



RAVELLI
il fuoco intelligente



Stoves with RDS technology

Francesca Top Outlet



SAVE THESE INSTRUCTIONS

Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death. Contact local building or fire officials about restrictions and installation inspection requirements in your area. Contact local authorities to see if a permit must be obtained before installation.

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INTRODUCTION



Please read this manual carefully. It describes all the phases necessary for perfect functioning of the stove.



The regulations on installation and operation in this manual may differ from the regulations in force locally. In this case, the indications of the competent local authorities must always be followed. The drawings shown in this manual are indicative and not to scale.

Information

The packaging that we have used offers good protection against any damage due to transport. Always check the stove immediately after delivery: in the event of any damage, please inform your Ravelli dealer immediately.

Description of use and maintenance manual

With this use and maintenance manual, Ravelli wishes to provide the user with all the information on safety in using the stove, in order to avoid damage to persons or things or parts of the stove. Please read this manual carefully before use and any work on the product.

WARNINGS

Ravelli stoves are manufactured taking care even on the individual components in order to protect both the user and the installer from any accidents.

The authorized personnel, after any work on the product, should therefore always pay special attention to the electrical connections.

Installation must be performed by authorized personnel, who must give the purchaser a declaration of conformity of the appliance, and who will assume all responsibility for the final installation and consequent good functioning of the product installed. It is also necessary to take into consideration all the laws and national, regional, provincial and local regulations present in the country in which the appliance has been installed. In the event of failure to respect these precautions, Aico S.p.A. declines all responsibility.

This instruction manual is an integral part of the product: please make sure that it is always with the stove, including in the case of transfer to another owner or user, or transfer to another place. In the case of its damage or loss, please request another copy from the Technical service.

This stove must be used for the purpose for which it has been specifically manufactured. Do not use the appliance as an incinerator or in any way other than that for which it was designed. All contractual and tort responsibility of the manufacturer is excluded for damage caused to persons, animals or things, due to errors of installation, maintenance regulation or improper use. No other fuel except the pellets must be used. Do not use liquid fuels.

After having removed the packaging, please make sure that the contents are complete and intact.

All the electrical components that make up the stove must be replaced with original spare parts exclusively from an authorized technical assistance centre.

Maintenance of the stove must be performed at least once a year, planning it in time with the technical assistance centre. Do not make any unauthorized modification to the appliance.

For safety reasons, please remember that:

- the stove must not be used by children or disabled people without assistance;
- do not touch the stove when barefoot or when any parts of the body are wet;
- the safety devices or adjustment devices must not be modified without the authorization or instructions of Ravelli.

The stove, especially the external surfaces, reaches very high temperatures when it is in operation; take care when touching it to avoid burns.

The stove has been designed to function in any climatic condition; in the event of particularly adverse conditions (wind, freezing), safety systems could switch off the stove.

If this occurs, contact the technical assistance and, in any case, do not disable the safety systems.

THANK YOU

Dear Customer,

We would like to thank you and congratulate you on the excellent choice you have made.

With the Ravelli stove, you will see that quality and economy can go hand in hand, offering excellent performances with limited consumption and being totally practical. Please find below some suggestions, which we would like to give you, to obtain the most from your stove and to fully enjoy all the advantages that it can give you.

Through this, we want to be close to our customers to offer the maximum technical support to all those who use our technology.

Aico S.p.A. thanks you for your confidence and wishes you happy times in the company of your pellet stove.

SAFETY INFORMATION

The stove must be installed and tested by specialized personnel instructed by the Ravelli. Please read this use and maintenance manual before installing and putting the stove into operation!
If you require further information, please contact your Ravelli dealer.

IMPORTANT

The place of installation of the stove must comply with local, national and Federal regulations.

The stove must be fuelled only with quality pellets with a diameter of 6 mm as described in the specific chapter.

The stove cannot operate with traditional wood

The stove must not be used as an incinerator. **FIRE HAZARD!!!**

Installation, the electrical connections, checking the functioning and maintenance must be performed by qualified and authorized personnel.

Improper installation or poor maintenance (not compliant with what is shown in the following manual) may cause damage to persons and things. In this condition, Ravelli is relieved of all civil or criminal responsibility.

Before connecting the stove electrically, the connection of the exhaust tubes must be completed (specifically for pellet stoves, not made from aluminium) with the flue.

The protection grille inside the pellet hopper must never be removed.

There must be sufficient circulation of air in the room where the stove is installed.

Never open the door of the stove whilst it is functioning. **FIRE HAZARD!!!**

The stove must not be used with the door open or with the glass broken. **FIRE HAZARD!!!**

When the stove is operating, the surfaces, the glass, the handle and the pipes become overheated: during functioning, these parts must only be touched with the adequate protection.

Do not light the stove without having first performed the daily inspection as described in the MAINTENANCE chapter of this manual.

Do not place any washing on the stove to dry. Keep clothes and similar at a suitable distance from the stove. **FIRE HAZARD!!!**
DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.

DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.

DO NOT INSTALL A FLUE DAMPER.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

Attachment and securement of the exhaust venting system to the product and to each adjoining section. All joints for connector pipe shall be required to be fastened with at least three screws. If vented horizontally, joints shall be made gaslight in a manner that shall be specified.

Perform regular inspection, maintenance, and cleaning of the chimney and chimney connector

Disposal of Ashes: Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, and moved outdoors immediately. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Other waste shall not be placed in this container.

Caution against the storage or use of flammable liquids, as follows: Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or 'freshen up' a fire in this heater. Keep all such liquids well away from the heater while it is in use.

Creosote - Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire

The exhaust venting system should be inspected at least once every two months during the heating season to determine if a creosote buildup has occurred.

If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

Scrupulously follow the maintenance programme.

Do not switch off the stove by disconnecting the electricity mains supply.

Do not clean the stove until the structure and the ashes have cooled down completely.

Carry out all operations in maximum safety and tranquillity.

Coply with exhaust venting system termination requirements including location restrictions to air inlets, distances from windows, doors, and air inlets and distance to combustible materials.

DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATIONS.

Hot while in operation. Keep children, clothing and furniture away. Contact may cause skin burns.

The type of chimney shall be suitable for solid fuel and the chimney connector must be in good condition and kept clean.

Establish a routine for the fuel, pellet burner and fring technique. Check daily for creosote build-up until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local or fire authority for information on how to handle a chimney fire. Have a clearly understood plan to handle a chimney fire. Keep firing and deashing doors closed and maintain all seals in good conditions.

Do not strike or slam shut the door, the glass can brake. The glass shall be cleaned only when cold, do not clean a hot glass.

Use a dry cloth with normal glass detergent, do not use any abrasive cleaner.

The type of chimney shall be suitable for solid fuel and the chimney connector must be in good condition and kept clean.

When this room heater is not properly installed, a house fire may result. To reduce the risk of fire, follow the installation

instructions. Contact local building or fire officials about restrictions and installation inspection requirements in your area. This room heater must be connected to a chimney complying with the requirements for type L pellet vent listed to UL641 or CAN/ULC S609 or a code-approved masonry chimney with a flue liner.

This wood heater needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instructions in this manual. - This wood heater has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.

This heater is designed to burn wood pellet only. **DO NOT BURN ANY OTHER FUEL.** Burning other materials may result in release of toxic fumes or render the heater ineffective and cause smoke.

Do not overfire. Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater.

Flues gases contain carbon monoxide (CO), it is recommended to install smoke monitors and CO monitors for areas that are expected to generate CO. Inspect the chimney to minimize visible emissions.

Soot and Flyash: Formation and Need for Removal—The products of combustion will contain small particles of flyash. The flyash will collect in the exhaust venting system and restrict the flow of the flue gases. Incomplete combustion, such as occurs during startup, shutdown, or incorrect operation of the room heater will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once every year to determine if cleaning is necessary.

GENERAL

The Stove must only operate in rooms. As it is controlled by an electronic board, combustion is completely automatic and controlled and the control unit regulates the ignition phase, 5 levels of power and the switching off phase, guaranteeing safe functioning.

Most of the ashes produced by the combustion of the pellets fall into the collection drawer.

However, always check the fire pot every day, as not all pellets have high standards of quality and could leave residue that is difficult to remove.

The glass has a special air circulation for self-cleaning. However, a slight greyish film cannot be avoided after a few hours of functioning.

As already mentioned earlier, pellets with a diameter of 6 mm must be used with the stove.

Responsibility

Ravelli declines all responsibility, both civil and criminal, with the delivery of this manual, for any accidents deriving from partial or total failure to observe the instructions it contains,

Ravelli declines all responsibility deriving from the improper use of the stove, from its incorrect use by the user, by unauthorized modifications and/or repairs or from the use of spare parts which are not original.

The manufacturer declines all direct civil or criminal responsibility due to:

- poor maintenance
- failure to observe the instructions in the manual
- use not compliant with the safety instructions
- installation that is not compliant with the regulations in force in the country.
- installation by personnel who are not qualified or authorized
- modifications and repairs that are not authorized by the manufacturer
- use of spare parts that are not original
- exceptional events

Majolica finishes

Due to the special hand finish of the majolica surface imperfections such as shadowing may occur. Those are details that make every majolica one of its kind. As it is a delicate material, please handle with care whilst cleaning and avoid blows as sudden breakage may occur. Please also take care when loading the hopper (Ed.'s note; tank containing the pellets) with the bag of pellets: do not place it on the stove!

What are the wood pellets

The wood pellets are made from sawdust and wood shavings produced in joiners' shops. The material used cannot contain any foreign substance such as glue, varnish or synthetic substances.

Subjecting it to high pressure, the wood is pressed through a plate with holes and due to the high pressure the sawdust is heated activating the natural binders of the wood. Thus, the pellets keep their shape even without the addition of bonding substances. The density of the wood pellet varies according to the type of wood and can be 1.5 – twice greater than that of natural wood.

The diameter of the cylindrical rods is 6 mm and their length can vary between 10 and 40 mm.

Their real weight is greater than 650 kg/m³. Due to the low content of water (<10%) they have a high energy content.

The standards ISO 17225-2:2014 define the quality of the pellets:

Length: < 40 mm

Diameter: 6 mm approx.

Real weight: > 600 kg/m³

Lower heating value: ≥ 16,5 MJ/kg (≥ 7100 BTU/lb)

Residual humidity: < 10 %

Ashes: < 1.2 %

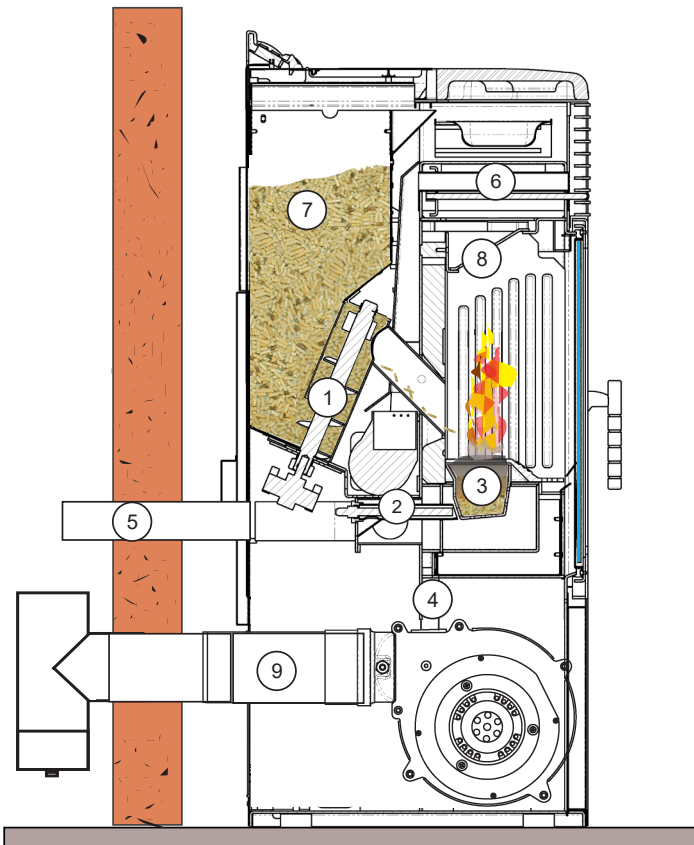
Specific weight: >1000 kg/m³

Do not put the bag of pellets on the ceramic parts during the loading operations.



