

Centrometal

HEATING TECHNIQUE

Centrometal d.o.o. - Glavna 12, 40306 Macinec, Croatia, tel: +385 40 372 600, fax: +385 40 372 611

TECHNICAL INSTRUCTIONS



for **regulation**, use and maintenance
of pellet stove



CentroPelet ZV14

Dear Customer,

Congratulations on your purchasing an pellet boiler stove! We would like to remind you that pellet boiler stoves are the most innovative heating solution generated by the most advanced technology, characterised by high-quality manufacturing as well as a simple and elegant design. Ideal for any type of room, these products contribute to comfort thanks to the cosy heat that only flames can radiate.

This manual will help you use your pellet boiler stove properly. Therefore, read it carefully and thoroughly before using the unit. Stoves are fuelled only by wood pellets, up to 6mm in diameter. They are fitted with an exchanger that allows reaching a heat yield of approx. 90%.

Pellet boiler stoves are fitted with a timer-thermostat that ensures an autonomous management of the stove as it can be programmed to turn on and off up to 4 times per week. Pellet boiler stoves take the heat to the radiators in the heating system, with a thermal power that is adjusted according to the space to be heated: just set the heating system water temperature manually. Recommended temperature: between 60° and 75°.

Pellet boiler stove also heats the room where it is installed through a natural convection air- system.

Pellet boiler stoves have been equipped with highly advanced automatic devices and control and safety systems that ensure efficient and practical operation.

Installation and maintenance operations should be carried out by qualified personnel, in compliance with the laws in force and according to the indications specified by the Manufacturer.

This use and maintenance manual is an integral part of the product.

Before using, installing or servicing the product, read the indications contained in this manual carefully.

This pellet boiler stove should only be used for the intended use it has been designed for. Therefore, the user shall be responsible for any damage to people, animals or things resulting from misuse of the product.

CAUTION!

The first two or three times your pellet boiler stove is started, fumes emitted by the varnish may cause unpleasant smells due to hardening. Therefore, it is advisable to air the room properly, and avoid staying long in front of the pellet boiler stove.

Installation should be carried out by qualified personnel, who will be fully responsible for installing the product and ensuring its proper operation. The Manufacturer shall not be responsible in case of installation by unqualified personnel or without complying with the general warnings and installation instructions.

After unpacking the unit, check all the parts are in good conditions and that no item is missing. Otherwise, contact the dealer from which you purchased your pellet boiler stove.

Before installing the unit, it is advisable to clean all the ducts and pipes in the system very carefully in order to remove any scales that may affect the stove correct operation.

Whenever the pellet boiler stove is not used for a long time, it is advisable to carry out the following operations:

- disconnect the power supply plug;
- close the water cocks of both the heating and the hot water systems;
- in case of risk of frost, empty the heating and hot water systems.

The pellet boiler stove extraordinary maintenance should be carried out at least once a year. This operation should be scheduled in advance with the Technical Assistance Service and shall be at the Client's expense.

