

E-CONNECT 1700

IT

INSTRUCTIONS FOR USE

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INTRODUCTION

Important safety instructions

Read these instructions before installing and using the product.

- The installation and commissioning of the appliance must be carried out by competent personnel aware of compliance with the safety standards in force, who will assume full responsibility for the final installation and consequent good operation. There will be no liability on the part of Klover srl in case of failure to comply with these precautions.
- All local regulations, including those referring to national and European standards, must be respected in the installation and use of the appliance.
- Connect the fumes outlet of the product to a flue having the characteristics shown in the section "Flue and connection to itself" of this User Guide.
- The appliance is not suitable for installation on a shared flue system.
 - In the event of a fire in the flue, use suitable systems to suffocate the flames or request the intervention of the fire brigade.
- Connect the product to grounded electrical outlets. Avoid using electrical outlets controlled by switches or automatic timers.
- Do not use the power cord if it is damaged or frayed.
- If you are using a power strip, make sure that the total voltage of the connected devices does not exceed that supported by the socket. To check also that the total voltage of all devices connected to the wall socket does not exceed the maximum allowed level.
- The appliance's power cord plug must only be connected after the installation and assembly of the appliance has been completed and must remain accessible after installation, if the appliance is not equipped with a suitable and accessible bipolar switch.
- Do not clean the appliance or its parts with easily flammable substances.
- Do not leave containers and flammable substances in the room where the appliance is installed.
- The appliance works exclusively with wood pellets and exclusively with the firebox door closed.
- NEVER open the appliance door during normal operation.
- The use of poor quality pellets or any other material damages the functions of the appliance and can lead to the termination of the guarantee and the associated responsibility of the manufacturer.
- Do not use the appliance as an incinerator or in any other way other than that for which it was designed.
- Do not use fuels other than those recommended; Do not use liquid fuels.
- The appliance, especially the external surfaces, when in operation reaches high temperatures to the touch; maneuver carefully to avoid sunburn.
- Keep fuel and flammable materials at an adequate safety distance.
 - Use only original spare parts recommended by the manufacturer.
- Do not make any unauthorized modifications to the appliance.
- Do not touch the hot parts of the product (ceramic glass, smoke pipe and all the external frame) during normal operation.
- Do not touch the appliance if you are barefoot and / or with wet or damp parts of the body.
- Switch off the electrical panel using the appropriate button. Do not unplug the power cord while the appliance is running.
- During the ignition phase and normal operation of the appliance it is advisable to keep the necessary safety distances and not to stand in front of the same.
- Keep children away from the appliance during normal operation as they could get burned by touching the hot parts of the appliance.
- Do not leave the packaging elements within reach of children or unassisted disabled people.
- Prohibit the use of the appliance to children and the inexperienced; Children must not play with the appliance.
- The appliance can be used by children under the age of 8 and by people with reduced physical, sensory or mental abilities, or without experience or the necessary knowledge, as long as they are supervised or after they have received instructions relating to the safe use of the appliance and an understanding of the dangers inherent to it.
- Cleaning and maintenance intended to be carried out by the user must not be carried out by unsupervised children.
- Do not use the appliance in disagreement with the instructions contained in this user manual.
- The appliance is an indoor product only and has the purpose of heating the water, so it must be connected to a system hydraulic (radiators, puffers, etc.) that is suitably designed and sized to dispose of the power developed.
 - This user manual is an integral part of the appliance. If the product is sold, the user is obliged to deliver this manual to the new purchaser as well.

Klover declines all responsibility for accidents deriving from non-compliance with the specifications contained in this manual.

Furthermore, Klover declines any responsibility deriving from improper use of the product by the user, from unauthorized modifications and / or repairs, from the use of non-original or non-specific spare parts for this product model.

The responsibility for the works carried out for the installation of the product is not borne by Klover, but is entirely borne by the installer who is also responsible for carrying out the checks relating to the flue and the external air intake and the correctness of the proposed installation solutions.

All safety standards required by the specific legislation in force in the state where it is installed must be respected.

Extraordinary maintenance operations must only be carried out by authorized and qualified personnel.

For the warranty to be valid, the user must observe the provisions contained in this manual and in particular:

- Use the appliance within the limits of its use;
- Carry out all maintenance operations constantly;
- Authorize the use of the appliance to expert and competent persons.

Failure to comply with the instructions contained in this manual automatically invalidates the guarantee.

THE MACHINE AND THE PELLET

Components of the appliance

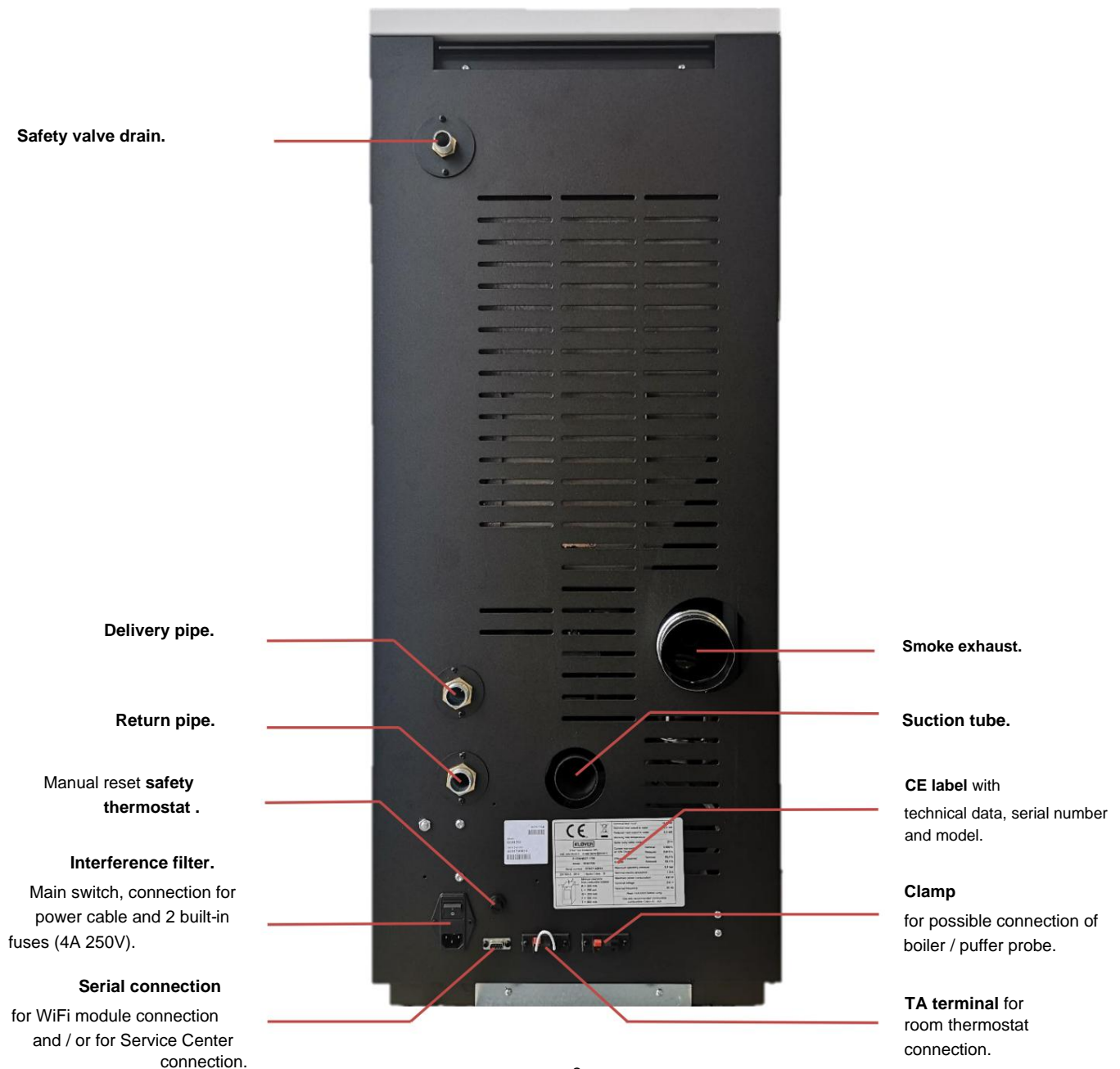
The table below shows the standard features of the appliance:

| | |
|---|-----------------|
| Expansion vessel | 8 lt |
| Safety valve | 2.5 bar |
| Pressure gauge | 0 - 4 bar |
| Non-return valve | No |
| Automatic air vent valve | Yup |
| Heating system pump | Yes. Mod. 25/70 |
| Electric predisposition for boiler / puffer probe | Yup |
| Remote control | Optional |
| WiFi management module | Optional |

In addition, the device is delivered with the following material:

- Nr. 1 use, installation and maintenance manual;
- Nr. 1 power cable
- Nr. 1 conventional guarantee certificate.

The images below show some details of the appliance:



Technical features

| | | E-CONNECT 1700 |
|--|----------|----------------|
| Nominal heat output | kW | 16.4 |
| | kcal / h | 14.100 |
| Reduced heat output | kW | 4.5 |
| | kcal / h | 3,870 |
| Nominal heat output | kW | 15.1 |
| | kcal / h | 12.980 |
| Reduced heat output | kW | 4.2 |
| | kcal / h | 3,600 |
| Efficiency at nominal heat output | % | 92.1 |
| Efficiency at reduced thermal power | % | 93.5 |
| CO measured at 13% oxygen at nominal heat output | % | 0.003 |
| CO measured at 13% oxygen at reduced heat output | % | 0.013 |
| Maximum electrical absorption | Watt | 400 * |
| Electric absorption in operation | Watt | 40 |
| Nominal tension | V. | 230 |
| Nominal frequency | Hz | 50 |
| Smoke outlet pipe diameter | mm | 80 |
| Air intake pipe diameter | mm | 50 |
| Minimum chimney draft at nominal heat output | Pa | 10 |
| Minimum draft to the chimney at reduced heat output | Pa | 10 |
| Mass of combustion gases at nominal heat output | g / | 9.6 |
| Mass of combustion gases with reduced thermal power | sg / | 9.7 |
| Ventilated pellet tank capacity (ducted) | s | 25 |
| Average flue gas temperature at nominal heat output | kg ° C | 100 |
| Average flue gas temperature at reduced heat output | ° C | 60 |
| Minimum safety distance from flammable materials (side / rear / front) | mm | 200 |

* Power absorbed only during the ignition cycle.

The heat output produced by the appliance may vary according to the type of pellet used.

Dimensions and connections data sheets

All the technical data sheets of dimensions and connections are visible by scanning the following QR Code from your smartphone:



<https://docs.klover.it/it/guide/help/cs-ecn1700-tds-1>

Characteristics of the pellets

The appliance has been tested with all types of pellets on the market. The pellets used must have the following characteristics:

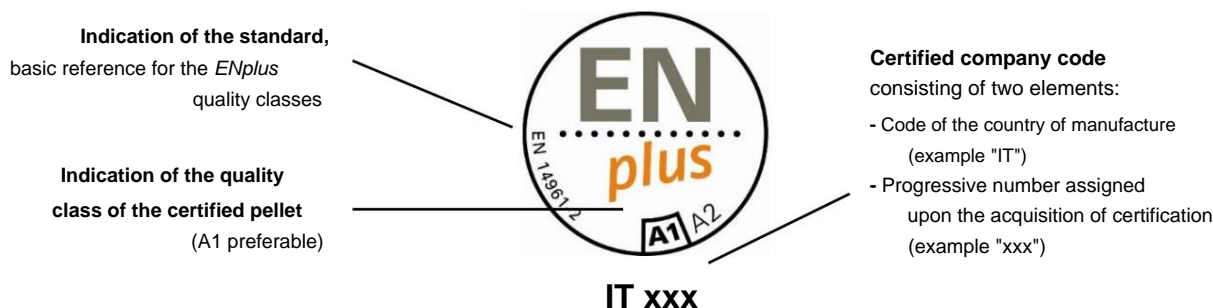
- Diameter 6 mm.
- Maximum length 35 mm.
- Maximum moisture content 8 - 9%.
- 100% wood. Total absence of additives.
- Maximum ash residue 1.1%.