The pellets must be transported and stored in a dry place. They swell on contact with damp, and cannot be used. They must always be protected from the damp both during transport and in storage. Do not place such fuel within the space heater installation clearances or within the space required for charging and ash removal.

The components of the stove



- 1) pellet loading auger
- 2) electrical igniter
- 3) combustion fire pot
- 4) tube for passage of smoke
- 5) air intake tube
- 6) stainless steel heat exchanger
- 7) pellet hopper
- 8) baffle
- 9) smoke exhaust tube

This drawing shows the internal parts of a pellet stove.

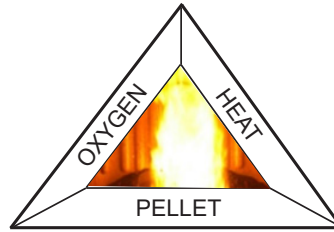
By filling the hopper (7), the pellets are loaded into the fire pot (3) through the loading auger (1).

Ignition is by means of the electrical igniter (2), which overheats the air from the special entrance (5) which on contact with the pellets will allow the development of the flame. At this point the exhaust smoke is deviated towards the stainless steel exchanger (6) and through the smoke extraction tube (4) it is released into the flue, through the connection with the smoke exhaust pipe. (9).

The combustion

The combustion is a chemical reaction between fuel and oxidizer. The result of this reaction is the heat. The three elements that are required for the combustion are:

- Fuel (pellet)
- Oxidizer (oxygen available in the air)
- Ignition (heat of embers or electrical ignitor)



To get the combustion, the combustible and the carburant must be available in a correct proportion.

The reaction between combustible and carburant is made by an external starter. The start can be made by the hot reaction or by a sparkle.

The combustion is NOT CORRECT, the flame is too tight with too much incandescent pellet in the fire pot.

Adjust the Set pellet/air reducing the air percentage (from 0 up to -5); in the vent this is not enough to get a proper flame, increase the loading quantity of the pellet (from 0 up to +5) to reach the flame condition shown in picture 3.



Pic. 1

INCORRECT combustion, flame too drawn, in "blowtorch" style with a high quantity of incandescent pellets coming out of the grate. Correct the pellet/air set by reducing the percentage of air (from 0 to -5); if not sufficient, also increase the percentage of falling pellets (from 0 to +5) to arrive to the condition in Figure 3.

If the changes made to the settings do not bring the stove to the right combustion conditions in Figure 3, contact the Technical Support Centre.



Pic. 2

INCORRECT combustion, "spring" flame in "wood stove" style with high quantity of pellets not burning on the grate. Firstly, check the door is closed and the ash pan. Secondly, correct the pellet/air set by increasing the percentage of air (from 0 to +5); if not sufficient, also reduce the percentage of falling pellets (from 0 to -5) to arrive to the condition in Figure 3.

If the changes made to the settings do not bring the stove to the right combustion conditions in Figure 3, contact the Technical Support Centre.



Pic. 3

The combustion IS CORRECT, full flame yellow/white and minimum quantity of pellet in the fire pot.

The combustion is fine and no ad.

The picture 3 shows a flame done with a stove working at power P5.

Compliance status

This manual describes the installation and operation of the Ravelli Francesca Top Outlet wood pellet heater. This heaters meet the 2020 U.S. Environmental Protection Agency's wood pellet emission limits for wood heaters sold after May 15th 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 11695 to 28231 Btu/hr.

	Emission Rate (g/hr)	Heating Efficiency (% Overall)	1st hour Emission Rate (g/hr)	CO emission gr/hr
Francesca Top Outlet	1.00	80.73%	1.09	6.24

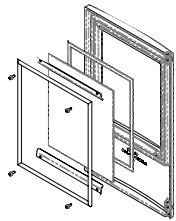
Spare parts

Use original spare parts only. Do not use any substitute material. Do not wait for the components to be worn before replacing them. Replace a worn component before it is completely broken to prevent any accidents caused by the sudden breakage of components, perform the periodic maintenance checks as described in the dedicated chapter. Removal of broken or damaged components shall be only done by authorized technical service.

Glass and gasket replacement

Use only ceramic type glass. To replace the glass the door needs to be disassembled according to the below drawing.

Francesca Top Outlet



Ceramic glass dimensions:
 250 x 307 mm (9.8" x 12.08")
 thickness 4mm (0.16")

Glass twist tricovet gasket:
 diam. 10 mm / 0.39"
 L1230 mm / 48.43"

SAFETY DEVICES

The stove is fitted with sophisticated safety systems so that, in the case of breakage of one of the individual parts or defects in the flue, no damage will be caused to the stove and the room in which it is installed. In any case, when a problem arises, the pellets stop falling immediately and the “ switch off ” phase is activated.

The corresponding alarm will be shown on the display. The details can be seen in chapter 9 "DESCRIPTION OF ALARMS".

TECHNICAL FEATURES

		Francesca Top Outlet
Height	Inch	36.8
Width	Inch	17.4
Depth	Inch	19.6
Weight	Lbs	253
Diameter of smoke exit tube	Inch	3.14
Min - max hourly consumption of pellets	Lbs/h	1.7 - 4.3
Supply	V - Hz	120 - 60
Hopper capacity	Lbs	35
Efficiency *	%	80.73
Smoke temperature min - max	°F	176 - 302

*overall heating efficiency is determined using higher heating value of the fuel. To achieve the declared efficiency the stove should be placed in the main living area. Basement or other external locations will negatively affect efficiency.

The data shown above are indicative and not binding. Ravelli reserves the right to make any modifications for the purpose of improving the performances of the product.

POSITIONING, ASSEMBLY AND INSTALLATION

Environment of use

The positioning of the stove is decisive for a successful and equal heating of the room. Before deciding where to place the stove, the following must be taken into account:

- The stove must be installed on a floor with a sufficient carrying capacity. If the existing building does not meet this requisite, appropriate measures must be taken (i.e. load distribution plate).
- The combustion air cannot be obtained from a garage or from an area without ventilation or exchange of air, but from a free or external space
- The stove must not be installed in a bedroom, bathroom or shower, or where there is already another heating appliance without an autonomous air flow (chimney, stove etc.)
- A non-combustible Hearth board 6" from front of unit and 6" from the sides must be installed before unit is placed on the floor.
- Installation is better in a large and central room in the house to ensure maximum circulation of the heat;
- Connection to the main supply is recommended using a grounded outlet (if the cable supplied is not long enough to reach the nearest outlet, use an extension cord with a surge protector);
- The stove must be placed in a position that receives the necessary level of air for appropriate combustion of the pellets (at least 131.23 f³/h must be available), in accordance with installation regulation and local legislations;
- All joints for connector pipe is required to be fastened with at least three screws.
- If vented horizontally joint should be siliconed with hi-temp. silicone and screwed so they are gas tight. (RTU 500 silicone)
- the chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor or ceiling. Where passage through a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365.

The stove must be installed and assembled by qualified personnel.


The room must be:


- Prepared for the environmental functioning conditions
- Prepared with an adequate system of evacuation of smoke
- Have a 120V 60 Hz electricity mains supply
- Do not connect this unit to a chimney flue serving another appliance
- Use only UL Listed Type L Vent or Pellet Vent 3" in. I.D. venting system to exhaust. Do not install flue damper in the exhaust system of this unit.
- The chimney connector and each other adjoining section must be firmly attached and secured to the stove.
- Do not install the chimney directly at the outlet of the appliance. A chimney connector (flue pipe) is required unless the appliance is specifically approved for that type of installation.
- It is important to use all the specified components, do not use other components.
- "In Canada, to comply with CSA B365, Installation Code for Solid-Fuel-Burning Appliances and Equipment, any combustible covering beneath the appliance and/or within the area extending horizontally at least 450 mm (18 in) beyond the appliance on any side equipped with a door, and at least 200 mm (8 in) beyond the appliance on other sides, shall be protected by a continuous, durable, non-combustible pad that will provide ember protection. The 450 mm (18 in) ember protection required on any side with a door shall extend for the full width of the appliance plus the 200 mm (8 in) required on each side of the appliance without a door. Where an appliance is installed less than 200 mm (8 in) from a wall, the ember pad need only extend to the base of the wall. An ember pad shall not be placed on top of a carpet unless the pad is structurally supported to prevent displacement and distortion".
- Specification of the chimney as a CAN/ULC-S609 listed.


Mobile Home Requirements


- Outside air is required
- The heater must be secured to the floor using lag bolts.
- The heater must be grounded to the chassis of the mobile home.
- Installation should be in accordance with the manufactured home.
- When outside air is required, system parts, such as vent sections, supports, spark arresters, rodent screens, etc. must be used.
- The space heater is to be connected to a type L pellet vent conforming to CAN/ULC S609 or UL641.
- Installation shall maintain an effective vapour barrier at the location where the chimney or other component penetrates to the exterior of the structure.
- Operating the space heater with open firing doors can cause serious injuries and health damages due to escaping flames or carbon monoxide generation inside the room.
- Adequate ventilation is required to avoid air starvation and icing which can determine an unhealthy indoor environment.
- Do not overfire.
- If the space heater is not correctly installed and operated it can interfere with smoke detectors.
- Where the space heater is installed in a transportable building, removal of the chimney for transportation of the building.


 Do not install in bedroom

 The structural integrity of the mobile home floor, ceiling, walls, roof must be maintained.

 Refer to HUD Requirements, CFR 3280, Part 24

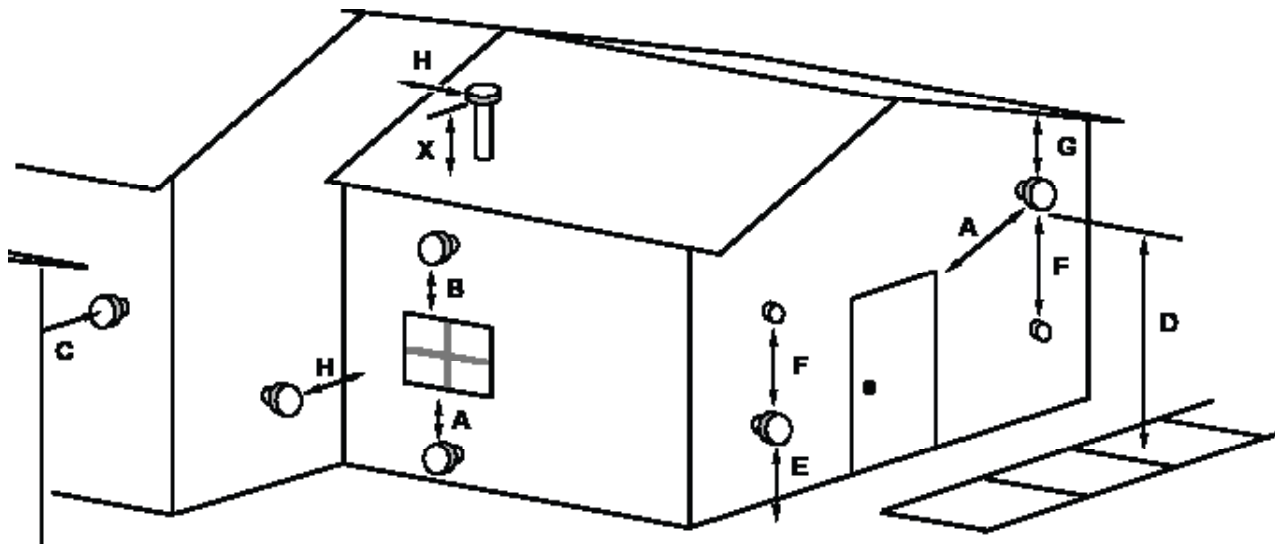
 Install vent at clearances specified by the vent manufactures.

 Measure clearances to the nearest edge of the exhaust hood.

