

# Extra Line

**kW 24 : QUEBEC - TORONTO - MONTREAL - OTTAWA**

**kW 33 : DETROIT - BOSTON - MIAMI - ATLANTA**



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Dear Sir/Madam

Congratulations and thank you for choosing our product.

Please read this document carefully before you use this product in order to obtain the best performance in complete safety.

For further details or assistance, please contact the DEALER where you purchased the product or visit the TECHNICAL ASSISTANCE CENTRES page on our website [www.edilkamin.com](http://www.edilkamin.com).

#### NOTE

- After you remove the packaging, please inspect the unit for any damage or missing parts (cladding, remote control with display, "stay cool" handle, warranty booklet, glove, technical data sheet, spatula, desiccant, hex key).  
In case of anomalies please contact the dealer where you purchased the product immediately. You will need to present a copy of the warranty booklet and valid proof of purchase.

- Commissioning/ testing

Commissioning and testing must be performed by an authorized Edilkamin Technical Assistance Centre. Failure to do so will void the warranty. Commissioning, as specified in standard UNI 10683 Rev. 2005 (section "3.2") consists in a series of controls performed on the installed stove in order to ascertain the correct operation of the system and its compliance to applicable regulations.

To locate the Technical Assistance Centre closest to you, please ask your local dealer, call our toll-free number, or visit our website [www.edilkamin.com](http://www.edilkamin.com).

- Incorrect installation, incorrect maintenance, or improper use of the product, shall relieve the manufacturer from any damage resulting from the use of this product.

- the proof of purchase tag, necessary for identifying the stove, is located:

- on the top of the package

- in the warranty booklet found inside the firebox

- on the ID plate affixed to the back side of the unit;

This documentation must be saved for identification together with the valid proof of purchase receipt. The data contained therein must be reported when requesting information and made available should servicing be required;

- All images are for illustration purposes only; actual products may vary.

#### SAFETY INFORMATION

THE THERMO-STOVE MUST NEVER BE MADE TO OPERATE WITHOUT WATER IN THE SYSTEM NOR AT A PRESSURE OF LESS THAN 1 BAR.

IT CAN BE DAMAGED IF IT IS IGNITED WITH NO WATER IN THE SYSTEM.

- The thermo-stoves is designed to heat water by means of automatic combustion of pellets (wood with 6 mm diameter) in the hearth.
- The only risks that may derive from using the thermo-stoves pertain to non-compliance with the installation regulations, direct contact with live electrical parts (internal), contact with the fire or hot parts, or foreign substances being put into the stove.
- Should components fail, the thermo-stoves is equipped with safety devices to guarantee its automatic shutdown.
- These are activated without any intervention required.
- In order to function correctly, the thermo-stoves must be installed in accordance with the instructions given herein.
- Whilst functioning, the door must never be opened. In fact, combustion is fully automatic and requires no manual intervention.
- Under no circumstances should any foreign substances be put into the hearth or the hopper.
- Do not use flammable products to clean the smoke discharge duct.
- Use a vacuum cleaner to clean the hearth and hopper, when COLD.
- The glass can be cleaned when COLD with a suitable product (e.g. GlassKamin) and a cloth. Do not clean when hot.
- Whilst the thermo-stoves is in operation, the exhaust pipes and door become very hot.
- Do not place anything that is not heat resistant near the thermo-stoves.
- NEVER use liquid fuel to ignite the thermo-stoves or rekindle the embers.
- Do not obstruct the external air inlets in the room where the stove is installed, nor those of the thermo-stoves itself.
- Do not wet the thermo-stoves and do not go near electrical parts with wet hands.
- Do not use reducers on the smoke exhaust pipes.
- The thermo-stoves must be installed in a room that is suitable for fire prevention and equipped with all that is required (power and air supply and outlets) for the stove to function correctly and safely.
- The thermo-stoves must be kept in a room where the temperature is above 0 °C.
- Use appropriate anti-freeze additives for the water of the system.
- Ensure that the temperature of the return water is at least 45 °C.