It is advisable to use good quality pellets to have a good efficiency of the appliance. ~~The pellets must be poured into the tank with a shovel and not directly from the bag.~~

To recognize quality pellets, it is necessary that:

- It is built from cylinders of constant diameter and has a smooth and shiny surface;
- There is not a lot of powdered wood inside the packages;
- Taking a handful of pellets and pouring it into a bowl full of water, the quality pellets will sink, if not, they will tend to float;
- The details of quality certifications and in particular compliance with international standards such as EN14961-2, DIN 51731 and O-NORM M7135;
- The packages are intact as the pellet tends to absorb moisture. Humidity not only reduces the calorific value and increases the fumes emitted but swells the product which could create problems for the appliance.

For the production of pellets, international standards must be respected (for example EN14961-2, DIN 51731 and O-NORM M7135) which establish minimum values to verify the quality of the pellets. To facilitate the right choice of fuel, we list below one of the most common certification marks that identify the quality of the pellets:



The use of poor quality pellets or any other material damages the functions of the appliance and can lead to the termination of the guarantee and the associated liability of the manufacturer.

~~To ensure trouble-free combustion, the pellets must be stored in a dry place.~~

INSTALLATION SITE REQUIREMENTS

Positioning

The initial phase for the best installation of the appliance is to identify its optimal location; in this regard, the following elements should be considered:

- Possibility of creating an external air intake;
- Possibility of creating a straight flue and possibly coaxial to the appliance's smoke outlet;
- Proximity to the main hydraulic manifold and / or to the boiler (if one already exists);
- Proximity or ease of connection to the hydraulic network;
- Easy access for cleaning the appliance, the flue gas pipes and the flue.

The appliance must be installed on a floor with adequate load capacity. If the existing construction does not meet this requirement, appropriate measures must be taken (eg load distribution plate).

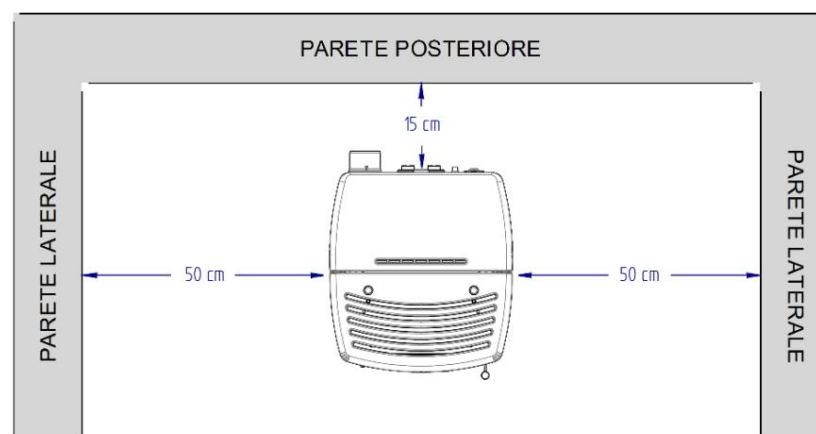
The minimum safety distance from flammable materials must be at least 200 mm from the sides, 200 mm from the back, 800 mm from the front and 750 mm from the top of the appliance.

The installation must guarantee easy access for cleaning the appliance, the flue gas ducts and the flue and any subsequent maintenance by the Authorized Technical Assistance Center.

Once the best arrangement has been established, proceed with positioning the appliance by carefully following the indications given below. It is forbidden to install the appliance in small rooms, bedrooms, bathrooms and in environments with an explosive atmosphere (e.g. garages).

Spaces around and above the appliance

The figure below shows the minimum measurements to be respected when positioning the appliance with respect to walls or furniture that is not easily removable.



Any shelves or false ceilings mounted above the appliance must be spaced at least 75 cm from the top of the appliance.

Cabinets and movable objects made of flammable material must be positioned at least 20 cm from the side walls of the appliance; these objects must be moved in case of maintenance of the same.

Protect all structures that could catch fire from hot radiation from the fire.

Any extra intervention by the Authorized Technical Assistance Center, in which it is necessary to disconnect the appliance from the system, will not be recognized under the warranty as indicated in the chapter "Conventional Warranty Conditions".

External air intake

During the functioning of the appliance, combustion air is taken from the environment in which it is installed; it is therefore essential that this air is reintegrated through an external air intake. Failure to make the air intake affects the draft in the flue and therefore the combustion and safety of the appliance.

It is therefore mandatory to create an external air intake that has a minimum completely free passage of **at least 80 cm²** (round hole with a minimum diameter of 15 cm protected with a special fixed grid with large meshes).

If it is not possible to make the external air intake in the same room where it is installed, this hole can be made in another adjacent room as long as it is permanently communicating with a transit hole (minimum diameter 15 cm).

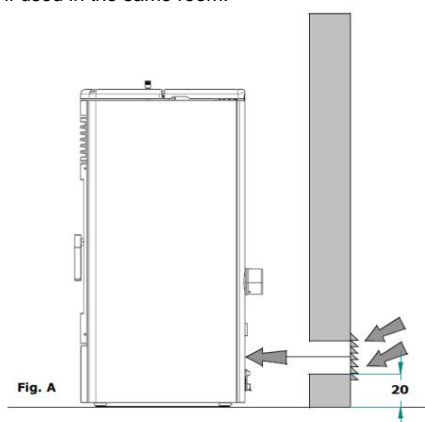
The hole must be protected externally with a fixed grid. The protection grid must be checked periodically to verify that it is not obstructed, thus preventing the passage of air. **Therefore, keep the air intakes free from obstructions.**

The UNI 10683 standard PROHIBITS the withdrawal of combustion air from garages, from warehouses of combustible material or from activities with a fire hazard.

If there are other heating or suction appliances in the room, the air intakes must guarantee the necessary volume of air for the correct operation of all devices.

In the room where the pellet appliance is installed, only appliances operating in a sealed manner with respect to the room may pre-exist or be installed (e.g. type C gas appliances, as defined by UNI 7129) or which in any case do not depress the room with respect to the external environment.

Extraction fans can cause the appliance to malfunction if used in the same room.



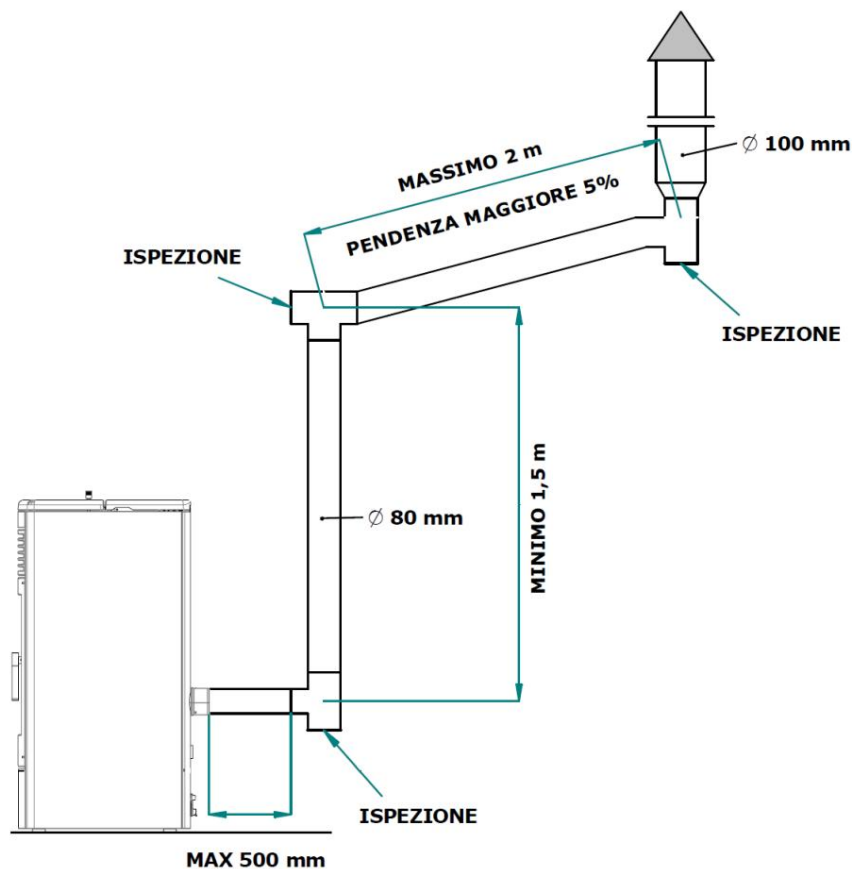
Chimney and connection to it

The flue is a fundamental element for the good functioning of the appliance. The minimum section of the flue must be that indicated in the technical characteristics of the appliance (SL140 80 mm, SL180 / SL220 100 mm). Each product must have its own flue, with no other inputs (boilers, fireplaces, stoves, etc...). The dimensions of the flue are closely related to its height, to be measured from the mouth of the appliance to the base of the chimney pot. To guarantee draft, the smoke outlet surface of the chimney pot must be double the section of the flue. The combustion products evacuation duct generated by the forced draft appliance must meet the following requirements:

- Be sealed against combustion products, impermeable and adequately insulated and insulated according to the conditions of use (cf. UNI 9615);
 - Be made of materials suitable to withstand normal mechanical stress, heat, the action of combustion products and any condensation;
 - Having, after the vertical section, for the entire remaining route, an upward trend, with a minimum gradient of 5%. The sub-horizontal part must not have a length greater than $\frac{1}{4}$ of the effective height H of the chimney or flue, and in any case **it must not have a length greater than 2,000 mm**;
 - Have a preferably circular internal section: square or rectangular sections must have rounded corners with a radius of not less than 20 mm;
 - Have a constant, free and independent internal section;
 - Have rectangular sections with a maximum ratio between the sides of 1.5;
 - **Be insulated** to avoid the cooling of the fumes and the formation of condensation;
 - For the assembly of the smoke ducts (section that goes from the appliance to the entrance to the flue), elements of non-combustible materials suitable for resisting combustion products and their possible condensation (**the use of aluminum flue pipes is absolutely forbidden**);
 - It is forbidden to use fiber cement pipes to connect the appliances to the flue;
 - The smoke channels must not cross rooms where the installation of combustion appliances is prohibited;
 - The assembly of the smoke channels must be carried out in such a way as to guarantee the seal against fumes for the operating conditions of the appliance in depression;
 - **The assembly of horizontal sections is prohibited;**
 - **The use of counter-slope elements is prohibited;**
 - The smoke channel must allow the recovery of the soot or be brushless and must have a constant section;
 - It is forbidden to allow other air supply channels and pipes to be used inside the smoke ducts, even if they are oversized.
- plant engineering.