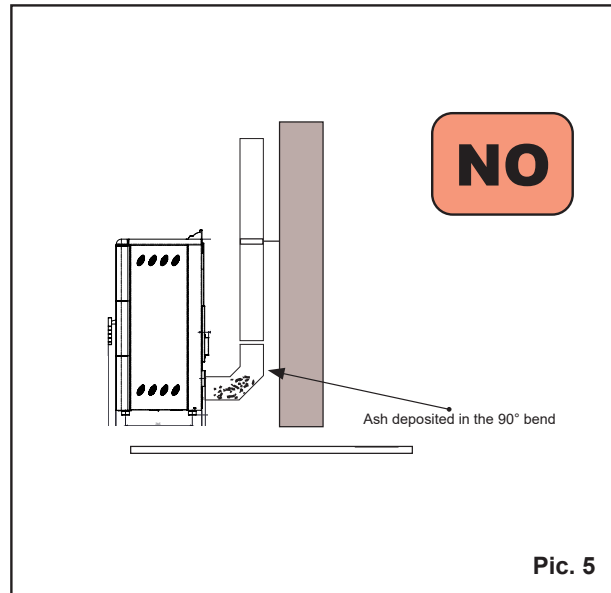
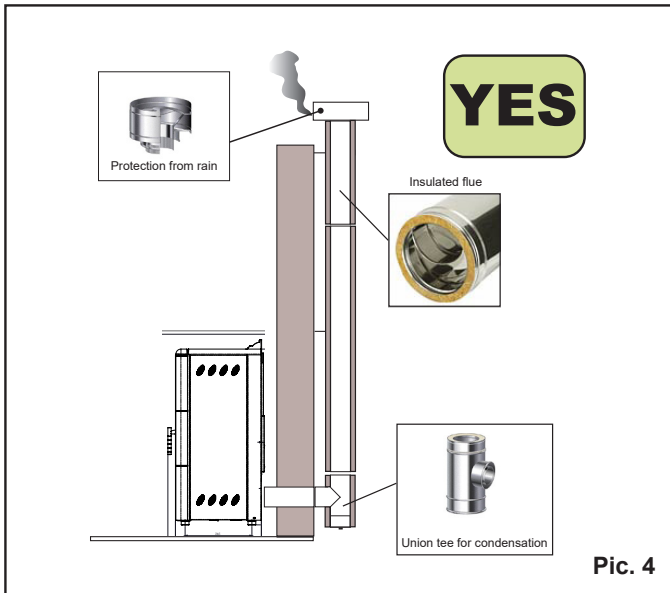
 Vent may not terminate in covered walkway or breezeway.

 If venting horizontally, check your venting specifications for distance pipe should extrude from building.

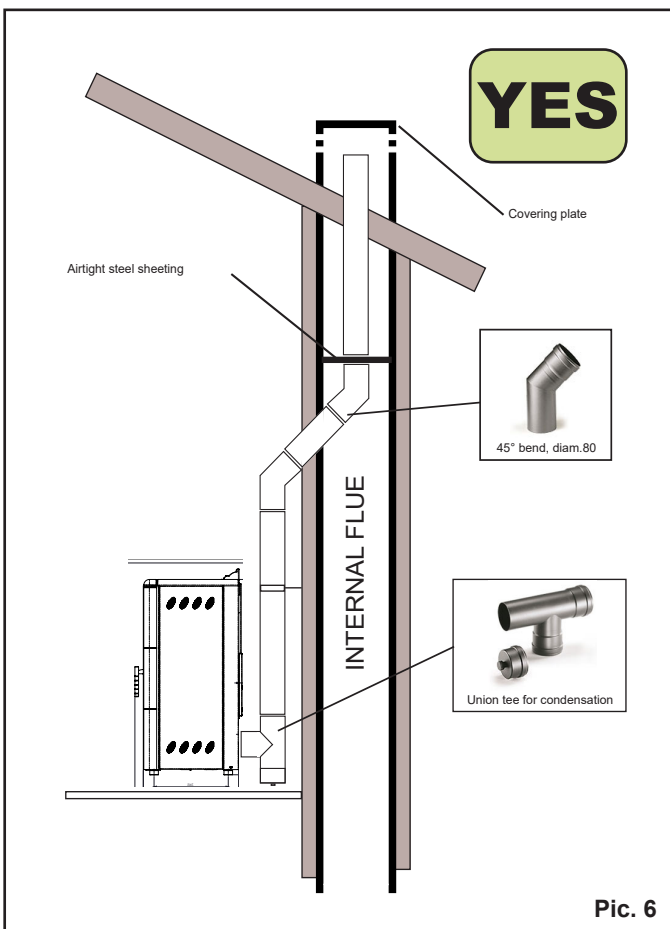
Vent Termination Locations



- A) Minimum 4' clearance below or beside any door or window that opens (with outside air installed, 1' below or beside)
 Minimum 1' clearance below or beside any window that does not open.
- B) Minimum 1' clearance above any door or window that opens
- C) Minimum 2' clearance from any adjacent building
- D) Minimum 7' clearance above any grade when adjacent to public walkways
- E) Minimum 2' clearance above any grass, plants, or other combustible materials
- F) Minimum 3' clearance from any forced air intake of any other appliance
- G) Minimum 2' clearance below eaves or overhangs
- H) Minimum 1' clearance horizontally from combustible wall
- X) Must be a minimum of 2' above the roof ridge

Examples of installation


This type of installation (see Pic. 4) requires an insulated flue, as all the smoke pipe has been installed outside the house. In the lower part of the flue, a union tee has been mounted with an inspection cap. A 90° bend should not be installed as the first initial piece as the ashes would quickly obstruct the passage of smoke, causing problems for the draught of the flue. (See Pic. 5).



This type of installation (see Pic. 6) does not require an insulated flue as the smoke tube has been assembled partly inside the house and partly inside an existing flue.

In the lower part of the flue a union tee has been installed with a peephole cap.

A 90° bend should not be installed as the first piece, as the ash would quickly block the passage of smoke, causing problems for the draught of the flue (See Pic. 5).

Please note the use of 2 45° bends, to guarantee that the ash falls in the union tee with a peephole.

Determining Size of Pipe to install

To determine the diameter of pipe to use (3" or 4"), you can use the following guidelines.

Fillout the installation chart (table 1), and calculate your total equivalent pipe length.

Then use the total equivalent pipe length and the altitude in the pipe selection chart. (Pic. 7) to determine if your installation requires 3" or 4" exhaust pipe.

Table 1 - Installation chart

Type of Pipe	# of Elbows or Feet of Pipe		Equivalent
90° Elbows/ Tee (A & G)		x	5 feet (1.5 m)
45° Elbows (C)		x	3 feet (1.0 m)
Horizontal (B & F)		x	1 feet (0.3 m)
Vertical (E)		x	0.5 feet (0.15 m)

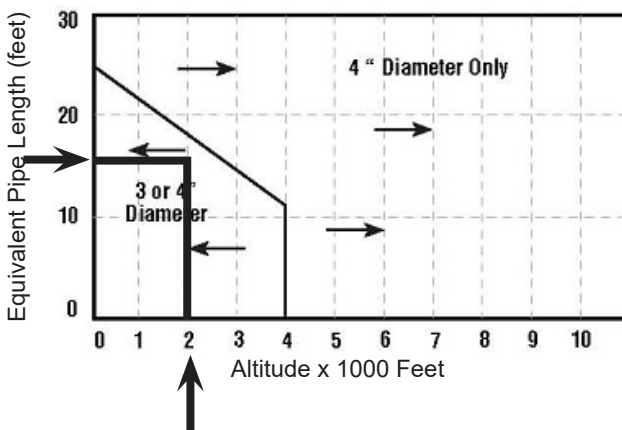
Sample installation chart

Type of Pipe	# of Elbows or Feet of Pipe		Equivalent	Total Equivalent
90° Elbows/ Tee (A & G)	2	x	5 feet (1.5 m)	10 feet (3.0 m)
45° Elbows (C)	1	x	3 feet (1.0 m)	3 feet (1.0 m)
Horizontal (B & F)	3	x	1 feet (0.3 m)	1 feet (1.0 m)
Vertical (E)	8	x	0.5 feet (0.15m)	1 feet (1.2 m)

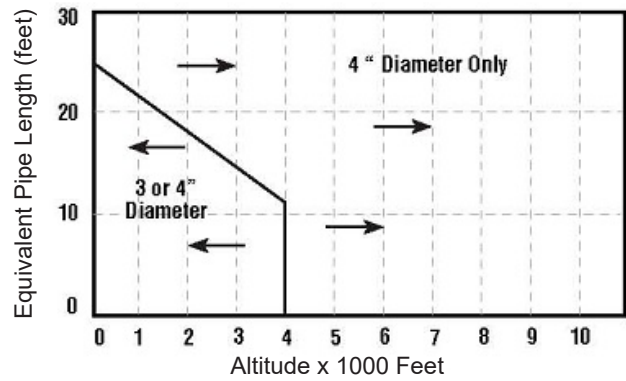
Table 2 - Sample chart for Pic. 8

Equivalent pipe length = (10 + 3 + 1 + 1) ft = 15 ft

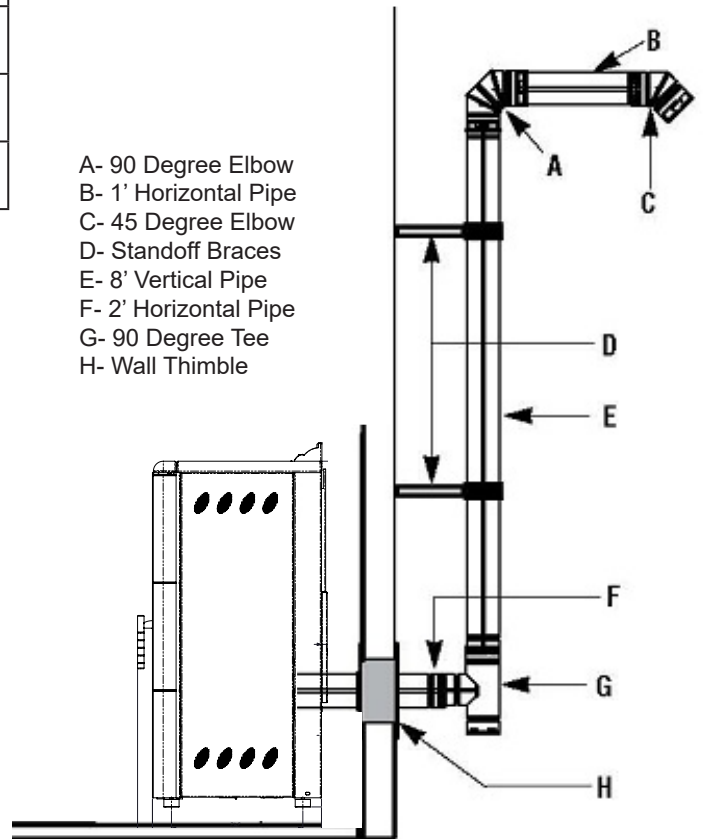
If the stove is installed in a place with an altitude of 2000 ft, it is possible to use either a pipe of 3" or 4", as you can see in the pipe selection chart below.