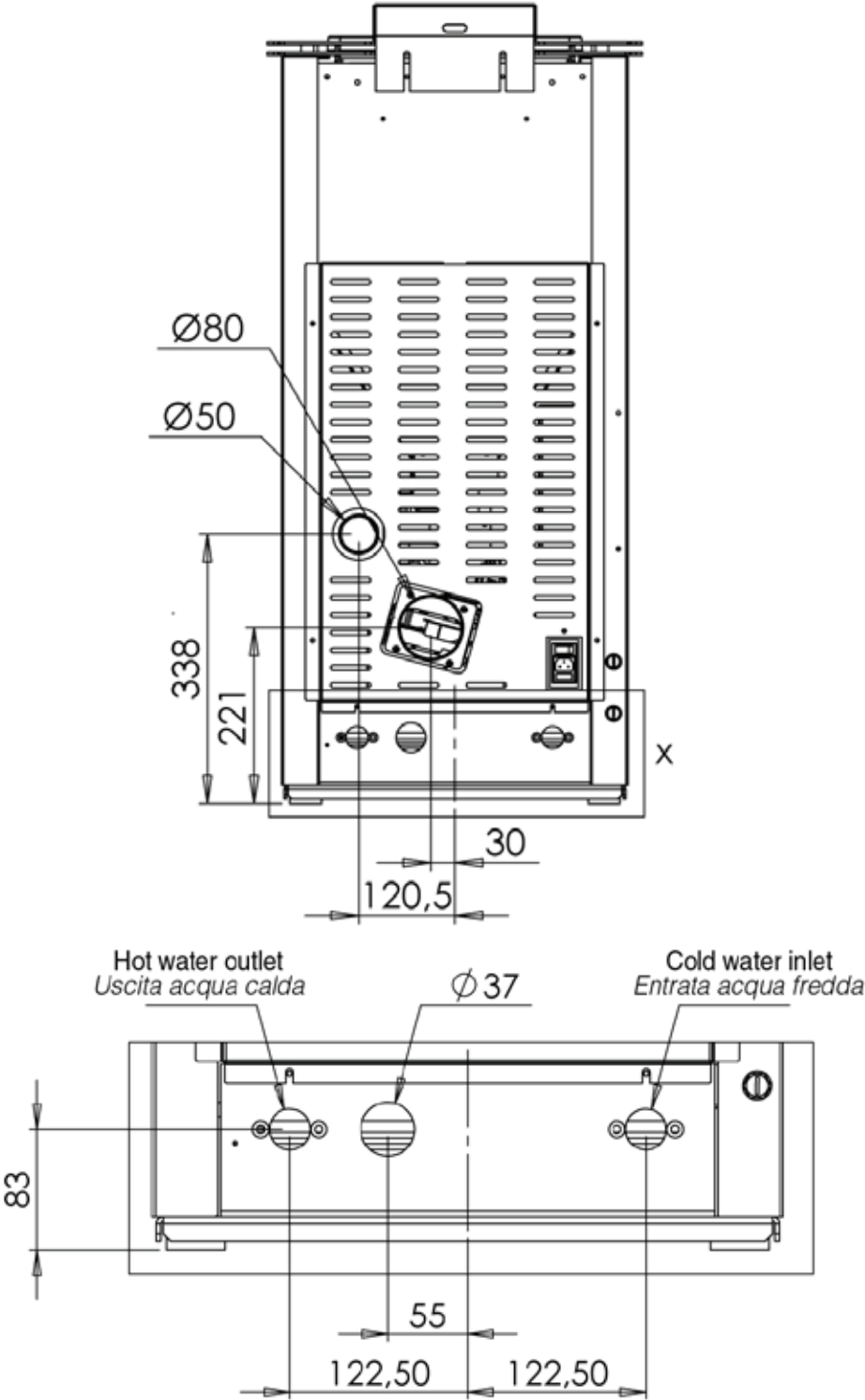
For safety reasons, it is advisable to remember that:

- The pellet boiler stove should not be used by children or handicapped people not being assisted;
- do not touch the pellet boiler stove with wet parts of the body and/or bare feet;
- it is forbidden to modify the safety or adjustment devices without the manufacturer's authorisation or indications;
- do not pull, disconnect or twist the electric cables coming out of the boiler even when it is disconnected from the mains;
- avoid covering or reducing the combustion air duct, which is essential for correct combustion;
- keep all the packing elements out of the reach of children or handicapped people not being assisted.

In the event of a fire, disconnect the power supply, use an extinguisher and call the fire fighters if necessary. After that contact the Authorised Assistance Centre.

Technical Specification

Pict. 1




Aproximative dimensions (mm).



Weight	approx. Kg 130
Flue pipe diameter	80 mm
Air intake pipe diameter	50 mm
Water inlet/outlet diameter	3/4"
Power Supply	220V - 50Hz
Min. electrical input	90 W
Max. electrical input	350 W only start phase
Hopper capacity	17 kg



CAUTION!


The brazier should be cleaned before each starting.

Control Panel (Pict. 2)

Button  si utilizza per l'accensione e/o lo spegnimento della termostufa e per uscire dalla programmazione.

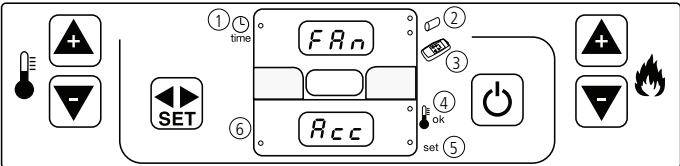
Buttons  and  are used to adjust temperature, for displays and for the programming functions.





Buttons  and  are used to adjust heating power.

