

## **User and maintenance manual for stoves with RDS technology**

*( For model with flash motherboard )*

**Ravelli**<sup>®</sup>  
il fuoco intelligente

### **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.**

ASTM E 1509-12 • UL 1482 - 11 • ULC S627-00 • Oregon Administration Rules 814-23-909 • Mobile Home Approved



**Index**

<b>1. Introduction.....</b>	<b>pag 4</b>
<b>2. Safety information.....</b>	<b>pag 5</b>
<b>3. General.....</b>	<b>pag 6</b>
<b>4. Safety devices.....</b>	<b>pag 9</b>
<b>5. Technical features.....</b>	<b>pag 9</b>
<b>6. Positioning, assembly and installation .....</b>	<b>pag 9</b>
<b>6.1 Minimum distance from combustibile material.....</b>	<b>pag9</b>
<b>6.2 Environment of use .....</b>	<b>pag10</b>
<b>6.3 Mobile Home Requirements.....</b>	<b>pag10</b>
<b>6.4. Examples of installation.....</b>	<b>pag11</b>
<b>7. Description of the functioning and symbology of the display.....</b>	<b>pag15</b>
<b>8. Description of the functions.....</b>	<b>pag22</b>
<b>9. Description of alarms.....</b>	<b>pag25</b>
<b>10. The electrical wiring diagram.....</b>	<b>pag26</b>
<b>11. Maintenance.....</b>	<b>pag27</b>
<b>12. Guarantee.....</b>	<b>pag28</b>

## Introduction

### Important:

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

### Warning:

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, Ravelli S.R.L. 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.

## 1.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.

Ravelli srl thanks you for your confidence  
and wishes you happy times in the company  
of your pellet stove.

## 2. 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 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 noncombustible 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.

- Comply 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

- 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 firing 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 break. 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 HT chimneys in the standard UL 103 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 generated CO. Inspect the 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.

**3. 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.

**3.1 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

**3.2 Compliance status**

This manual describes the installation and operation of the Ravelli, Francesca 2015, Monica 2015, RV80 ceramica wood pellet heater. This heaters meet the 2020 U.S. Environmental Protection Agency’s wood pellet emission limits for wood heaters sold after May 15<sup>th</sup> 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 10733 to 26556 Btu/hr.

	Emission Rate (g/hr)	Heating Efficiency (% Overall)	1st hour Emission Rate (g/hr)	CO emission gr/hr
<b>Francesca 2015, Monica 2015 and RV80 Ceramica</b>	<b>0.58</b>	<b>77.90%</b>	<b>1.36</b>	<b>23</b>
<b>RV100 Classic</b>	<b>0.7</b>	<b>80.2%</b>	<b>0.67</b>	<b>2.72</b>
<b>Roma</b>	<b>0.74</b>	<b>75.5%</b>	<b>1.33</b>	<b>9.45</b>

This manual describes the installation and operation of the Ravelli, Roma wood pellet fireplace insert. This heater meets the 2020 U.S. Environmental Protection Agency’s wood pellet emission limits for wood heaters sold after May 15<sup>th</sup> 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 10250 to 31500 Btu/hr.

This manual describes the installation and operation of the Ravelli, RV100 cLASSIC wood pellet heater. This heaters meet the 2020 U.S. Environmental Protection Agency’s wood pellet emission limits for wood heaters sold after May 15<sup>th</sup> 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 10750 to 34500 Btu/hr.

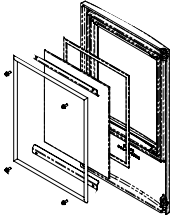
**3.3 Spare parts**

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.

### 3.3.1 Glass and gasket replacement

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

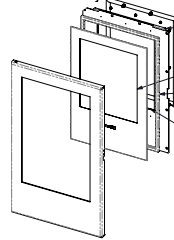
#### Francesca 2015 -Monica 2015



**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"

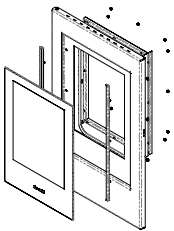
#### RV 80 Ceramica



**Ceramic glass dimensions:**  
305 x 449 mm (12" x 17.68")  
thickness 4mm (0.16")

**Glass twist tricovet gasket:**  
diam. 14 mm / 0.55"  
L1250 mm / 49.21"

#### RV 100 Classic

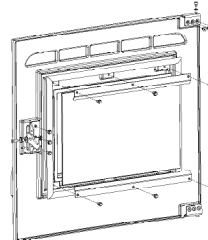


**Ceramic glass dimensions:**  
319 x 460 mm (12.55" x 18.11")  
thickness 5 mm (0.20")

**Glass ribbon trecotee gasket:**  
10 mm x 3 mm (0.39" x 0.12")  
L1344 mm (52.91")

**Door tricovet gasket:**  
diam. 14 mm / 0.55"  
L1365 mm / 53.77"

#### Roma



**Ceramic glass dimensions:**  
260 x 375 mm (10.24" x 14.76")  
thickness 5mm (0.20")

**Glass ribbon trecotee gasket:**  
10 mm x 3 mm (0.39" x 0.12")  
L1100 mm (43.31")

**Door tricovet gasket:**  
diam. 10 mm / 0.39"  
L1500 mm / 59.06"

### 3.3. Majolica finishes

Due to the special hand finish of the majolica surface imperfections such as shadowing my accour . 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!

### 3.4. 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/m<sup>3</sup>. 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/m <sup>3</sup>
Lower heating value:	≥ 16,5 MJ/kg (≥ 7100 BTU/lb)
Residual humidity:	< 10 %
Ashes:	< 1.2 %
Specific weight:	>1000 kg/m <sup>3</sup>

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



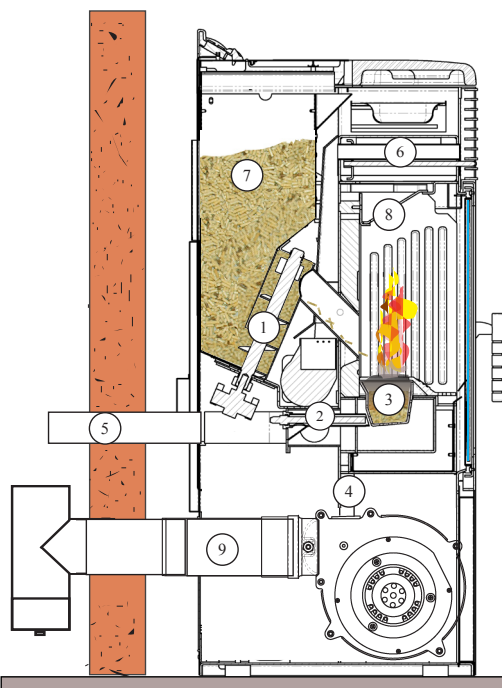
Pic.1



Pic.2

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.

### 3.5. The components of the stove



1. pellet loading screw
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

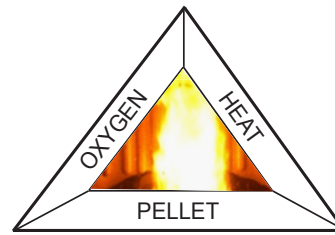
This drawing shows the internal parts of a pellet stove. By filling the hopper (7), the pellets are loaded into the fire pot (3) through the loading screw (1). Ignition is by means of the electrical igniter (2), which overheats the air from the special entrance (5) which on contact with the pellets will 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).



### 3.6. 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 firepot.

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.

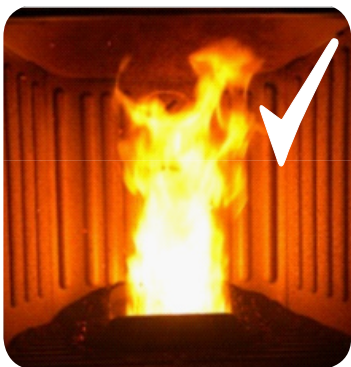
If the changes made to the settings do not bring the stove to the right combustion conditions in Figure 3, contact the Technical Support Centre.



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 firepot.

The combustion is fine and no ad.

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

#### 4. 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”.

#### 5. TECHNICAL FEATURES

	Unit of measurement	Francesca 2015	RV 80 Ceramica	Monica 2015	RV 100 Classic	Roma
Height	Inch	37.67	39	39.3	44.1	31.5
Width	Inch	17.32	20.20	20.27	21.7	43.4
Depth	Inch	18.46	19.1	18.58	21.9	29.5
Weight	Lbs	200	270	264	320	550
Diameter of smoke exit tube	Inch	3.14	3.14	3.14	3.14	3.14
Min-max. hourly consumption of pellets	Lbs/h	1.1 - 3.5	1.1 - 3.5	1.1 - 3.5	1.5 - 5.1	1.6-5
Supply	V - Hz	120 - 60	120 - 60	120 - 60	120 - 60	120-60
Hopper capacity	Lbs	35	35	35	50	50
Efficiency *	%	77.9	77.9	77.9	80.2	75.5
Smoke temperature min - max	°F	176 - 302	176 - 302	176 - 302	200 - 415	240-410

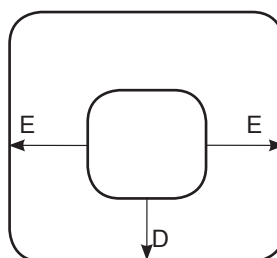
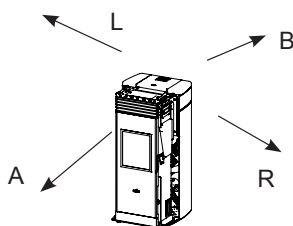
\*overall heating efficiency is determined using higher heating value of the fuel.

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.

#### 6. Positioning, assembly and installation

##### 6.1 Minimum distance from combustible material

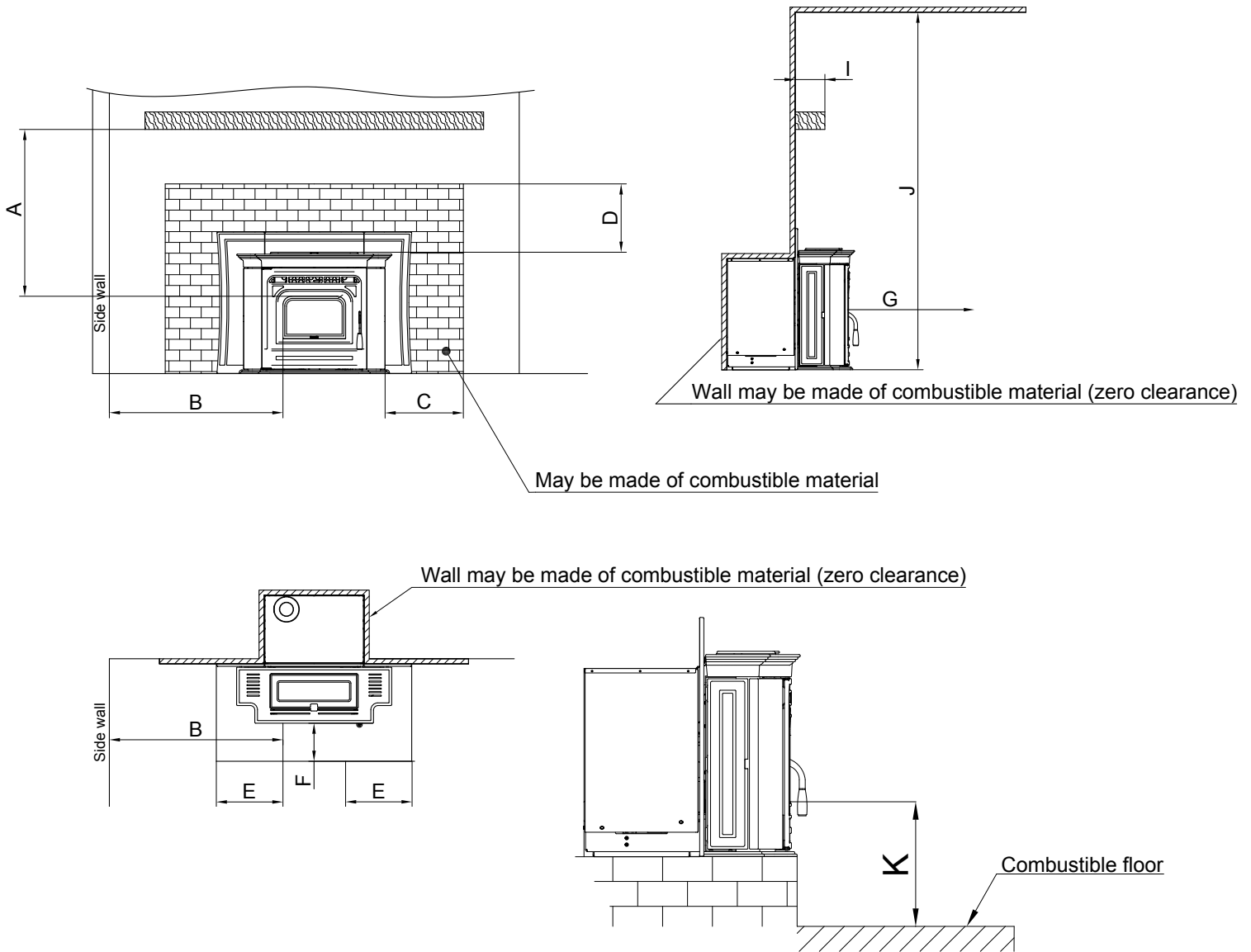
**NOTE:** Install vent at clearances specified by the vent manufactures.