Pic. 7 - Pipe Selection Chart



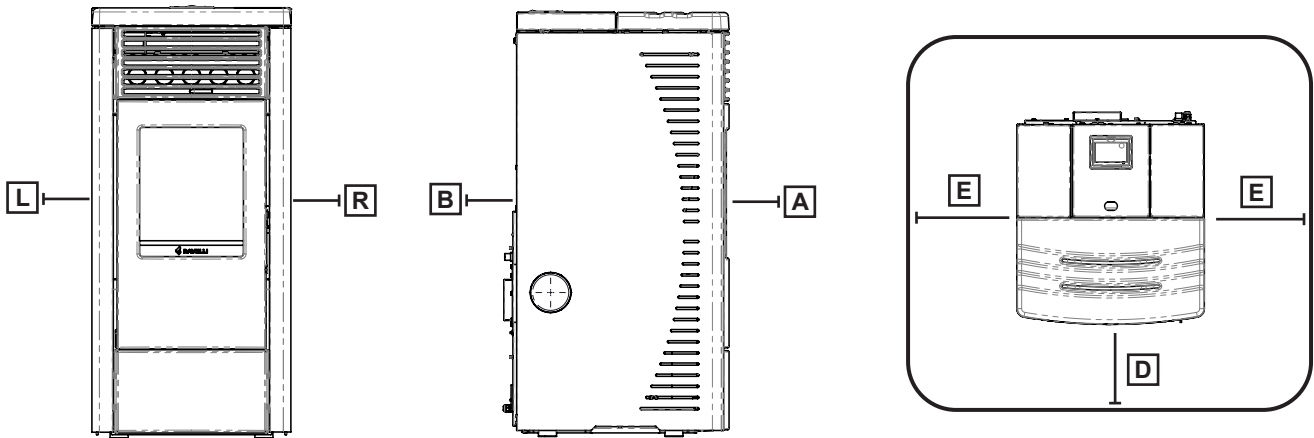
- A- 90 Degree Elbow
- B- 1' Horizontal Pipe
- C- 45 Degree Elbow
- D- Standoff Braces
- E- 8' Vertical Pipe
- F- 2' Horizontal Pipe
- G- 90 Degree Tee
- H- Wall Thimble



Pic. 8 - See sample installation chart



The vent pipe can be a minimum of 2 feet and a maximum of 45 feet long.

Minimum distance from combustible material
For Francesca Top Outlet


NOTE: Install vent at clearances specified by the vent manufactures.

	STANDARD INSTALLATION					ALCOVE INSTALLATION			FLOOR PROTECTION	
	Side wall from stove (R, L)	Rear side wall from stove (B)	Front side (A)	Ceiling from floor (F)	Corner from stove	Side wall from stove	Rear side wall from stove	Ceiling from floor	Front (D)	Side (E)
Unit of measurement	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm	Inch / mm
Francesca Top Outlet	4 / 102	2 / 51	40 / 1000	84 / 2134	4 / 102	6 / 152	10 / 254	57 / 1450	6 / 152	6 / 152

Floor: combustible floor;

Floor protection: 6 in in front and sides.

N.B. The floor protection must extend under the chimney connector and 2 inches (51 mm) beyond each side.

Standard horizontal installation configurations



Ravelli does not recommend the horizontal venting in areas with particular environmental conditions such as: proximity to lakes or sea, very cold, very windy, very humid areas, etc..

1. Locate the proper position for the listed type "PL" wall thimble. Avoid cutting wall studs when installing your pipe. Use a saber saw or keyhole saw to cut the proper diameter hole through the wall to accommodate the wall thimble. Use extreme caution to avoid cutting into power lines within the wall of the home.

The hole size will depend on the brand of pellet vent that you are using. Install the wall thimble in the hole.

2. ALL INTERLOCKING PIPE CONNECTIONS WITH-IN THE ROOM MUST BE SEALED WITH HIGH TEMPERATURE RTV AND SECURED WITH A MINIMUM OF 3 FASTENERS PER CONNECTION. Position the stove approximately 12" (305 mm) from the wall on the floor pad. Push the "PL" pipe through the wall thimble. Squeeze a bead of high temperature silicone (RTV) sealer around the end of the machined portion of the 3" (76mm) pipe connector on the back of the stove. Firmly push on a section of "PL" pipe until inner pipe liner pushes into the bead of RTV sealer.

3. Push the stove with pipe attached towards the wall (the pipe will go through the wall thimble). Do not position the back of the stove closer than 2" (51mm) from the wall.

4. Install listed type "PL" 45 degree elbow with optional rodent screen or cap (recommended) on outside end of pipe. The rodent screen should be no less than 1/2" (13 mm) mesh and may clog with soot and ash if left unattended during the burn season.

NOTE: The end of the exhaust pipe must extend a minimum of 12" (305 mm) from the outside of the building.

5. If the installation includes a source of outside combustion air; cut a separate hole through the wall for the fresh air tube. Use a galvanized or stainless steel pipe for the duct. The minimum size for the duct shall be not less than 50% of the cross sectional flue area. Connect outside air pipe to air inlet on stove.

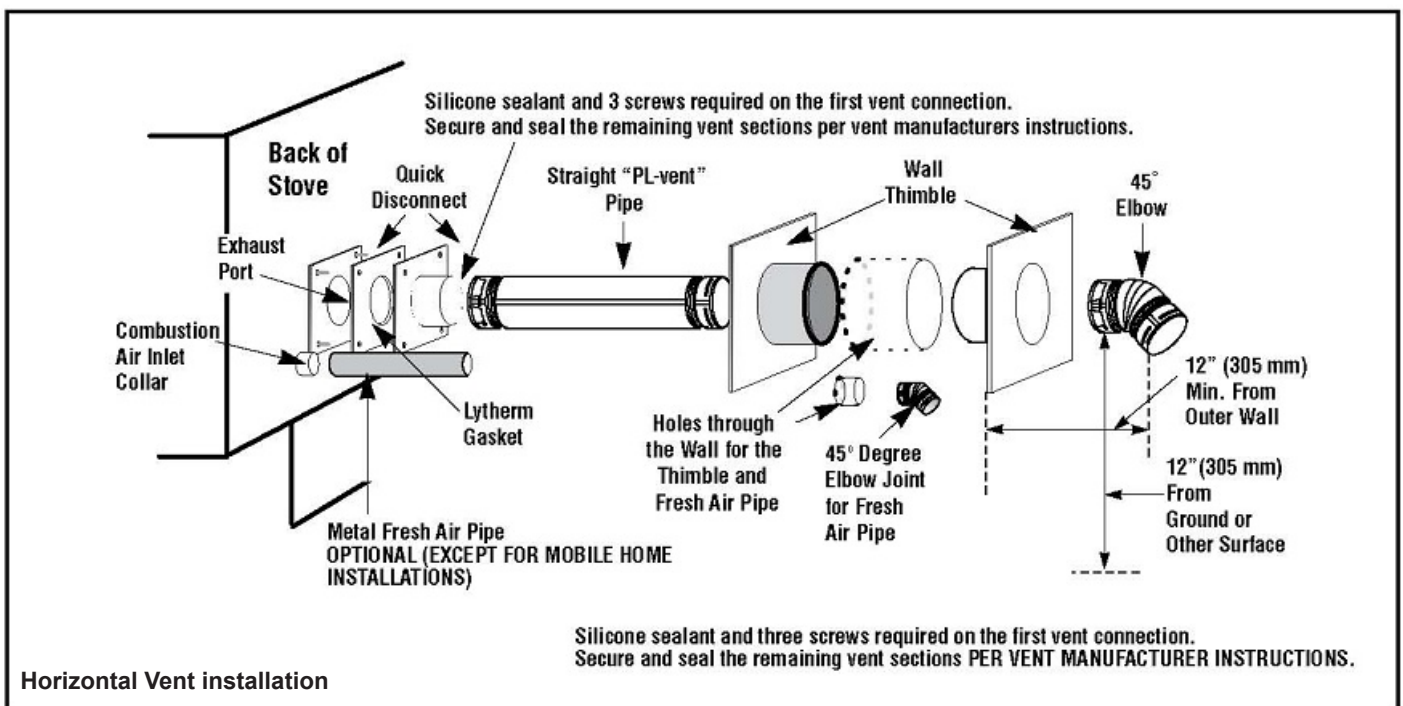
This tube must be terminated with a 45 degree elbow or hood.

NOTES:

Combustion air may also be drawn from a vented crawl space under the home.

All joints for connector pipe are required to be fastened with at least three screws. If vented horizontally, joints shall be made gas-tight (air tight, sealed connection) in a manner as specified on this page (see instruction #2).

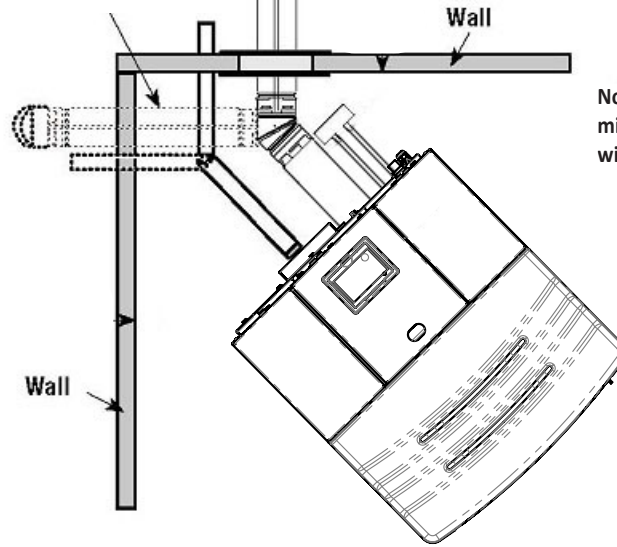
Install vent at clearances specified by the vent manufacturer.



3" (75 mm) Minimum clearance between wall and pipe. If you vent to the furthest wall, the vent pipe must maintain a 3" clearance parallel to the other wall.

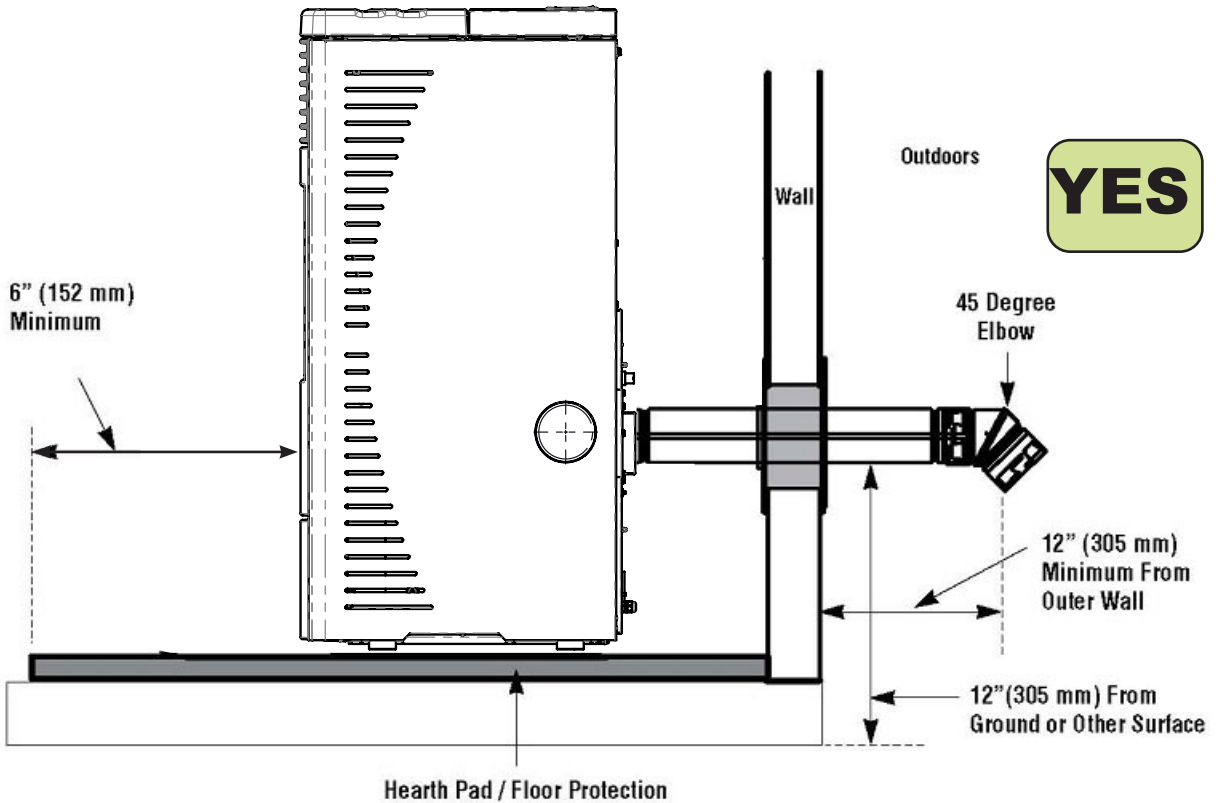
Top View Illustration

YES



Notes: It is not recommended to terminate exhaust vent on the prevailing wind side of the house