Button  is used to adjust temperature and programming functions.

The upper and lower displays are used to view different messages.

Pict. 2



LED	SYMBOL	DESCRIPTION
①		The LED is on when the parameter UT01 on the menu is not on OFF and the weekly or daily programming are set.
②		The LED starts up every time the stove is loading pellets
③		The LED blinks when the board signals a change in temperature or power set by the infrared remote control.
④		The LED is on when the room temperature reaches the value set on the menu SET Water.
⑤	"SET"	The LED blinks to indicate that you are entering the menu user/technician or that you are modifying the temperature set.
⑥		The LED switches on when the water circulator is working.

CAUTION!

It is advisable to use dry wood pellets, up to 6 mm in diameter.

Preliminary checks

Before switching on the pellet stove, make sure that the pellet hopper is full, the combustion chamber is clean, the glass door is closed, the power supply plug is connected and the switch on the back is set to "1."


How to load pellets in the tank

You can load pellets in the tank through the door on the upper part of the stove.

Join the following procedure to load pellets:

- Open the door on the upper part of the stove;
- Load the wished pellets quantity with caution (load enough pellets to grant a sufficient functioning of the stove);
- Close the door.

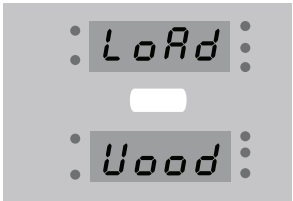
Starting the Stove

Press button  for a couple of seconds until the pellet boiler stove starts.

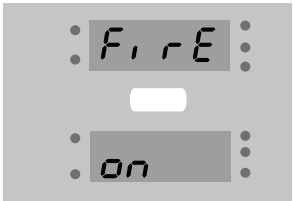
"**FAN**" will be displayed on the upper display and "**ACC**" on the lower one. During this phase the unit will carry out a diagnosis (around 20 seconds) on the fume extraction system.



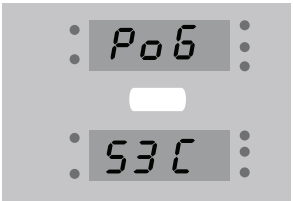
"**LOAD WOOD**" is the next phase, which indicates pellets should be fed. The glow plug will heat up to light the fire.



When the fume temperature is 50° C (approx. 10 minutes), the pellet boiler stove will confirm the ignition: "**FIRE**" will be shown on the upper display and "**ON**" on the lower one.



After this phase, which lasts around 5 minutes, the heating power (e.g. **PO6**) and the room temperature (e.g. **25°**), will be simultaneously shown on the upper display, and the system delivery water temperature will be shown on the lower display.



If the flame does not start up correctly within 10 minutes, the pellet boiler stove jams: you will read the words "**ALAR**" on the upper display and the words "**NOACC**" blinking on the lower display. Wait **10 minutes** until the cooling phase is completed, open the door, empty the brazier and start a new light-up.

REMARKS:

In case of repeated ignition lock-outs, while pellets are fed regularly, there may be a problem caused by a failing electric glow plug. In this case, while you wait for a technician, the pellet boiler stove can be manually started by using solid fuel cubes (firelighters).

Manual starting procedure:

- open the door;
- take a solid fuel cube and place it inside the brazier together with some pellets;
- light a match and set fire to the solid fuel inside the brazier;
- wait a couple of minutes, close the door;
- follow the regular ignition procedure.

CAUTION!

Do not use any flammable liquid to start the stove. During the reload phase, do not bring the bag of pellets in contact with the hot pellet boiler stove.

Working power and water temperature settings

The heating power is set by the keys and . A heating power **at Po 9 is suggested** during the first working hours of the stove.

To set the water temperature press the key only once. You will see the words **"SET H2O"** blinking on the upper display. You will read the water temperature on the lower display.

Use the keys and to increase and reduce the wished value.

Water temperature range: 30°C – 80 °C

Room temperature setting

To set the room temperature, press the key twice: you will see the words **"SET ARIA"** blinking on the lower display. You will read the set temperature on the upper display.

Use the keys and to change the value.

Room temperature range: 7°C – 40 °C

Procedure to turn off the pellet boiler stove

Turn off the pellet boiler stove by pressing button , for a couple of seconds until **"OFF"** is shown on the upper display.