ADDITIONAL SPECIFICATIONS TO CONSIDER

- The appliance works with the combustion chamber in depression and the smoke pipe under pressure; **it is essential that the fume exhaust is airtight hermetic.**
 - The smoke pipes inside the installation room must be made of suitable material (see current regulations) and equipped with sealing gaskets, with a minimum diameter of 80 mm.
 - **The pipes must be double-walled (insulated) or adequately insulated with rock wool. The maximum temperature of the pipe smoke inside the room must not exceed 70 ° C.**
 - **IT IS COMPULSORY TO MAKE A FIRST VERTICAL SECTION OF AT LEAST 0.5 MT TO GUARANTEE THE CORRECT EXPULSION OF FUMES.**
- Any change of direction must be made with a T-fitting with inspection cap. The pipes must guarantee smoke tightness via special seals resistant to 250 ° C. Fix the pipes to the wall with special collars to avoid any vibrations.
- **IT IS STRICTLY FORBIDDEN TO INSTALL DRAFT REGULATION VALVES (BUTTERFLY VALVES).**



If the flue is old or too large (internal diameter greater than 15 cm), pipe the flue with a suitably insulated stainless steel pipe (using rock wool or vermiculite) and sized according to the route. The connection to the flue must be properly sealed.

When making the flue, no more than 4 changes of direction must be made.

Chimney

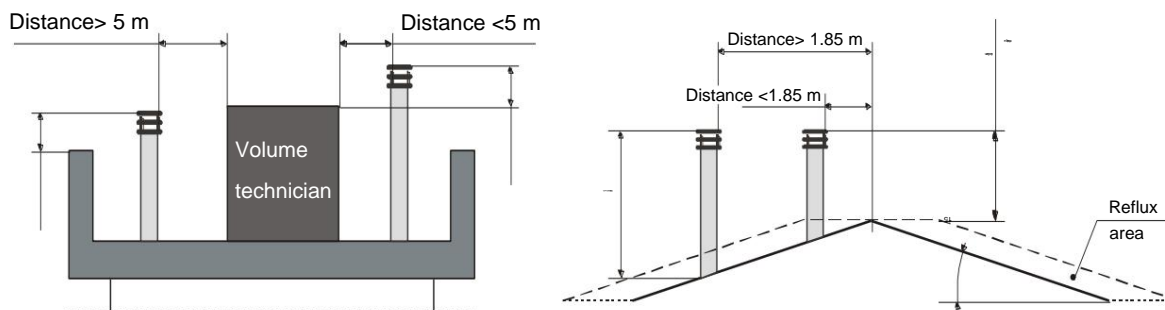
The **chimney pot** is a device placed on top of the flue to facilitate the dispersion of the combustion products.

It must meet the following requirements:

- Have a useful outlet section no less than double that of the flue on which it is inserted;
- Be shaped in such a way as to prevent rain and snow from entering the flue;
- Be constructed in such a way that, even in the event of winds of any direction and inclination, combustion exhaust is still ensured.

The outlet height (where by height is meant that which corresponds to the top of the flue, regardless of any chimney pots) must be outside the so-called reflux area, in order to avoid the formation of back pressures, which prevent free discharge in the atmosphere of the products of combustion.

It is therefore necessary that the minimum heights indicated in the following figures are respected:



ELECTRICAL CONNECTION

The electrical connection must be carried out **exclusively by qualified personnel**, in compliance with all general and local safety regulations in force.

Check that the power supply voltage and frequency correspond to 230V - 50 Hz.

The safety of the appliance is obtained when it is correctly connected to an effective grounding system.

Provide, in the electrical connection to the power supply network, a differential magnetothermic switch at 6 A - Id 30 mA with suitable breaking load.

The electrical connections, including earthing, must be made after removing the voltage from the electrical system.

When constructing the system, bear in mind that the cables must be laid immovably and away from parts subject to high temperatures.

In the final wiring of the circuit, use only components with an adequate degree of electrical protection. Take care not to run electric cables in the immediate vicinity of the flue pipe unless they are insulated with suitable materials.

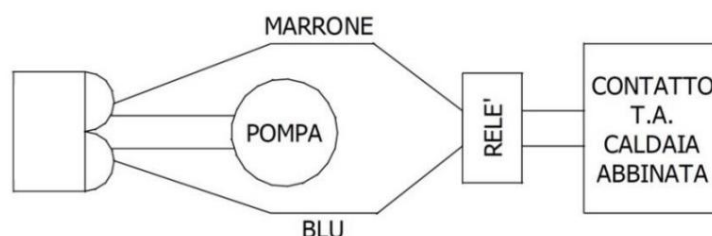
KLOVER srl declines all responsibility for damage to persons, animals or things deriving from failure to connect the appliance to the earth network and from non-compliance with CEI standards.

Control of any combined boiler

If you want to combine the pellet appliance with another boiler already installed on the system (e.g. wall-mounted gas boiler), make sure that when the latter works for system heating, the combined boiler stops. The electrical predisposition, accessible from the right inside of the appliance, intervenes on the combined boiler when the pellet appliance heating circulator starts, so as to avoid having two boilers operating at the same time on the same system. However, the combined boiler will always be usable for the production of domestic hot water.

The two wires arranged on the left technical compartment of the appliance (blue wire and brown wire), at the output will have a voltage of 230 V when the pellet appliance circulator operates, no voltage when the circulator stops.

It is therefore necessary to connect the 2 wires to a relay that will control the Room Thermostat (TA) input of the combined boiler ([see example below](#)).



Control of a possible three-way motorized valve for DHW management

The pellet appliance is equipped with a control for a possible three-way motorized valve to be installed on the DHW circuit according to the type of system chosen ([see "System configuration"](#)). In the right inside of the appliance there are four wires with faston protected by a red sheath, which can be used to control this valve ([see also "Wiring diagram"](#)). The four threads are of different color and precisely:

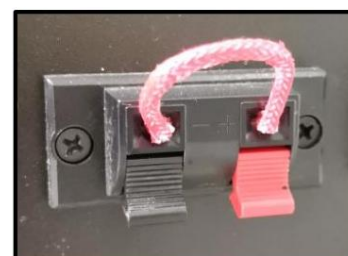
- Blue wire = COMMON 3-WAY VALVE (Neutral 230 V)
- Black wire = SANITARY SIDE (230 V phase when DHW on request)
- Brown wire = HEATING SIDE (Phase 230 V when DHW is not in demand)
- Yellow / green wire = GROUND

Connection to the room thermostat

Behind the appliance there is a jumpered terminal which is used to connect any room thermostat that will control its operation. The operation of the room thermostat is enabled with type of system 1, 2 and 3 ([see "System configuration"](#)).

The **OPEN CONTACT** operating principle is listed below :

- The appliance goes directly into "T-AMB ECONOMY" operating economy
- thus reducing the working power to a minimum.
- The appliance's heating circulator switches off.
- The appliance switches off with a delay set on Pr44.



The automatic restart of the appliance occurs if all the following conditions exist:

- If the contact of the room thermostat closes.
- If it goes below the temperature differential (SET H2O - Pr43).
- After a possible cooling cycle.

NB: If the water temperature exceeds the threshold of 80 ° C (safety temperature), the system circulator is forced to switch on to ensure the disposal of excessive heat, thus avoiding the achievement of high temperatures of the water in the boiler. For this reason it is advisable that the heating system is not completely closed.

In the "System type 3" configuration, the appliance goes into economy with subsequent shutdown only if the temperature set in the "SET BOILER" has also been satisfied.

ATTENTION: If the room probe in the "Remote control" is also enabled, the appliance goes into economy if the temperature set in the "ROOM SET" has also been satisfied.

HYDRAULIC CONNECTION

The hydraulic connections must be made rationally using the connections on the template of the appliance.

The appliance can be combined with any other boiler already installed in the system; naturally it is essential to insert the necessary safety devices and interceptions depending on the system and use. It is also necessary to take into consideration all the national, regional, provincial and municipal laws and regulations present in the country where the appliance is installed.

The appliance can be installed with the expansion vessel closed as it is equipped with a fuel load stop device, a thermostat with manual safety reset and an acoustic alarm which intervene in the event of excessively high temperatures.

The appliance can be installed in the same room as another boiler only if this is a sealed chamber; the installation must be carried out in compliance with the regulations in force.

When installing the appliance it is recommended to insert an anti-condensation mixing valve between the flow and return of the heating system of the appliance itself. The anti-condensation valve must be calibrated at 55 ° C and with a Kv value equal to or greater than 8 m³ / h.

When connecting the appliance to the system, it is advisable to provide an area that is always open (e.g. bathroom area) to ensure the dissipation of excess heat from the water in the boiler body.

The maximum inlet pressure of the mains water must never exceed 2.5 bar; the recommended operating pressure is 1.5 bar (with appliance running).

In the case of water with a hardness higher than 28 ° f, it is essential to install an anti-limescale device, to be chosen based on the characteristics of the water.

IN ORDER NOT TO COMPROMISE THE OPERATION AND LIFE OF THE HEATING CIRCULATOR, IT IS RECOMMENDED TO INSTALL A MAGNETIC FILTER AND SEALER DOWNSTREAM OF THE APPLIANCE RETURN HOSE.

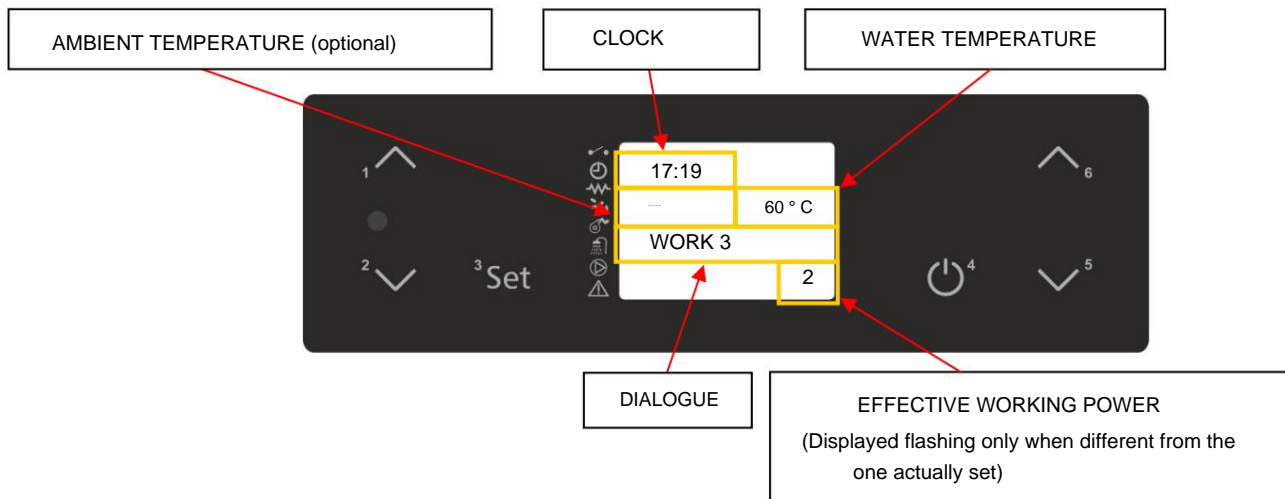
The assembly of the appliance must only be carried out by qualified personnel. Scrupulously observe the contents of this booklet.

We decline all responsibility for damage caused by incorrect assembly.

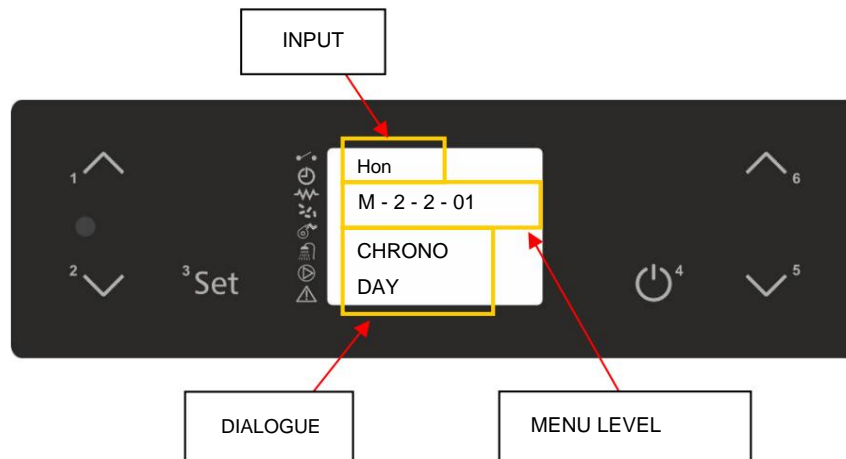
THE DISPLAY

The console displays information on the operating status of the device. By accessing the menu it is possible to obtain various types of display and make the available settings according to the selected menu.

