the available values go from “- 3” to “+ 3”; all stoves are calibrated during production with the optimal value which is 0

If you notice an excessive deposit on the burning pot, access the EASY SETUP program and lower the value to “- 1”; then wait until the next day and if there is no improvement, decrease again, to a maximum of “- 3”.

If, on the other hand, it is necessary to increase the pellet dosage, switch the factory value from "0" to "+ 1, + 2, + 3" as required.

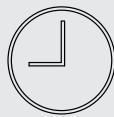
EXCESSIVE PELLET DEPOSIT IN THE BURNING POT			NORMAL OPERATION	MINIMUM PELLET DEPOSIT IN THE BURNING POT		
-3	-2	-1	0	+1	+2	+3
THIRD DECREASE RANGE IF THE FIRST TWO ARE NOT ENOUGH	SECOND DECREASE RANGE IF THE FIRST IS NOT ENOUGH	FIRST DECREASE RANGE (TEST FOR 1 DAY)	OPTIMAL FACTORY VALUE	FIRST INCREASE RANGE	SECOND INCREASE RANGE IF THE FIRST IS NOT ENOUGH	THIRD INCREASE RANGE IF THE FIRST TWO ARE NOT ENOUGH

### CONTROLS PROCEDURE

- Press key 6.
- Press key 3 until **EASY SETUP** appears and confirm by pressing key 6.
- Use keys 4 and 5 to set the range.
- Press key 6 to confirm and key 1 to return to the previous menus to the initial state.

**N.B.: IF THIS CALIBRATION DOES NOT SOLVE THE PELLET DEPOSIT IN THE BURN POT, PLEASE CONTACT YOUR LOCAL AFTER-SALES CENTRE.**

## CHRONO



This function allows the stove's ignition and switch-off to be automatically programmed.  
The factory setting for **CHRONO** is off.

The chrono allows the programming of 4 time slots within a day, which can be used every day of the week.

**Ignition and switch-off times can be set for each time slot, along with the specific days of application for the programmed time slot, the desired temperature and power setting.**

**Current day and time settings are essential for the correct operation of the Chrono.**

### Recommendations

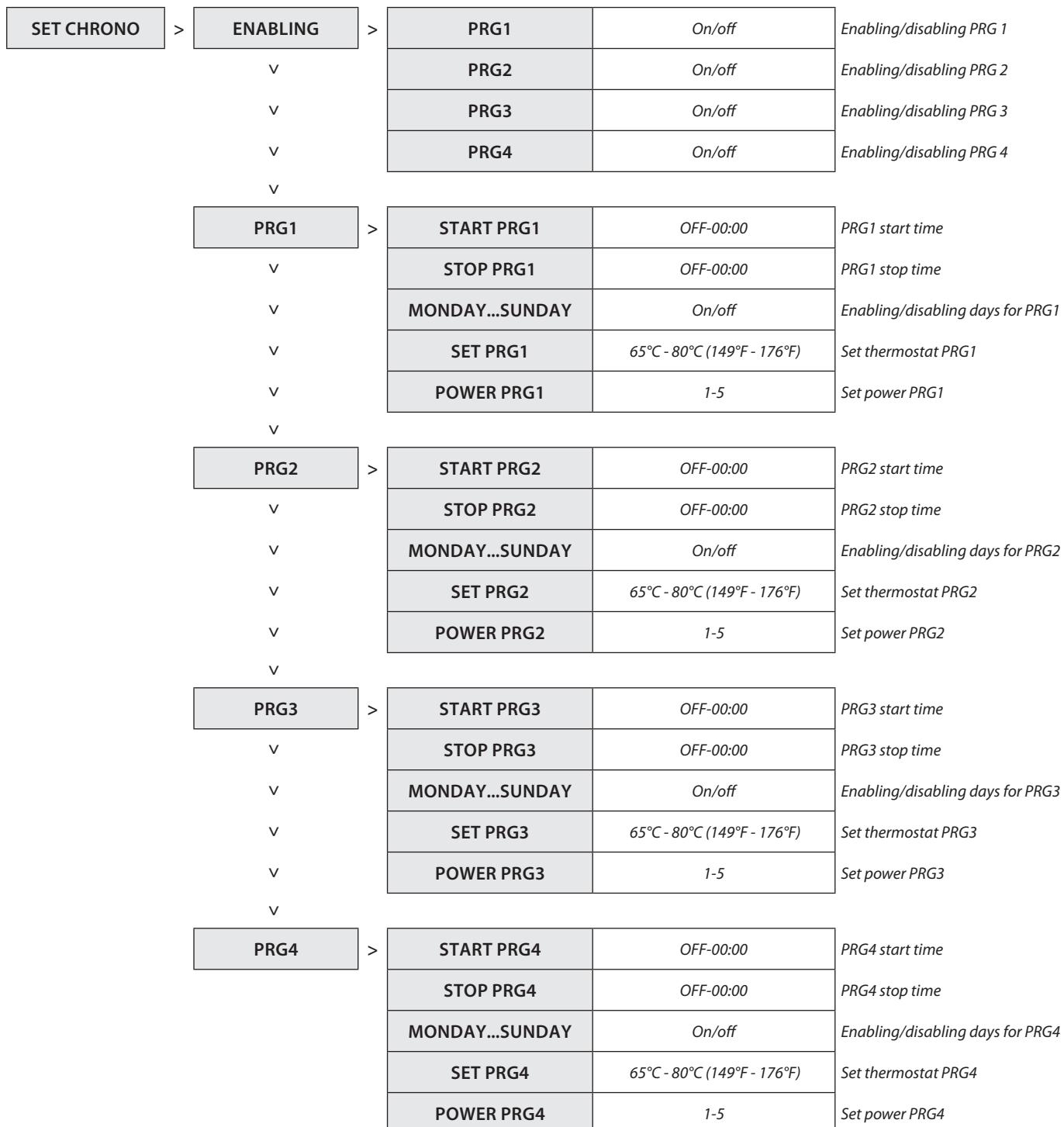
Before using the chrono function, you must set the current day and time, so check that you have followed the points listed in the sub-chapter “DATE-TIME”. To use the chrono function correctly, you must activate it as well as program it. The four time slots can be overlapped using the time switch on and off settings. This allows you to obtain a combination of times in which you can set different temperatures and power without influencing the stove work status.