Pellet feeding will stop immediately but the pellet boiler stove will continue working until the accumulated heat is fully consumed, turning itself off automatically after **approx. 30 minutes**.

REMARKS:




The pellet boiler stove is fitted with an automatic device that allows cleaning the brazier after a given period of time: when this time is detected, the stove fire automatically reduces and **"PULFIRE"** is shown on the display. After some minutes, the pellet boiler stove will start working regularly.

WARNING

Do not unplug the power plug to turn off the pellet boiler stove; wait until the automatic shutdown cycle finishes: the continuous operation of the fumes extraction fan is normal and may indicate that the stove is still hot. In the event of low temperatures, it might happen that the stove - although switched off - starts the smokes fan and circulator for some minutes in order to prevent ice formation on the pipes of the system. In the event there is a power drop, the main board will exhaust the smokes residuals as soon as the power supply is back on. In order to do that, the main board will increase the speed and show the words "Cool FIRE" on the display. As soon as the cooling phase has been completed, the stove will automatically start up working as it was set before the power drop.

Heating timer-thermostat

The heating timer-thermostat function is used to program the pellet boiler stove to automatically turn on and off within a period of one week.

To access programming, hold down button  for around three seconds, “UT01” will be shown on the upper display: by pressing button  several times and referring to the table below, the stove can be programmed according to your needs. Press button  to exit the programming phase at any time.

These are the heating timer-thermostat parameters:



Parameter	Description	Programmable values
UT01	H. timer-thermostat enabling and disabling. Day of the week setting	OFF; Day 1, ..., Day7
UT02	Current hour setting	From 00 to 23
UT03	Current minutes setting	From 00 to 60
UT04	Technical parameters setting	Reserved
UT05	Pellet boiler stove first start-up time adjustment	From 00:00 to 23:50 with 10-minute steps
UT06	Pellet boiler stove first shutdown time adjustment	From 00:00 to 23:50 with 10-minute steps
UT07	Week day selection, first time activation	Between on/off for days from 1 to 7
UT08	Pellet boiler stove second start-up time adjustment	From 00:00 to 23:50 with 10-minute steps
UT09	Pellet boiler stove second shutdown time adjustment	From 00:00 to 23:50 with 10-minute steps
UT10	Week day selection, second time activation	Between on/off for days from 1 to 7
UT11	Pellet boiler stove third start-up time adjustment	From 00:00 to 23:50 with 10-minute step
UT12	Pellet boiler stove third shutdown time adjustment	From 00:00 to 23:50 with 10-minute step
UT13	Week day selection, third time activation	Between on/off for days from 1 to 7
UT14	Pellet boiler stove fourth start-up time adjustment	From 00:00 to 23:50 with 10-minute steps
UT15	Pellet boiler stove fourth shutdown time adjustment	From 00:00 to 23:50 with 10-minute steps
UT16	Week day selection, fourth time activation	Between on/off for days from 1 to 7

The meaning of the user parameters are explained in detail below:

UT01

Heating timer-thermostat enabling and disabling and current hour setting.


This parameter is used to set the current day of the week or to deactivate the set programming.

Press buttons  and  to select the desired value as shown in the following table:

Upper Display	MEANING
Day 1	Monday
Day 2	Tuesday
Day 3	Wednesday
Day 4	Thursday
Day 5	Friday
Day 6	Saturday
Day 7	Sunday
OFF	Heating timer-thermostat disabled



Example:


if today is Thursday, select “Day 4”; but select “OFF” to start the pellet boiler stove manually (without programming) so that the heating timer-thermostat is disabled.

Press button  to go to the following parameter.

UT02



Current hour setting


This parameter is used to set the current hour, press buttons  and  to select the current hour.

Press button  to go to the following parameter.

UT03


Current minutes setting

Press buttons  and  to adjust current minutes.

Press buttons  to go to the following parameter.



UT04


Technical parameters setting

Press button  to go to the following parameter.

UT05



Pellet boiler stove first start-up time adjustment

This parameter indicates the time at which the pellet boiler stove will be started: use buttons  and  to set the desired time, with 10-minute steps.

Press button  to go to the following parameter.

UT06



Pellet boiler stove shutdown time adjustment

This parameter indicates the time at which the pellet boiler stove will be turned off: use buttons  and  to set the desired time, with 10-minute steps.