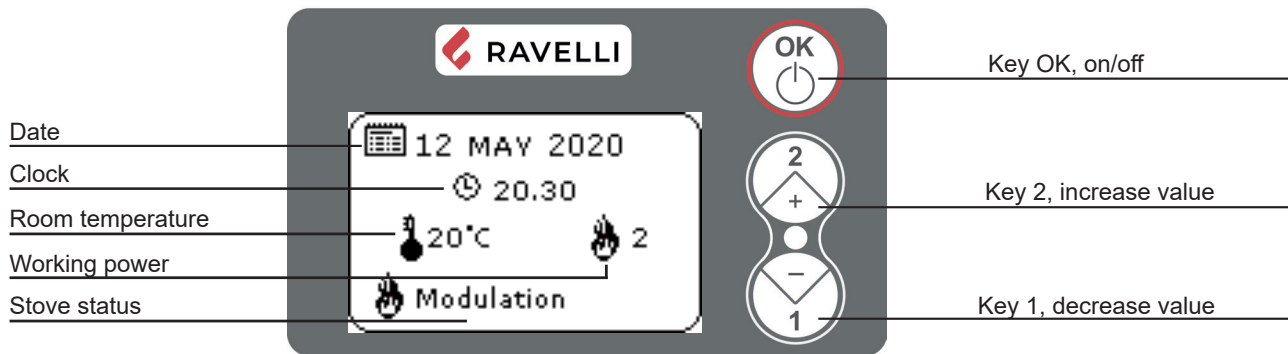
Corner Through the Wall



Parallel Through the Wall

DESCRIPTION OF THE FUNCTIONING AND SYMBOLOGY OF THE DISPLAY

The display of the handheld set is described below (in "Home" mode):



Key "OK": in the Home screen, long press to turn the appliance on / off or reset the alarms; short press to enter the menu

Key "1": access key to "set room temperature" and regulation (decrease value)

Key "2": access key to "set power" and regulation (increase value)



The first press of any key with active display turns on its backlight, not interpreting it as a command.



These stoves are equipped with an electronic RDS system that optimises combustion parameters while minimising emissions.

PROCEDURES FOR USE



If the chimney catches fire you must call the fire brigade immediately.

Checks prior to start-up



You have read and perfectly understood the contents of this instructions manual.

Before lighting the stove, you must ensure that:

- the combustion chamber is clean;
- the fire door and ash drawer seals are functioning properly;
- the electrical plug is connected correctly;
- all items that could burn (instructions, various adhesive labels) have been removed;
- the fire pot, if removable, is correctly positioned in its housing.



During the first hours of use the paints used for the stove finish may release an unpleasant odour. You might also smell the typical odour of metal parts subject to high temperatures. Make sure sufficient air circulation is guaranteed in the room. These unavoidable inconveniences will disappear after the first hours of operation. To reduce your discomfort to a minimum, keep the stove on for a few hours on low power and in the beginning, do not overload it, avoiding intense heating-cooling cycles



At the initial start-up, the paint finishes drying and hardens. Accordingly, to avoid ruining it, we advise you not to touch the stove's painted surfaces at this time.

Pellet auger loading

Before starting the stove for the first time, whenever the stove is in alarm "06 - Pellets finished", and in any case whenever the hopper has emptied completely, the initial auger loading is required.

This phase allows the stove to fill the pellet loading system (the system that carries the pellets from the tank to the fire pot), so that at the time of ignition, the pellets can be loaded into the fire pot and then the stove can be ignited. If the auger loading operations are not carried out, the stove could fail to ignite.

To load the auger, follow the instructions given in the paragraph "Stove status menu".




After loading the auger and before lighting the stove, always remember to empty the fire pot and check that the fire pot is clean. Never empty the fire pot inside the hopper.



After each maintenance operation, make sure that the fire pot is positioned correctly in its seat.

Switching the appliance on and off

From the "Home" screen, it is possible to switch the stove on and off by keeping the OK button  pressed on the device for a few seconds. An acoustic signal will warn you that the appliance has switched on or off.

! Do not turn off the stove by disconnecting the electric plug from the wall socket.

📌 The appearance of the “SET RDS” message indicates that the initial parameter testing and calibration procedure was not carried out correctly. This indication does not imply blocking the stove (see SIGNALING POP UP section).

Failed ignition

If the system does not detect the ignition of the flame within the preset time, operation will be blocked with the “No ignition” alarm. Before relighting the stove, check that there are pellets in the hopper, that the door and ash drawer compartment are closed, that there are no obstructions to the combustion air inlet system and above all that, in models without self-cleaning fire pot, the fire pot is empty, clean and correctly positioned. If the problem persists, it could be due to a technical problem (ignition plug, adjustments, etc ...), so please contact a Ravelli CAT.

! The accumulation of unburned pellets in the fire pot after a failed ignition must be removed before proceeding with a new ignition.

! The fire pot could be very hot: danger of burns

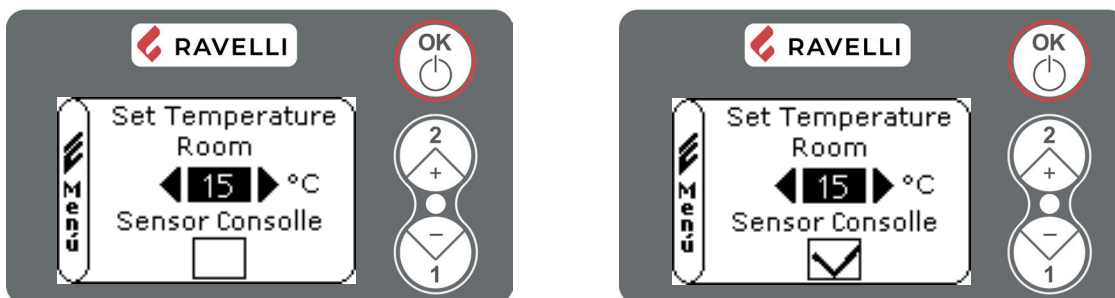
! Never empty the fire pot inside the hopper.

Set of the room temperature

The functioning of the stove with room thermostat activated is of 3 types:

- With supplied room sensor positioned on the backside of the stove
- With room sensor integrated to the display (recommended for use with wall mounted display only)
- With external thermostat

Press key 1 from the “Home” screen to enter the room temperature setting page



Set the desired temperature with keys 1 and 2. The selectable values are: EST, from 7 °C to 40 °C (or from 44 °F to 104 °F), MAN. The EST value must be selected if you want to use the external thermostat and MAN when you want to make the stove work at constant power.

To go back directly to the “Home” screen, press keys 1 and 2 at the same time, or press OK to go to “Console probe”.

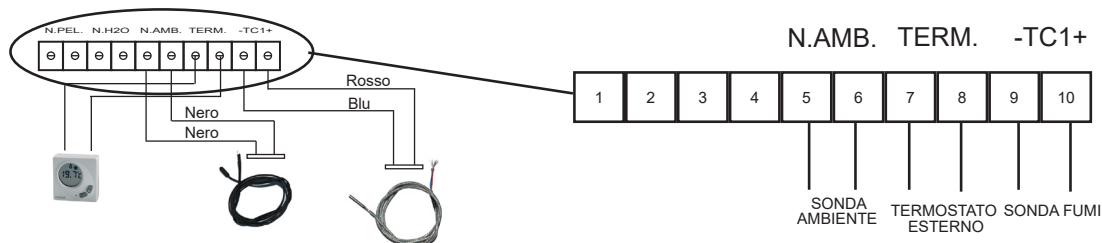
By enabling the “Console probe” function, the temperature reading with the ambient probe integrated in the display is enabled. Enable the function with key 2 and disable it with key 1. To return to the Home screen, press OK

If you use an external thermostat correctly connected as shown in the electrical scheme, the display will not show the room temperature but the writing T ON (when the contact is closed) or T OFF (when the contact is open).

To use the external thermostat, the “console probe” must be deactivated.

The room temperature will be adjusted by the external thermostat.

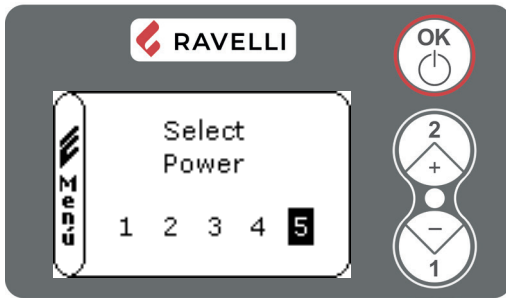
Once reached the set temperature of the thermostat the display will show MODULATION, so the stove will reduce to minimum the pellet consumption and the power as well. If activated the mode COMFORT CLIMA, the stove will switch on and off automatically.



📌 If you want to use the COMFORT CLIMA is advisable an external thermostat with OFF-SET of at least 3°C.

Set of the working power

To modify the working power press key 2 to enter in the dedicated menu and with keys 1 and 2 to set the power you desire from 1 to 5 and confirm with key OK. Increasing the power also the pellet consumption and the speed of the fan increase as well.



OPERATING PHASES OF THE APPLIANCE

Sequence of ignition phases

During the ignition phase, the following indications will appear on the display:

- IGNITION: loading phase of the pellets in the fire pot and heating of the ignition electrode (variable waiting time according to the factory parameters)
- WAITING FLAME: flame ignition waiting phase (variable waiting time depending on the factory parameters)
- FLAME LIGHT: phase of development and stabilization of combustion (waiting time varies depending on the factory parameters)
- WORK: normal operating mode, according to the chosen settings

If the ignition command is given when the stove is still hot, i.e. in FINAL CLEANING, the stove will remain in the WAITING RESTART phase for a few minutes, after which it will automatically re-ignite (IGNITION RESTART).

Modulation

During the work phase, the appliance should reach the room temperature set; when this condition is met, the stove switches to MODULATION mode in which fuel consumption is minimum.

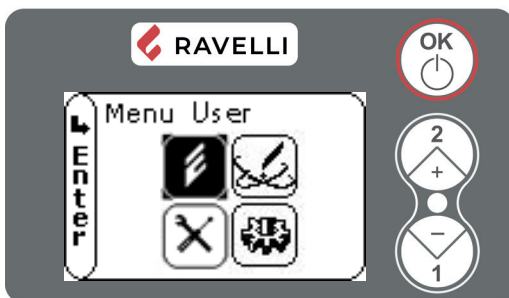
Description of menu functions

To access the menu from the "Home" screen, press the OK button (short press).

To scroll the menu list, use buttons 1 and 2 and then confirm with OK to enter the submenus.

Then, to return to the "Home" screen, press keys 1 and 2 at the same time. To return to the previous menu, press OK (long press).

The stove is equipped with many functions available in each menu programming. Some of these menu are accessible for the end user, other are protected with a password so they are accessible only for the After sales center.

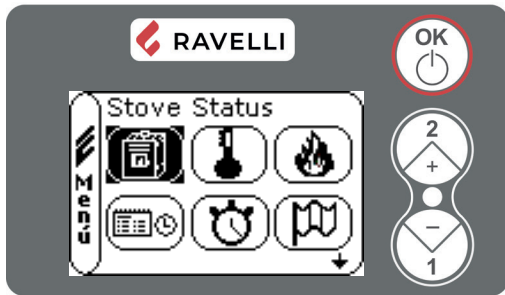


- Menu USER
- Menu SET RDS
- Menu DEFAULT SETTINGS
- Menu STANDARD PARAMETERS

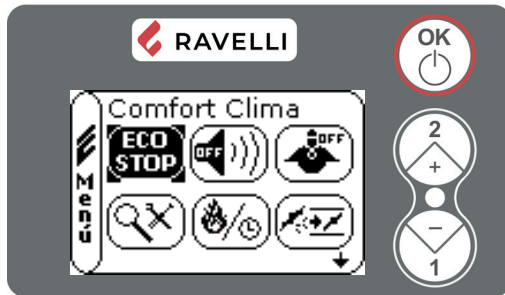


The SET RDS, DEFAULT SETTINGS, and STANDARD PARAMETERS menus are password protected. Changing parameters within these menus could compromise the operation and safety of the stove. In this case the warranty will be invalidated.