**NB: if overlapping time slots are set, the stove will stay on until the latest switch-off time.**

## ENABLING/DISABLING THE CHRONO

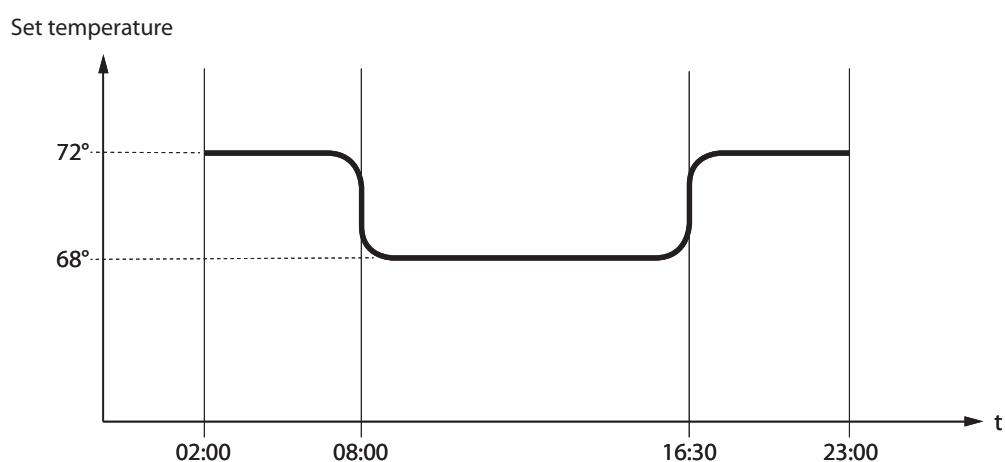
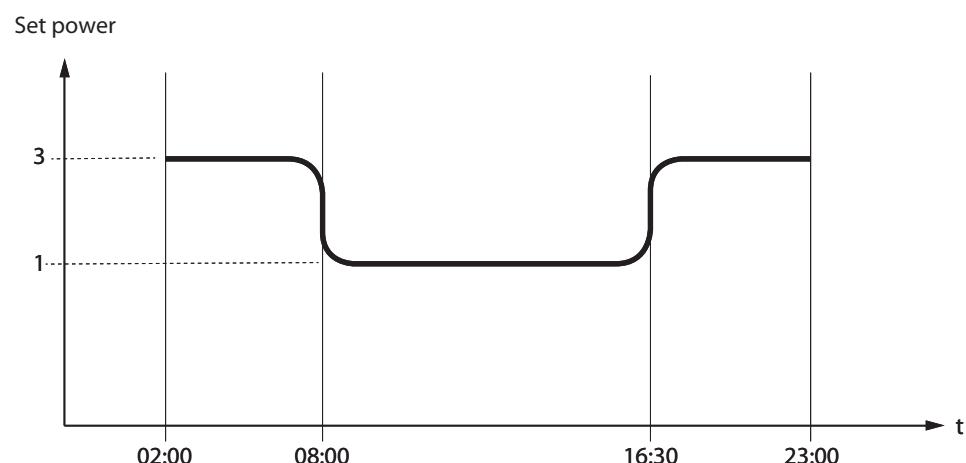
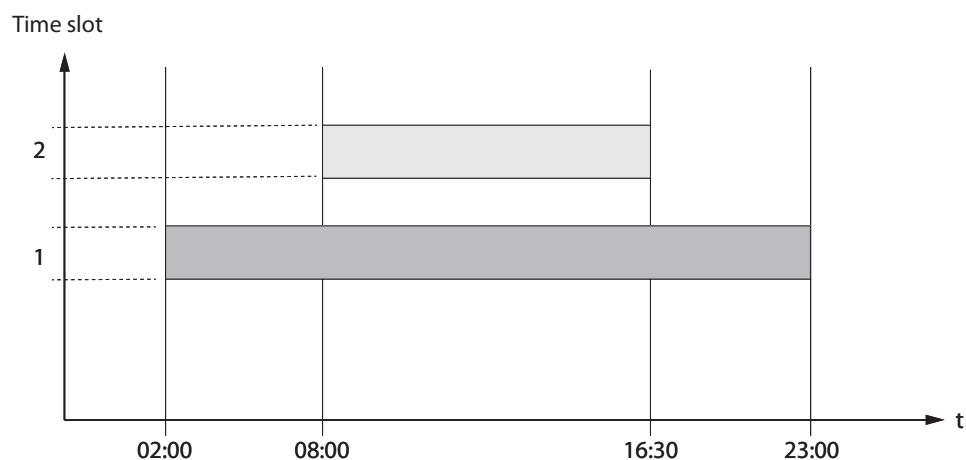
## CONTROLS PROCEDURE

- Press key 6.
- Press key 3 until **CHRONO** appears and confirm by pressing key 6.
- Confirm **ENABLING** with key 6.
- Use keys 4 and 5 for enabling (**ON**) or disabling (**OFF**)
- Press key 6 to confirm and key 1 to return to the previous menus to the initial state.



**IF WEEKLY PROGRAMMER IS ACTIVE ON THE COMMAND PANEL, A SMALL ICON IS DISPLAYED.**



**EXAMPLE OF CHRONO OVERLAPPING TIME/SLOTS**


	Time slot 1	start 02:00 stop 23:00	power 3 - set temp 72°C
	Time slot 2	start 08:00 stop 16:30	power 1 - set temp 68°C
	stove operation		

## SETTINGS

- **DATE-TIME**
- **LANGUAGE**
- **SET DEGREES**

*SEE CHAPTER: COMMISSIONING SETTINGS.*

### DISPLAY

This menu allows you to adjust the brightness of the display. The values range from OFF, 1 to 20. If set to OFF, the display backlighting is set to maximum brightness and then, turns off after a 60 second delay.  
The backlighting can be turned on again by pressing any key or if the stove is in alarm status.

#### CONTROLS PROCEDURE

- ◆ Press key 6.
- ◆ Press 3 until **SETTINGS** appears and confirm by pressing 6.
- ◆ Press key 3 until **DISPLAY** appears and confirm by pressing key 6.
- ◆ Use keys 4 and 5 to set the brightness (**SET**)
- ◆ Press key 6 to confirm and key 1 to return to the previous menus to the initial state.

### STAND - BY

The **STAND-BY** function, if enabled, is used to turn the stove via an additional thermostat.

#### CONTROLS PROCEDURE

- ◆ - Press key 6.
- ◆ - Press key 3 until **SETTINGS** appears and confirm by pressing key 6.
- ◆ - Continue by pressing key 3 until **STAND-BY** appears and confirm by pressing key 6.
- ◆ - Use keys 4 and 5 for enabling (ON) / disabling (OFF).
- ◆ - Press key 1 several times to confirm and exit the menu.

### FIRST LOAD

This function allows to fill the auger, facilitating the phases of the first start-up of the stove, or in the event that the pellet tank is empty. With the stove cold and "OFF", make sure the pellet has been introduced inside the tank and activate the **FIRST LOAD** function, confirming with OK.

To interrupt continuous loading, simply press key 1 for 3 seconds.

#### CONTROLS PROCEDURE

- ◆ Press key 6.
- ◆ Press key 3 until **SETTINGS** appears and confirm by pressing key 6.
- ◆ Press key 3 until **FIRST LOAD** appears and confirm by pressing key 6.
- ◆ Use keys 4 and 5 for enabling "ON" or disabling "OFF"
- ◆ Press key one several times to confirm and exit the menu.

## OUTLET AIR

This function allows any air in the stove to be discharged. By activating the pump function, it will be powered alternatively with 30 second work phases and 30" stop for 15 minutes. With the stove cold and in "OFF", activate the **OUTLET AIR** function, pressing key 6 to confirm. To interrupt, press and hold key 1 for 3 seconds.

Warning: before activating the "outlet air" function, be sure to have opened the vent screw of the manual relief valve.