**Should ignition fail, DO NOT re-ignite until you have emptied the combustion chamber.**

#### DECLARATION OF CONFORMITY

The undersigned EDILKAMIN S.p.a. with head office headquarters at Via Vincenzo Monti 47 - 20123 Milan - Italy - VAT T00192220192

Declares under its own responsibility as follows:

The wood pellet Boiler-stoves specified below is in accordance with the 89/106/EEC (Construction Products)

WOOD PELLET BOILER-STOVES, trademark EDILKAMIN, called QUEBEC - TORONTO - MONTREAL - DETROIT - BOSTON - MIAMI

PELLET BOILER, trademark EDILKAMIN, called OTTAWA - ATLANTA

Year of manufacture: Ref. Data nameplate

Serial number: Ref. Data nameplate

The compliance with the 89/106/EEC directive is besides determined by the compliance with the European standard:

- UNI EN 14785:2006 (QUEBEC - TORONTO - MONTREAL - DETROIT - BOSTON - MIAMI )

- UNI EN 303-5 (OTTAWA - ATLANTA)

The wood pellet Boiler-stoves QUEBEC - TORONTO - MONTREAL - DETROIT - BOSTON - MIAMI and pellet Boiler OTTAWA-ATLANTA is in compliance with the requirements of the European directives:

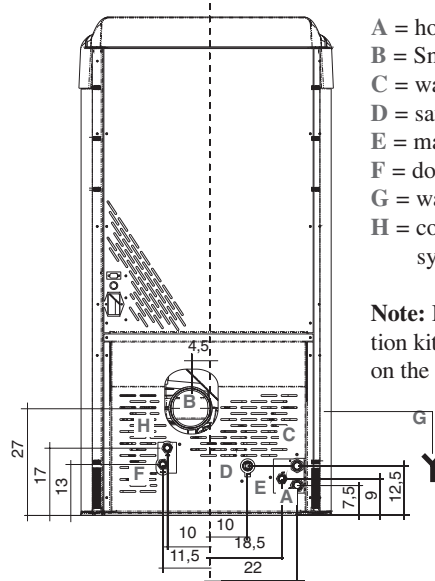
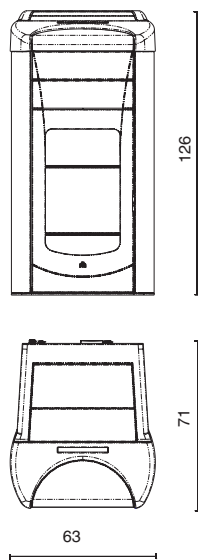
2006/95/EEC - Low voltage directive

2004/108/EEC - Electromagnetic compatibility directive

EDILKAMIN S.p.a. will decline all responsibility of malfunctioning or damage to the equipment in case of unauthorized substitution, assembly or modifications of any sort on the said equipment on the part of non-EDILKAMIN personnel.

# DIMENSIONS

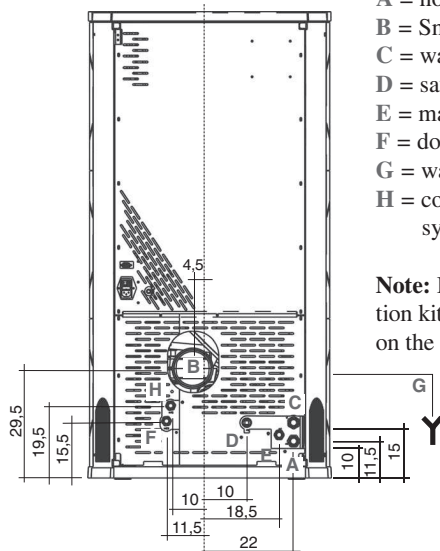
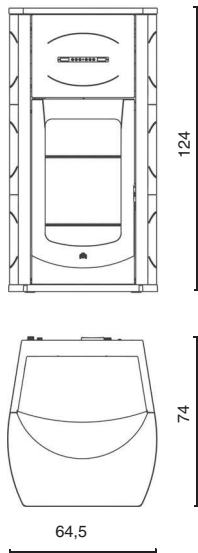
QUEBEC - TORONTO  
DETROIT - BOSTON