The submenus of the USER MENU (the only one accessible for the end user) are the following:



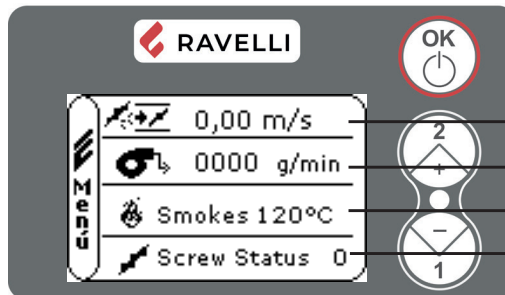
- Menu STOVE STATUS
- Menu SET TEMPER. ROOM
- Menu SET POWER
- Menu CLOCK
- Menu TIMER
- Menu LANGUAGE



- Menu COMFORT CLIMA
- Modalità SILENCE
- Modalità SELF CONTROL SYSTEM
- Menu VIEW SETTINGS
- Menu VIEW WORKING HOURS
- Menu SET DRAUGH/PELLET

Menu STOVE STATUS

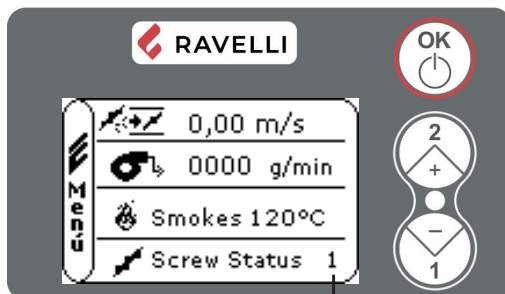
In this menu you can check the correct functioning of the most important components of the stove. Here is a list of real data of the stove useful for service during inspection.



- RDS current reading RDS (m/s)
- RPM current smoke extractor speed (rpm)
- Smokes temperature (°C)
- Screw status
- SET** Set value RDS (m/s)
- DF** Cold probe temperature RDS (°C)
- DR** Hot probe temperature RDS (°C)
- SK** Electronic board temperature (°C)

To go to the second screen, press key 1.

From the first screen it is possible to activate the initial loading of the auger by pressing key 2. The Screw Status value will become 1.



Screw ON

The initial load will stop automatically after a pre-set time, to stop it first press key 2.

Repeat the operation several times until you see the pellet fall into the firepot. It is possible to do this operation only if the stove is in FINAL CLEANING phase or OFF.

Menu SET TEMPERATURE ROOM


To modify the setting please reference to paragraph "Set of the room temperature"

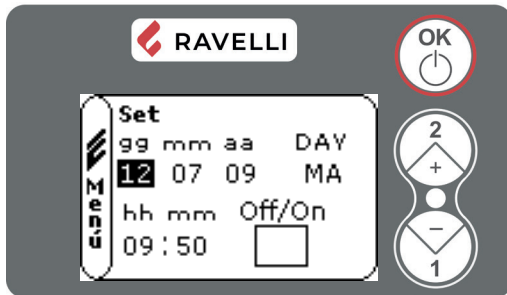
Menu SET POWER


To modify the setting please reference to paragraph "Set of the working power"

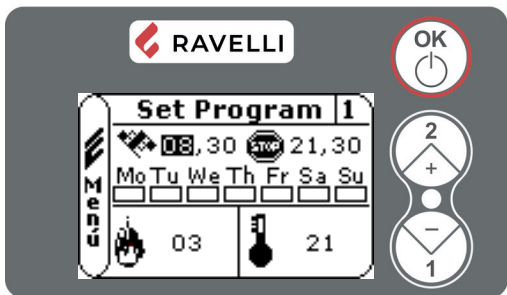
Menu CLOCK


To modify the settings use keys 1 and 2 and by pressing OK you confirm the data and go on to the following one. By activating the box (flag) ON/OFF you enable the function chrono.

By last confirmation with OK you save all settings and return automatically to the screen with the icons.


Menu TIMER


With the function chrono thermostat is possible to program for each day of the week the switch on and off of the stove in four independent intervals time. To enable the TIMER, see what is reported in the Clock menu.



1 TIMER program number



START: switch on time



STOP: switch off time



DAY: days of activation of the program



POWER: desired power at the time of switch ON of the stove



TEMPERATURE: setting of ambient temperatures

In ducted stoves it is possible to set the temperatures of the individual rooms:

F (front) temperature of the stove installation room

R (Rear, single duct) room temperature heated by ducting

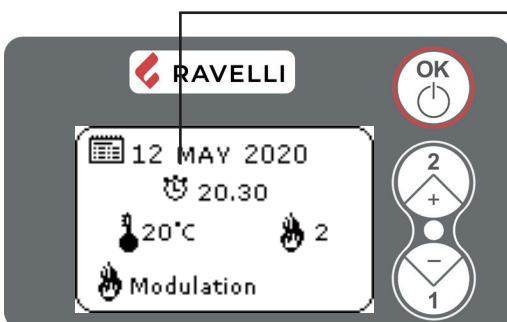
RL and RR (Rear Left and Rear Right for double ducting)

The EST (operation with external thermostat) and MAN (constant power operation) values can also be set

To choose the prog.tion use keys 1 and 2; confirms with OK.

Use keys 1 and 2 to modify the settings and by each press of OK you confirm the data and go on to the following one.

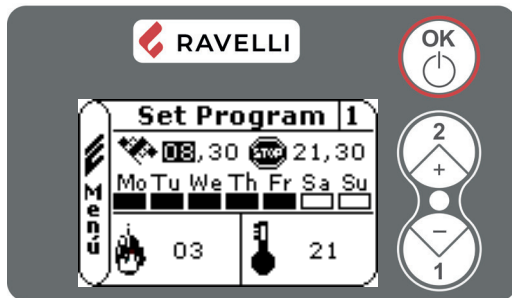
By last confirmation with OK you save all settings and return automatically to the screen with the icons.



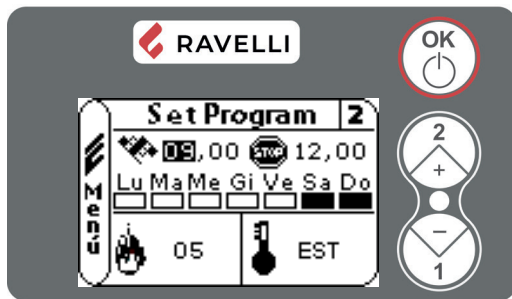
The symbol indicates that the chrono function is active. It is however possible to program the chrono even if it is deactivated. To make it work, refer to the chapter dedicated to setting the clock.

Description

Description	Settable values
START	From OFF to 23:50 by step of 10'
STOP	From OFF to 23:50 by step of 10'
DAY	On/off for the days from Monday to Sunday
POWER	From 01 to 05
SET AMB.	From EST to MAN

Examples


Activation days: Monday to Friday
 Switch on at 8.00
 Switch off at 21.30
 Power: 3
 Room temperature: 21°C



Activation days: Saturday and Sunday
 Switch on at 9.00
 Switch off at 12.00
 Power: 5
 Room temperature: Regulated by an external thermostat

The Comfort Clima function also works with the Timer active.

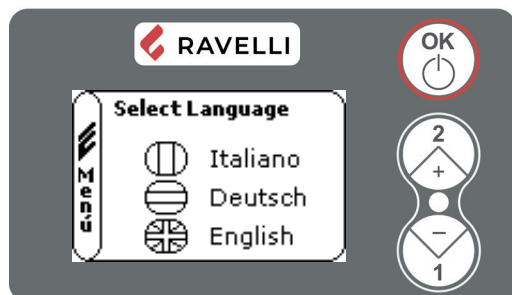


By using this mode it is necessary to check that after every automatic switching off the firepot is always well cleaned in order to guarantee a perfect automatic ignition.

Menu LANGUAGE

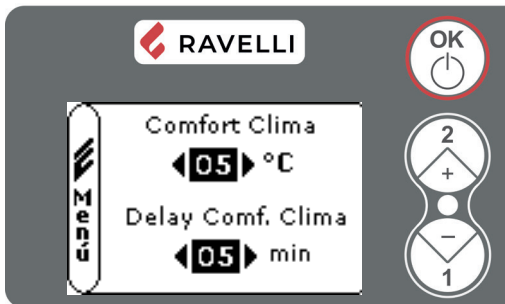

To select language please use keys 1 and 2.

By last confirmation with OK you save all settings and return automatically to the screen with the icons.

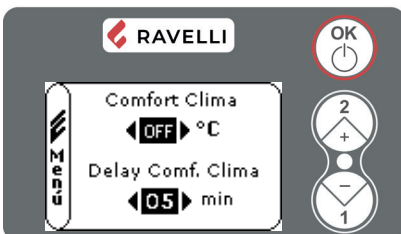


Menu COMFORT CLIMA

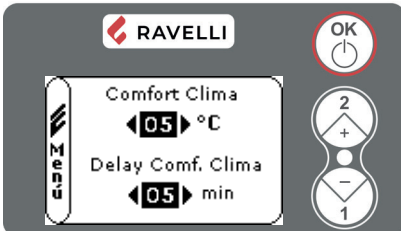
To modify the settings use keys 1 and 2 and by pressing OK you confirm the data and go on to the following one. By last confirmation with OK you save all settings and return automatically to the screen with the icons.



The activation of this function enables the stove to reduce pellet consumption by activating the modulation phases, after the desired temperature has been reached. Subsequently, the stove checks that the temperature is maintained steady for a preset time (DELAY COMFORT CLIMA). If this condition is met, it automatically switches off, and on display appears the writing ECO STOP. The stove turns on again when the temperature drops below the set threshold (COMFORT CLIMA). Below are given the steps for accessing the relative menu.

Example


To activate the function, set the COMFORT CLIMA value different from OFF using buttons 1 and 2. Confirm with OK. Set the time in which the stove must remain in MODULATION, before switching to ECO STOP (default 4 ').

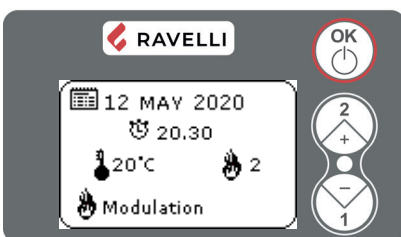


The set value (in this case 5 ° C) activated the Comfort Clima function.
OPERATION:
 The value adjusts the re-ignition temperature of the stove.

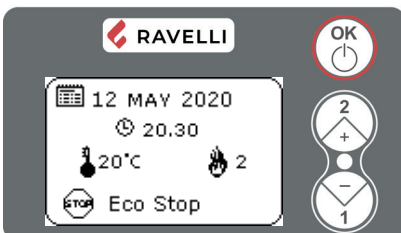
EXAMPLE:

- room temperature set at 21 ° C
- Comfort Clima value set at 5 ° C

With this adjustment, the stove will switch off when it reaches 21 ° C and will switch on again when the room temperature is 15 ° C ($21\text{ ° C} - 5 - 0.5\text{ tolerance} = \text{about } 15\text{ ° C}$). The strings shown in the screens on the left will appear in sequence on the display.



The modulation phase is activated, as the room set temperature has been reached. If the temperature is maintained for the set "DELAY COMFORT CLIMA" time, the stove switches off.



Once the switch-off phase is complete, the display will show ECO STOP. The stove will remain in this state until the temperature drops to 15 ° C, only then will the ignition phase be restarted.



The operation of the stove in COMFORT CLIMA mode can start the ignition and shutdown phase several times during the day; this can compromise the duration of the resistance for automatic stove ignition.