## CONTROLS PROCEDURE

- ◆ Press key 6.
- ◆ Press 3 until **SETTINGS** appears and confirm by pressing 6.
- ◆ Press key 3 until **OUTLET AIR** appears and confirm by pressing key 6.
- ◆ Use keys 4 and 5 for enabling “ON” or disabling “OFF”
- ◆ Press key one several times to confirm and exit the menu.

## RESET

Allows the user to reset all modifiable values to the default values.

## CONTROLS PROCEDURE

- Press key 6.
- Press 3 until **SETTINGS** appears and confirm by pressing 6.
- Press key 3 until **RESET** appears and confirm by pressing key 6.
- Use keys 4 and 5 for enabling “ON” or disabling “OFF”
- Press key one several times to confirm and exit the menu.

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## CLEANING AND MAINTENANCE

### ALWAYS FOLLOW THE INSTRUCTIONS IN COMPLETE SAFETY!

- ◆ Make sure that the power cord is unplugged because the generator may have been programmed to switch on.
- ◆ That the generator is cold all over.
- ◆ That the ashes are completely cold.
- ◆ Ensure efficient air exchange in the room during the product cleaning operations.
- ◆ Poor cleaning will compromise correct operation and safety!

## MAINTENANCE

For correct operation, the generator must undergo routine maintenance by a qualified technician, at least once a year. The periodic inspection and maintenance operations must always be performed by specialised, qualified technicians, who operate in accordance with the laws in force and the instructions given in this use and maintenance manual.



**FUMES FROM BLOCKED FLUES ARE DANGEROUS!!**

**KEEP THE CHIMNEY AND FLUE CLEAR AND CLEAN IN ACCORDANCE WITH THE INSTRUCTIONS.**

**EVERY YEAR, HAVE THE FUME EXTRACTION SYSTEM, FLUE PIPES AND T-FITTINGS, INCLUDING THE INSPECTION CAPS, CLEANED. IF PRESENT, ALSO CLEAN THE ELBOWS AND HORIZONTAL SECTIONS!**

**THE GENERATOR CLEANING FREQUENCY IS INDICATIVE! IT DEPENDS ON THE QUALITY OF THE PELLETS AND FREQUENCY OF USE.**

**THESE OPERATIONS MAY SOMETIMES NEED TO BE PERFORMED MORE OFTEN**

## PERIODIC CLEANING UNDER USER'S RESPONSIBILITY

The periodic cleaning operations, as indicated in this use and maintenance manual, must be performed with the utmost care after reading the instructions, procedures and frequency described in this use and maintenance manual.

### CLEANING THE SURFACES AND COVERING

#### Never use abrasive or chemically aggressive detergents for cleaning!

The surfaces must be cleaned when the generator and coating are completely cold. For the maintenance of the surfaces and metal parts, simply use a cloth dampened with water or water and neutral soap.

Failure to comply with these instructions may damage the surfaces of the generator and cause the invalidation of the warranty.

### CLEANING THE CERAMIC GLASS

#### Never use abrasive or chemically aggressive detergents for cleaning!

The ceramic glass must be cleaned when the glass is completely cold.

To clean the ceramic glass, simply use a dry brush and some damp newspaper dipped in ash. If the glass is very dirty, use a specific cleaning agent for ceramic glass. Spray a small amount on a cloth and use it on the ceramic glass. Do not spray the cleaning agent or any other liquid directly on the glass or seals!

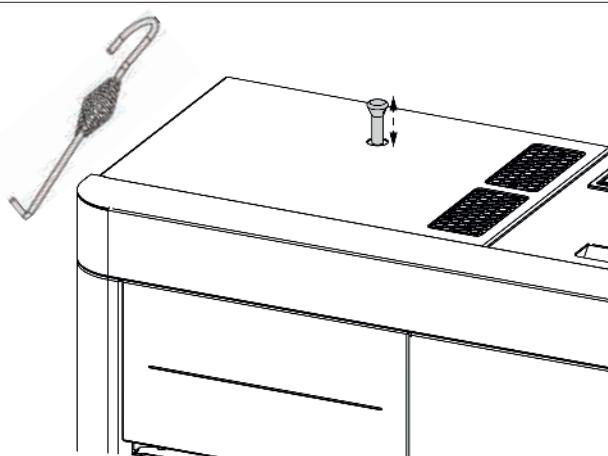
Failure to comply with these instructions may damage the surfaces of the generator and cause the invalidation of the warranty

### CLEANING THE PELLET HOPPER

When the hopper is completely empty, disconnect the generator power cord, remove any residue (dust, debris, etc.) from the empty hopper before filling it up.

#### SCRAPERS:

The heat exchangers must be cleaned only when the generator is cold, using the poker supplied. Cleaning ensures constant heat output over time. This type of maintenance must be carried out at least once a day. To do this, use the scraper positioned in the upper part of the generator, making upward and downward movements several times.



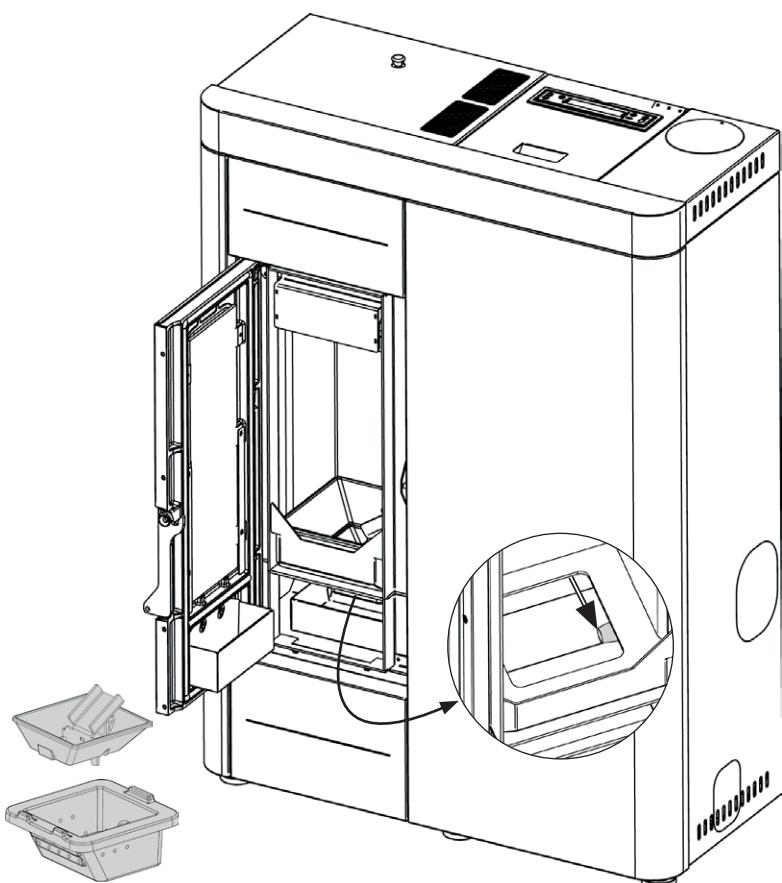
THE IMAGES ARE FOR ILLUSTRATIVE PURPOSES ONLY.