	Unit of measurement	Francesca 2015	RV 80 Ceramica	Monica 2015	RV 100 Classic
R = right side	Inch/mm	4 / 101,6	4 / 101,6	4 / 101,6	4 / 101,6
L = left side	Inch/mm	4 / 101,6	4 / 101,6	4 / 101,6	4 / 101,6
B = rear side	Inch/mm	2 / 50,8	2 / 50,8	2 / 50,8	4 / 101,6
A = front side	Inch/mm	39,37 / 1000	39,37 / 1000	39,37 / 1000	39,37 / 1000
D = FRONT floor protection	Inch/mm	6 / 152,4	6 / 152,4	6 / 152,4	6 / 152,4
E = SIDE floor protection	Inch/mm	6 / 152,4	6 / 152,4	6 / 152,4	6 / 152,4
F = Ceiling	Inch/mm	57 / 1450	57 / 1450	57 / 1450	52 / 1321

N.B. The floor protection must extend under the chimney connector and 2 inches (50.8mm) beyond each side

**6.1.1 Minimum distance from combustible material**



	Unit of measurement	Roma
A = clearance to mantel	Inch/mm	18,5/470
B= clearance to sidewall	Inch/mm	15/381
C = clearance to face trim (side)	Inch/mm	0/0
D = clearance to face trim (top)	Inch/mm	0/0
E = floor protection	Inch/mm	6/152.4
F = floor protection	Inch/mm	6/152.4
G = clearence to front	Inch/mm	48/1219
I = mantel depth	Inch/mm	6/152.4
J = ceiling from bottom of unit	Inch/mm	72/ 1828.8
K = combustible floor from bottom of the glass	Inch/mm	9.5/241.3

## 6.2 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.

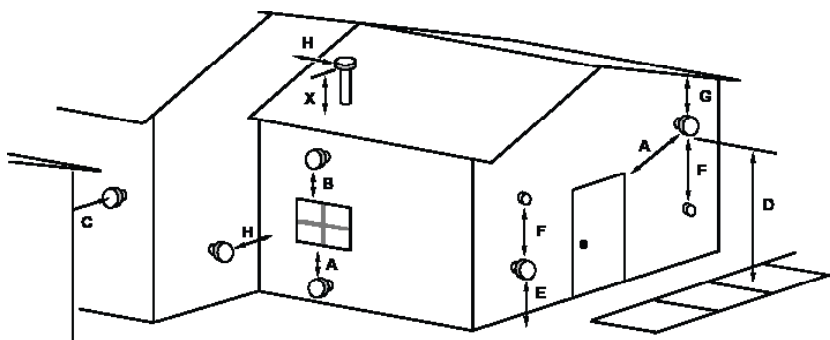
**The stove must be installed and assembled by qualified personnel.**

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.

## 6.3 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 factory built chimney conforming to CAN/ULC-S629.
- It is important to use all the specified components, do not use other components.
- 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.



**WARNING: Do not install in bedroom**

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

**Refer to HUD Requirements, CFR 3280, Part 24**

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

**NOTE:** Measure clearances to the nearest edge of the exhaust hood.

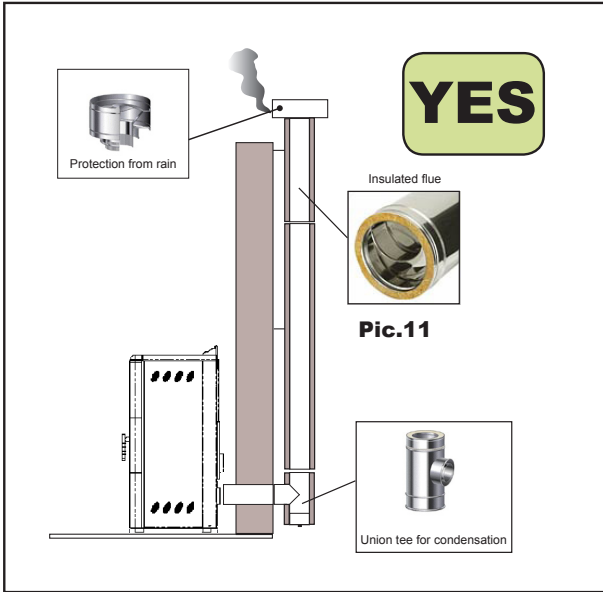
**NOTE:** Vent may not terminate in covered walkway or breezeway.

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

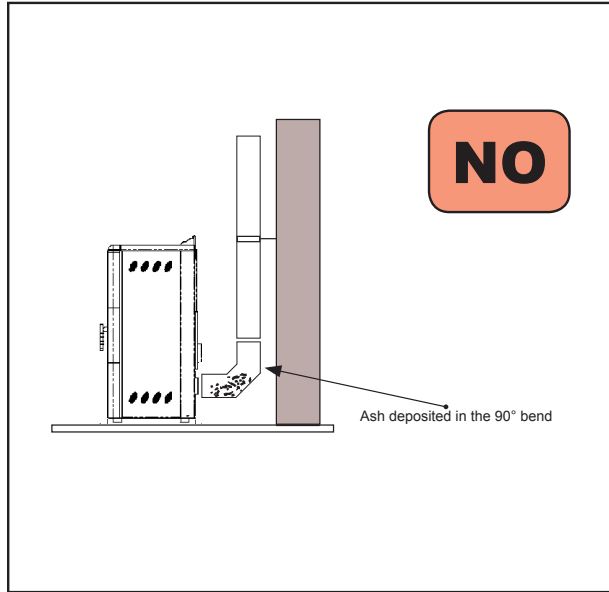
- A Minimum 4' clearance below or beside any door or window that opens (with outside air installed, 1' below or beside)
- B Minimum 1' clearance below or beside any window that does not open.
- C Minimum 1' clearance above any door or window that opens
- C Minimum 2' clearance from any adjacent building
- 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

6.4. Examples of installation

Pic.9

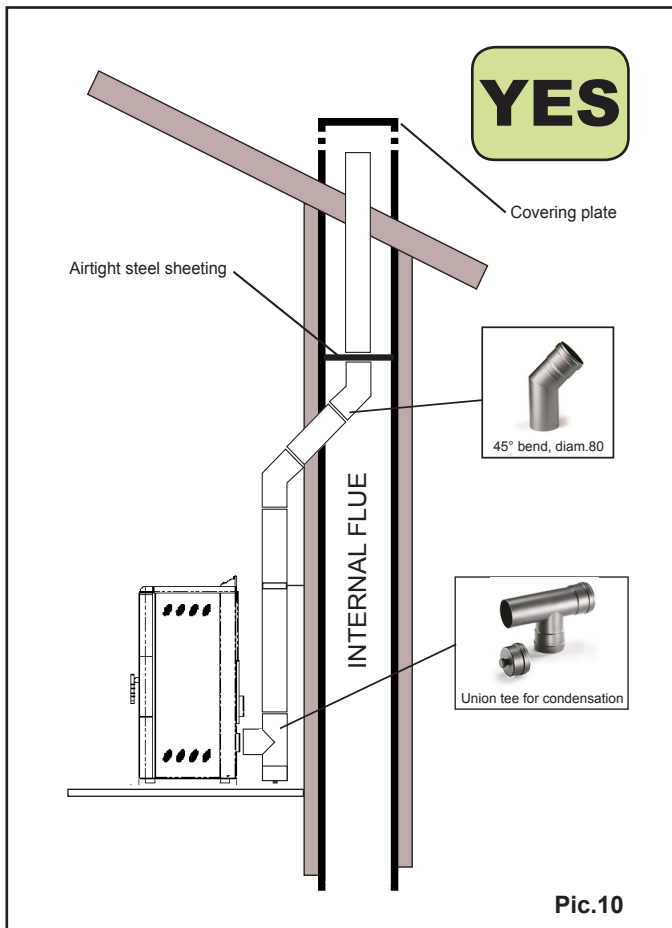


Pic.6

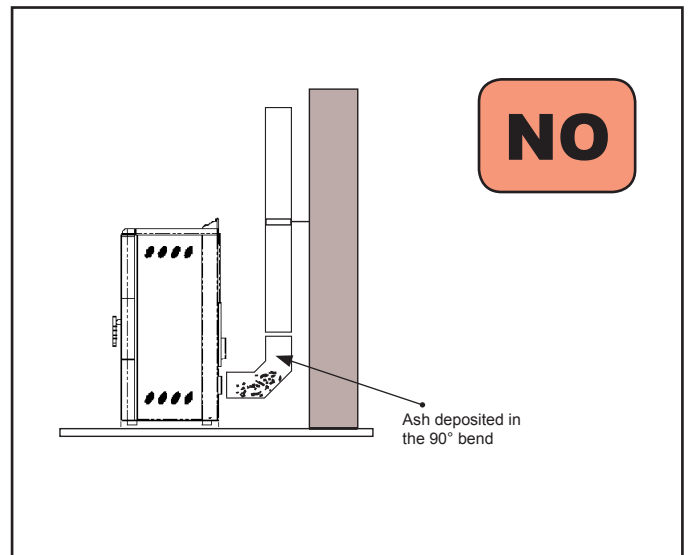


This type of installation (see Pic. 9) requires an insulated flue, as all the smoke pipe has been installed outside the house. In the lower part of the flue, a union tee has been mounted with an inspection cap.

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. 6).



Pic.6



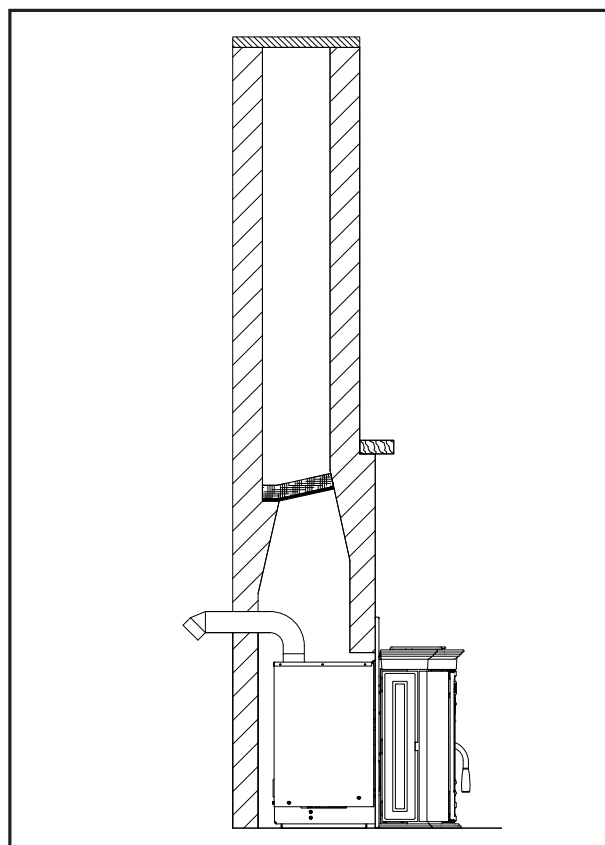
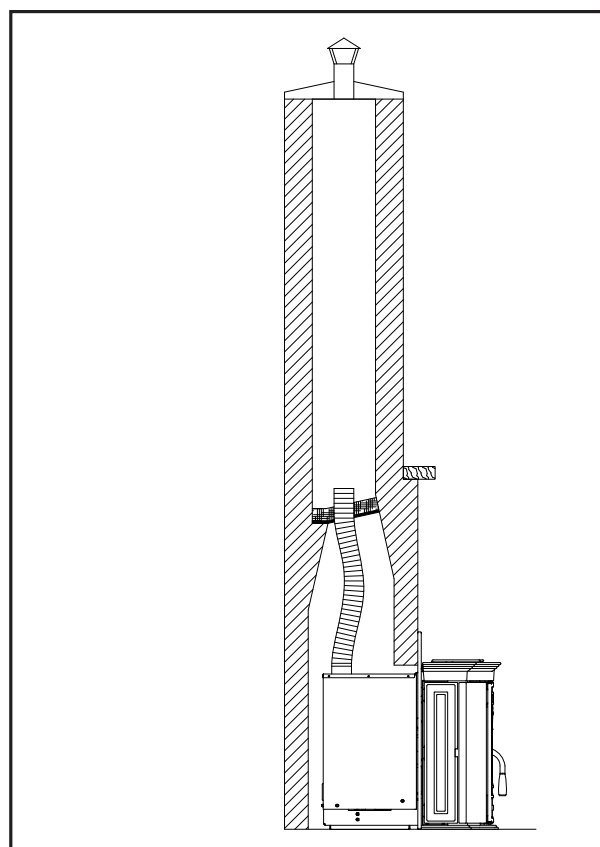
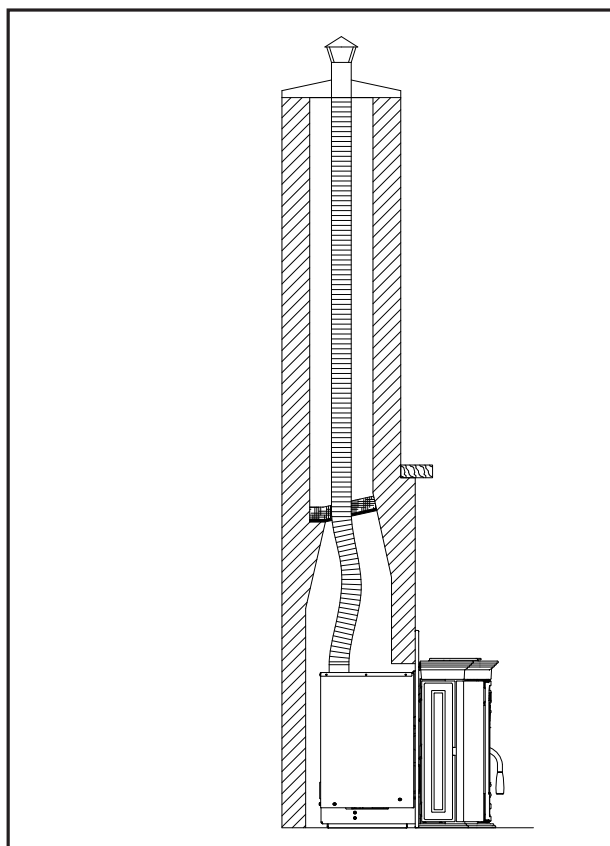
This type of installation (see Pic. 10) does not require an insulated flue as the smoke tube has been assembled partly inside the house and partly inside an existing flue.