The figure below shows the display when the device is switched on.



The figure below shows the display in the programming or operating parameters setting phase.



The INPUT area displays the entered programming values.

The MENU LEVEL area displays the current Menu / Parameter level.

The DIALOG area displays the meaning of the current Menu / Parameter.



The table describes the operation of the keys on the display.

| REFERENCE | KEY DESCRIPTION | METHOD | OPERATION |
|-----------|---------------------------------|--------------------------|---|
| 1 | Increase temperature (1) | In programming .. | Modify / increase the selected menu value. |
| | | In work / off .. | Increases the temperature value of the water / room thermostat. |
| 2 | Decrease temperature (2) | In programming .. | Modify / decrease the selected menu value. |
| | | In work / off .. | Decreases the temperature value of the water / room thermostat. |
| 3 | Set | - | Access the selected menu. |
| | | On the menu .. | Enters the next submenu level. |
| 4 | ON / OFF Outlet | In work .. | Pressed for 2 seconds turns the appliance on and / or off. |
| | | In alarm block .. | Unlock the alarm. |
| | | In menu / programming .. | It moves to the previous menu level, saving the changes made. |
| 5 | Decrease power (3) | In work / off .. | Decreases the working / ventilation power of the appliance. |
| | | On the menu .. | Move to the next menu item. |
| | | In programming .. | Go to the next submenu item and save the changes made. |
| 6 | Increase power (3) | In work / off .. | Increases the working / ventilation power of the appliance. |
| | | On the menu .. | Go to the previous menu item. |
| | | In programming .. | Go to the previous submenu item and save the changes made. |

(1) The first press allows you to select:

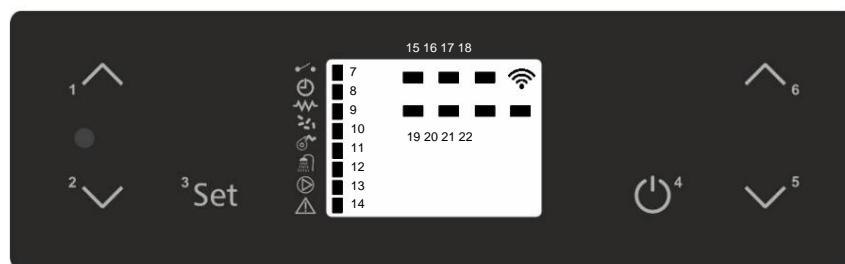
- "Boiler water temperature set - **SET H2O**" (**System** type 1, 2)
- "DHW boiler temperature set - **BOILER SET**" (**System** type 3)
- "Centralized puffer temperature set - **PUFFER SET**" (**System** type 4)

(2) The first press allows you to select:

- "Boiler water temperature set - **SET H2O**" (**System** type 1, 2, 3)

(3) The first press allows you to select:

- "Working power set - **POWER SET**".



The table describes the meaning of the LEDs on the display.

| REFERENCE | LED DESCRIPTION | OPERATION |
|-----------|---------------------------|--|
| 7 | Room thermostat | On with room thermostat contact input open (satisfied). |
| 8 | Chrono Programming | On with at least one Chrono Programming active. |
| 9 | Ignition Plug | Ignited with Ignition Plug powered. |
| 10 | Pellet loading | On with Pellet Loading Gear Motor powered. |
| 11 | Fume extractor | On with powered fume extractor. |
| 12 | Call Acs | On with closed DHW flow switch contact input (DHW on request) or with T.BOILER (System Type 3) / T.PUFFER (System Type 4) on call. |
| 13 | System circulator | On with System Circulator powered. |
| 14 | Active alarm | On in alarm conditions. |
| 15 | Chrono Day | Lit when Chrono Day programming is active. |
| 16 | Weekly Chrono | Lit when Weekly Chrono Programming is active. |
| 17 | Week-End Chrono | Lit when the Week-End Chrono Programming is active. |
| 18 | Not used | Not used |
| 19 | Turbulator cleaner | Flashing as much as turbulator cleaning reserved at the next start-up. On when cleaning turbulators running. |
| 20 | Summer mode | On when the DHW only mode (Summer) is activated. Menu 01-CHOOSE SEASON = SUMMER |
| 21 | Winter mode | On when the Heating + Domestic hot water mode (Winter) is activated. Menu 01-CHOOSE SEASON = WINTER |
| 22 | Not used | Not used |

THE MENU

Press key 3 (Set) to access the Menu. This is divided into various items and levels that allow access to the settings and programming of the appliance.

Use keys 5 and 6 to select the menu to be modified.

Use keys 1 and 2 to modify the value set in the selected menu.

The list of menus available is listed below.

Menu M01 - SYSTEM MODE

It can only be used with System Type 3 (see paragraph "System configuration").

Allows you to set how to use the appliance:

ÿ SUMMER = DHW only operation = Summer mode.

ÿ WINTER = Heating + DHW operation = Winter mode.

Menu M02 - CLOCK SET

Allows you to set the current time and date.

Menu M03 - CHRONO SET

Allows you to set any scheduled operating times.

- Sub-menu M03-1 - ENABLE CHRONO

It allows you to globally enable and disable all the chronothermostat functions. For correct operation it is advisable to enable it ("ON") when at least one on / off program is enabled (daily program, weekly program or weekend program).

| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
|------------|---------------|-----------------------------------|-----------------|
| M03-1-01 | ENABLE CHRONO | Enable / disable the set programs | ON - OFF |

- Sub-menu M03-2 - DAILY PROGRAM

Allows you to enable, disable and set the daily chronothermostat functions.

It is possible to set two operating bands delimited by the times set according to the following table where the OFF setting instructs the clock to ignore the command:

| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
|------------|-------------|---------------------------------------|-----------------|
| M03-2-01 | CHRONO DAY | Enable / disable the daily schedule | ON - OFF |
| M03-2-02 | START 1 DAY | Start-up time of the first program | Now - OFF |
| M03-2-03 | STOP 1 DAY | Time to switch off the first program | Now - OFF |
| M03-2-04 | START 2 DAY | Switch-on time of the second program | Now - OFF |
| M03-2-05 | STOP 2 DAY | Time to switch off the second program | Now - OFF |

- Sub-menu M03-3 - WEEKLY PROGRAM

Allows you to enable, disable and set the weekly chronothermostat functions.

| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
|------------|-------------|-------------------------------------|-----------------|
| M03-3-01 | WEEK CHRONO | Enable / disable the weekly program | ON - OFF |

The weekly programmer has 4 independent on / off programs; it is not essential to use them all at the same time.

By setting OFF in the time field, the clock ignores the corresponding command.

| PROGRAM 1 | | | |
|------------|------------------|--------------------------------------|-----------------|
| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
| M03-3-02 | START PROG 1 | Start-up time of the first program | Now - OFF |
| M03-3-03 | STOP PROG 1 | Time to switch off the first program | Now - OFF |
| M03-3-04 | MONDAY PROG 1 | Reference days of the first program | On / off |
| M03-3-05 | TUESDAY PROG 1 | | On / off |
| M03-3-06 | WEDNESDAY PROG 1 | | On / off |
| M03-3-07 | THURSDAY PROG 1 | | On / off |
| M03-3-08 | FRIDAY PROG 1 | | On / off |
| M03-3-09 | SATURDAY PROG 1 | | On / off |
| M03-3-10 | SUNDAY PROG 1 | | On / off |

| PROGRAM 2 | | | |
|------------|------------------|---------------------------------------|-----------------|
| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
| M03-3-11 | START PROG 2 | Switch-on time of the second program | Now - OFF |
| M03-3-12 | STOP PROG 2 | Time to switch off the second program | Now - OFF |
| M03-3-13 | MONDAY PROG 2 | Reference days of the second program | On / off |
| M03-3-14 | TUESDAY PROG 2 | | On / off |
| M03-3-15 | WEDNESDAY PROG 2 | | On / off |
| M03-3-16 | THURSDAY PROG 2 | | On / off |
| M03-3-17 | FRIDAY PROG 2 | | On / off |
| M03-3-18 | SATURDAY PROG 2 | | On / off |
| M03-3-19 | SUNDAY PROG 2 | | On / off |

| PROGRAM 3 | | | |
|------------|------------------|--------------------------------------|-----------------|
| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
| M03-3-20 | START PROG 3 | Switch-on time of the third program | Now - OFF |
| M03-3-21 | STOP PROG 3 | Time to switch off the third program | Now - OFF |
| M03-3-22 | MONDAY PROG 3 | Reference days of the third program | On / off |
| M03-3-23 | TUESDAY PROG 3 | | On / off |
| M03-3-24 | WEDNESDAY PROG 3 | | On / off |
| M03-3-25 | THURSDAY PROG 3 | | On / off |
| M03-3-26 | FRIDAY PROG 3 | | On / off |
| M03-3-27 | SATURDAY PROG 3 | | On / off |
| M03-3-28 | SUNDAY PROG 3 | | On / off |

| PROGRAM 4 | | | |
|------------|------------------|--|-----------------|
| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
| M03-3-29 | START PROG 4 | Switch-on time of the fourth program | Now - OFF |
| M03-3-30 | STOP PROG 4 | Time of shutdown of the fourth program | Now - OFF |
| M03-3-31 | MONDAY PROG 4 | Reference days of the fourth program | On / off |
| M03-3-32 | TUESDAY PROG 4 | | On / off |
| M03-3-33 | WEDNESDAY PROG 4 | | On / off |
| M03-3-34 | THURSDAY PROG 4 | | On / off |
| M03-3-35 | FRIDAY PROG 4 | | On / off |
| M03-3-36 | SATURDAY PROG 4 | | On / off |
| M03-3-37 | SUNDAY PROG 4 | | On / off |

- Sub-menu M03-4 - WEEK-END PROGRAM

Allows you to enable, disable and set the weekend chronothermostat functions (Saturday and Sunday).

| MENU LEVEL | SELECTION | MEANING | POSSIBLE VALUES |
|------------|------------------|---------------------------------------|-----------------|
| M03-4-01 | WEEK-END CHRONO | Enable / disable the weekend program | ON - OFF |
| M03-4-02 | START 1 WEEK-END | Start-up time of the first program | Now - OFF |
| M03-4-03 | STOP 1 WEEK-END | Time to switch off the first program | Now - OFF |
| M03-4-04 | START 2 WEEK-END | Switch-on time of the second program | Now - OFF |
| M03-4-05 | STOP 2 WEEK-END | Time to switch off the second program | Now - OFF |

TIP: in order to avoid unwanted switching on and off operations, activate only one program at a time (Daily, Weekly or Week-End Chrono).

Deactivate the Daily Chrono if you want to use the Weekly one. Always keep the Week-End Chrono disabled if you use the Weekly Chrono in programs 1, 2, 3 and 4.

Activate the Week-End Chrono only after having deactivated the Weekly Chrono.

Menu M04 - CHOOSE LANGUAGE

Allows you to select the dialogue language from those available (Italian, English, French, German and Spanish).

Menu M05 - ACOUSTIC ALARM

Allows you to enable or disable the acoustic signal in the event of an alarm. The acoustic signal is present only on the board on the machine and not on the external "remote control".