## BURN POT AND COMBUSTION CHAMBER:

- ♦ Remove the pellet chute assembly completely, emptying any ash residue from the burn pot below.
- ♦ Remove the burn pot, emptying any ash residue from the ash drawer below.
- ♦ Suck the ash of the combustion chamber and spark-plug pipe holder.
- ♦ Release all holes present in the burn pot using the poker supplied.
- ♦ Re-position the burn pot in its seat and push it towards the fire wall.
- ♦ Replace the pellet chute assembly on the burn pot.

Make sure that the burn pot and pellet chute have been replaced correctly!

*NOTE: Use a suitable ash aspirator with a special separate container for the ashes collected*



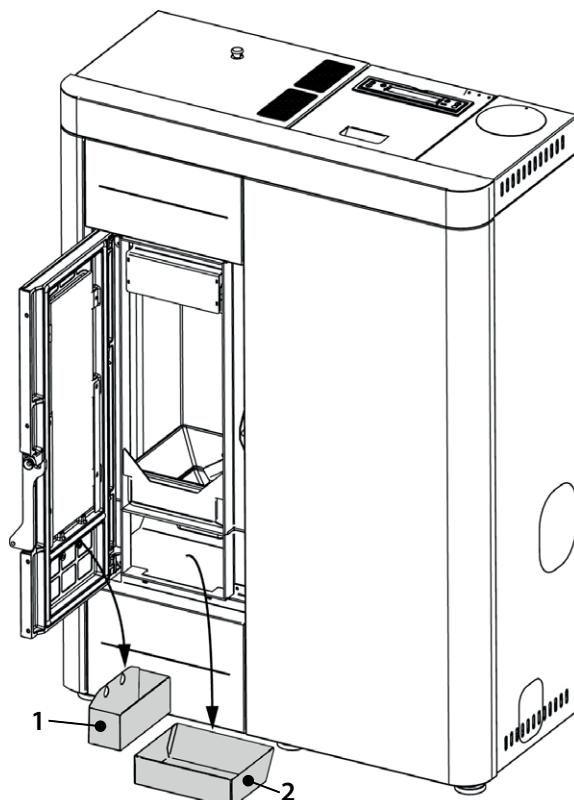
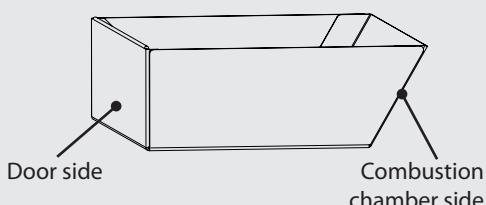
## ASH DRAWER 1:

- ♦ Remove the ash drawer and empty it out into a container.
- ♦ Reposition the ash drawer.

## ASH DRAWER 2:

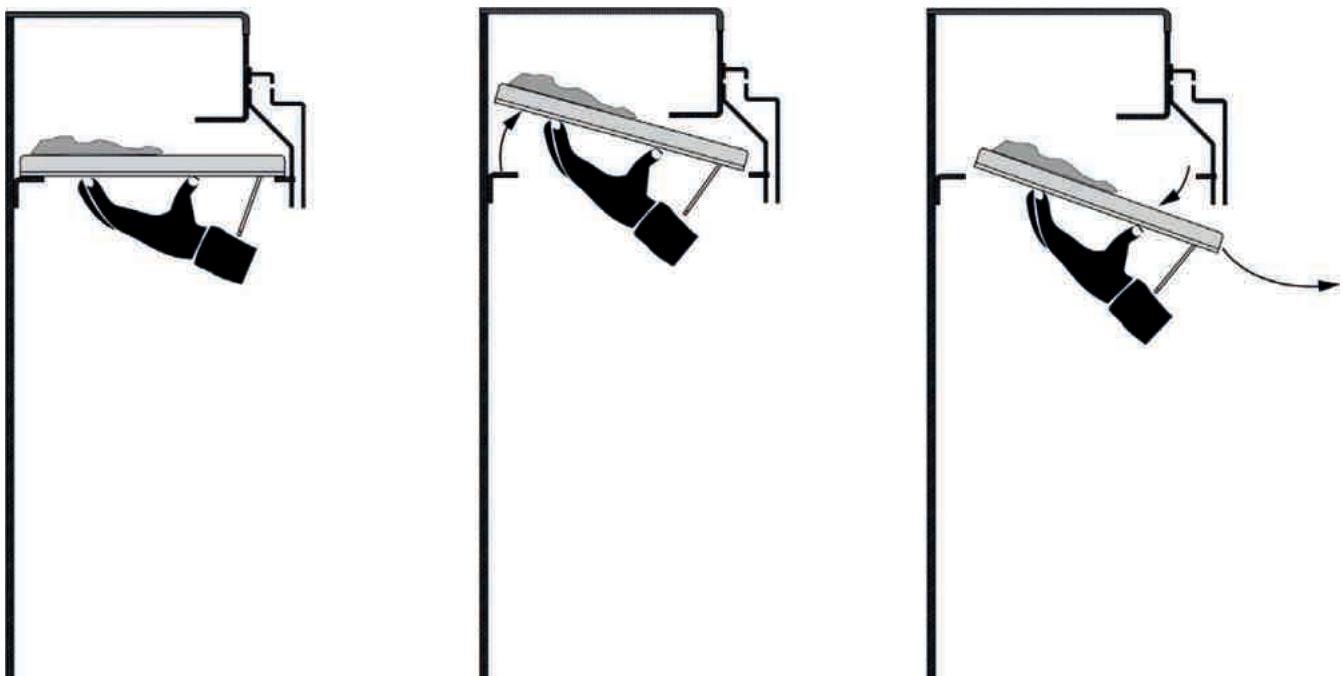
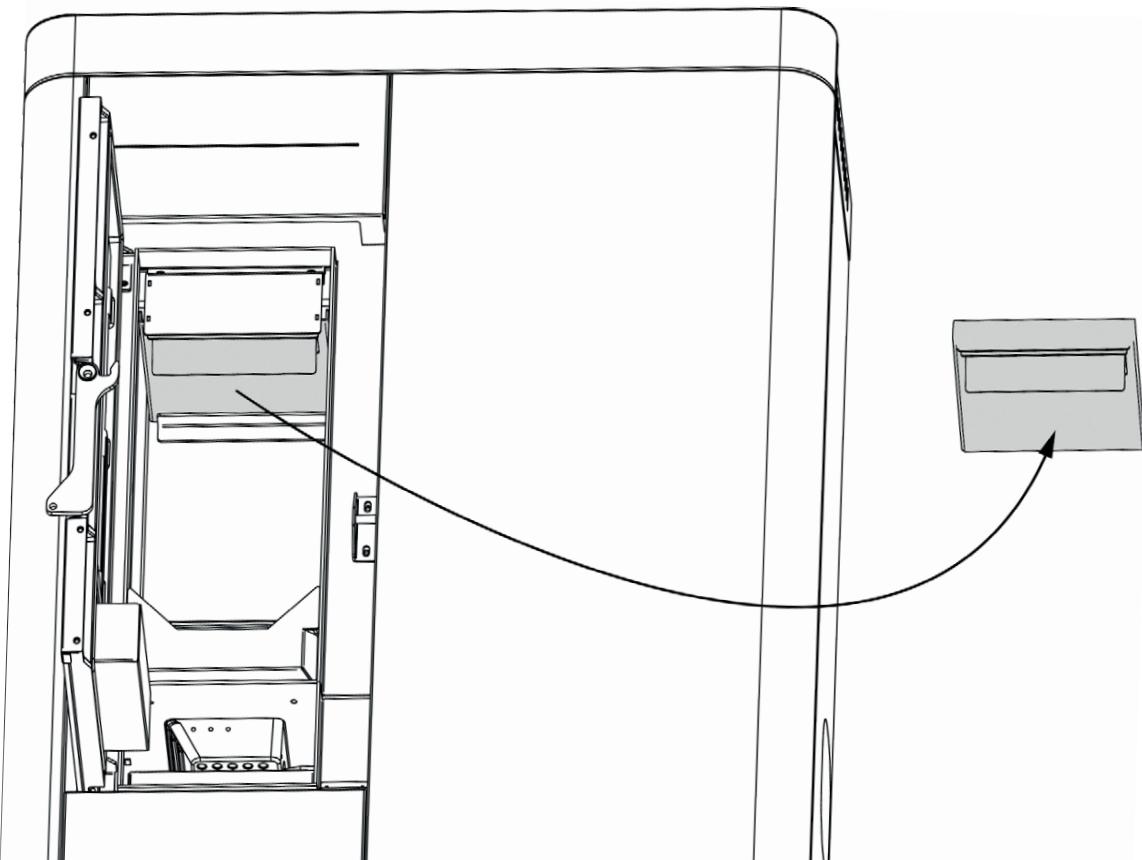
- ♦ Remove the ash drawer and empty it out into a container.
- ♦ Clean the ash drawer compartment.
- ♦ Reposition the ash drawer.