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 ash would quickly block the passage of smoke, causing problems for the draught of the flue (See Pic. 6).

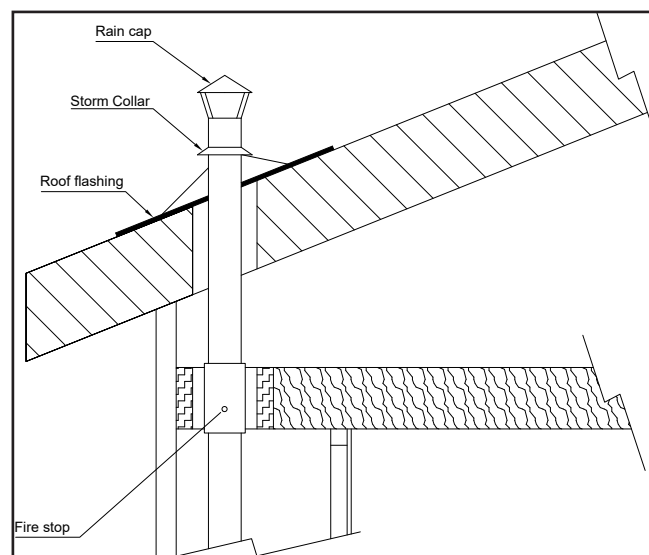
Please note the use of 2 45° bends, to guarantee that the ash falls in the union tee with a peephole.

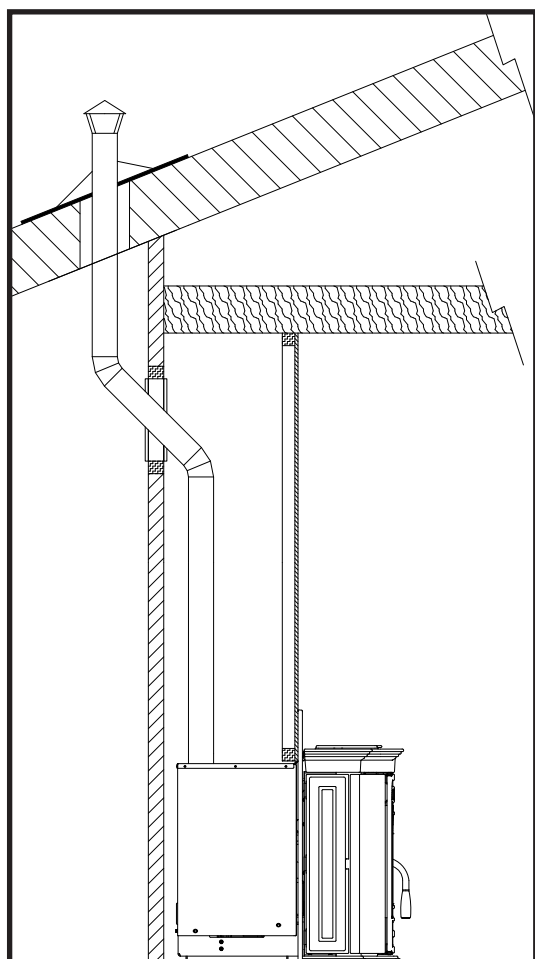
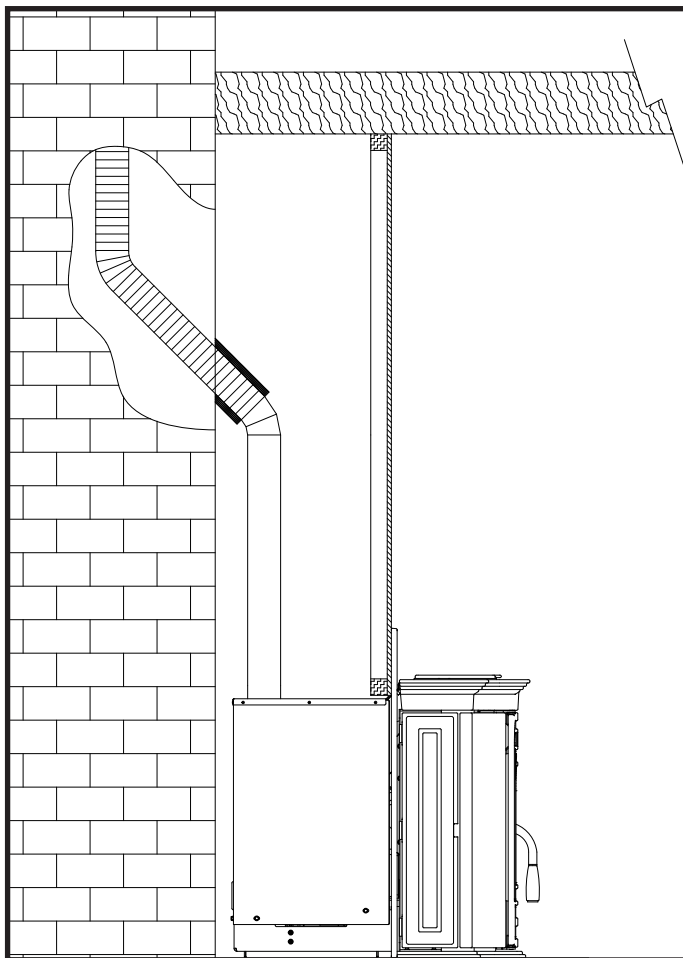
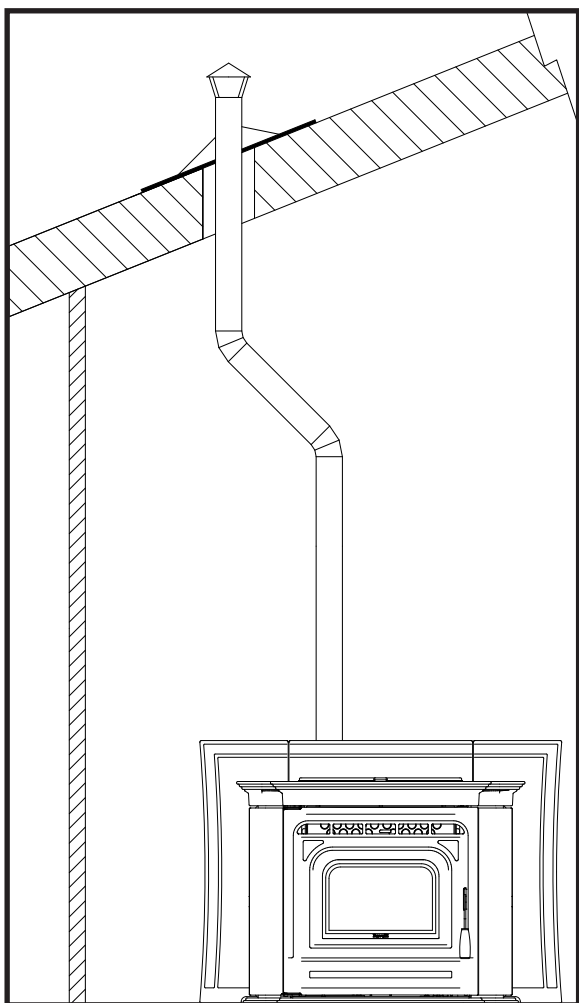
#### 6.4. Examples of installation (only for pellet fireplace insert)



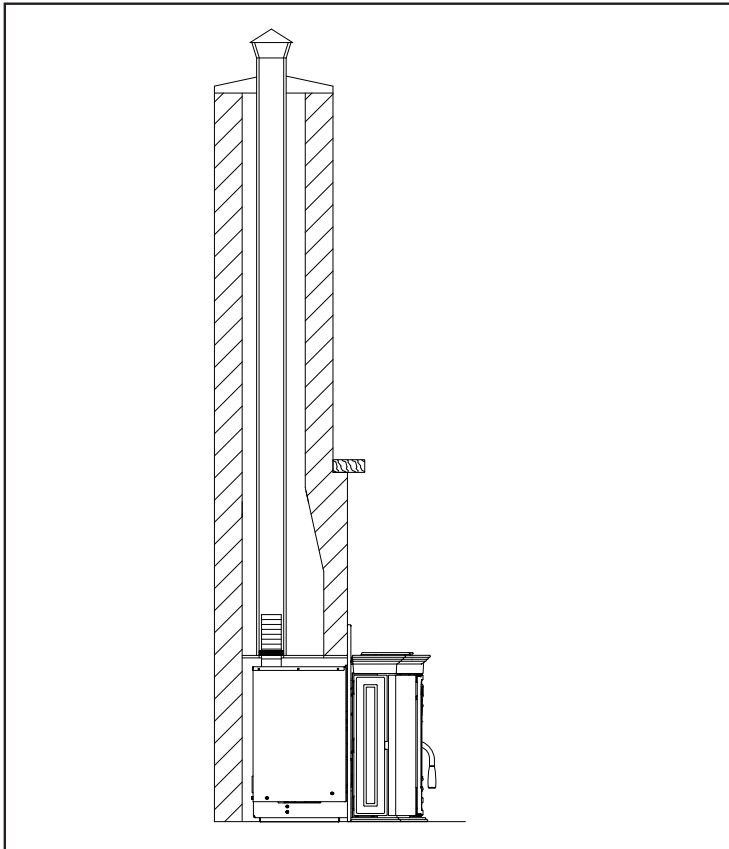
The damper area must be sealed with a steel plate and a non-combustible insulation on the top of the plate to reduce the possibility of condensation.

**This fireplace has not been tested with unvented Gas log set. To reduce risk of injury, do not install an unvented gas log set into this fireplace. Do not pack required air spaces with insulation or other materials. Do not use a fireplace insert or other products not specified for use with this fireplace.**

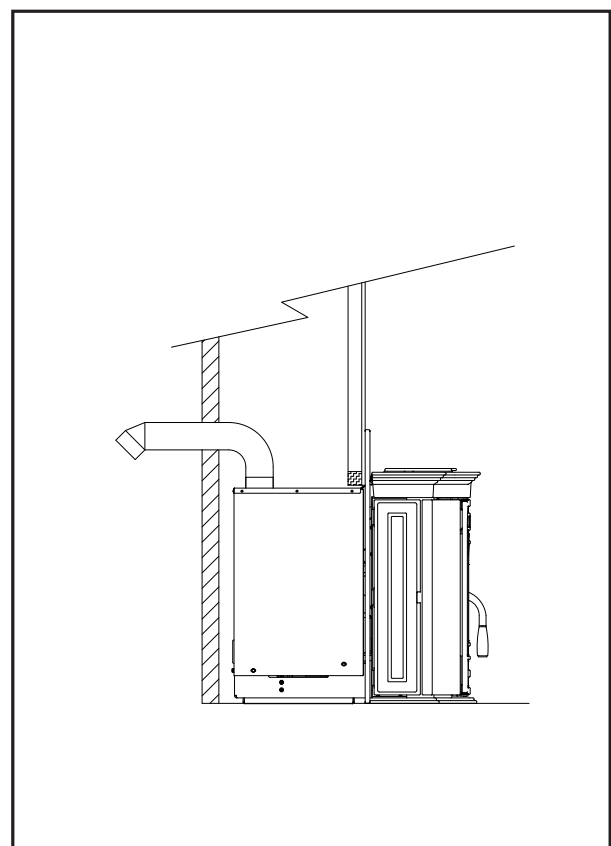
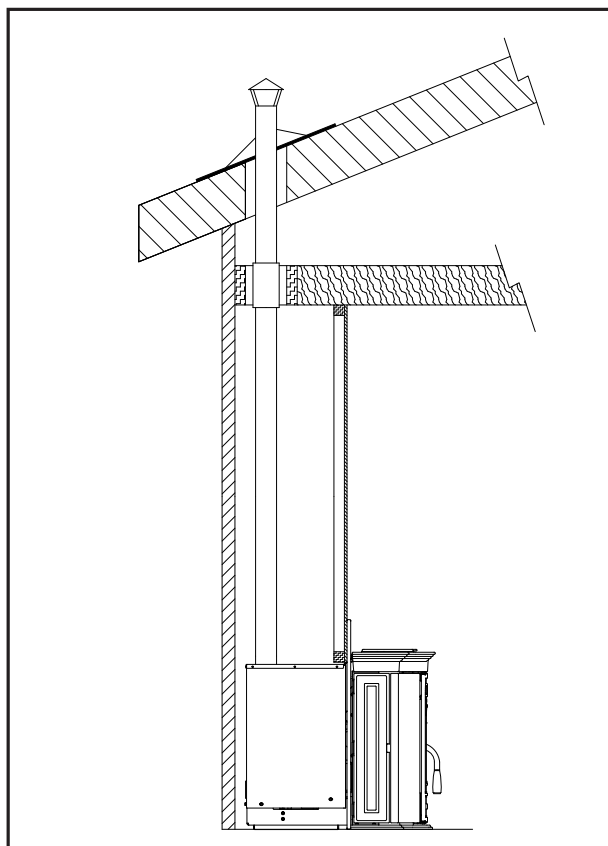