- A = hot water outlet 3/4" M
- B = Smoke outlet (Ø 10 cm)
- C = water return line 3/4" M
- D = safety valve drainage 1/2" F
- E = mains water 1/2" M
- F = domestic hot water 1/2" M
- G = water drainage (left side)
- H = cold water from the plumbing system 1/2" M

**Note:** If the internal ACS production kit is not utilized, caps F and H on the pipes must not be removed.

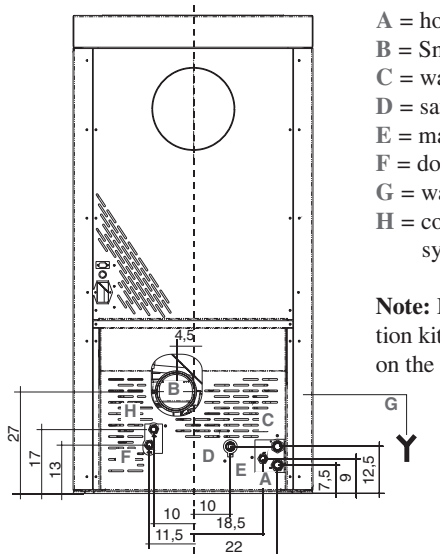
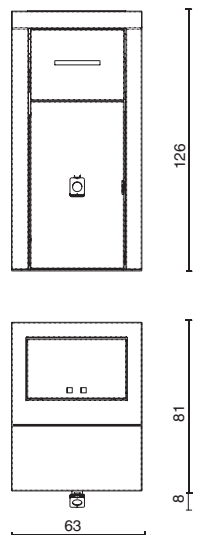
MONTREAL - MIAMI



- A = hot water outlet 3/4" M
- B = Smoke outlet (Ø 10 cm)
- C = water return line 3/4" M
- D = safety valve drainage 1/2" F
- E = mains water 1/2" M
- F = domestic hot water 1/2" M
- G = water drainage (left side)
- H = cold water from the plumbing system 1/2" M

**Note:** If the internal ACS production kit is not utilized, caps F and H on the pipes must not be removed.

OTTAWA - ATLANTA



- A = hot water outlet 3/4" M
- B = Smoke outlet (Ø 10 cm)
- C = water return line 3/4" M
- D = safety valve drainage 1/2" F
- E = mains water 1/2" M
- F = domestic hot water 1/2" M
- G = water drainage (left side)
- H = cold water from the plumbing system 1/2" M

**Note:** If the internal ACS production kit is not utilized, caps F and H on the pipes must not be removed.

# FEATURES

TECHNICAL AND HEATING SPECIFICATIONS					
	QUEBEC/TORONTO/MONTREAL	DETROIT/BOSTON/MIAMI	OTTAWA	ATLANTA	
Hopper capacity	60	60	100	100	kg
Approx. overall efficiency	90,1	90,1	91,7	90,1	%
Approx. water efficiency	87,5	87,5	91,7	90,1	%
Rated power	24	33	24	33	kW
Water heating power	21	29	24	33	kW
Min./max. autonomy	10,5 / 33	7,7 / 24	17 / 58	13 / 40	hores
Fuel consumption min./max.	1,8 / 5,7	2,5 / 7,8	1,7 / 5,7	2,5 / 7,8	kg/h
Minimum draught	12	12	12	12	Pa
Max. pressure	3	3	3	3	bar
Operating pressure	1,5	1,5	1,5	1,5	bar
Smoke output temperature from test EN14785	190	195	138	195	°C
CO emission (13% O <sub>2</sub> )	0,019	0,019	0,019	0,019	%
Weight including packing	390 / 370 / 360	390 / 370 / 360	355	370	kg
Heating capacity *	625	860	625	860	m <sup>3</sup>
Diameter of smoke extract duct male thread	10	10	10	10	cm