Note ash drawer 2:



**CLEANING THE COMBUSTION CHAMBER DEFLECTOR**

Remove the deflector and eliminate the ash deposited in the upper part of the deflector.





THE GASKETS FOR THE PELLET HOPPER, BURN POT AND FIRE DOOR ENSURE THAT THE STOVE WORKS PROPERLY. IT IS NECESSARY TO PERIODICALLY CHECK THEM; IF THEY SEEM TO BE WORN OR DAMAGED, THEY MUST BE REPLACED IMMEDIATELY.

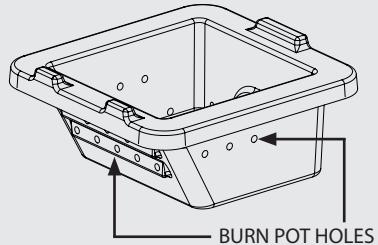
THESE OPERATIONS MUST BE CARRIED OUT BY A QUALIFIED TECHNICIAN.



#### A CLEAN BURN POT GUARANTEES CORRECT OPERATION!

BY MAKING SURE THE BURN POT AND ITS HOLES ARE ALWAYS CLEAN FROM ANY COMBUSTION RESIDUE, EXCELLENT COMBUSTION BY THE GENERATOR IS GUARANTEED OVER TIME, PREVENTING ANY MALFUNCTIONING THAT COULD REQUIRE TECHNICIAN INTERVENTIONS.

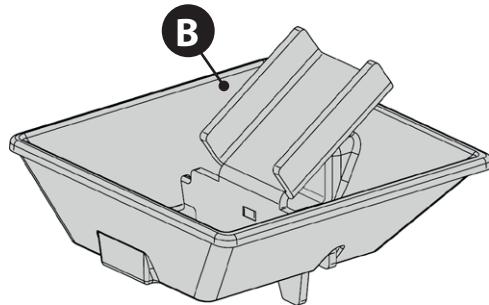
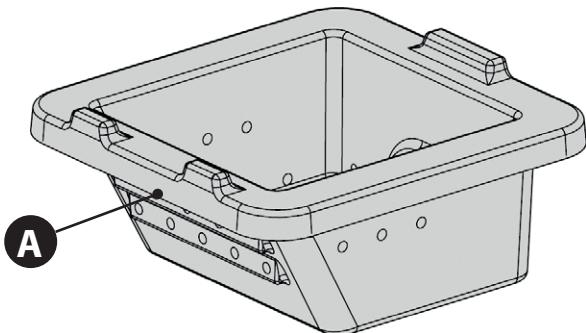
THE "EASY SETUP" FUNCTION IN THE USER MENU CAN BE USED TO ADAPT COMBUSTION ON THE BASIS OF THE NEEDS DESCRIBED.



#### BURN POT DETAIL

The burn pot consists of several parts:

The burn pot (A) where combustion takes place physically and a pellet chute assembly (B).

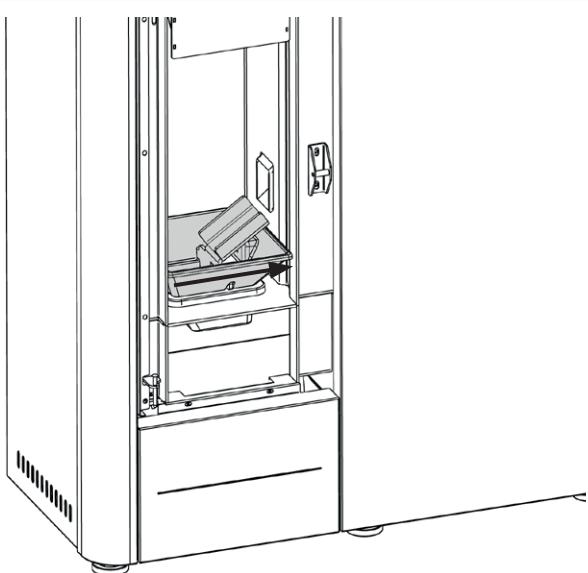
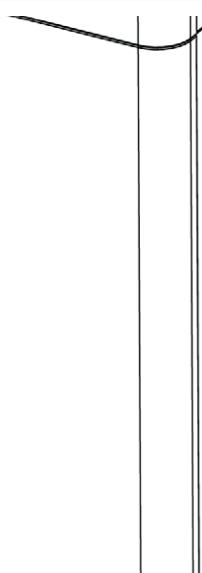
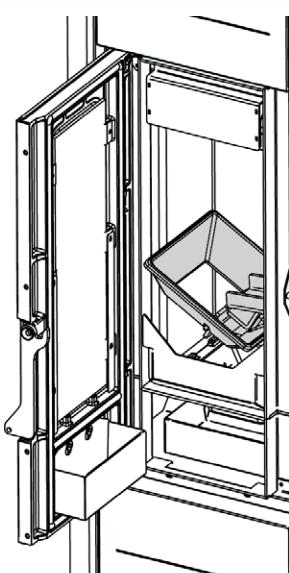


When cleaning and removing the burn pot, remove the pellet chute assembly (B) by lifting it (see figure).

Perform the same operation in reverse order to re-assemble.

After having re-positioned, always make sure:

- that the pellet chute assembly rests correctly on the burn pot and not on any other surface of the combustion chamber.
- that the chute assembly has been pushed towards the fire wall (D) (to the right).