Menu M06 - INITIAL LOAD

It allows to carry out, with the appliance off and cold, a pellet pre-charge for a time equal to 180 ". Start with key 1 and stop with key 4. It can be useful if the appliance is switched on after the tank has been completely emptied or is the first time it is filled.

Attention: when the operation is completed, before switching on the appliance it is advisable to empty the accumulation of pellets deposited inside the brazier.

Menu M07 - STOVE STATUS

Allows you to view the instantaneous status of the appliance by reporting the status of the various devices connected to it. There are several pages displayed in succession. The data shown is reserved for the Technical Assistance Center.

Menu M08 - TECHNICIAN SETTINGS

It allows you to access everything reserved for the Technical Assistance Center. Access is protected by an access key. Unauthorized access can cause serious damage to the equipment, people, property and the environment.

Menu M09 - SYSTEM TYPE

It allows you to configure the appliance according to the type of system to which it has been connected (see "System configuration").

The menu is reserved for expert users only; access by non-expert users can cause serious damage to the equipment, people, property and the environment. Klover declines any responsibility deriving from an improper calibration of these values.

Menu M10 - VACUUM MANAGEMENT

Allows you to enable the pellet reserve sensor in the tank and to configure the operation of any automatic loading system with auxiliary tank.

- Sub-menu M10-1 - MANAGEMENT TYPE

Allows you to set how to manage the activation of the Vacuum:

• SENS = activation with pellet reserve sensor.

Whenever the pellets in the primary tank go below the minimum sensor, the Vacuum is activated, regardless of the time.

• TIME = activation with established time (possibility to switch it on at one or two times a day)

Each time the clock detects the set time, the Vacuum is activated.

- Sub-menu M10-2 - TIME 1

With M10-1 - MANAGEMENT TYPE = TIME, it allows you to set the first daily vacuum activation time.

- Sub-menu M10-3 - TIME 2

With M10-1 - MANAGEMENT TYPE = TIME, it allows you to set the second daily vacuum activation time.

Menu M11 - USER SETTINGS

Menu dedicated to expert users only; it allows to carry out a limited calibration of the pellet load (PELLET LOAD) and the speed of the fume extractor (ASP-FUMI CAMINO) in the manner indicated in the table below:

- TYPE OF FIREPLACE

Allows you to perform a limited calibration of the speed of the fume extractor (CHIMNEY TYPE) in the manner indicated in the table below:

| MENU | MEANING | VALUES THAT CAN BE SET |
|------------------|--|------------------------|
| GUY FIREPLACE | By increasing the value of a single unit, the speed of the fume extractor (and therefore the intake of combustion air) is increased by approximately 3%. | -4 / +4 |
| | By decreasing the value of a single unit, the speed of the fume extractor (and therefore the intake of combustion air) is reduced by about 3%. | |

- PELLET TYPE

Allows you to perform a limited calibration of the pellet load (PELLET TYPE) in the manner indicated in the table below:

| MENU | MEANING | VALUES THAT CAN BE SET |
|---------------|---|------------------------|
| GUY PELLET | By increasing the value of a single unit, the pellet load is increased by about 2%. | -4 / +4 |
| | By decreasing the value of a single unit, the pellet load is reduced by about 2%. | |

* Access by non-expert users can cause serious damage to the equipment, people, things and the environment. Klover declines every liability deriving from improper calibration of these values.

Menu M12 - CLEANING MANAGEMENT

Allows you to configure the operation of the automatic flue gas cleaner.

- Sub-menu M12-1 - MANAGEMENT TYPE

Allows you to set how to manage the activation of the smoke pass cleaner:

• ON = cleaner always active.

Each time the appliance is switched on, the automatic cleaning of the smoke pass is carried out, regardless of the time.

• TIME = cleaner active with established time band.

Each time the appliance is switched on within the set time band (see Submenu M12-2 - TIME ON TURB / M12-3 - TIME OFF TURB), the automatic cleaning of the smoke circuit is carried out. If ignition always occurs outside the set time band, automatic cleaning is performed at the first available ignition after the time set in Pr144 has elapsed.

- Sub-menu M12-2 - TIME ON TURB

With Submenu M12-1 - MANAGEMENT TYPE = TIME, it allows you to set the daily start time of the band within which automatic cleaning is allowed.

- Sub-menu M12-3 - OFF TURB TIME

With Submenu M12-1 - MANAGEMENT TYPE = TIME, it allows you to set the daily end time of the band within which automatic cleaning is allowed.

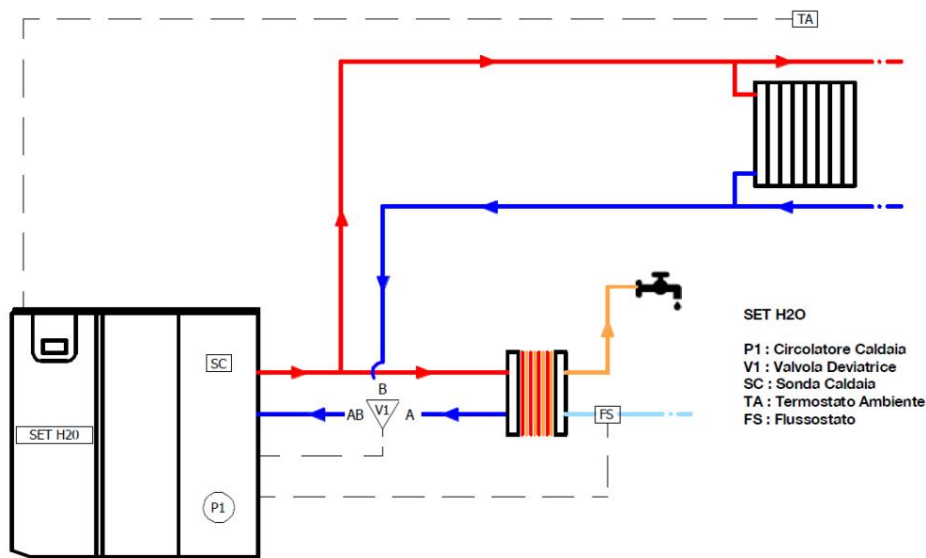
PUT IN ACTION

System configuration

Before putting the appliance into operation, it is advisable to choose the type of system to which it has been connected, by accessing the "M09 - SYSTEM TYPE" menu.

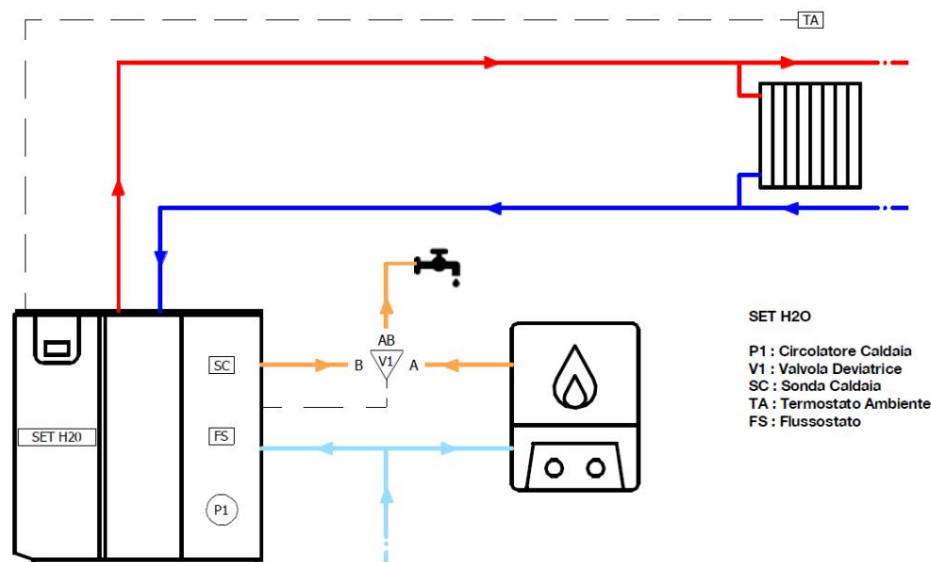
The SYSTEM TYPE configurations available are shown below:

ÿ 1 = Boiler connected to a heating system and possible external plate exchanger for the production of DHW.



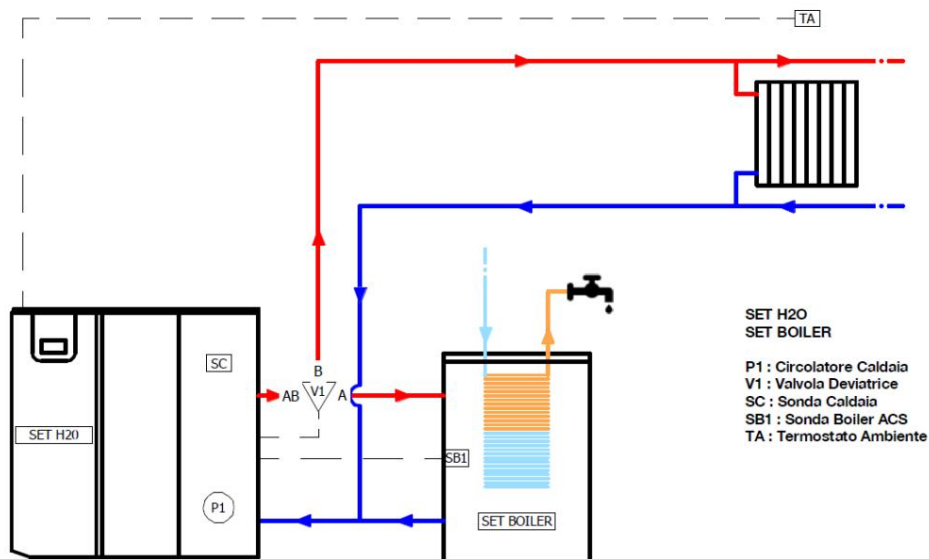
The System Type "1" provides for the connection of the boiler to the heating system (also centralized puffer) managed with one or more room thermostats, connected to the terminal inside the technical compartment of the appliance. The possible production of DHW is obtained by means of a plate exchanger mounted externally to the appliance and managed with a flow switch, also connected to a terminal predisposed in the boiler, which will have the function of immediately bringing the appliance to domestic power and thus switching a three-way motorized valve to give priority.

ÿ 2 = Boiler with integrated instantaneous DHW, connected to a heating system combined with an alternative DHW generator.



System Type "2" provides for the connection of the boiler with integrated instantaneous DHW (pre-set model) to the heating system managed with one or more room thermostats, connected to the terminal set up inside the technical compartment of the appliance. The production of DHW is obtained by means of a mini-accumulation integrated in the appliance. To always guarantee DHW, in this system configuration it is necessary to combine an alternative DHW generator. The combination with the alternative DHW generator is managed by means of a three-way motorized valve connected to the pellet appliance: in this way, the DHW produced by the pellet appliance can be used only when the latter is in operation and therefore at temperature.

ÿ 3 = Boiler connected to the heating system and DHW storage tank.