Press button  to go to the following parameter.

UT07

Week day selection

Press button  to select the days of the week. Press button  to enable (ON) or disable (OFF) the pellet boiler stove start-up day as shown in the following table:

Upper display	MEANING	Lower display
Day 1	Monday	ON1/OFF1-Yes or No
Day 2	Tuesday	ON2/OFF2-Yes or No
Day 3	Wednesday	ON3/OFF3-Yes or No
Day 4	Thursday	ON4/OFF4-Yes or No
Day 5	Friday	ON5/OFF5-Yes or No
Day 6	Saturday	ON6/OFF6-Yes or No
Day 7	Sunday	ON7/OFF7-Yes or No

In the following example, the pellet boiler stove is only started on Saturdays and Sundays.

Day 1 Monday	Day 2 Tuesday	Day 3 Wednes.	Day 2 Thurs.	Day 2 Friday	Day 2 Saturday	Day 2 Sunday
off 1	off 2	off 3	off 4	off 5	on 6	on 7

Confirm and continue with key .

UT08 → UT16

continue as indicated above to set the second, third and fourth ignition times.

If the stove is controlled by an external thermostat, when the thermostat reaches the preset temperature, **"ECO TERM"** will be shown on the pellet boiler stove display.

CAUTION!

the room temperature thermostat does not turn off and on the pellet boiler stove; it sets the stove in saving mode.

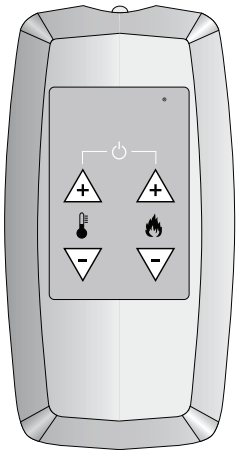
Remote Control

The remote control (Pict. 3) is used to adjust water temperature, power and the on/off functions for the pellet stove.

To start the pellet boiler stove, press keys and simultaneously. The pellet boiler stove will automatically enter the starting phase.

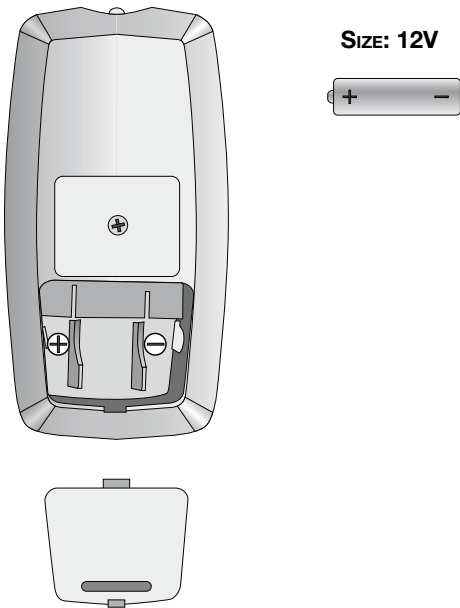
Press keys and to adjust water temperature, and use keys and to adjust operating power. To turn off the pellet boiler stove, hold down keys and simultaneously. "OFF" will be shown on the Pellet boiler stove display.

Pict. 3



To replace the 12 volt battery located on the back of the remote control; use a screwdriver as a lever to lift the cover. Replace the battery observing the correct polarity (Pict. 4).

Pict. 4



In the event of a working defect, the system informs the user about the type of failure occurred.

The following table summarises the alarms, kind of problem and possible solution:

Upper display	Lower display	Kind of failure	Solution
ALAR	NO ACC	- the pellet boiler stove cannot start up - this is the first light-up	Fill in the tank with pellets Start up again
ALAR	NO FIRE	- the pellet boiler stove switched off while working	Fill in the tank with pellets
ALAR	SOND FUMI	The smokes sensor is broken or not connected to the pcb	Contact an authorised and qualified technical assistance
ALAR	HOT H2O	The water temperature exceeds 90°C. The circulating pump is blocked or there is no water in the hydraulic system	Check the power supply on the pump. Check limestone does not block the pump impeller
ALAR	SOND H2O	The water sensor is not connected There is a short circuit on the water sensor	Check the water sensor is connected Contact an authorised qualified technical assistance
ALAR	HOT TEMP	The smokes temperature exceeds 280°C	Smokes sensor failure Contact an authorised qualified technical assistance
COOL	FIRE	There is no power supply	As soon as the power supply is back, the stove starts a cooling cycle. After completing the cycle it starts working automatically
ALAR	FAN FAIL	Smokes extractor blocked or broken	Contact an authorised qualified technical assistance
ALAR	DEP FAIL	Obstructed flue	Clean the flue or check there are no obstructed grids near the smokes exhaust
ALAR	SIC FAIL	Pellets tank overheating	Re-set the safety thermostat for pellets on the back of the stove. If the problem occurs again, contact an authorised qualified technical assistance
ALAR	SIC FAIL	Too high water temperature	Re-set the safety thermostat for water on the back of the stove. If the problem occurs again, contact an authorised qualified technical assistance
ALAR	PRESS	The system pressure does not reach 0,5 bar or exceeds 2,3 bar	Reduce the system pressure Charge the system
SERV		The stove has worked for 1300 hours. Supplementary maintenance required	Contact an authorised qualified technical assistance

Regular checks should be carried out by the user, who should only contact the Technical Assistance Service if no solution is found.

Failure on electrical devices

Failed light-up

If the flame does not light up during the switching on or if the smokes temperature does not reach a suitable value in the foreseen time gap, the stove switches off and you will read the words "ALARM NO ACC" on the display.

Press the key "On/Off" to reset the alarm. Wait until the cooling phase is completed, clean the brazier and start a new light-up.

Switching off while working

The stove suddenly switches off while working (for example because it has run out of pellets in the tank or because the motor reducer for pellets loading got broken). The stove continues working until the pellets left in the brazier ends. You will then read the words "ALARM NO FIRE" on the display and the stove switches off. Press the key "On/Off" to reset the alarm. Wait until the cooling phase is completed. Clean the brazier and start a new light-up.

These alarms remind you that the brazier must be cleaned and installed correctly before switching on the stove.

There is no power supply

In the event of a power drop longer than one minute, the pellet boiler stove can exhaust some smoke in the room: this causes no risks.

As soon as you have the power supply again, the pellet boiler stove will have the words "COOL FIRE" on the display. After completing the cooling phase, the stove will start up again automatically according to the previous settings.

CAUTION!

do not attempt to start the pellet boiler stove before the required time or it may get blocked.

If this occurs, switch off the switch on the back of the pellet boiler stove for 1 minute, set it on again and wait 10 minutes before starting the stove again.

Electrical safety

In the event of an electrical shock (lightning), the pellet boiler stove is protected by a fuse 2,5 A 250V which is placed on the back of the stove near the cable for power supply. Extract its box and replace the fuse.

CAUTION!

the power socket where the pellet boiler stove is connected should be fitted with "earth connection complying with regulations in force." The Manufacturer shall not be held responsible for damage to things or people resulting from negligent installation.

Smokes exhaust safety

A mechanical depressor checks the correct depression for a proper smokes exhaust. On the contrary, if the flue is obstructed, the pellet boiler stove switches off and you will read the words "ALAR DEP FAIL" on the display.

Pellets temperature safety

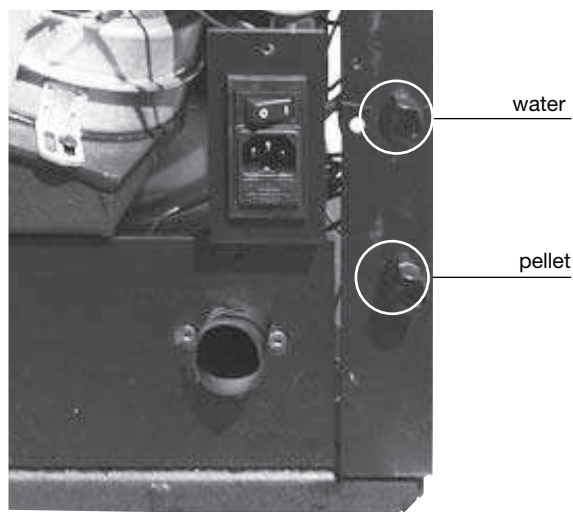
In the rare event there is a too high temperature in the tank, the thermostat for pellets safety with manual reset creates an alarm (ALAR SIC FAIL) stopping the pellet boiler stove. You need to reset the system working on the device placed on the back of the stove (Pict. 5)

Water temperature safety


In the event the water temperature exceeds a limit value of 100°C, the thermostat for water safety lets the stove switch off. You will read the words "ALAR SIC FAIL" on the display. Once you have waited a minimal time required for water cooling, you need to reset the thermostat placed on the back of the stove (fig. 5).