PARTS	FREQUENCY IN DAYS
SCRAPERS (USER)	1
BURN POT (USER)	1
COMBUSTION CHAMBER (USER)	1
ASH DRAWER 1 (USER)	4
ASH DRAWER 2 (USER)	7
COMBUSTION CHAMBER DEFLECTOR (USER)	30
T-SHAPED FITTING / SMOKE DUCT (QUALIFIED TECHNICIAN)	30

One day means an average use of 8h at the rated power.

How often the ash drawer is emptied depends on a number of factors: the type of pellets, the stove output, the use of the stove and the type of installation.



**THE PELLET HOPPER GASKETS, BURN POT AND FIRE DOOR GUARANTEE CORRECT STOVE OPERATION. THEY MUST BE PERIODICALLY CHECKED BY THE USER. IF THEY ARE WORN OR DAMAGED, DO NOT USE THE STOVE UNTIL THEY HAVE BEEN REPLACED.**

**THESE OPERATIONS MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.**



**IF THE POWER CORD IS DAMAGED, IT MUST BE REPLACED BY THE SERVICE CENTRE OR BY A SIMILARLY QUALIFIED PERSON, SO AS TO AVOID ALL RISKS.**

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## ROUTINE MAINTENANCE PERFORMED BY QUALIFIED TECHNICIANS

### Routine maintenance must be performed at least once a year.

Since the generator uses pellets as solid fuel, it requires annual routine maintenance, which must be performed by a **Qualified technician, using only original spare parts.**

Failure to comply may jeopardise the safety of the appliance and invalidate the warranty conditions.

By observing the cleaning schedule reserved to the user described in the use and maintenance manual, the generator will be guaranteed correct combustion over time, thus preventing any faults and/or malfunctions which may require subsequent technical assistance. Requests for routine maintenance are not covered by the warranty.

### GASKETS, PELLET HOPPER LID, DOOR, ASH DRAWER AND BURN POT, INSPECTION OF SMOKE DUCTS

The gaskets ensure the proper sealing of the stove and therefore its proper operation.

They must be periodically checked by the user. If they are worn or damaged, do not use the stove until they have been replaced. These operations must be carried out by a qualified technician.

### CONNECTION TO THE FLUE

Annually, or in any case each time the flue pipe needs to be vacuumed and cleaned. If there are horizontal sections, the residue must be removed to prevent it from obstructing the flow of fumes.

### SHUT-DOWN (END OF SEASON)

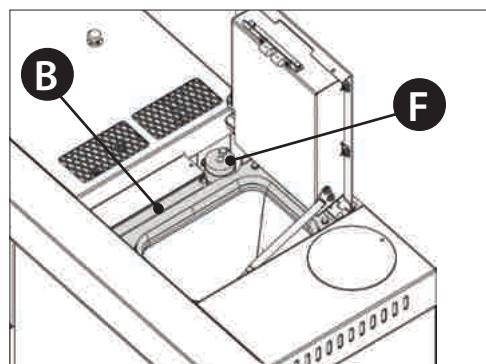
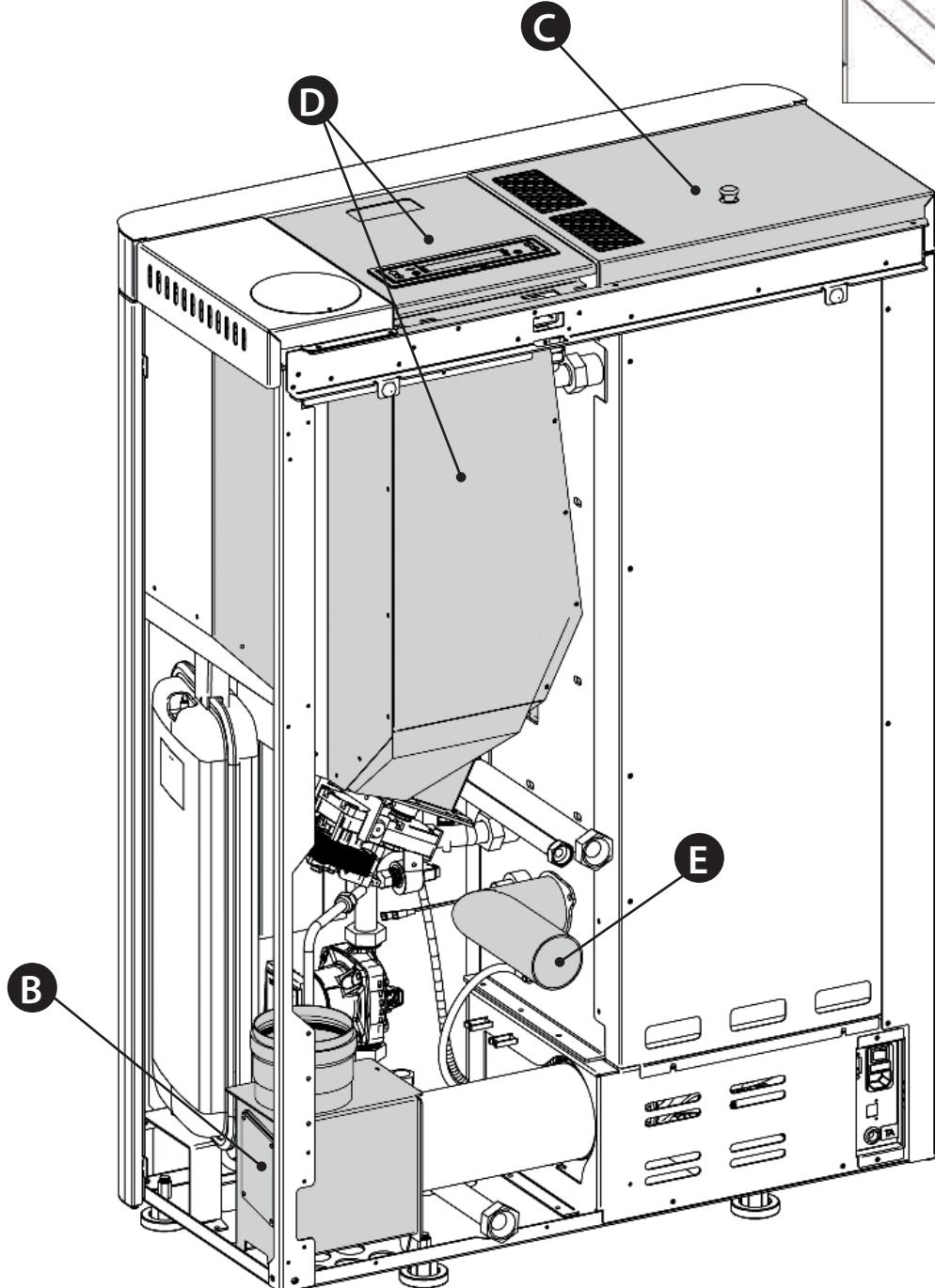
At the end of each season, before turning the stove off, it is advisable to completely empty the pellet hopper, removing any pellet residue and dust with a vacuum cleaner.

**Routine maintenance must be performed at least once a year.**

THE IMAGES ARE FOR ILLUSTRATIVE PURPOSES ONLY.