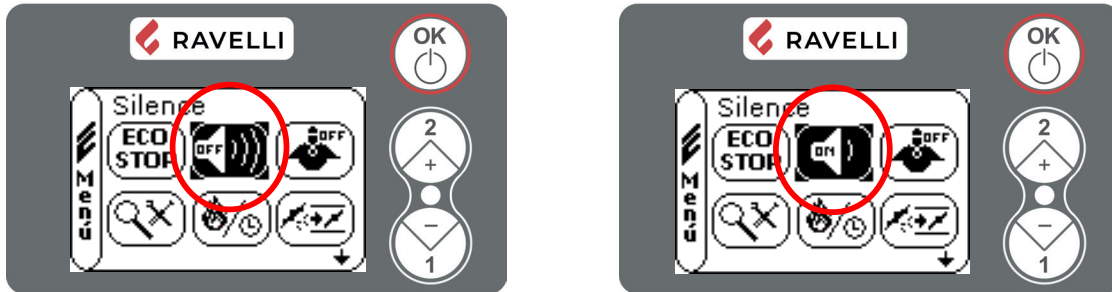


Using this mode, it is necessary to make sure that after each automatic switch-off, the fire pot always remains perfectly clean in order to guarantee correct automatic ignition. The COMFORT CLIMA mode also works with an external thermostat connected.

Mode SILENCE

Enable or disable the function by using key OK.

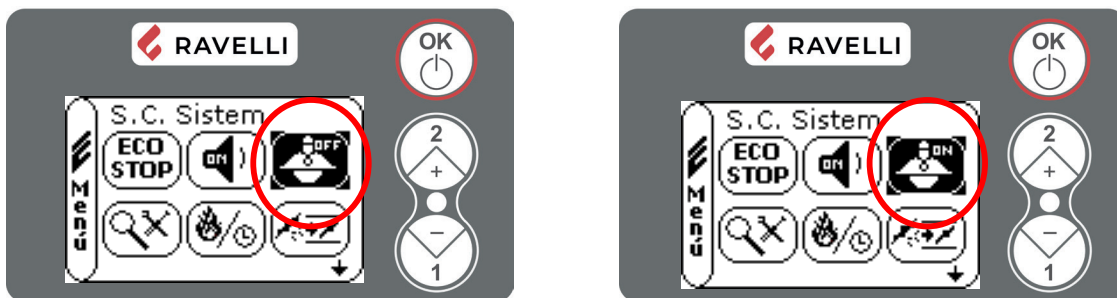
Mode SILENCE has been realized for reducing noise level of fan. It reduce the speed of the fan in all five working power. Use is suggested especially during night time.


Mode SELF CONTROL SYSTEM (S.C.S)

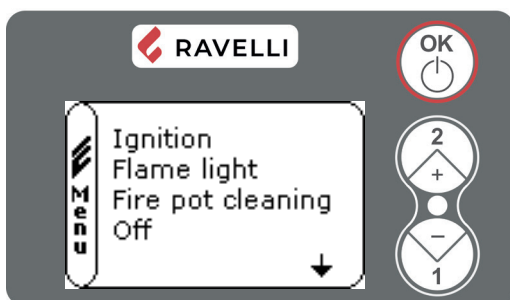
Enable or disable the function by using key OK.

Mode SELF CONTROL SYSTEM (S.C.S) has been realized allowing the stove to recognize faster an eventual problem just in case you are out of home or far from the stove.

It is advisable to activate this function especially if you are not in the vicinity of the stove during work phase.


Menu VIEW SETTINGS

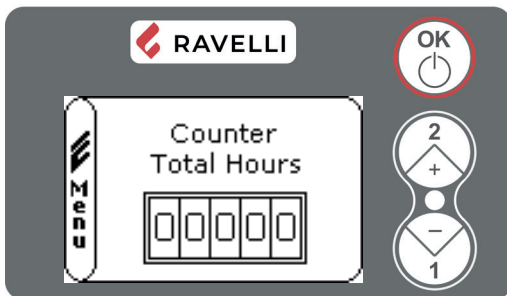
In this menu you can verify the parameters set in the motherboard.



To scroll the list of parameters use key 1 and 2, to view the parameters press OK.

Menu VIEW WORKING HOURS

In the menu VIEW WORKING HOURS you can check the total or partial working hours and also the number of ignitions of the stove. This menu is used by the After Sales Center to evaluate the total working hours of the stove during the season and consequently to evaluate the need of cleaning ("service hours").



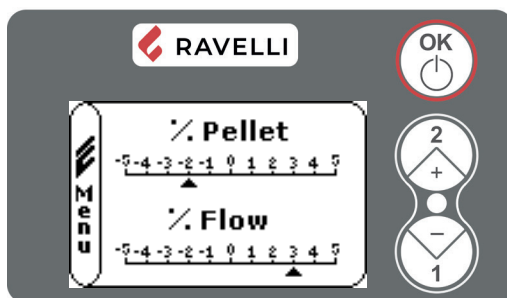
You can see the working hours of the stove. To scroll the different counters (total or partial hours and number of ignitions) use key 1 and 2.

Menu SET DRAUGH/PELLET

The setting of the PELLETT-FLOW mixture allows to adjust the combustion by varying the quantity of pellets loaded in the firepot and/or the quantity of air. In fact, by its nature, pellets vary in grain size and composition: even bags of pellets of the same brand can have different characteristics. If combustion is not optimal, vary the flow parameter to adjust the combustion air. If air regulation alone is not sufficient, it may also be necessary to modify the pellet parameter.



Combustion regulation is an operation that requires a lot of experience. We recommend that you contact an Authorised Service Centre to calibrate the stove appropriately.



By accessing the menu, the adjustment of the draft / pellet mixture is displayed. To change the percentage use buttons 1 and 2, to switch from adjusting the quantity of pellets to adjusting the inlet air flow, press OK.

At the last confirmation with OK, the settings are saved and you automatically return to the icons screen.

Service hours

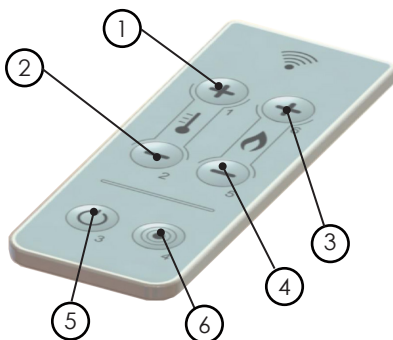
All our models need in addition to the regular cleaning, also a special cleaning which should be done by the installer (authorized by the producer).

At the time of the installation it is possible to set a number of working hours appropriate for the model. At the end of these hours on the display will appear the message "SERVICE HOURS" followed by an acoustic signal. When this message appears please contact the installer to do the special cleaning of the stove.

If the cleaning is not done the message will appear by each ignition but will not interrupt the functioning of the stove.

Remote control

Infrared handheld device for remote control



- **1 - 2 Set temperature:** allows to set the desired value for the room temperature from minimum 6 °C to maximum 40 °C (or from 44 °F to 104 °F).
- **3 - 4 Set power:** allows to set the working power between a range of minimum 1 to maximum 5.
- **5 ON/OFF:** by keeping pressed for 2 second longs it allows the manual switch on and off of the stove
- **6 Without function**

Stove phase general layout

Phase	Description
FINAL CLEANING	The stove is switching off, the cooling phase is not yet completed
IGNITION	The ignition phase has started, the pellets are loaded into firebox
WAITING FLAME	The pellet is lighted by the hot air passing through the ignition candle
FLAME LIGHT	The flame is visible in the fire pot
WORK	The stove completed switch ON phase; you can change power
FIRE POT CLEANING	The stove is performing the cleaning
MODULATION	The room temperature set has been reached
ECO STOP	Comfort Clima activated, temperature set has been reached; the stove is off.
T ON / T OFF	The room sensor is off or an external thermostat has been connected and the room set is set to EXT
WAITING START	The stove is cooling DOWN: when stove is cooled down can start automatically
WAITING RESTART	The stove is in the cooling DOWN: when stove is cooled down can restart automatically.
HOT SMOKES	The maximum fume temperature threshold has been reached. To facilitate cooling, the stove brings the capacity to a minimum with ventilation at max power level
OFF	The stove is off
ANOMALY (general)	The stove has detected an anomaly; refer to the troubleshooting chapter.

Description of alarms

AL	Warning	Reason	Solution
AL 01	BLACK - OUT	No electricity supply during working phase	Press the off button and repeat switching on the stove
			If the problem continues, contact the area Technical Assistance Centre.
AL 02	SMOKE SENSOR	The smoke sensor is malfunctioning	Please contact the local Technical Assistance Centre
		The smoke sensor has been disconnected from the board	Please contact the local Technical Assistance Centre
AL 03	HOT SMOKE	Combustion in the fire pot is not optimal	Switch off the stove, clean the fire pot and regulate combustion with the setting of the pellets.
		The centrifugal fan is defective	Contact local Technical Assistance Centre.
			If the problem continues, contact the area Technical Assistance Centre.
AL 04	FAN BROKEN	Smoke extractor encoder is not functioning or not correctly connected	Contact local Technical Assistance Centre.
		No electricity supply to smoke extractor	Contact local Technical Assistance Centre.
		The smoke extractor is blocked	Contact local Technical Assistance Centre.

AL	Warning	Reason	Solution
AL 05	NO IGNITION	The pellet tank is empty.	Check if there are pellets inside the tank.
		Setting of pellets and of intake during ignition phase insufficient.	Contact local Technical Assistance Centre.
		The resistance for lighting is defective or not in position	Contact local Technical Assistance Centre.
AL 06	NO PELLETS	The pellet tank is empty	Check whether there are pellets in the tank
		The ratiomotor does not load pellets.	Empty the tank to check that no objects have fallen inside which could prevent the correct functioning of the auger
		No pellet loading	Regulate the pellet setting
			If the problem continues, contact the area Technical Assistance Centre.
AL 07	THERMAL ALARM WITH RESET	The thermostat with manual reset has intervened	Reset the thermostat pressing the button on the back of the stove
		The centrifugal fan is defective	Please contact local Technical Assistance Centre.
		Combustion in the fire pot is not optimal	Switch off the stove, clean the fire pot and regulate combustion with the setting of the pellets.
			If the problem continues, contact the area Technical Assistance Centre.
AL 08	DEPRESSION	The combustion chamber is dirty	Follow the cleaning operations of the stove as per the instructions in the booklet
		The flue is blocked	Check that the flue is clear and clean
		The vacuum switch is malfunctioning	Please contact local Technical Assistance Centre
AL 09	AIR-FLOW METER	The device who read the quantity of inlet air could be disconnected or defect	Please contact the local Technical Assistance Centre
		The device could be dirty and so not read correctly	Please contact the local Technical Assistance Centre
AL 11	LOW FLAME	The pellet tank is empty.	Check whether there are pellets in the tank
		Bad setting of pellet and air on ignition in phase	Contact local Technical Assistance Centre
AL 12	FAN RPM	The revolution of smoke fan lowering more the 15% of speed to fan congestion	Contact local Technical Assistance Centre
AL 13	INSUFFICIENT FLOW	The door and the ashtray are not correctly closed	Check the devices are closed
		Bad combustion in the fire pot	Switch off the stove, clean the fire pot, the grid and set the combustion through the set pellet/flow.
		Presence of a foreign body inside the air inlet pipe	Check for its presence and extract the unwanted body
			Please contact the local Technical Assistance Centre
AL 14	AUGER PHASE	The gear motor is not correctly connected	Please contact the local Technical Assistance Centre
AL 15	AUGER TRIAC	The device in the motherboard who gears the auger is defect	Please contact the local Technical Assistance Centre

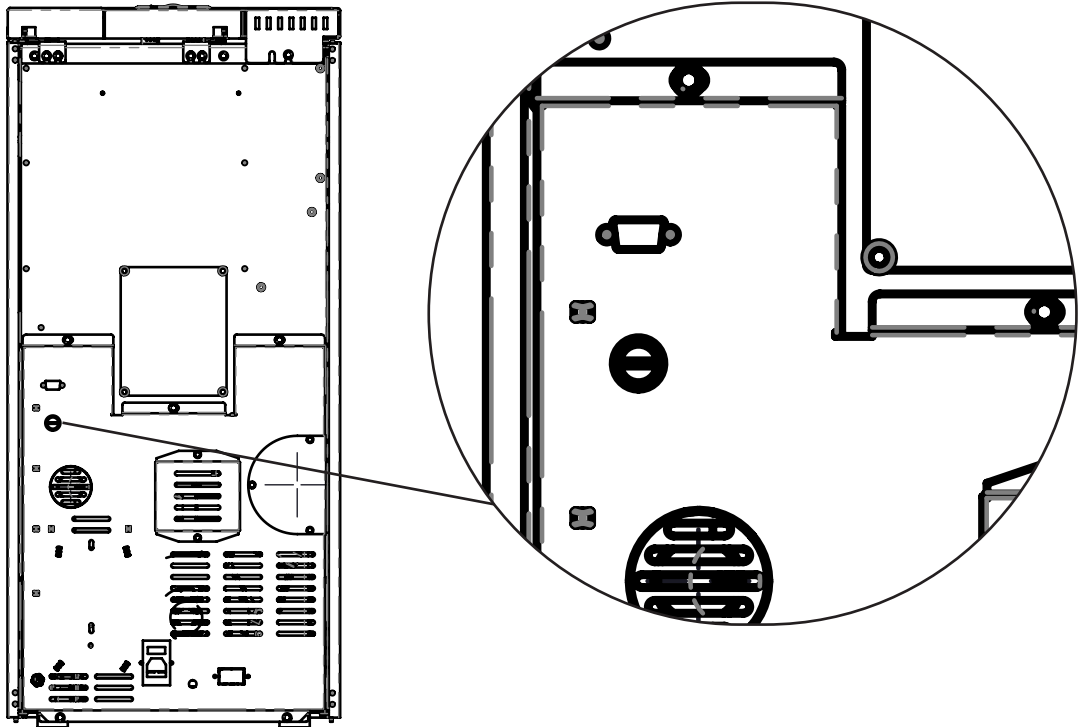


AL 09 - AIR-FLOW METER is an alarm that do not block the operation of the stove. In these conditions, the stove goes into modulating work, working at fixed extractor revolutions (RDS off). In any case, a periodic visual and acoustic signal indicating the type of problem remains active. Please contact the local Technical Assistance Centre.