**Use only 45° or 30° bends, do not use 90° bends.**

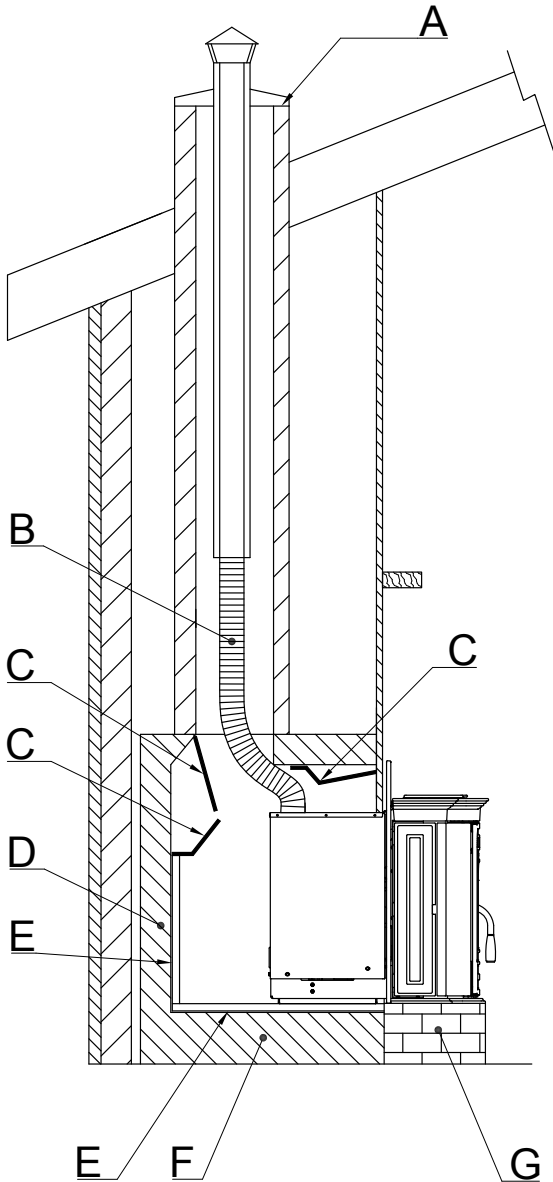


In Canada this fireplace insert must be installed with a continuous chimney liner of a minimum 3" diameter extending from the insert to the top of the chimney. The chimney liner must conform to the class 3 requirements of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.



This pellet insert is suitable for Zero Clearance installation.  
Flex pipe for vent is not approved these types of installation.





**A.-Seal the cover plate (non-combustible);**

**B.-“L” vent flex section;**

**C.-The smoke baffle, damper and shields may be removed if attached with mechanical fasteners;**

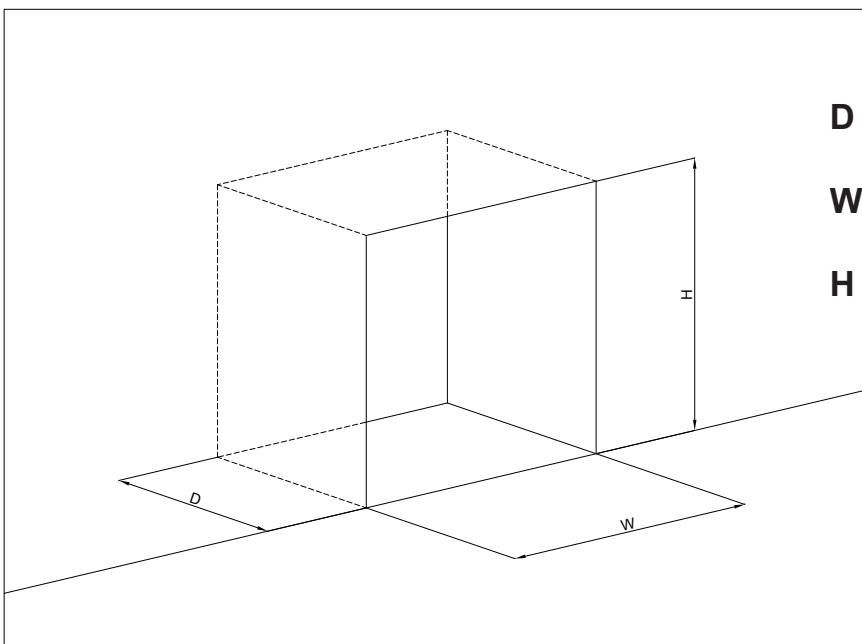
**D.-The metal sides, frame members, or other structural components of the factory built fireplace may not be removed or altered;**

**E.-The firebrick (refractory) may be removed;**

**F.-The metal floor of the firebox may be removed leaving the fireplace floor outer wrap;**

**G.-You shall built a support for insert on raised fireplace.**

**Minimum opening for masonry and manufactured fireplace (only for pellet fireplace insert)**



**D = 16.5 “ / 419 mm**

**W = 22.5” / 571.5 mm**

**H = 26” / 660.4 mm**

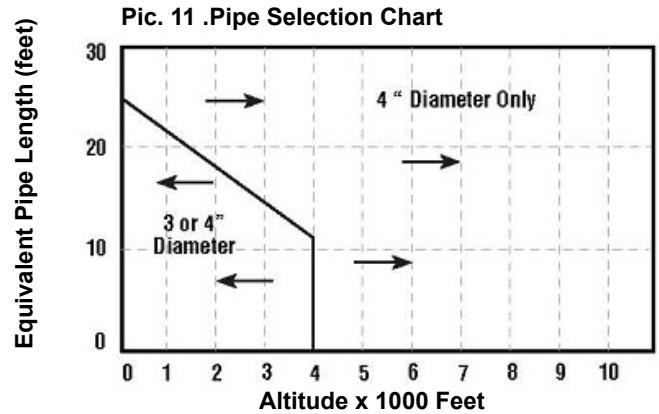
**Determining Size of Pipe to install**

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.11) 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)



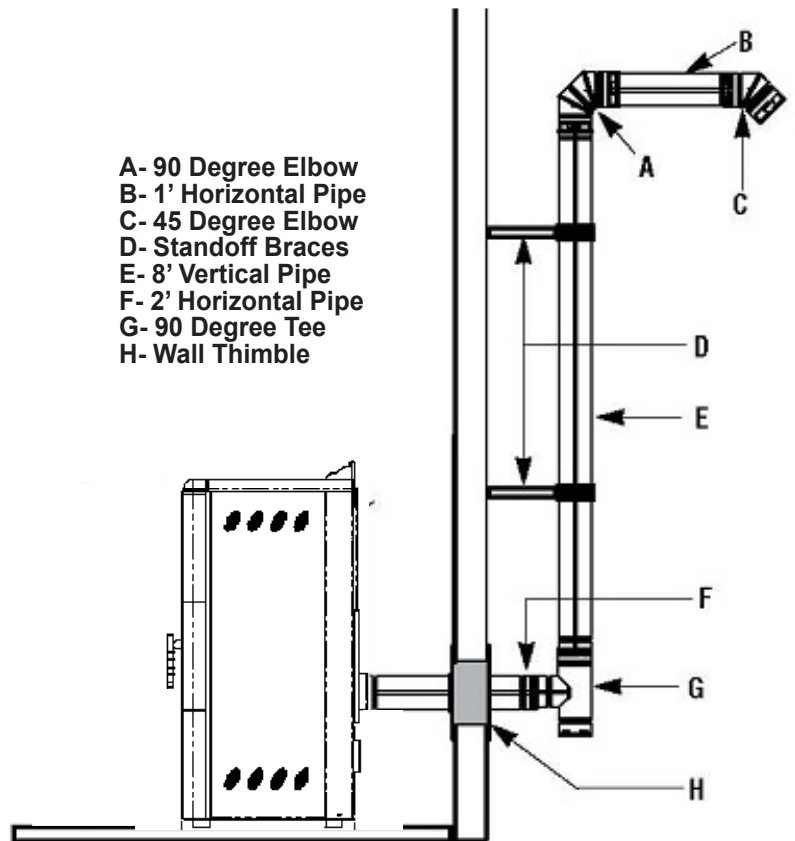
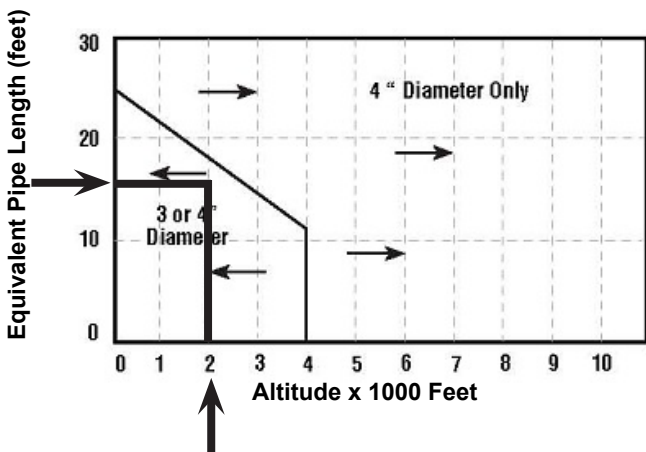
**Sample installation chart**

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.12**

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 of 4", as you can see in the pipe selection chart below.



**Pic. 12. See sample installation chart**

**Standard horizontal installation configurations**

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.

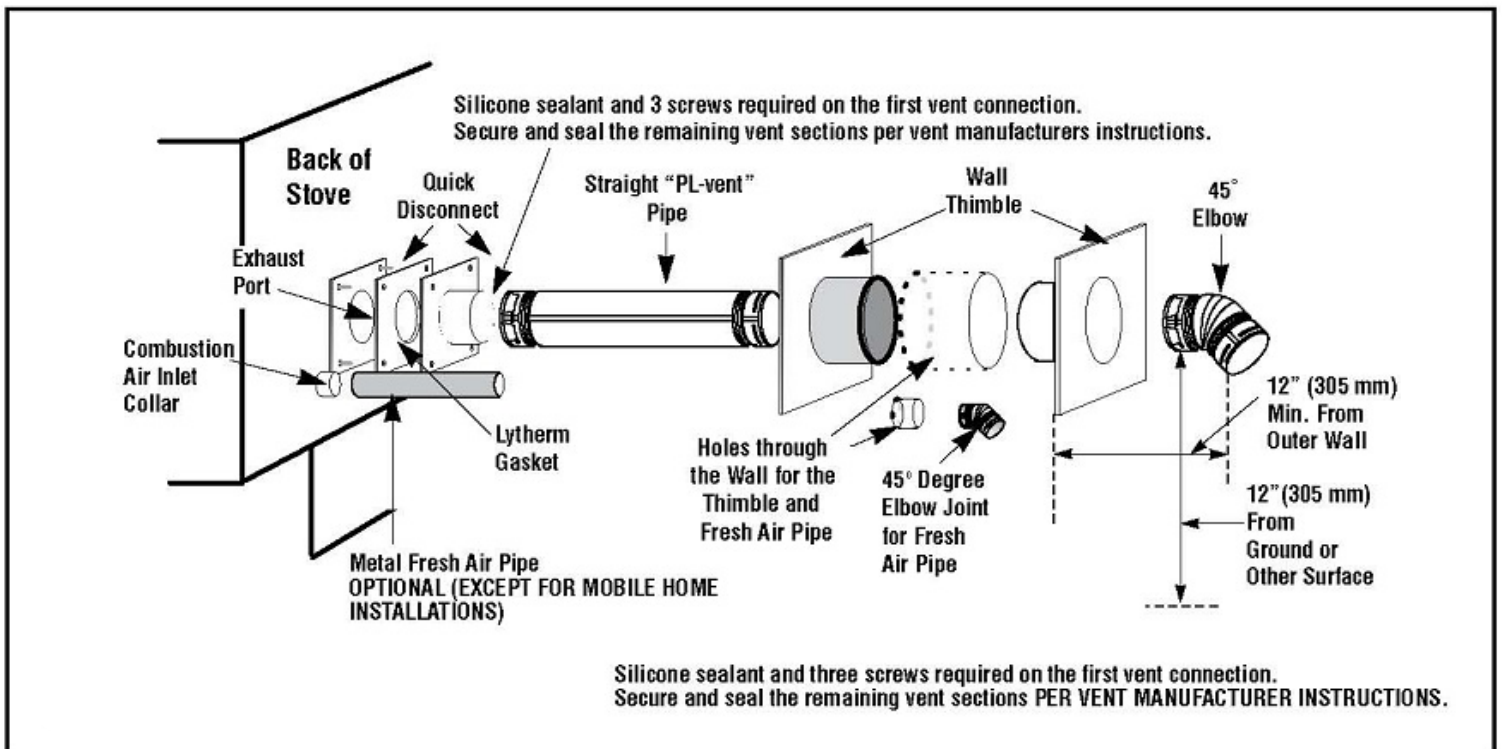
2. ALL INTERLOCKING PIPE CONNECTIONS WITH-IN THE ROOM MUST BE SEALED WITH HIGH TEMPERATURE RTV AND SECURED WITH A MINIMUM OF 3 FASTENERS PER CONNECTION. Position the stove approximately 12” (305 mm) from the wall on the floor pad. Push the “PL” pipe through the wall thimble. Squeeze a bead of high temperature 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.