## ROUTINE MAINTENANCE

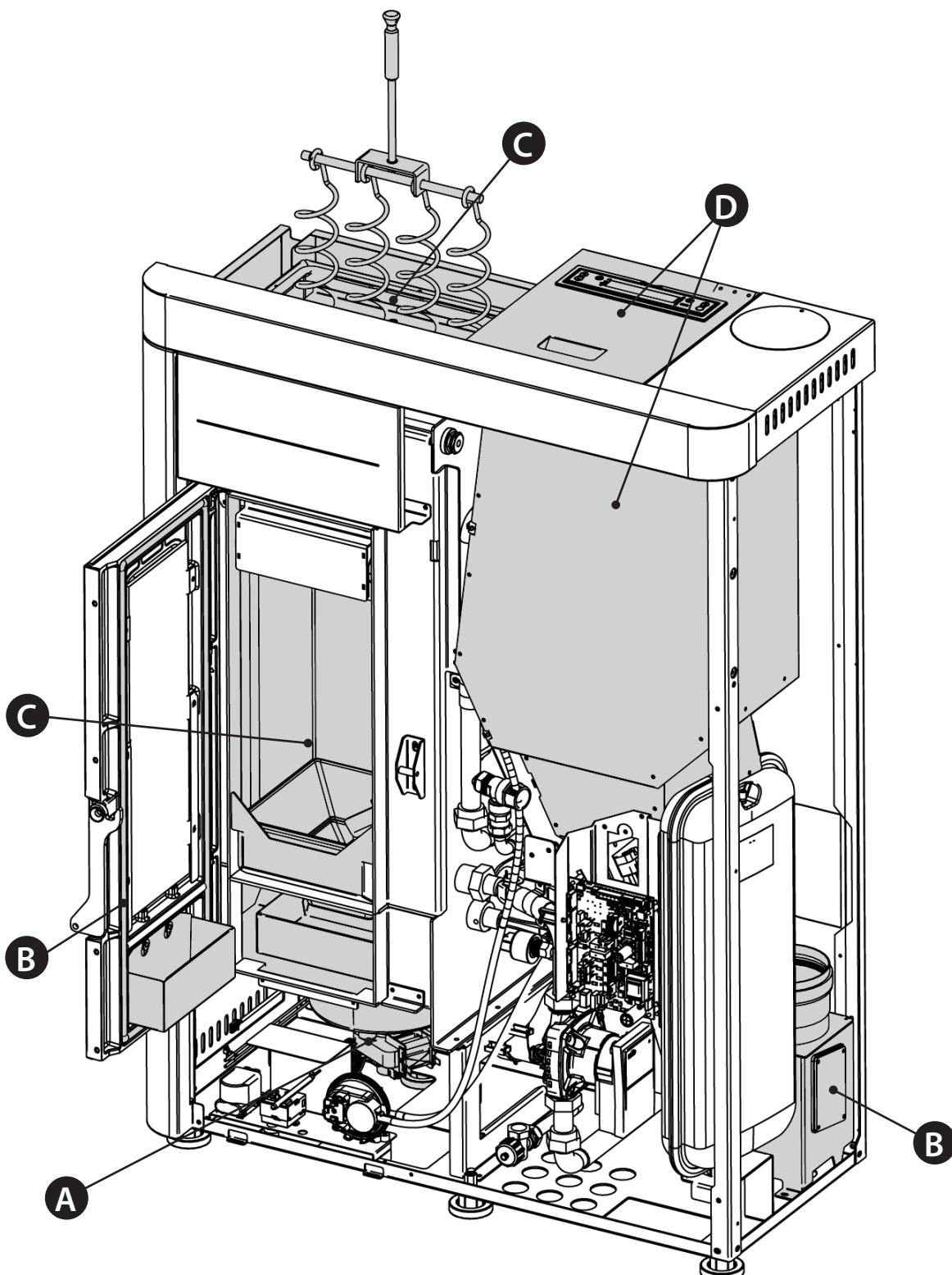
THE IMAGES ARE FOR ILLUSTRATIVE PURPOSES ONLY.



<b>A</b>	Fumes motor (disassembly and cleaning and fumes and "T" pipes), new silicone in the points envisioned
<b>B</b>	Inspections of gaskets, pellet hopper, ash drawer and door (replace them and apply silicone where envisioned)
<b>C</b>	Combustion chamber and heat exchanger (full cleaning) including ignition-plug pipe
<b>D</b>	Hopper (complete emptying and cleaning) and check gasket.
<b>E</b>	Check air intake pipe and cleaning of the flow sensor
<b>F</b>	Manual relief valve

## ROUTINE MAINTENANCE

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<b>E</b>	Check air intake pipe and cleaning of the flow sensor
<b>F</b>	Manual relief valve

## DISPLAYS

DISPLAY	REASON
<b>OFF</b>	Generator off
<b>START</b>	The start-up phase is in progress
<b>PELLET FEEDING</b>	Continuous pellet feeding is in progress during the ignition phase
<b>IGNITION</b>	The ignition phase is in progress
<b>PREPARATION</b>	The <b>preparation</b> phase is in progress
<b>WORK</b>	The normal work phase is in progress
<b>MODULATION</b>	The generator is working at minimum
<b>BLOW</b>	The automatic blow is active
<b>FINAL CLEANING</b>	The final cleaning is in progress
<b>STAND-BY</b>	Generator off waiting for re-ignition due to an external thermostat
<b>COOLING WAITING</b>	A new ignition is attempted when the generator has just been switched off. When the generator switches off, one must wait for the complete shutdown of the fumes motor, then clean the burn pot. The generator can only be re-ignited when these operations have been performed.
<b>H-OFF</b>	Generator off due to water temperature over set
<b>T - OFF</b>	Generator off waiting for re-ignition due to all requests met
<b>BLACK OUT WAITING</b>	The generator is cooling after a power cut. Once cooling is completed, it will re-start automatically
<b>ANTI-FREEZE</b>	The anti-freeze function is in progress as the H <sub>2</sub> O temperature is below the factory set threshold the pump is active until the water reaches the pre-set factory parameter +2°C
<b>ANTI-BLOCK</b>	The pump anti-block function is in progress (only if the generator has been in an OFF state for at least 96 hours); the pump is activated for the time pre-set by the manufacturer, in order to prevent it from blocking

## ALARMS

DISPLAY	EXPLANATION	SOLUTION
	Indicates the presence of an alarm.	On: indicates the presence of an alarm. Flashing: indicates the deactivation of the depression sensor The alarm can only be reset if the fumes motor has stopped and 15 minutes have passed since the alarm was displayed, by pressing key 1/  for 3 seconds.
<b>FUMES MOTOR FAULT</b>	Fumes motor fault	Contact after-sales centre
<b>FUMES PROBE</b>	Flue gas probe fault.	Contact after-sales centre
<b>CHAMBER PROBE</b>	Chamber probe fault.	Contact after-sales centre
<b>HOT FUMES</b>	High fumes temperature	Check pellet feed (see "EASY SETUP"), if the problem cannot be solved, contact an authorised technician.