Manual reset thermostat

Pict. 5





System pressure safety

The system pressure is checked electronically and needs to be between 0,5 and 2,3 bar. If this is not the case, the pellet boiler stove signals an alarm and shows the words "Alar Press" on the display. Check the system pressure keeping the key  pressed for some seconds. You will read the bar value on the display.

The safety valve keeps anyway the value under 2,5 bar letting the exceeding water flow out automatically.

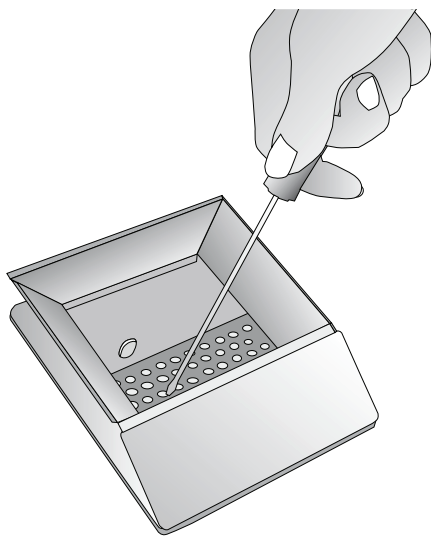
Cleaning of the pellet boiler stove

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The pellet boiler stove requires an easy and detailed cleaning in order to grant always efficient performances and working. While you are cleaning the inner parts of the stove, you can start up the smokes exhauster to avoid ash to discharge. To activate this function, press the key <D> and then the key  you will read the words "PUL STUF" (cleaning of the stove) on the display. In order to stop the fan, you just need to press the key  for a longer time waiting that a cleaning phase is completed (255 seconds).

EVERY DAY: remove and clean the brazier (Pict.6)

Pict. 6



FROM TIME TO TIME: clean the exchanger every two days. When the stove is cold, use the scraper on the front grid to clean the pipes.

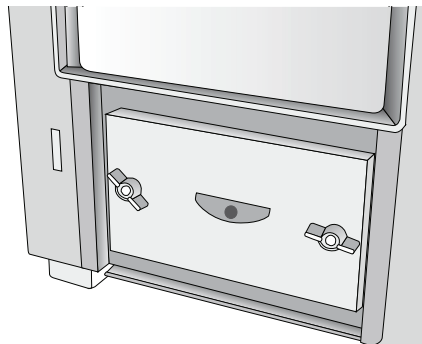
Pict. 7

scraper



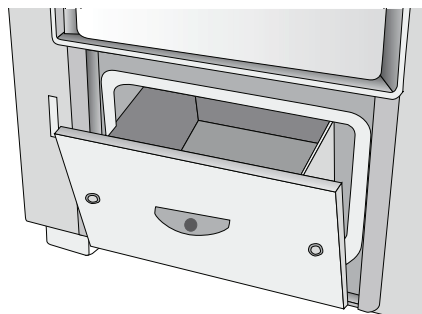
Every three or four burnt pellet's bag: open the lower door and unscrew the two knobs holding the inspection drawer (Pict. 8);

Pict. 8



remove the inspection drawer (Pict. 9), empty it and clean only the wall and corners using a vacuum cleaner or specific tools.

Pict. 9



Refit the inspection drawer and tighten up the two knobs carefully, taking into account tightness. Close back the lower door.

Cleaning the glass: clean the pyroceram of the central door using a wet cloth and a bit of ashes; wipe the glass until it is totally clean. Suitable detergents can also be used.

CAUTION!

Do not clean the glass while the pellet boiler stove is working.

Cleaning the flue: the flue should be cleaned at least twice a year or whenever required. If there are horizontal sections, it is necessary to check and remove any ash or soot deposits before they obstruct the passage of fumes.

CAUTION: if the pellet boiler stove is improperly cleaned or not cleaned at all, the following operation problems may occur:

- incorrect combustion;
- glass blackening;
- brazier clogging due to ash and pellet accumulations;
- ash deposits and excessive scales on the exchanger resulting in poor output.

Notes

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