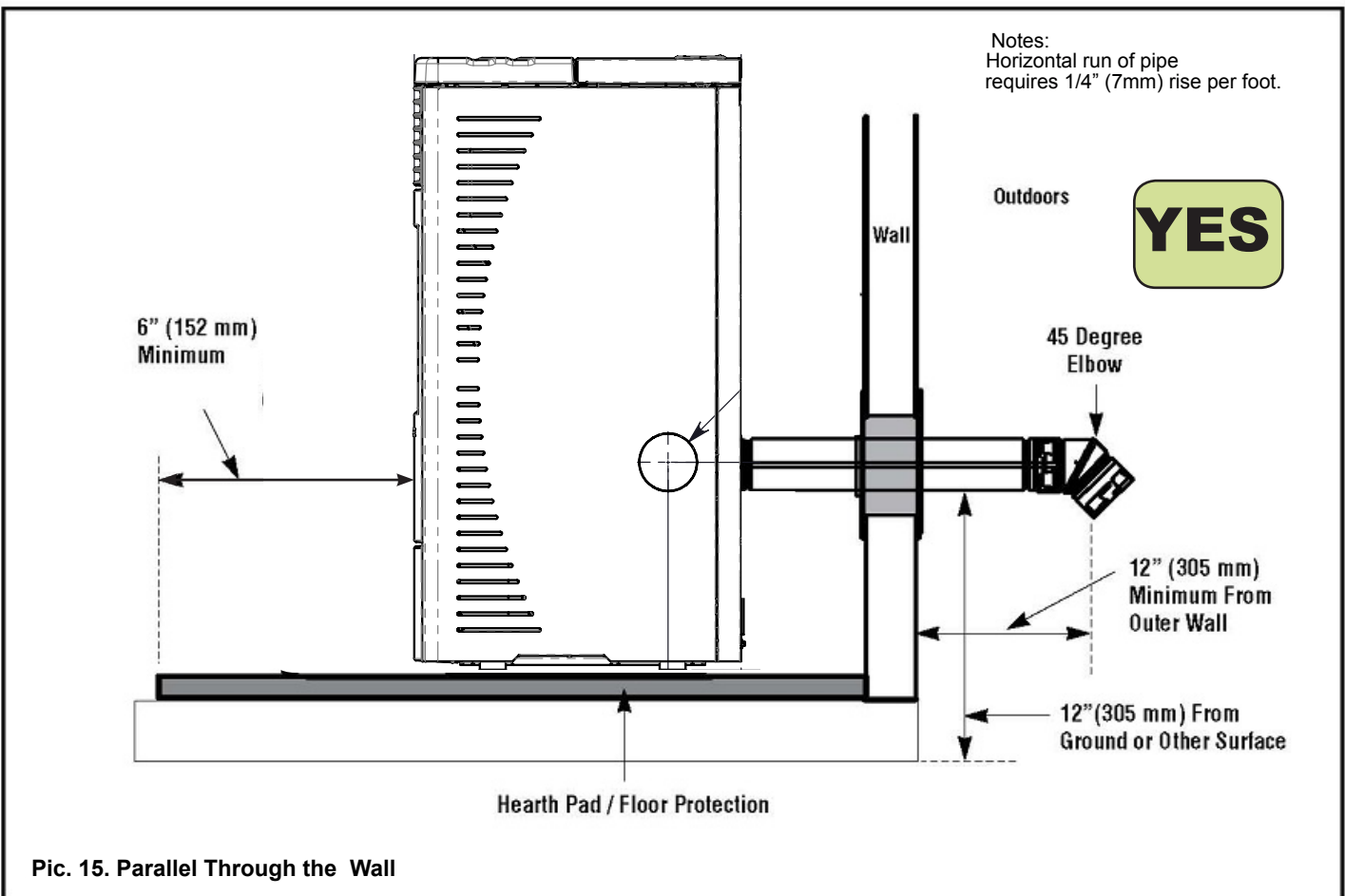
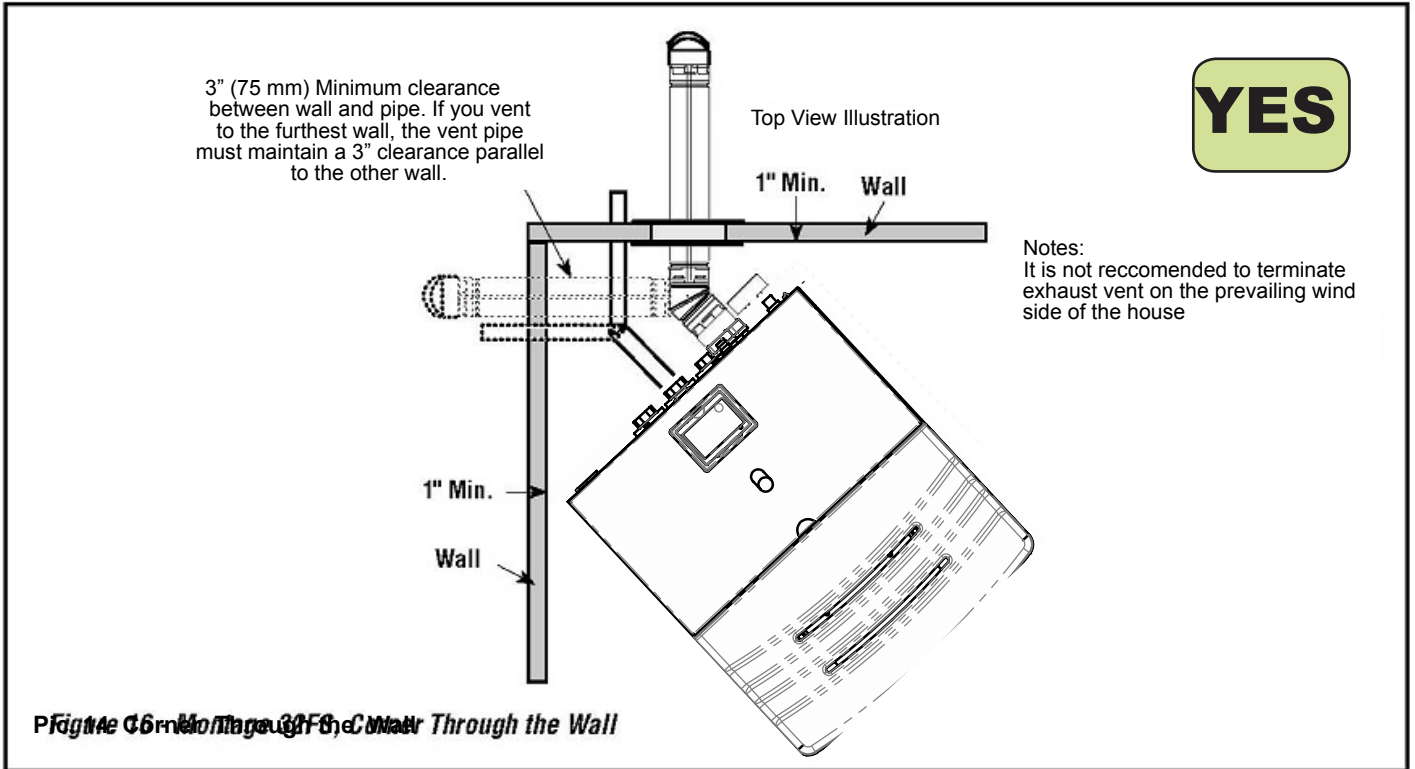
5. If the installation includes a source of outside combustion air; cut a separate hole through the wall for the fresh air tube. Use a galvanized or stainless steel pipe for the duct. The minimum size for the duct shall be not less than 50% of the cross sectional flue area. Connect outside air pipe to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



**Pic. 13. Horizontal Vent installation**

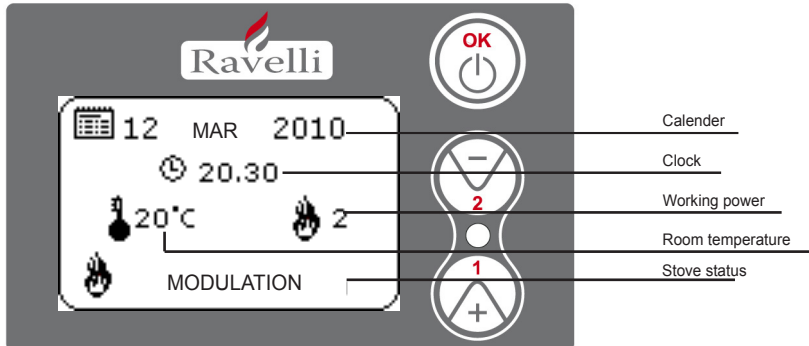
**Standard horizontal installation configurations**



## 7. Description of the functioning and symbology of the display

The innovation of this particular display is the communication through low voltage conveyed waves (12 volts) between the electronic motherboard and the display. The communication is made through a bipolar cable (ex: the cable for the stereo speakers) and the novelty is the possibility to install the display in the wall using the optional standard frame for electrical box 503.

### 7.1. Display with mode "MAIN SCREEN"



Key "1": access key to "set room temperature" and regulation

Key "2": access key to "set power" and regulation

Key "OK": short press of the key to confirm and come back to the main screen; press the key 3 seconds long to switch ON and switch OFF the stove.

The functionalities of this display when used in mode "MAIN SCREEN" are:

- Switch on and switch off of the stove
- Set of the room temperature and selection of the type of sensor (supplied sensor connected to the motherboard or sensor integrated to the display)
- Set of the working power (1,2,3,4,5)

#### 7.1.1. switch "on" and switch "off" of the stove

Before starting the stove please follow following procedure :

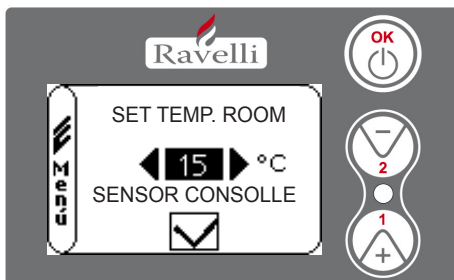
- 1- Check that the installation is connected to the chimney
- 2- Connect the power cable
- 3- Set the switch on the backside of the stove on position 1
- 4- Load the pellet hopper with 6 mm pellets
- 5- Load the screw as described in paragraph 8.6
- 6- Press key OK for 3 seconds long.

At this stage the stove will begin the ignition phase.

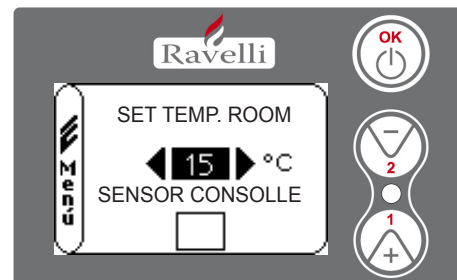
On the display will appear following writings:

- IGNITION (waiting time is different depending on default settings)
- WAITING FLAME (waiting time is different depending on default settings)
- FLAME LIGHT (waiting time is different depending on default settings)
- WORK (waiting time is different depending on default settings)

#### 7.1.2. Set of the room temperature



Pic. 1



Pic. 2

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

- A-With supplied room sensor positioned on the backside of the stove ( not available for insert models)
- B-With room sensor integrated to the display
- C-With external thermostat (not supplied)

#### A- MODE WITH SUPPLIED ROOM SENSOR (DEFAULT AND SUGGESTED USE)

If you use the supplied room sensor , the display will show the room temperature.

To set and modify the room temperature press key number 1 to enter in the dedicated menu and set the desired value with key 1 and 2.

Confirm with key OK 2 times and keep deselected the box SENSOR CONSOLLE (flag, see pic.2). Once reached the set temperature the display will show MODULATION, so the stove will reduce to minimum the pellet consumption and the power as well.

**B-MODE WITH ROOM SENSOR INTEGRATED TO THE DISPLAY**

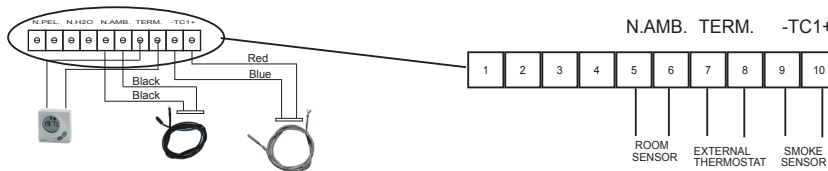
in case you want to install the display on the wall instead of on the stove as from the factory, please reference to the functioning with supplied room sensor (as above explicated) with just one difference: the box (flag) SENSOR CONSOLLE, if you work in this mode, should be selected by using key 2. Then confirm with the key OK (reference to pic. 1 paragraph 7.1.2.)

**C-EXTERNAL THERMOSTAT MODE**

if you use an external thermostat correctly connected as shown in the electrical scheme (reference paragraph 10), 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).

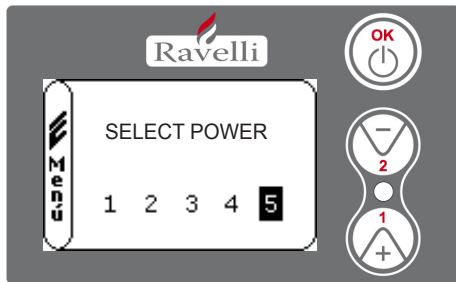
REMARK: TO ENABLE THE EXTERNAL THERMOSTAT, ENTER IN THE SET TEMPERATURE USING KEY 1 AND THEN PRESS REPEATEDLY TO REACH THE VALUE "EST" ON THE DISPLAY; CONFIRM TWO TIMES WITH THE KEY OK KEEPING DESELECTED THE BOX (FLAG) "SENSOR CONSOLLE".