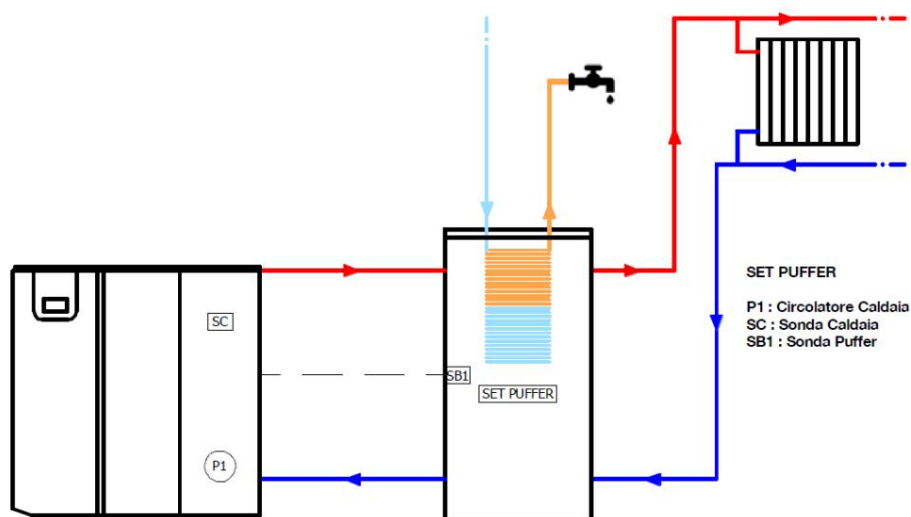


The System Type "3" provides for the connection of the boiler to the heating system managed with one or more room thermostats, connected to the terminal inside the technical compartment of the appliance. DHW production is obtained by means of a storage tank mounted externally to the appliance and managed with a temperature probe connected to it.

The three-way motorized valve, controlled by the pellet appliance, allows you to manage the heating of the system or the boiler, giving the latter priority.

With "Menu 01 - CHOOSE SEASON = SUMMER" only the storage tank is managed in the summer period, keeping the heating system off.

ÿ 4 = Boiler connected to a centralized puffer managed with H2O probe connected to it.



The System Type "4" provides for the connection of the boiler to a centralized puffer managed with a temperature probe connected to the terminal inside the technical compartment of the appliance. The appliance works with only the centralized puffer temperature ("SET PUFFER" which can be set with keys 1 and 2). This system configuration does not require any connection to the appliance of any room thermostats or three-way valves, which must therefore be managed separately as needed.

First filling of the system

After connecting the appliance hydraulically, fill the system as follows:

- Check the tightness of all the pipes, the expansion tank and the circulation pump;
- Open the "automatic air vent valve" of the appliance;
- Open the system filling cock (installed in the system) to fill the system. Act very slowly to allow the air to escape from the appliance through the "automatic air vent valve"; **the optimal operating pressure is 1.5 bar (with the appliance running)**;
- Also bleed all radiators and any other deaeration systems present in the system to make sure there are no air bubbles.

Once installation is complete, it is advisable to check the tightness of all hydraulic joints for the first few days of operation.

It is possible to empty the system and the water inside the boiler body by opening the "system and boiler body drain cock" located inside the appliance.

In periods of intense cold it is advisable for the heating system to remain in operation. In the event of a prolonged absence, antifreeze must be added to the heating water, or completely emptied.

In a system subject to be emptied frequently, it is essential that the filling is carried out with suitably treated water to eliminate the hardness that can give rise to limestone deposits.

Pellet loading and connection to the electricity grid

Do the following:

- Connect the appliance to the electrical system using the supplied cable;
- Position the "ON / OFF main switch" located in front of the appliance on "y" (on);
- Fill the tank with pellets; for the very first start-up it is advisable to carry out what is indicated in "Menu 06 - Initial load" for avoid the time necessary to fill the entire auger channel (**this operation must be performed every time the appliance runs out of pellets**);
- Switch on the appliance with the special power button on the display (button 4). See the instructions below. **Attention: before switching on the appliance it is advisable to make sure that there are no pellets inside the brazier; otherwise it is necessary to empty and clean the brazier.**

It is recommended to use good quality pellets in order not to compromise the functionality of the appliance itself. Damage caused by poor quality pellets are not to be considered covered by the warranty.

Do not pour the pellets directly into the brazier.

Ignition cycle

Pressing key 4 (ON / OFF) for a few seconds allows the start of the ignition cycle. After a few moments, the display shows the wording "START", the fume extractor, the ignition electrode turns on and an automatic cleaning of the brazier is carried out. After a few seconds, with the realignment of the brazier, the appliance goes into a "P-LOAD PELLETT" pre-loading phase during which a continuous pellet loading takes place.

After the pre-charge phase, the appliance passes to the "WAITING FOR FLAME" phase, loading the pellets into the brazier at regular intervals. When the flame is on, the display shows the wording "FIRE PRESENT", a phase that is used to allow the fire to expand evenly over the entire brazier, thus burning all the unburned pellets in the previous phases. After these phases the appliance goes into work mode at the preset power.

In case of ignition failure, the "IGNITION FAILURE" alarm is shown on the display. **The alarm could also occur if the brazier is dirty; in this case, clean the brazier and restart.**

Summing up:

The ignition cycle can last max 20/25 minutes and is divided into five phases:

- Phase 1 - START = Smoke extractor ignition and automatic cleaning of the brazier.
- Phase 2 - WAITING PREHEAT = Waiting for glow plug preheating. (Not present with factory settings).
- Phase 3 - P-PELLET LOAD = Pellet pre-charge phase (initial continuous load) and glow plug ignition.
- Phase 4 - WAITING FOR FLAME = Pellet load (intermittent load) and glow plug in operation.
- Phase 5 - FIRE PRESENT = Glow plug extinguishing and flame stabilization.

After the ignition cycle, the appliance passes to the work phase at the power set in ignition using keys 1 and 2.

Warning: during the ignition phase and normal operation of the appliance it is advisable to keep the necessary safety distances and not to stand in front of it.

Shutdown cycle

The appliance is switched off by pressing key 4 (ON / OFF) during normal operation. The display shows **"FINAL CLEANING"**.

The pellet loading is then interrupted by increasing the speed of the fume extractor to the maximum, which will switch off only after the appliance has cooled down, thus displaying the message **"OFF"**.

If key 4 (ON / OFF) is pressed during the start-up cycle, the appliance goes into the **"WAIT OFF"** state and it will shut down only at the end of the entire cycle; if, on the other hand, key 4 (ON / OFF) is pressed incorrectly during this phase, simply press it again to eliminate the **"WAIT OFF"** status: the appliance will therefore resume normal operation at the end of the entire ignition cycle. During the **"FINAL CLEANING"** phase, an automatic cleaning cycle of the brazier will be performed.

Changing the Working Power and Boiler, Boiler or Puffer Water Temperatures

- WORKING POWER

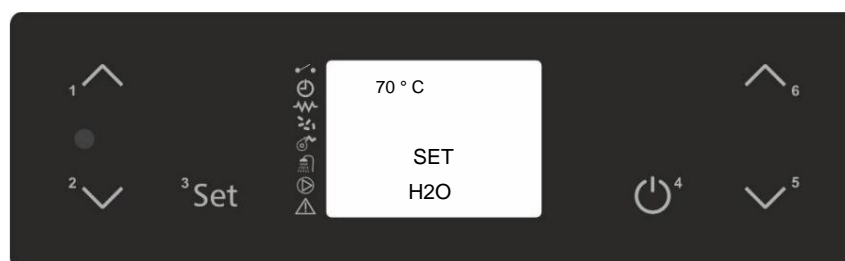
To modify the maximum working power, simply select the **"SET POWER"** by pressing key 5. Then use keys 5 and 6 to change the value. During this operation, the display appears as shown in the figure below.



After setting the desired value, confirm by pressing key 4 or waiting a few seconds.

- WATER TEMPERATURE IN THE BOILER

In System Types 1, 2 and 3, to change the water temperature in the boiler (system temperature) simply select **"SET H2O"** by pressing key 2. Then use keys 1 and 2. During this operation, the display appears as shown in the figure below.

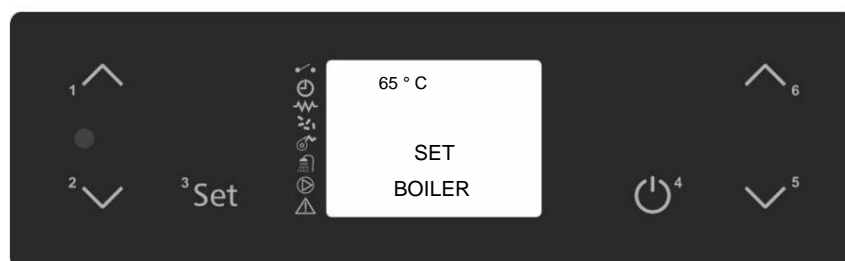


After setting the desired value, confirm by pressing key 4 or waiting a few seconds.

During the work phase the appliance goes into *"Economy of operation"* when this temperature is reached.

- DHW STORAGE TANK TEMPERATURE

In System Type 3, to change the boiler temperature simply select the **"SET BOILER"** by pressing key 1. Then use keys 1 and 2. During this operation, the display appears as shown in the figure below.



After setting the desired value, confirm by pressing key 4 or waiting a few seconds.

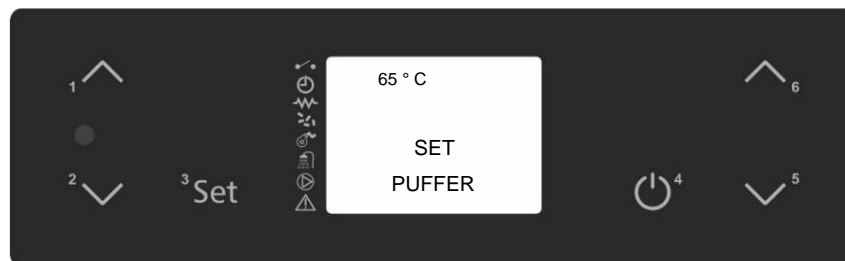
During the work phase, if the boiler is in demand, the appliance enters *"Economy operation"* if $T.H2O > SET\ BOILER + 10\ ^\circ C$.

Below are the operating modes if the set "SET BOILER" temperature is reached:

- "Menu 01-CHOOSE SEASON = SUMMER" the appliance goes immediately into stand-by **"STOP FIRE"**.
- "Menu 01-CHOOSE SEASON = WINTER" the motorized three-way valve switches to heating and the appliance will go to **"STOP FIRE"** stand-by shutdown only if the conditions in the heating system are met.

- PUFFER TEMPERATURE

In System Type 4, to modify the puffer temperature simply select the “**SET PUFFER**” by pressing key 1 or 2. Then use keys 1 and 2. During this operation the display appears as shown in the figure below.



After setting the desired value, confirm by pressing key 4 or waiting a few seconds.

During the work phase the appliance enters “*Economy operation*” if $T.H_2O > SET PUFFER + 10 ° C$.

Instead, the “STOP FIRE” stand-by shutdown takes place only if the temperature set in the “SET PUFFER” is reached and after a time set in Pr44.

PROBLEMS, ALARMS, USEFUL ADVICE

You need to know ...

Here are some things to know about the appliance:

- For the first few days of operation it is normal to smell paint coming from the appliance. At the first start-up we recommend to keep the installation room is well ventilated. For the first few days of operation, we also recommend setting the appliance to high powers.
- The boiler body is treated with an antioxidant paint useful to protect it from any oxidation due to a long period of inactivity of the same. This paint after the first ignition will no longer have this function and any wear of the same inside the combustion chamber is not to be considered a manufacturing defect.
- Do not clean the inside of the combustion chamber with water; any oxidation of the combustion chamber after a long period of inactivity is not to be considered a manufacturing defect.
- Any noise perceived during the operating phases can be given by settling expansion of the sheets that make up the boiler body; These noises are accentuated especially in the switching on and off phase of the appliance and are not to be considered a manufacturing defect.
- **In case of failure to ignite, it is advisable to empty the brazier from the accumulated pellets; only after having emptied the accumulation of unburned pellets is it possible to re-ignite the appliance to avoid gasification conditions with relative "burst" which could cause the door glass to break.**
- The appliance works exclusively with wood pellets; do not burn different fuels.
- The appliance can only work connected to the heating system and with water inside the boiler body; Don't go on for any reason for the appliance if a hydraulic connection has not been made in accordance with current regulations and if the entire boiler body and system has not been filled with water, in order to avoid compromising its duration.
- The noise perceived during the switching on and off phase is due to the automatic cleaning of the brazier.
- The noisiness of the appliance is accentuated when the pellet tank is empty. It is therefore advisable to always keep the pellet level at least half tank.
- In the event of soot and fine dust in the installation room of the appliance, check the tightness of the gaskets of the smoke pipes and the filter of the ash vacuum cleaner used for cleaning.
- In the event of overheating, the appliance switches off when $85 ° C$ is reached.