To reset the alarm, keep the OK key pressed for a few seconds. The stove can be restarted manually or automatically (in the case of an active chronothermostat or external thermostat) only after resetting the alarm.

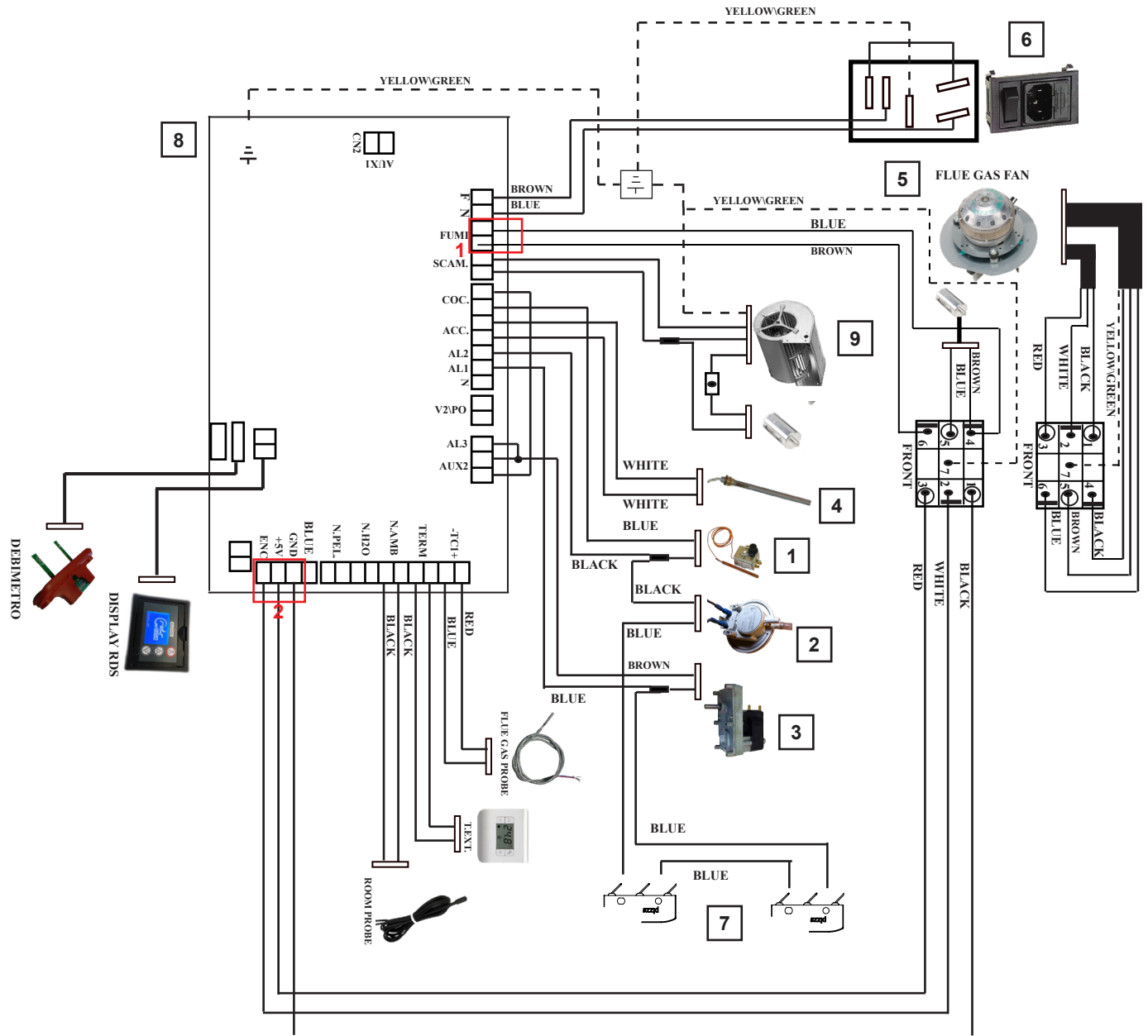
Thermal alarm with reset

- 1) By pressing the button OK on the display, the alarm can be reset.
- 2) Unscrew the protection cap and press the button to reset the thermostat alarm.
- 3) Try and repeat lighting after the cooling phase.

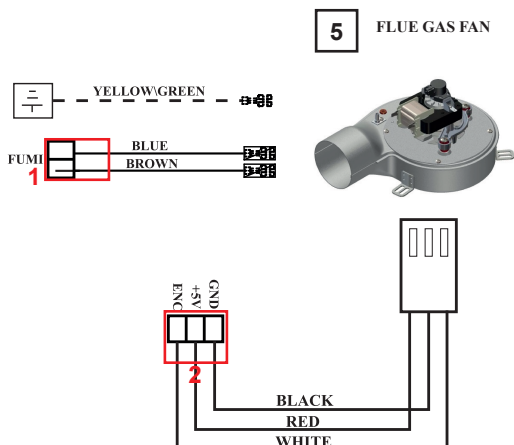
For Francesca Top Outlet

ELECTRICAL WIRING DIAGRAM

For Francesca Top Outlet



Alternative component



LEGEND:

- 1- Safety temperature switch
- 2- Safety pressure switch
- 3- Gearmotor
- 4- Igniter
- 5- Flue gas fan
- 6- Power cord plug; Main switch
- 7- Proximity switch
- 8- Motherboard
- 9- Room fan

MAINTENANCE



This wood heater needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instructions in this manual.

Before carrying out any maintenance operation on the stove, please take the following precautions:

- Make sure that all the parts of the stove are cold
- Make sure that the ashes are completely extinguished
- Make sure that the general switch is in the zero position (off)
- Make sure that the plug is disconnected from the socket, thus avoiding accidental contacts.



Please follow the instructions for cleaning shown below carefully! Failure to observe them may lead to problems in the functioning of the stove AND FIRE HAZARD.

Cleaning the surfaces

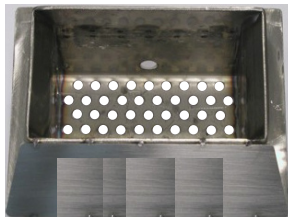
To clean the surfaces on the painted metal parts, use a wet cloth in water or at the most, water and soap.



The use of aggressive detergents or diluents can damage the surfaces of the stove.

Cleaning the fire pot before each ignition

You must check that the fire pot, where the combustion takes place, is clean and that no waste or residue blocks the holes, in order to always guarantee excellent combustion of the stove, thus avoiding possible overheating, which could cause changes in the colour of the paint or flaking of the door, as well as failing to light the stove.



Clean fire pot with all the holes clearly visible



Fire pot needing cleaning with the holes blocked by ashes

Only a clean fire pot guarantees that the pellet stove functions without problems. During functioning deposits may be formed. It is easy to see when the fire pot has to be cleaned! It only needs a glimpse, each day, before switching on. For minor cleansing, it can be left in the stove, but if the residue is difficult to remove, it has to be extracted from its housing and the waste scraped out. The residue of ash depends on the quality of pellets used. Important: even with a new batch of pellets, although using the same brand, there may be differences during combustion and therefore they may dirty to a greater or lesser extent. Correct cleaning, done on a daily basis, allows the stove to burn optimally and to have a good yield, avoiding malfunctioning which in the long term could require technical assistance to reset the stove.



After each maintenance operation, make sure that the fire pot is positioned correctly in its seat.

Cleaning the FIREX 600



All Ravelli products have a combustion chamber made with FIREX 600, a material based on vermiculite, the result of research and development by Ravelli. The main features of FIREX 600 are resistant to heat, its lightness and excellent insulating capacities, improving the combustion and performance of the stove.

During combustion, FIREX 600 turns white, due to an effect called PYROLYSIS, making the flame clear and shining. If the combustion is regulated in an optimal way, the FIREX 600 interior always remains clean and white.

The condition of FIREX 600 is therefore a thermometer to understand whether the combustion is good or not.

FIREX 600 LIGHT – GOOD COMBUSTION

FIREX 600 DARK – POOR COMBUSTION

Firex 600 does not require special maintenance, it only has to be dusted with a soft brush to remove the ash that is deposited during combustion.

Abrasive sponges to clean to most resistant waste should not be used as they could compromise the thickness of the FIREX600 panel, creating critical points of breakage.

The tube of the vacuum cleaner should not be used in direct contact with FIREX 600.

Wet cloths should not be used to clean FIREX 600.

FIREX 600 is resistant to heat but not to knocks; handle with care if moved.

FIREX 600 may show a slight abrasion after a few hours of functioning, this is perfectly normal as the flame creates microgrooves in the panel without compromising it.

The duration of FIREX 600 depends only on how maintenance is carried out.

The pellet stove is a generator of heat with a solid fuel and as such requires servicing by qualified personnel at least once a year at the start of the season. This maintenance has the purpose of ascertaining and ensuring the perfect efficiency of all the components. We recommend you draw up an annual contract for maintenance of the product with your installer/dealer.

WARRANTY

Read the warranty conditions contained below.

Warranty conditions

The warranty for the Customer is acknowledged by the Dealer under the terms of law.

The Dealer acknowledges the warranty only if the product has not been tampered with and only if it has been installed in accordance with the Manufacturer's instructions.

The limited warranty covers manufacturing material defects, as long as the product has not broken due to an incorrect use, negligence, incorrect connection, tampering, installation errors.

The warranty becomes null and void even if only one requirement in this manual is not complied with.

The following are not covered by warranty:

- the combustion chamber refractory stones;
- the door glass;
- the gaskets;
- the paint job;
- the stainless steel or cast iron combustion grille;
- the resistance;
- the Majolica cladding;
- the aesthetic parts;
- any damages caused by unsuitable installation and/or use of the product and/or shortcomings on the part of the customer.

The use of poor quality pellet or any other unauthorised fuel may damage the product's components, cause its warranty to be voided and as a result eliminate the connected manufacturer liability.

It is therefore recommended to use good quality pellet that fulfils the requirements listed in the dedicated chapter.

All damages caused by transportation are not recognised, for this reason it is recommended to carefully check goods upon receipt, immediately warning the reseller of any damage.

Registration of warranty



To activate the warranty, it is necessary to register the product on the Guarantee Portal on the website www.ravelligroup.it, by entering your data and the purchase receipt.

Info and problems

Dealers authorised by Ravelli use a trained Technical Service Centre network to meet the Customer's requirements. For any information or request for assistance, please contact your Dealer or the Technical Service Centre.



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