Once reached the set temperature of the thermostat the display will show MODULATION WORK, 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 (for details reference paragraph 8.2.)



**REMARK: if you want to use the CONFORT CLIMA is advisable an external thermostat with OFF-SET of at least 3°C.**

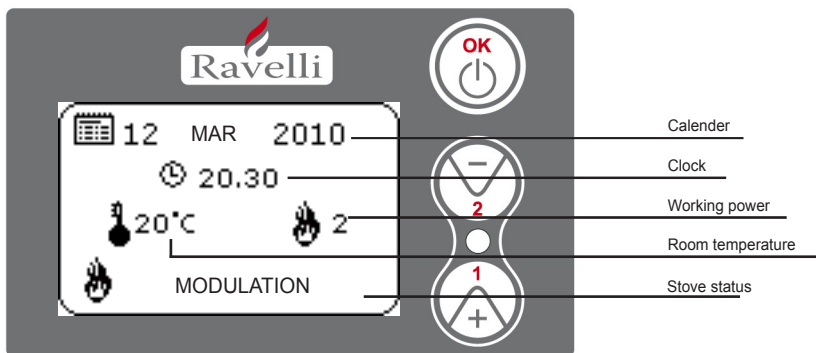
**7.1.3. set of the working power**



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.

NOTE- It is not possible to modify the set power during the phase of MODULATION WORK.

**7.2. Display with mode "ADVANCED"**



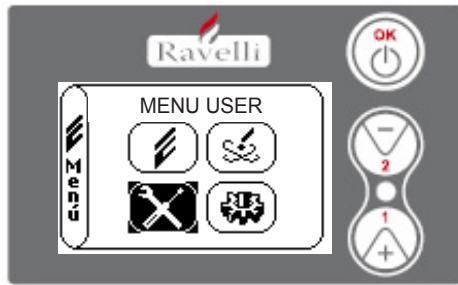
**Key "OK": access key to the complete menu and confirmation of the settings chosen**

**Key "1": scroll key and modification of the settings**

**Key "2": scroll key and modification of the settings**

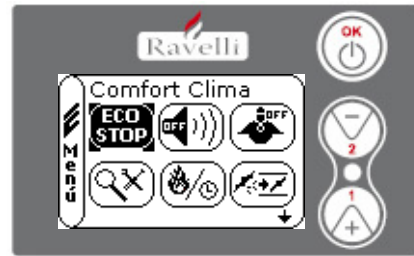
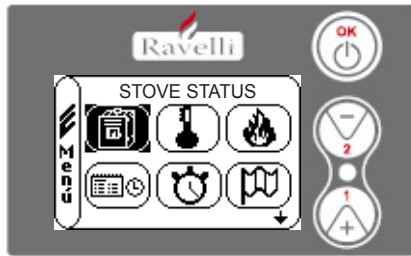
The stove is equipped with many functions available in each menu programming. Some of these menu are accessible for the end user, other are protected with a password so they are accessible only by authorized technician.

The three pictures which follow show the menu with all its icons for the advanced functionalities



The use of the display in advanced mode provides the view of four main menus:

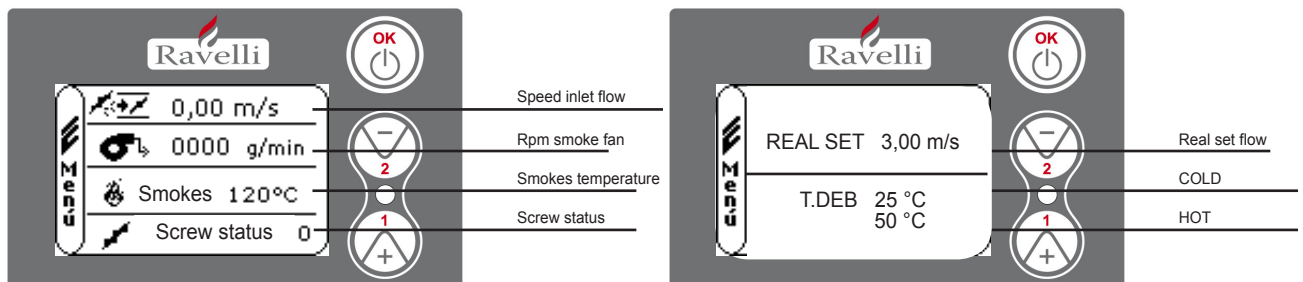
- USER MENU
- DEFAULT SETTINGS (protected by a password)
- BASIC PARAMETERS (protected by a password)
- RDS SETTINGS (protected by a password)



To enter in the USER MENU press two times key OK. The submenus of the USER MENU (the only one accessible for the end user) are the following:

- Menu STOVE STATUS
- Menu SET ROOM TEMPER ROOM
- Menu SET POWER
- Menu SET CLOCK
- Menu TIMER
- Menu LANGUAGE
- Menu COMFORT CLIMA
- SILENCE
- Mode SELF CONTROL SYSTEM
- Menu VIEW SETTINGS
- Menu VIEW WORKING HOURS
- Menu SET DRAUGHT/PELLET

### 7.2.1 Menu "STOVE STATUS"



In this menu you can check the correct functioning of the most important components of the pellet stove, and some values which distinguish its correct functioning.

To enter in this menu press 3 times the key OK from main screen.

This menu is used both by the authorized technician to understand the reason of the malfunctioning of the stove and by the end user as well priming the auger.

### 7.2.2. menu "SET ROOM TEMPERATURE"

To enter in the USER MENU press two times key OK.

To enter in the menu "SET ROOM TEMPERATURE" press once key 2 and confirm with OK.

TO MODIFY THE SETTING PLEASE REFERENCE TO PARAGRAPH 7.1.2.

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.3. menu "SET POWER"

To enter in the USER MENU press two times key OK.

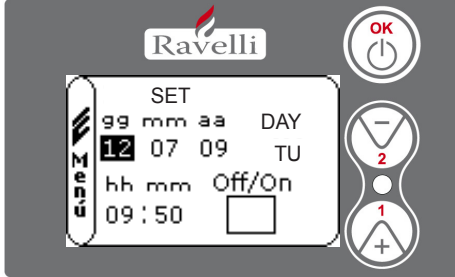
To enter in the menu "SET POWER" press 2 times key 2 and confirm with OK.

TO MODIFY THE SETTING PLEASE REFERENCE TO PARAGRAPH 7.1.3.

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.4. Menu "SET CLOCK"



To enter in the USER MENU press two times key OK.

To enter in the menu "SET CLOCK" press 3 times key 2 and confirm with OK. 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 ( see paragraph 7.2.5.)

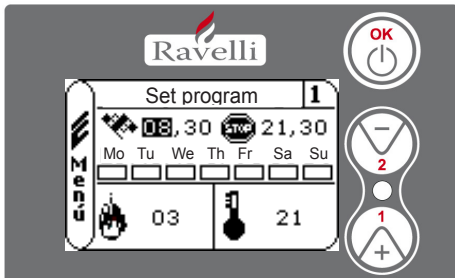
By last confirmation with OK you save all settings and return automatically to the screen with the icons.


To return to the main screen press at the same time keys 1 and 2.


Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.5. Menu "TIMER"


With the function timer is possible to program for each day of the week the switch on and off of the stove in FOUR independent intervals time (PROGAM 1 ,2,3,4).




 START: switch "on" time of the chrono (prog.1-prog.2)

 STOP: switch "off" time of the chrono (prog.1-prog.2)

 DAY: days of activation of the program

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

 TEMPERATURE: ideal temperature that you want to achieve in the room where the stove is installed, during the boot with chrono activated. The setting is overwritten in one set in terms of manual work.

To enter in the USER MENU press two times key OK.

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

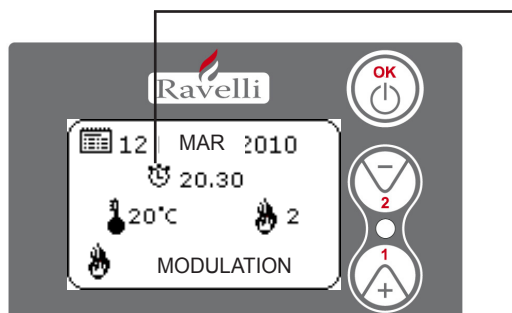
-Program 1: use keys 1 and 2 to modify the settings and by each press of OK you confirm the data you entered and proceed to the following one.

-Program 2: 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.

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.



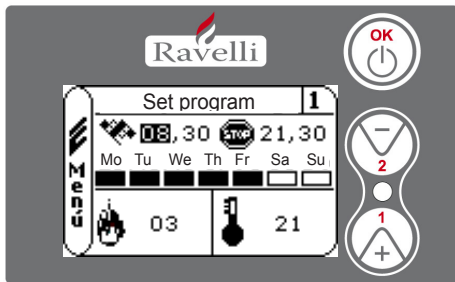
If this black segment is not lit up on the display corresponding with the symbol of the clock, it will not be possible to programme anything. To activate it, please see the chapter on setting the current day (7.2.5 MENU TIMER) as the value must be other than OFF (7.2.4 MENU Clock).



**DESCRIPTION OF THE LINES :**

Description	Values
START PROG - 1	from OFF to 23:50 by step of 10'
STOP PROG - 1	from OFF to 23:50 by step of 10'
DAY PROG - 1	on/off for the days from monday to sunday
POWER PROG - 1	from 01 to 05
SET TAMB PROG - 1	from EST to MAN
START PROG - 2	from OFF to 23:50 by step of 10'
STOP PROG - 2	from OFF to 23:50 by step of 10'
DAY PROG - 2	on/off for the days from monday to sunday
POWER PROG - 2	from 01 to 05
SET TAMB PROG - 2	from EST to MAN

**EXAMPLE:**



Pic.1

Suppose that the user want to switch on the stove at 08:30 and switch it off at 21:30 all days of the week, with the exception of the weekend (PROGRAM 1), suppose moreover that the user want a room temperature of 21°C and to reach this temperature he sets a working power of 3. The passages to do will be the following:

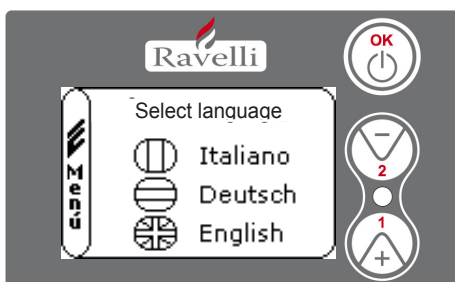
- From the MENU TIMER confirm with key OK and set the program you want to modify using key 1 and 2;
- By confirming with key OK you go to the set of the switch on hour, set the hour (hh:mm) using keys 1 and 2;
- By confirming with key OK you go to the set of the switch off hour, set the hour (hh:mm) using keys 1 and 2;
- By confirming with key OK you go to the scroll of the days, with keys 1 and 2 activate/deactivate the days (ex: PIC 1, Monday, Tuesday, Wednesday, Thursday and Friday active).
- By confirming with key OK you go to the set of the power, with keys 1 and 2 set the value (ex: PIC 1, Power 3).
- By confirming with key OK you go to the set of the room temperature, with keys 1 and 2 set set the degrees (ex: 20°C).

When the stove is working and the set room temperature is reached the stove goes into MODULATION or COMFORT CLIMA (if activated).

**! IMPORTANT**

**BY USING THIS MODE IT IS NECESSARY TO CHECK THAT AFTER EVERY AUTOMATIC SWITCHING OFF THE FIREPOT IS ALWAYS WELL CLENAED IN ORDER TO GUARANTEE A PERFECT AUTOMATIC IGNITION.**

**7.2.6 menu "LANGUAGE"**



To enter in the USER MENU press two times key OK.

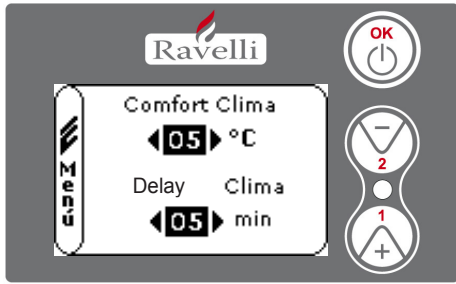
To enter in the menu "SET LANGUAGE" press 5 times key 2 and confirm with OK. To select language please use keys 1 and 2.

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

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

7.2.7. Menu "COMFORT CLIMA" 



To enter in the USER MENU press two times key OK.

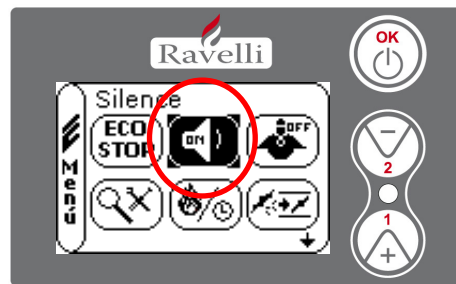
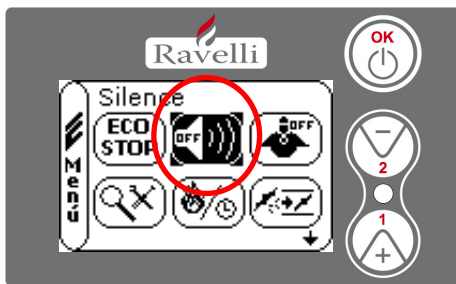
To enter in the menu "COMFORT CLIMA" press 6 times key 2 and confirm with OK. To modify the settings use keys 1 and 2 and by pressing OK you confirm the data and go on to the following one.