<b>NO FLAME</b>	The pellet hopper is empty. No pellet feed. The gearmotor does not feed pellets.	Check for the presence of pellets in the hopper. Adjust the pellet flow (see "EASY SETUP").
<b>DEPR ALARM</b>	The door is not closed correctly. The ash drawer is not closed correctly. The combustion chamber is dirty. The fumes exhaust pipe is blocked/dirty.	Check hermetic door closure. Check hermetic closure of the ash drawer. Check cleanliness of the fumes pipe and the combustion chamber.
<b>NO IGNITION</b>	The pellet hopper is empty. Pellet feed calibration inadequate. Thermostat bulbs tripped	Check for the presence of pellets in the hopper. Adjust the pellet flow (see "EASY SETUP"). Check the procedures described in the "Ignition" chapter. Check the thermostats with bulbs (see chapter on resetting)
<b>NO IGNITION BLACK OUT</b>	No current during the ignition phase.	Turn the stove OFF using key 1 and repeat the procedure described in the "Ignition" chapter.
<b>ALARM COMMAND AUGER</b>	Abnormal pellet loading.	Contact after-sales centre
<b>MIN H<sub>2</sub>O PRESSURE ALARM</b>	The system pressure read by the pressure switch is too low.	Possible air in the system; bleed the system. Possible lack of water or leaks due to anomalies in some system component. If the problem persists, contact the after-sales centre
<b>MAX H<sub>2</sub>O PRESSURE ALARM</b>	Air in the system Inadequate circulation	Possible air in the system; bleed the system. Lack of adequate circulation. Lack of or inadequate safety zone. The water in the stove has exceeded 95°C. Possible pump defect. If the problem persists, restore operations must be performed by an authorised technician.
<b>H<sub>2</sub>O PROBE</b>	H <sub>2</sub> O probe fault	Contact after-sales centre
<b>* DHW PROBE</b>	Fault in DHW probe.	Contact after-sales centre
<b>* BUFFER TANK PROBE</b>	Fault in Buffer tank probe.	Contact after-sales centre
<b>CLOSE HOPPER - STOVE DOOR</b>	Pellet hopper open. Stove door open. Air inlet clogged or dirty.	Check that the pellet hopper and the combustion chamber door are closed correctly. Check air inlet.
<b>BLOCKED PWM ALARM</b>	The pump has stopped permanently. Pump blocked. Electronic module damaged	Contact after-sales centre
<b>HOT PWM ALARM</b>	The pump is operating but not with good performance. Undervoltage 160-194v. Pump in circuit breaker protection mode.	Contact after-sales centre
<b>STOPPED PWM ALARM</b>	The pump has stopped but is still operational. Undervoltage < 160v. Overvoltage. Unexpected external flow.	Contact after-sales centre
<b>STOPPED 2 PWM ALARM</b>	The pump has stopped but is still operational. Problem in a component different to the pump. Debris in installation. Positioning in high temperature.	Contact after-sales centre
<b>FLOW PWM ALARM</b>	Pump blocked. Liquid with high density. Pipe obstructed.	Contact after-sales centre
<b>PWM INTERFACE ALARM</b>	IPWM output interface damaged, in short circuit or not connected	Contact after-sales centre

\* if there is an additional system data-sheet.

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## DISPOSAL

## INFORMATION FOR MANAGEMENT OF ELECTRIC AND ELECTRONIC APPLIANCE WASTE CONTAINING BATTERIES OR ACCUMULATORS



This symbol, which is used on the product, batteries, accumulators or on the packaging or documents, means that at the end of its useful life, this product, the batteries and the accumulators included must not be collected, recycled or disposed of together with domestic waste. Improper management of electric or electronic waste or batteries or accumulators can lead to the leakage of hazardous substances contained in the product. For the purpose of preventing damage to health or the environment, users are kindly asked to separate this equipment and/or batteries or accumulators included from other types of waste and to arrange for disposal by the municipal waste service. It is possible to ask your local dealer to collect the waste electric or electronic appliance under the conditions and following the methods provided by national laws transposing the Directive 2012/19/EU.

Separate waste collection and recycling of unused electric and electronic equipment, batteries and accumulators helps to save natural resources and to guarantee that this waste is processed in a manner that is safe for health and the environment. For more information about how to collect electric and electronic equipment and appliances, batteries and accumulators, please contact your local Council or Public Authority competent to issue the relevant permits.

EN 16510-1 Symbol	EXPLANATION
$nom$	Nominal heat output
$part$	Part load heat output
$CON/INT$	Appliance operation, Continuos (CON) or Intermittent (INT)
$CO_{2nom}/CO_{2part}$	Carbon dioxide emission
$CO_{nom}/CO_{part}$	Carbon monoxide emission
$d_B$	Minimum distances to combustible materials - bottom
$d_C$	Minimum distances to combustible materials - ceiling
$d_F$	Minimum distances to combustible materials - floor in front
$d_L$	Minimum distances to combustible materials - side radiation area
$d_{non}$	Minimum distances to non-combustible walls
$d_{out}$	Flue gas exhaust pipe
$d_p$	Minimum distances to adjacent combustible materials - front
$d_R$	Minimum distances to combustible materials - rear
$d_S$	Minimum distances to combustible materials - side
$E, f$	Power supply voltage, frequency
$EEI$	Energy Efficiency Index
$el_{max}$	Consumption of electrical auxiliary energy at nominal heat output
$el_{min}$	Consumption of electrical auxiliary energy at part load heat output
$el_{SB}$	Consumption of electrical auxiliary energy at standby
$H$	Appliance height
$L$	Appliance depth
$m$	Net weight
$m_{chim}$	Maximum load of a chimney the appliance max carry
$m_{hnom}/m_{hpart}$	Hourly consumption
$NO_{xnom}/NO_{xpar}$	Nitrogen oxides emission
$OGC_{nom}/OGC_{part}$	Emission of organic gaseous carbon
$PM_{nom}/PM_{part}$	Particulate matter emissions
$P_{nom}/P_{part}$	Heat output
$p_{nom}/p_{part}$	Minimum flue draught
$P_{SHnom}/P_{SHpart}$	Space heat output
$p_W$	Permissible maximum water operating pressure
$P_{Wnom}/P_{Wpart}$	Water heat output
$s$	Thickness of the protective insulation material
$T_{class}$	Chimney designation
$T_{f,g nom}/T_{f,g part}$	Mean flue gas temperature
$T_{s nom}/T_{s part}$	Flue gas outlet temperature
$W$	Appliance width
$W_{max}$	Maximum electric power input
$\eta_{nom}/\eta_{part}$	Efficiency
$\eta_S$	Seasonal space heating efficiency at nominal heat output
$\Phi_{f,g nom}/\Phi_{f,g part}$	Flue gas mass flow
$Wood Pellet (L)$	Wood Pellet
$Wood Logs (l)$	Wood Logs
	Read and follow the user operating instructions

# Extraflame®

## Riscaldamento a Pellet

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**MADE IN ITALY**  
design & production

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CONTACT YOUR DEALER OR CONSULT  
THE SITE [WWW.LANORDICA-EXTRAFLAME.COM](http://WWW.LANORDICA-EXTRAFLAME.COM)*

The manufacturer reserves the right to vary the characteristics and the data reported in this pamphlet at any moment and without notice, in order to improve its products.