\* The heatable room dimensions are calculated on the basis of pellets with an lhv of at least 4300 kcal/kg and home insulation in compliance with Italian law 10/91, and subsequent changes together with an expected heat output of 33 Kcal/m<sup>3</sup> per hour.

It is also important to consider the position of the thermo-stoves in the room to be heated.

A LOT DEPENDS ON THE EFFICIENCY OF THE SYSTEM TERMINALS (heaters).

N.B.

1) Bear in mind that external devices may cause interference.

2) Warning: work on live components, maintenance and /or checks must be performed by qualified personnel.

(Before carrying out any maintenance, disconnect the device from the mains power supply)

ELECTRICAL CHARACTERISTICS	
Power supply	230Vac +/- 10% 50 Hz
On/off switch	yes
Average power consumed	120 W
Average power consumed upon ignition	400 W
Radio control / Remote control frequency	Radio waves 2.4 GHz / Infrared
Main power supply protection **	** Fuse 2A, 250 VAC 5x20
Electronic control board protection	** Fuse 2A, 250 VAC 5x20

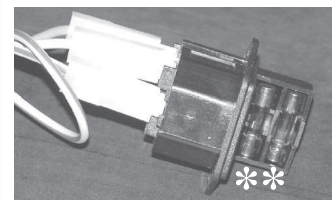
The data shown above is purely indicative.

EDILKAMIN reserves the right to make changes to these products to improve their performance with no prior warning.

## SAFETY DEVICES

<p><b>THERMOCOUPLE:</b> placed at the smoke outlet to detect the temperature. Turns the thermo-stoves on and off and controls its operation based on defined parameters.</p>
<p><b>VACUUM GAUGE (electronic pressure sensor):</b> positioned on the smoke extractor, which detects the vacuum value (compared to the installation environment) in the combustion chamber.</p>
<p><b>WATER SAFETY THERMOSTAT:</b> trips when the temperature inside the thermo-stoves is too high. It stops pellet loading, causing the thermo-stoves to go out. Reset manually.</p>
<p><b>TANK SAFETY THERMOSTAT:</b> trips when the temperature inside the thermo-stoves is too high. It stops pellet loading, causing the thermo-stoves to go out.</p>

**FUSE\*\***  
two fuses are inserted in the socket with switch, located on the back of the stove, one of which operational and the other is held in reserve.



## SERIAL PORT

The Dealer can install an optional on the AUX outlet for controlling the process of switching on and off (e.g. telephone remote, local thermostat), located at the rear of the stove. Can be connected via special optional trestle (code 640560).