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

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

7.2.8. Mode "SILENCE" 



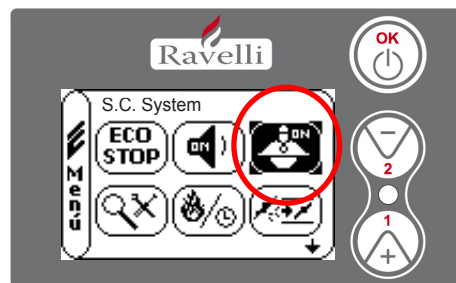
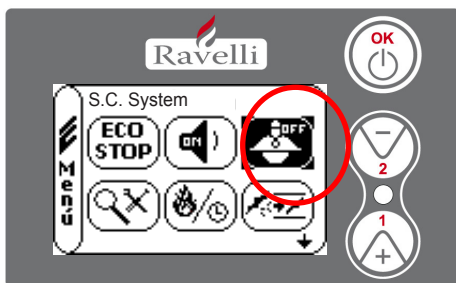
To enter in the USER MENU press two times key OK.

To enter in the MODE SILENCE press 7 times key 2 and confirm with OK. Enable or disable the function by using key OK.

To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

7.2.9 Mode "SELF CONTROL SYSTEM" 



To enter in the USER MENU press two times key OK.

To enter in the MODE S.C.SYSTEM press 8 times key 2 and confirm with OK. Enable or disable the function by using key OK.

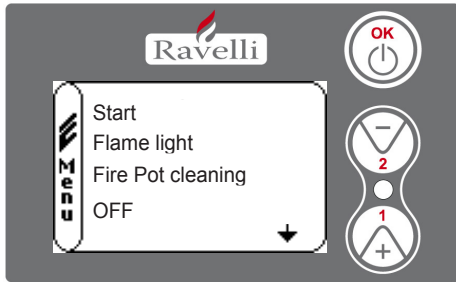
To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.10 Menu "VIEW SETTINGS"



In this menu you can verify the parameters set in the motherboard, without having the possibility to change them. Such settings can be adjusted by authorized technician only.



To enter in the USER MENU press two times key OK.

To enter in the menu "VIEW SETTINGS" press 9 times key 2. By confirming with OK you enter in the list of set parameters. To scroll the list of parameters use key 1 and 2. You can view such settings by pressing "OK" key.

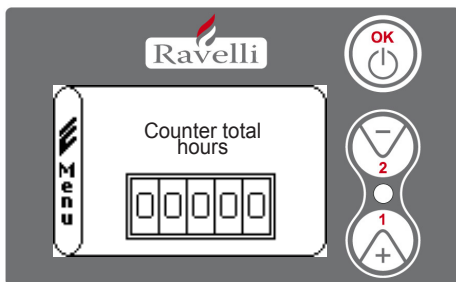
To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.11. 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 has made. It is possible sometimes that the working hours are not reset and you see numbers like 5000/15000/25000. It will be care of the technician to reset these numbers by first ignition. This does not means that the stove has already worked for so many hours, it is just a setting made during the tests we make in Ravelli, before the stoves are packed and delivered. 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").



To enter in the USER MENU press two times key OK.

To enter in the menu "VIEW WORKING HOURS" press 10 times key 2. By confirming with OK you 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.

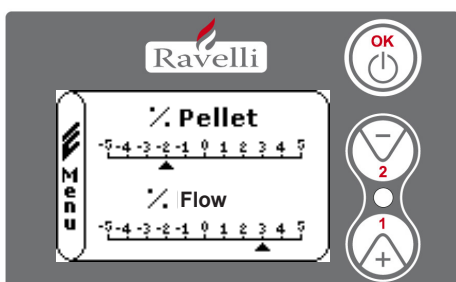
To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

### 7.2.12 Menu "SET AIR/PELLET"



The set of the draught-pellet blend allow to modify immediately the quantity of inlet air and the quantity of pellet loaded in the firepot. The stove is tested with pellet certified DIN PLUS. If you do not use certified pellet could be necessary to set the combustion. Normally the modification is made on the "% FLUX" to adjust the inlet air and consequently the combustion; if the regulation of the flux is not sufficient could be necessary to adjust also the "% PELLETT".



**! IMPORTANT**

**BY USING THIS MODUS IT IS NECESSARY TO CHECK THAT AFTER EVERY AUTOMATIC SWITCH OFF THE FIREPOT IS CLEANED IN ORDER TO GUARANTEE A CORRECT AUTOMATIC SWITCH ON.**

**8. Description of the functions**

**8.1. The modulation**

During the working phase the stove has to reach the set room temperature; once the set temperature is satisfied, the stove goes into MODULATION WORK, during which the consumption of pellet is minimum and the room fan works at minimum power.

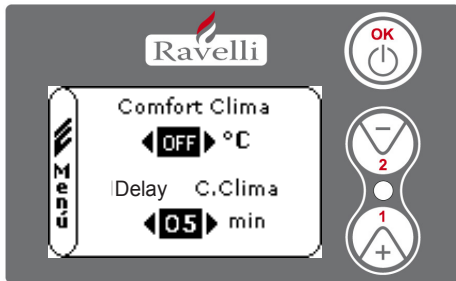
**8.2. Comfort clima**

To enter in the USER MENU press two times key OK.

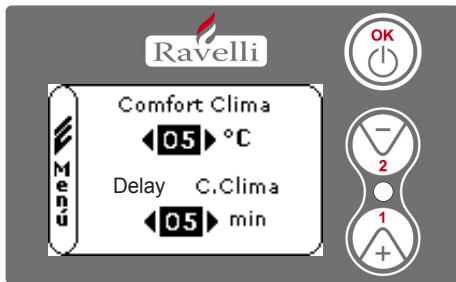
To enter in the menu "COMFORT CLIMA" press 6 times key 2 and confirm with OK. To modify the settings use keys 1 and 2 and by pressing OK you confirm the data and go on to the following one.

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

**EXAMPLE:**



to activate it, press button OK setting a value other than OFF and the following strings will appear on the display



The value set (in this case 5) has activated the Comfort Clima function.

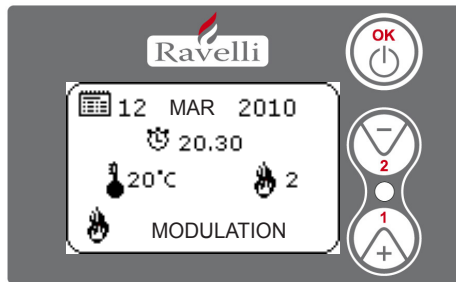
**FUNCTIONING:**

The value sets the temperature the stove goes back ON again.

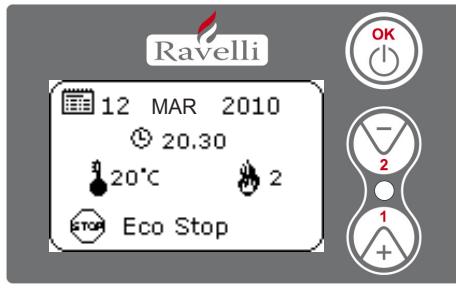
**Example:**

- room temperature set at 21°
- Comfort Clima value set at 2

with this setting, the stove will switch off when 21°C is reached and will be switched back on when the room temperature is 18°C (21°C – 2 – 0,5 = 18°C). The following strings will appear in sequence on the display:



The modulation phase is reached, as the set room temperature has been reached. If the temperature is maintained for about 5 minutes, the stove will shut down.



After the switching off phase, the display will show ECO STOP. The stove will remain in this state until the temperature drops to approximately 18°C and only then the stove will start again.

The functioning of the stove in COMFORT CLIMA mode can start up the phase of ignition and switching off several times through the day: this can compromise the duration of the ignitor for the automatic ignition of the stove.

### 8.3. Mode SILENCE (to activate see para. 7.2.8)

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.

### 8.4. Mode SELF CONTROL SYSTEM (S.C.S. to activate see para 7.2.9)

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.

### 8.5. SERVICE HOURS

All our models need in addition to the regular cleaning (reference to the paragraph dedicated to the maintenance of the stove in the user manual), also a special cleaning which should be done by the installer (authorized by the producer). The timing for this cleaning is regulated by a preset countdown of working hours. 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.

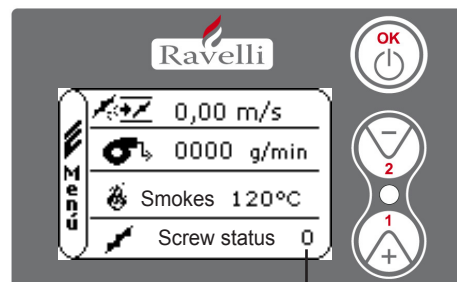
If the cleaning is not done the message will appear by each ignition but will not interrupt the functioning of the stove.

### 8.6. Automatic loading of the screw

To load automatically the screw (when the stove is new or the loading sciew is empty) please do following operations:

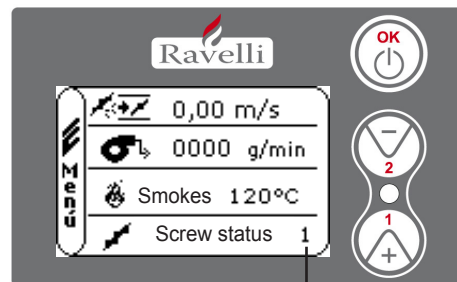
Enter in the menu "stove status"

Screw OFF



Press key OK to activate the screw

Screw ON



To return to the main screen press at the same time keys 1 and 2.

Alternatively it is possible to exit by step from the menus by pressing each time the key OK.

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.

### 8.7 Operating precautions

- In case of faulty operation turn the stove off pressing button no. 3.
- Do not manually load the fire pot with pellets.
- Any build up of unburned pellets inside the fire pot after repeatedly trying to light the stove, must be removed before further attempts.
- Do not use any fuels other than wood pellets.
- Should the ignition system be faulty, do not attempt to light the stove using flammable materials.

### 8.8. Remote control (only for free standing stoves)

IR receiver for remote control (12 volts batteries code LRV08 not included)



#### BASIC FUNCTIONS

- **P1 - P2 Set temperature** : allows to set the desired value for the room temperature from 44 °F to 104 °F and set "EST" or "MAN"
- **P4 - P5 Set power** : allows to set the working power between a range of minimum 1 to maximum 5
- **OK** : by keeping pressed for 3 second longs it allows the manual switch on and off of the stove.

#### ADVANCED FUNCTIONS

- **OK multifunction** : if you press one time you can enter in the main menu and the confirmation of the setting. It is possible to exit step by step from each menu by keeping pressed each time.
- **P1 - P4 multifunction** : to scroll the icons in the menu
- **P2 - P5 multifunction** : to modify the setting in the menu

### 8.9. Synthetic table of phases

PHASE	DESCRIPTION
<b>FINAL CLEANING</b>	The stove is switching off, the cooling phase is not yet completed.
<b>IGNITION</b>	The ignition phase has started, the pellets are loaded into firebox.
<b>WAITING FOR FLAME</b>	The pellet is lighted by the hot air passing through the electrical igniter.
<b>FLAME PRESENT</b>	The flame is visible in the fire pot.
<b>WORKING</b>	The stove completed switch ON phase; you can change power.
<b>MODULATION WORKING</b>	The room temperature set has been reached.
<b>ECO STOP</b>	Comfort Climate activated, temperature set has been reached; the stove is off.
<b>T ON</b>	The room sensor is off or an external thermostat has been connected.
<b>COOLING/WAITING FOR START</b>	The stove is cooling DOWN: when stove is cooled down can start automatically.
<b>COOLING/WAITING FOR RESTART</b>	The stove is in the cooling DOWN: when the stove is cooled down can restart automatically.
<b>ON/WAITING FOR RESTART</b>	The switch ON phase, when the stove is warm, started. The operation is same of phase ON
<b>HOT SMOKE</b>	The max temperature of smokes is reached: to reduce temperature, feeding pellets and air draft reduce at POWER 01.
<b>OFF</b>	The stove is off.