What happens if...

... The pellet does not ignite

In the event of ignition failure, the “IGNITION FAILURE” alarm message is displayed.

Press key 4 for a few seconds to cancel the alarm and then bring the appliance back to standard condition.

In case of failure to ignite, it is advisable to empty the brazier from the accumulated pellets; to avoid gasification conditions, it is possible to re-ignite the appliance only after having emptied the accumulation of unburned pellets.

... the combustion chamber door is open or not closed properly

If the door is open or closed incorrectly, the pellets are not loaded and therefore the appliance does not switch on. If the door is opened during normal operation, the appliance goes into the “SAFETY-THERMAL” alarm.

... The flue is dirty, clogged or not constructed correctly

In the event of a dirty, obstructed or incorrectly constructed flue, the pellets are not loaded and therefore the appliance does not switch on. If the flue becomes obstructed during normal operation, the appliance goes into the "MANCA DEPRESS-" alarm.

... The appliance goes into overtemperature

In case of overtemperature of the water in the boiler (> 94 ° C) the pellet loading does not take place as the manual reset thermostat intervenes. If this happens during normal operation, the appliance goes into a "THERMAL SAFETY" alarm. It is therefore necessary to reset the "manual reset safety thermostat" (see "Appliance components") before switching the appliance on again. To reset it is necessary to unscrew the black cap and press the button below.

... there is no electricity (black out)

If the electricity fails for a time shorter than Pr48, when it is restored, the appliance immediately returns to the work phase (resuming the set work power).

If the electricity fails for a time longer than Pr48, when it is restored, the appliance goes into the "FIRE STOP" state (*stand-by*) running the entire shutdown cycle until it cools down. Once this has been done, the normal ignition cycle is re-proposed, then resuming work at the set power.

| PREVIOUS STATE | BLACK-OUT DURATION | STATUS AFTER RESETTING ELECTRICITY |
|----------------------|--------------------|--|
| TURNED OFF | Any | TURNED OFF |
| START | duration <Pr48 | START |
| START | duration > Pr48 | START |
| P-LOAD PELLETS | Any | BLACK OUT ALARM |
| WAITING FOR FLAME | Any | BLACK OUT ALARM |
| FIRE PRESENT | duration <Pr48 | FIRE PRESENT |
| FIRE PRESENT | duration > Pr48 | FIRE STOP with automatic re-ignition after machine cooling |
| WORK (any stage) | duration <Pr48 | WORK (any stage) |
| WORK (any stage) | duration > Pr48 | FIRE STOP with automatic re-ignition after machine cooling |
| CLEANING THE BRAZIER | duration <Pr48 | CLEANING THE BRAZIER |
| CLEANING THE BRAZIER | duration > Pr48 | FIRE STOP with automatic re-ignition after machine cooling |
| FINAL CLEANING | duration <Pr48 | FINAL CLEANING and after cooling ÿ OFF |
| FINAL CLEANING | duration > Pr48 | FINAL CLEANING and after cooling ÿ OFF |
| STOP FIRE | Any | STOP FIRE |

Signaling of alarms

The table below describes the possible alarms signaled.

| DISPLAY VISUALIZATION | ORIGIN OF THE ALARM |
|-------------------------------------|--|
| AL 1 - ACTIVE BLACK OUT ALARM | Black-out alarm. When there is no electricity under certain conditions (see "What happens if ...") |
| AL 2 - SMOKE PROBE ACTIVE ALARM | Fume temperature probe faulty or disconnected. |
| AL 3 - ACTIVE ALARM HOT TEMP | Smoke over temperature. Before displaying this alarm, the message "HOT FUMES" appears on the display, that is when the maximum temperature of the fumes is reached (Pr14). |
| AL 4 - ACTIVE ASPIRAT-FAILURE ALARM | Fume extractor faulty. When the encoder (tachometer) present in the aspirator detects a speed of the same equal to 0. |
| AL 5 - ACTIVE ALARM NO IGN | Ignition failure. When the minimum flue gas temperature (Pr13) is not reached within the maximum ignition cycle time (Pr01). |
| AL 6 - ACTIVE ALARM NO PELLETS | Sudden shutdown during the work phase. When the temperature of the fumes during the work phase falls below the minimum threshold (Pr28). |
| AL 7 - THERMAL SAFETY ACTIVE ALARM | Thermal safety. When the safety thermostat (water overtemperature) or one of the microswitches mounted in the fire door closure and pellet tank lid intervenes (contact interrupted). In case of intervention of the safety thermostat it is advisable reset manually. |
| AL 8 - ACTIVE ALARM NO DEPRESS | There is no depression. When the smoke pressure switch intervenes (contact interrupted) for reasons of low draft in the flue. |
| AL 9 - WATER PROBE ACTIVE ALARM | Water temperature probe faulty or disconnected. |
| AL c - TRIAC CO ERROR ACTIVE ALARM | Cochlea triac error. When the auger gearmotor does not stop for at least 0.2 seconds in the maximum working interval of 8.0 seconds. Before the alarm, a safety relay intervenes which forcibly disconnects the power supply of the gearmotor. |

Any alarm condition causes the immediate shutdown of the device. The alarm status is reached after the time set on Pr11 (factory set value 60 ") and can be reset by pressing and holding the ON / OFF key (4).

CLEANING AND MAINTENANCE

Precautions to be observed before cleaning

Before carrying out any cleaning or maintenance operation, make sure that:

- the appliance is off and completely cold in all its parts;
- the ash is completely cold.
- the rear switch ("Interference filter") is set to "0" (off).
- the ash vacuum cleaner used for cleaning is suitable and with the filter in good condition.

Before putting the appliance back into service, reinstall all the previously disassembled components, checking the correct sealing of the gaskets.

During cleaning operations, use the personal protective equipment required by directive 89/391 / EEC.

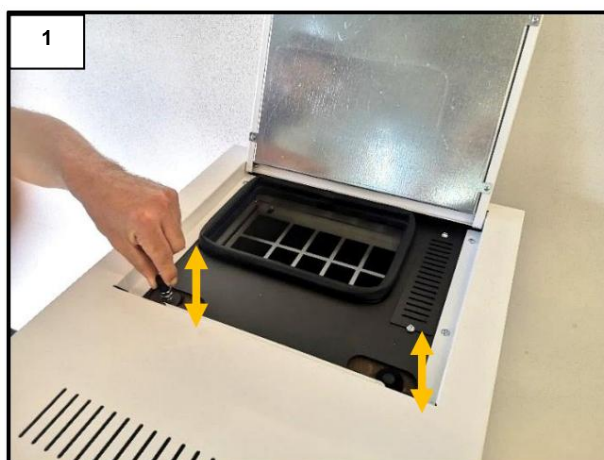
The cleaning frequency depends on the type and quality of pellets burned, therefore the times indicated below may vary.

Any problem of the appliance resulting from failure to clean it will not be covered by the warranty. Failure to comply with these operations can compromise the safety of the product.

Cleaning operations can be performed by the end user, as indicated in the paragraphs below.

Ordinary cleaning

Ordinary cleaning of the appliance must be carried out at least every 5 days of operation or after 20 ignition cycles, to always guarantee efficient performance and optimal operation of the same. Then proceed as follows:



Operate the two upper knobs by moving them from bottom to top to clean the internal smoke pass (figure 1).



After removing the upper collar of the brazier (figure 2), carefully clean the base of the brazier, eliminating any residues inside it.

Vacuum the ash that settles around the brazier with a suitable ash vacuum cleaner (figure 3).

Then empty the ash pan (figure 4).

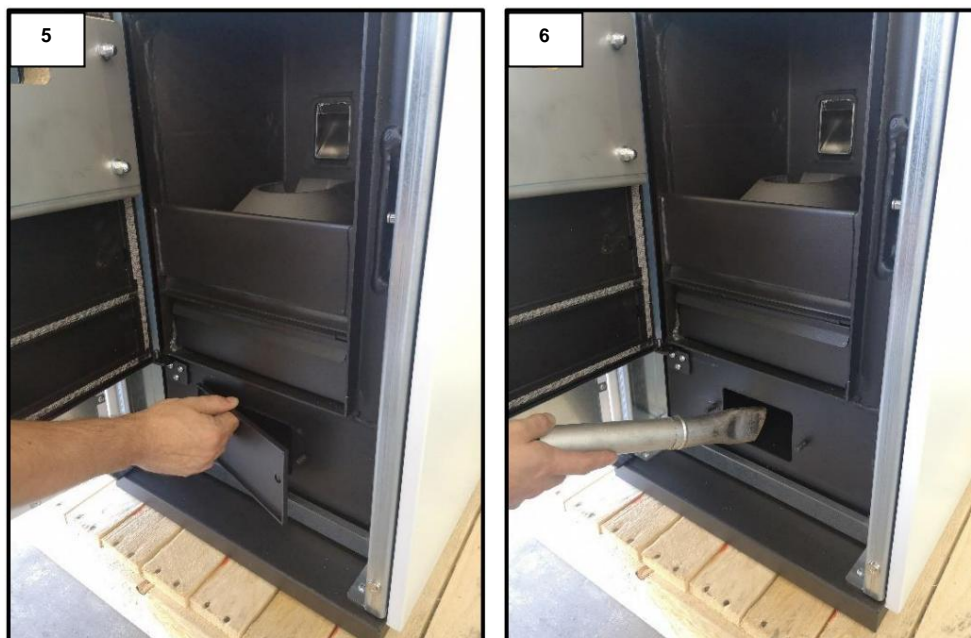
To remove any encrustations, it is also recommended to scrape the internal walls of the combustion chamber with a spatula. Do not use tools that can reduce the thickness of the boiler body sheet.

ATTENTION: use suitable ash vacuum cleaners, equipped with a fine mesh filter to avoid spilling part of the ash sucked into the environment and damaging the ash vacuum cleaner itself. The use of vacuum cleaners is not recommended.

Extraordinary cleaning

Extraordinary cleaning of the appliance must be carried out at least every 90 days to always guarantee efficient performance and optimal functioning of the same. Then proceed as follows:

Perform routine cleaning;



Remove the inspection vent by unscrewing the two handwheels (figure 5).

Therefore vacuum the residues inside the inspected compartment (figure 6).

At the end of the operation, reposition the previously disassembled components.



For correct operation it is necessary to vacuum the sawdust deposit on the bottom of the tank (figure 7) at least every 30 days. **At the end of each season it is necessary to completely empty the pellet tank.**

Cleaning the ceramic glass

Always clean the glass when the appliance is off and completely cold. Use a damp cloth or specific detergent for ceramic glass. Do not use abrasive sponges. Do not clean the glass without first waiting for it to cool; sudden changes in temperature can cause it to break.

Cleaning the flue

The cleaning of the flue must be done at least once a year, at the beginning of the winter season, and in any case whenever necessary.

It is necessary to check the presence of any obstructions in the flue before lighting the appliance after a long period of non-use.

Failure to clean the flue can compromise the operation of the appliance and its components.

The frequency of cleaning the appliance and the flue depends on the quality of the pellets used.

USE EXCELLENT QUALITY PELLETS TO OBTAIN THE BEST RESULTS.

Maintenance

Punctual and systematic maintenance is a fundamental component for correct operation, optimal heat output and durability of the entire appliance, therefore it is recommended to have the appliance checked by qualified personnel at least once a year at the beginning of the season. .

It is necessary to periodically check the gaskets since the latter guarantee the tightness of the appliance and its consequent good functioning; if they are worn or damaged, they must be replaced immediately by an **authorized Klover technical assistance center**.

For correct operation, the appliance must undergo routine maintenance by an *authorized Klover technical assistance center* at least once a year.

ELECTRICAL DIAGRAMS AND PARAMETER TABLES

Wiring diagrams and device parameters are visible by scanning the following Qr Code with your smartphone.

Electrical Schematic



https://docs.klover.it/it/guide/help/cs-sche-1023-8_i-1

Parameter Tables



<https://docs.klover.it/it/guide/help/cs-ecn-par-1>

CONDITIONS OF CONVENTIONAL WARRANTY

1. General information

This conventional guarantee is issued by Klover Srl (hereinafter, "**Klover Guarantee**"), based in San Bonifacio, via A. Volta n. 8, for the products identified on the website www.klover.it (hereinafter, "**Products**"). The Klover Guarantee does not affect the rights provided for by the European Directive 99/44 / EC and by Legislative Decree no. 206/2005 "Consumer Code", where applicable.

The Klover Guarantee must be understood as limited to the Italian territory. In any case, Klover Srl invites Consumers from outside Italy to contact the retailer where they purchased the Product to find out the warranty conditions in force.

2. Activation of the Guarantee

For the purposes of its validity and effectiveness, the Klover Guarantee must be activated, within 60 (sixty) days from the date of purchase, on the website www.klover.it in the "*Register your guarantee*" section, by entering the data requested and attaching the delivery document or other fiscally valid document proving the purchase (eg receipt).

We ask you to carefully keep the customer copy of the Warranty Certificate, duly completed and signed by the Consumer and the installer, as well as the delivery document or other fiscally valid document proving the purchase, for the purposes of the Klover Warranty.

3. Klover 2 year warranty

Klover Warranty means the free repair of the Product or of the component parts of the Product, which are originally defective due to defects that Klover Srl ascertains as exclusively attributable to the manufacturer. If the repair of the Product is not possible in any way, it will be replaced. In both cases, the expiry date and the terms of the guarantee obtained at the time of purchase of the Product remain unchanged.

The Klover Guarantee offers all the advantages of a service guaranteed directly by Klover Srl and managed by its network of authorized Technical Assistance Centers (hereinafter, "**CAT**") present on the Italian territory, which can be consulted on the website www.klover.it.

The Klover Guarantee operates for a duration of 2 years from the date of purchase of the Product, proven by a delivery document or other fiscally valid document (e.g. receipt), which shows the name of the seller, the product purchased and the date of purchase. .

The components of the Product replaced at the expense of the Consumer as "out of warranty" for the aforementioned two-year term and by authorized CAT, are guaranteed by Klover Srl for 1 year from the relative replacement, excluding intervention costs, labor and accessory costs.

4. 5-year Klover warranty

The Consumer who, within 3 months from the date of purchase, submits the Product to the First Ignition service provided by the appointed TAC will be entitled to the Klover Warranty on the "boiler body" of the Product for a period of 5 years from the date purchase of the Product.

The cost of the First Ignition service is charged to the Consumer.

This Klover Guarantee operates on condition that periodic seasonal maintenance is carried out by the local TAC, indicated in the user manual (for example, to preserve the boiler bodies with Safe Top it is necessary to use the Long Life protective annually).

Carefully keep the First Ignition Report, duly completed and signed, for the purposes of the Klover Guarantee.

5. Complaints and Assistance

As required by Legislative Decree no. 24/2002, complaints must be presented to the retailer where the Product was purchased.

The retailer, having ascertained the lack of causes for forfeiture of the Klover Guarantee and its operation, will contact the local CAT, with whom he will agree on times and methods of intervention for the verification and removal of the reported anomaly.

In the event that the Consumer contacts the CAT directly, the latter must immediately notify the retailer from whom the Product was purchased.

If the CAT, during the inspection of the Product, ascertains that the reported operating anomaly is not one of the defects covered by the Klover Guarantee, the exit and any intervention will be charged to the Consumer.

To improve the service and reduce intervention times, the Consumer is invited to provide the data of the Product that is the subject of the call. In particular, please provide

the following information: • Warranty Certificate number • Product name, model and serial number • date of purchase • claimed defect.

Klover Srl is not liable for any delays in carrying out repairs or replacements of the Product.

6. Limitation of Liability

Klover products must be subjected to a functional test before carrying out any additional masonry works, such as, by way of example, assembly of the relative cladding, execution of the pilasters, painting of the walls. Klover Srl is not liable for charges deriving from removal and / or reconstruction of the same, or from hydraulic assembly and disassembly works, as well as from any other accessory intervention with respect to the Product, even if resulting from replacement work of any defective parts.

Klover Srl is not liable for Product failures attributable to external conditions and / or events such as, but not limited to, insufficient capacity of the systems, incorrect installation, poor maintenance or maintenance that does not comply with the indications contained in the appropriate use and maintenance booklet, incorrect running the Product. In such cases, any intervention remains the responsibility of the Consumer.

Klover Srl declines all responsibility for any damage that may derive, directly or indirectly, to the Consumer and / or to third parties, whether people, animals or things, as a result of failure to comply with all the requirements indicated in the specific instructions and concerning the warnings on the subject. installation, use and maintenance of the Product. The damaged party must in any case prove the damage, the defect and the related causal connection and notify the retailer from whom he made the purchase, pursuant to Legislative Decree no. 24/2002.

7. Exclusions from the Klover Guarantee

The Klover Guarantee does not include:

- Product defects not attributable to manufacturing defects • Product defects attributable to incorrect or unsuitable installation • Defects attributable to the malfunctioning of the flue pipe
- Product defects due to negligence, accidental breakage, normal wear, tampering and / or damage in transport (scratches, dents, etc.), even for shipments free at destination, interventions carried out by unauthorized personnel and further damage caused by incorrect interventions by the Consumer • Parameter calibration interventions • Damages deriving from the use of poor or unsuitable fuel • Transportation costs.

The following components of the Product are excluded from the Klover Guarantee:

- Ceramic or tempered glass, ceramic-majolica and / or painted steel and / or cast iron coatings. It should be noted that variations in the color tone, pitting, crazing, shading and slight dimensional variations are not to be considered defects of the Product but characteristic of the craftsmanship • The painted, chromed or gilded details, the handles, the ignitors • All components external parts of the Product on which the Consumer can intervene directly during use and / or maintenance or which may be subject to wear, and / or the formation of rust, stains on steel due to the use of aggressive detergents and in particular with hourly loads of wood higher than those indicated or the use of fuels not recommended or not provided for in the instructions • Refractory materials or vermiculite • The pellet brazier, the grill and the cast iron cooking plate, the smoke deflector or flame arrester, the gaskets, fuses or batteries present in the electronics of the Product and any other removable component subject to normal wear • The electrical and electronic parts whose failure is due to a non-compliant electrical connection, to natural disasters and to variations in voltage other than the nominal one.

8. Jurisdiction

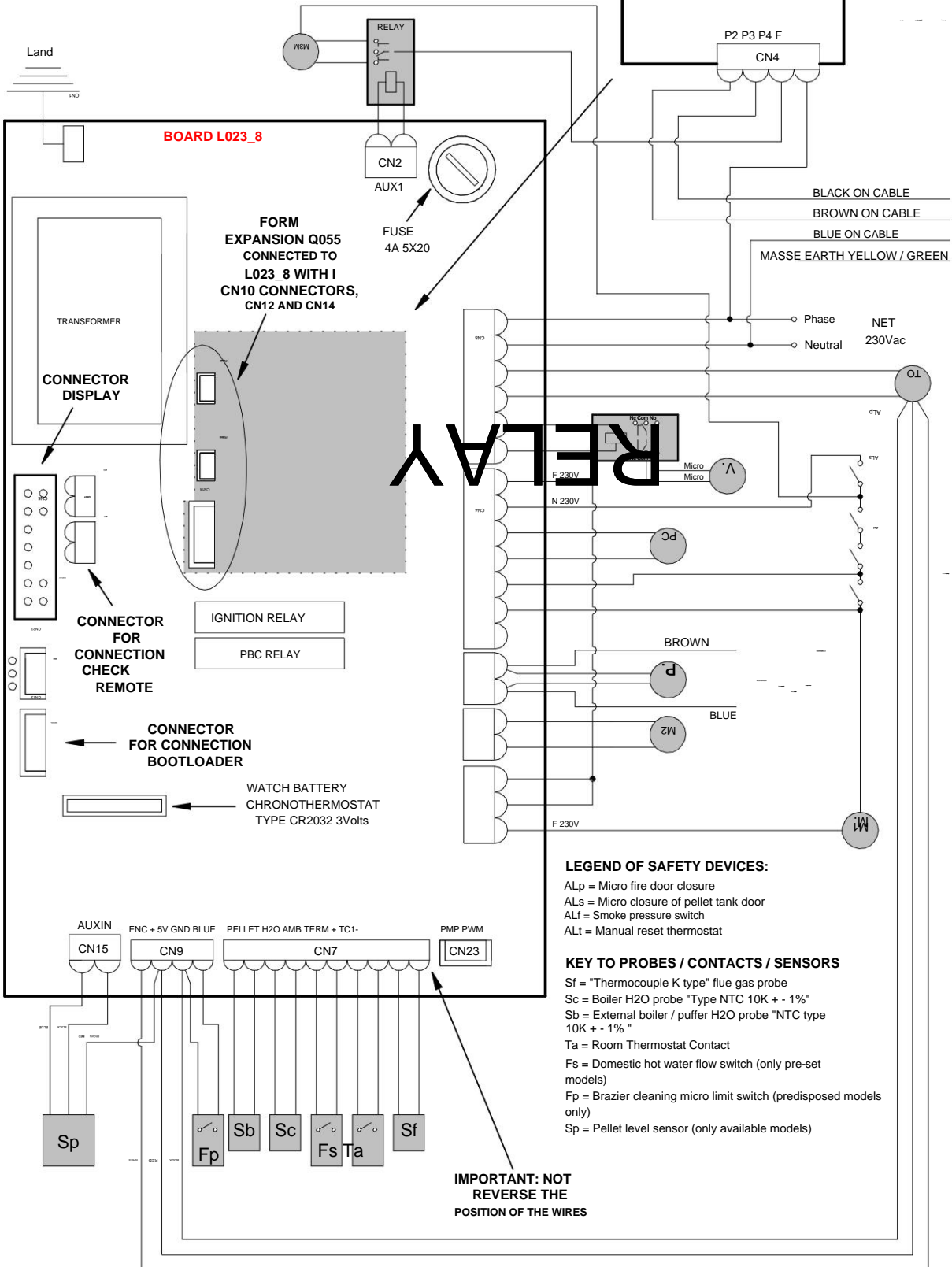
In the event of disputes, the Court of Verona is exclusively competent.

COMPONENTS KEY:

- M1 = Auger gearmotor
- M2 = Turbulator cleaning gearmotor (only pre-set models)
- M3 = Brazier cleaning gearmotor (predisposed models only)
- C = Ignition plug
- A = Smoke extractor with tachometer
- P = System circulator
- V = Vacuum motor for auxiliary pellet loading (optional preparation)

* IT IS APPROPRIATE FOR THE ELECTRICAL CONNECTION TO THE COMBINED BOILER CONNECT AN OUTPUT RELAY TO THE PREPARED WIRES SINCE THESE LAST ARE POWERED WITH 230V VOLTAGE.

EXPANSION BOARD Q055 (OPTIONAL)





KLOVER SRL

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VAT number

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