## 9. Description of alarms

WARNING	REASON	SOLUTION
<b>NO PELLETT</b>	• The pellet hopper is empty	• Check whether there are pellets in the hopper
	• The gearmotor does not load pellets.	• Empty the hopper to check that no objects have fallen inside which could prevent the correct functioning of the screw
	• No pellet loading	• Regulate the pellet setting
		• <b>If the problem continues, contact the area Technical Assistance Centre.</b>
<b>BLACK - OUT</b>	• No electricity supply during working phase	• Press the off button and repeat switching on the stove
		• <b>If the problem continues, contact the area Technical Assistance Centre.</b>
<b>NO IGNITION ALARM</b>	• The pellet hopper is empty.	• Check if there are pellets inside the hopper.
	• Setting of pellets and of intake during ignition phase insufficient.	• <b>Contact local Technical Assistance Centre.</b>
	• The igniter is defective or not in correct position.	• <b>Contact local Technical Assistance Centre.</b>
<b>ALARM LOW FLAME</b>	• The pellet hopper is empty.	• Check pellet is in the hopper
	• Bad setting of pellet and air for the ignition phase	• <b>Contact local Technical Assistance Centre</b>
<b>ALARM FAN RPM</b>	• The speed of flue fan is lower more than 15% of set value.	• <b>Contact local Technical Assistance Centre</b>
<b>ALARM FAN BROKEN</b>	• Flue fan encoder is not working or not correctly connected	• <b>Contact local Technical Assistance Centre.</b>
	• No power supply to flue fan	• <b>Contact local Technical Assistance Centre.</b>
	• The flue fan is blocked	• <b>Contact local Technical Assistance Centre.</b>
<b>DEPRESSION ALARM</b>	• The combustion chamber is dirty	• Follow the cleaning operations of the stove in the booklet
	• The chimney is blocked	• Check that the chimney is clear and clean
	• The pressure switch is malfunctioning	• <b>Please contact local Technical Assistance Centre</b>
<b>THERMAL ALARM WITH RESET</b>	• The thermostat with manual reset has intervened	• Reset the thermostat pressing the button on the back of the stove (see Pic. below).
	• The air fan is defective	• <b>Please contact local Technical Assistance Centre.</b>
	• 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.
		• <b>If the problem continues, contact the area Technical Assistance Centre.</b>
<b>HOT SMOKE ALARM</b>	• 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 air fan is defective	• <b>Contact local Technical Assistance Centre.</b>
		• <b>If the problem continues, contact the area Technical Assistance Centre.</b>
<b>SMOKE SENSOR ALARM</b>	The smoke sensor is malfunctioning	• <b>Please contact the local Technical Assistance Centre</b>
	The smoke sensor has been disconnected from the board	• <b>Please contact the local Technical Assistance Centre</b>

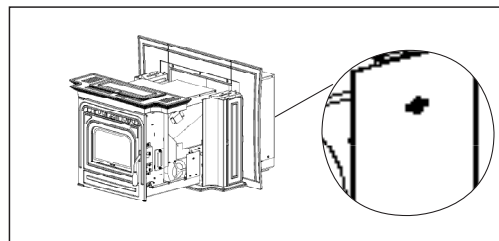
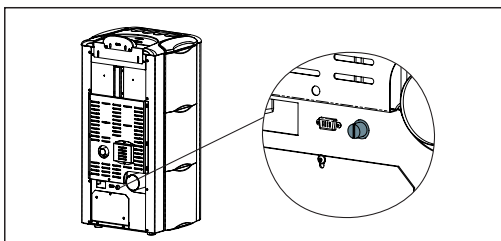
<b>FLOWMETER (only if the RDS system is provided)</b>	• The device is disconnected or defective	• <b>Please contact the local Technical Assistance Centre</b>
<b>PHASE SCREW ALARM</b>	• The gear motor is not correctly connected	• <b>Please contact the local Technical Assistance Centre</b>
<b>TRIAC SCREW ALARM</b>	• The device in the motherboard which commands the feeding screw is defective	• <b>Please contact the local Technical Assistance Centre</b>
<b>NO FLOW (only if the RDS system is provided)</b>	- The flow meter does not measure inlet air flow	- Check if the ash pan and door are closed correctly and check if the air inlet pipe is obstructed. - If the problem persists, contact the Support Service

SIGNALLING	REASON	SOLUTION
<b>Do CLEANING Fire pot (only if the RDS system is provided)</b>	• The door and the ash box are not closed correctly	• <b>Make sure they are properly closed.</b>
	• Poor combustion in grate.	• Switch off the stove, clean the fire pot and check the cleanliness of the support bench, clean the tube bundle by activating the turbulators. and adjust the combustion through Pellet/Air settings.
	• Presence of foreign body in air intake tube.	• Check for any foreign body and remove it
	• The air flow meter may be dirty.	• <b>Clean the flow meter with the stove in "Switched off" state</b>
		• <b>Contact the Support Service</b>

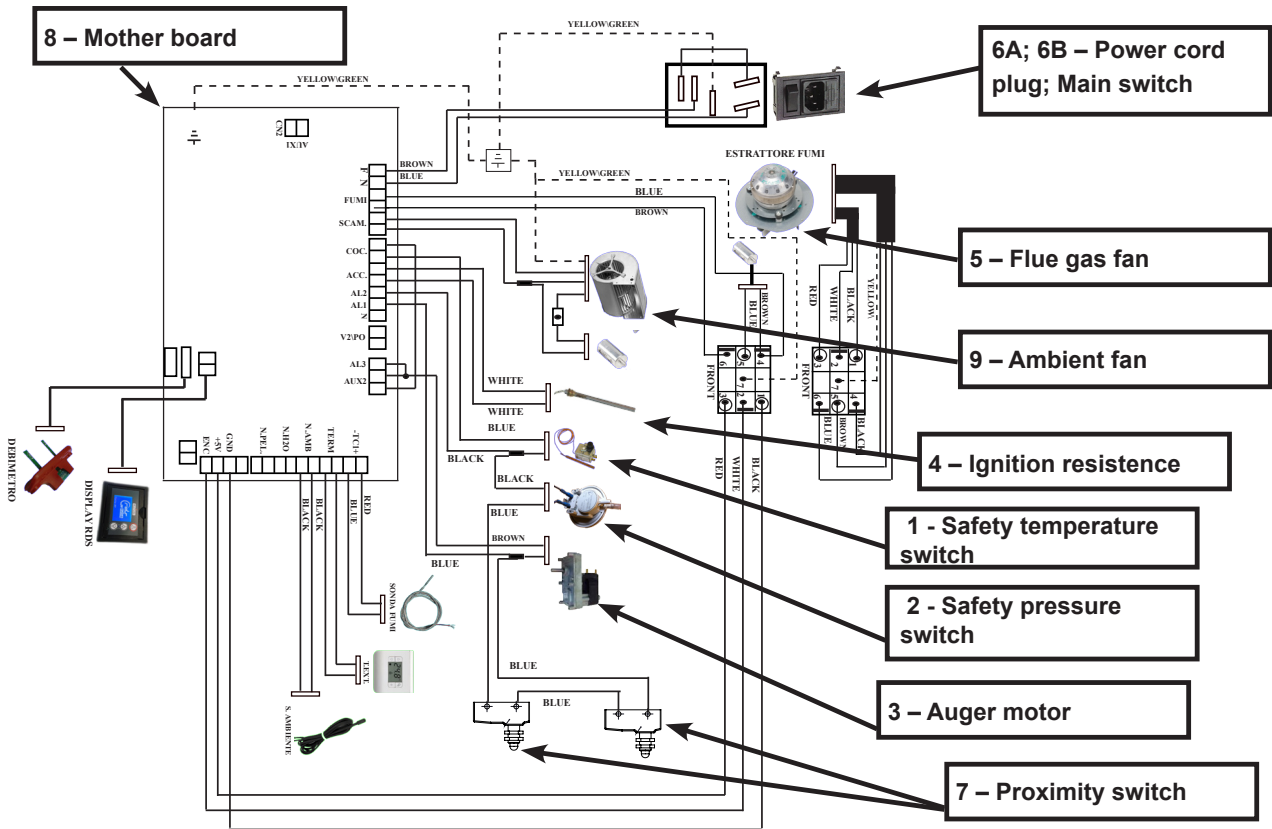
### THERMAL ALARM WITH RESET

- 1 - By pressing the button OK on the display, the alarm can be reset.
- 3 - Try and repeat lighting after the cooling phase.

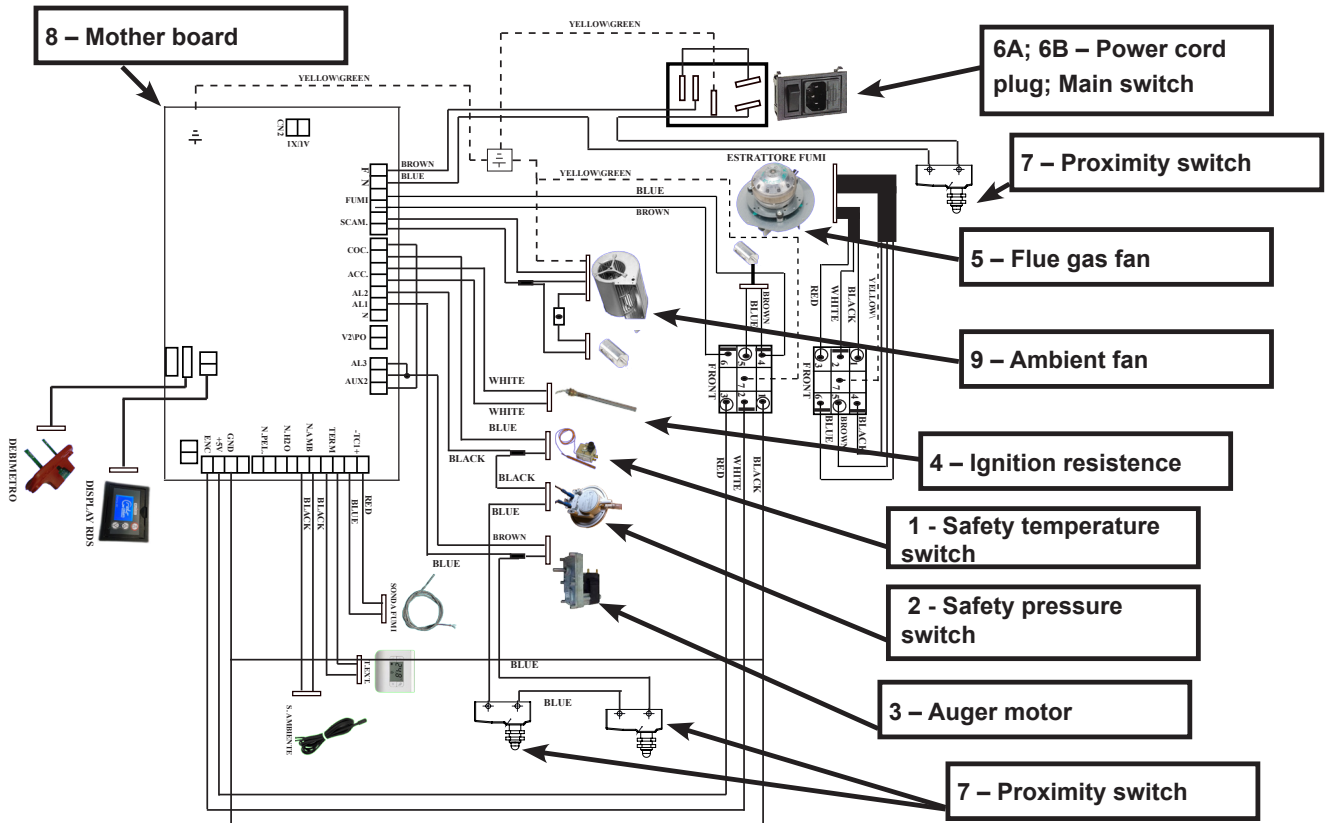
- 2 - Unscrew the protection cap and press the button to reset the thermostat alarm.



**10. The electrical wiring diagram for Francesca 2015, Monica 2015, Rv80 ceramica, Rv100 classic**



**The electrical wiring diagram for Roma**





## 11. Maintenance

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.

### IMPORTANT

**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 HAZZARD.**

#### 11.1. 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. Important: the use of aggressive detergents or diluents can damage the surfaces of the stove.

#### 11.2. 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 causes 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.

#### 11.3. 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.**

## **12. Guarantee**

### **12.1. Certificate of Guarantee**

Ravelli thanks you for the confidence you have placed in it with the purchase of one of our pellet stoves and invites the purchaser to:

- examine the instructions for the installation, use and maintenance of the stove.
- examine the conditions of guarantee shown below.

The enclosed coupon must be filled in and stamped by the installer. If this does not occur, the product will not be covered by the guarantee.

### **12.2. Conditions of guarantee**

The limited guarantee covers defects of manufacturing materials, on condition that the product has not been broken due to an incorrect use, carelessness, wrong connections or errors of installation.

The following are not covered by guarantee:

- vermiculite (Firex 600);
- the glass of the door;
- the fibre gaskets;
- the painting;
- the fire pot;
- ignitor;
- the cast majolica;
- any damage caused by inappropriate installation and/or handling of the stove and/or shortcomings by the consumer.

The use of poor quality pellets or of any other material could damage components of the stove causing the termination of their guarantee and the annexed responsibility of the manufacturer.

The pellets which meet the requisites listed in the chapter on them should be used.

All damage caused by transport are not acknowledged, therefore please carefully check the goods on receipt, immediately advising the dealer of any damage.

All the manufacturer's guarantees are shown here and no complaint may be made to the manufacturer according to any other guarantee, report or request.

For guarantee claims and instructions for return shipments please refer to your local dealer.

The guarantee coupon must be detached and sent to the following address within eight days of purchase:

**Ravelli srl**  
**Via Kupfer 31**  
**25036**  
**Palazzolo s/O Brescia ITALY**

### **12.3. Information and problems**

For any information or problems, please contact your dealer or service centre, the only people who can meet any request you may have end, if necessary, who can intervene directly.



# Ravelli<sup>®</sup>

il fuoco intelligente

**Ravelli s.r.l.**

Via Kupfer, 31 - 25036 Palazzolo sull'Oglio / BS - ITALY

Tel. +39.030.7402939

Fax. +39.030.7301758

Internet : [www.ravelligroup.it](http://www.ravelligroup.it)

E-mail : [info@ravelligroup.it](mailto:info@ravelligroup.it)

Ravelli does not assume any responsibility for any errors in this booklet and considers itself free to make any variations to the features of its products without notice.