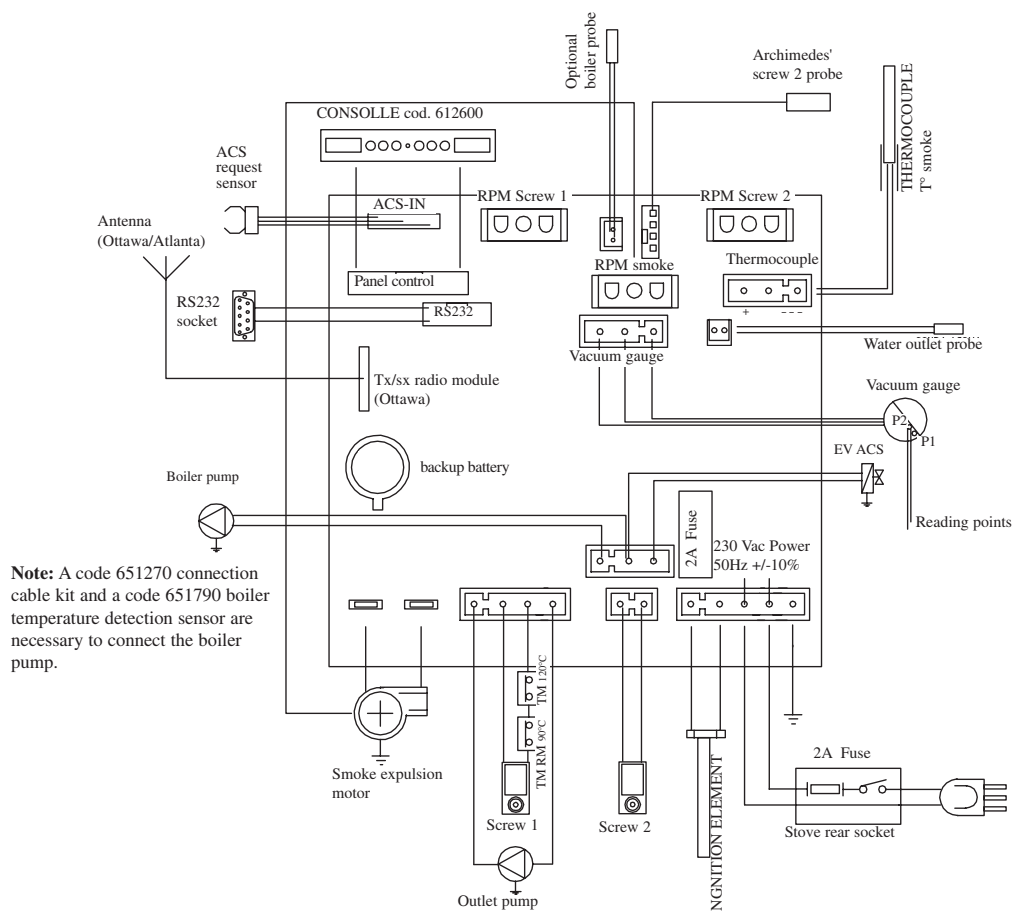
## BACKUP BATTERY

A backup battery is found on the control board (3-Volt CR 2032 battery). Its malfunction is indicated with the following messages (not considered a defect but due to normal wear-and-tear): "Battery Check".

For more detailed information, please contact the DEALER who has performed the first 1st ignition.

# FEATURES

## ELECTRONIC CIRCUIT BOARD

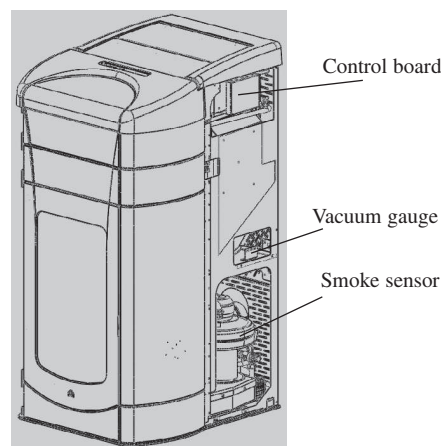


The pellet thermo-stoves are equipped with the LEONARDO® SYSTEM, which provides for optimal combustion.

LEONARDO® ensures excellent operation thanks to two sensors measuring the pressure level in the combustion chamber and smoke temperature. The detection of and subsequent optimisation of these two parameters is continuous in order to correct operation anomalies in real time.

The LEONARDO® system offers constant combustion, automatically regulating the draft based on the characteristics of the chimney flue (bends, length, shape, diameter, etc..) and environmental conditions (wind, humidity, atmospheric pressure, installations at high altitude, etc.). The standards for installation must be respected.

LEONARDO® system is also able to recognise the type of pellets and automatically adjust the flow moment by moment to ensure the required level of combustion (use wood pellets with a diameter of approximately 6 mm).



# PRINCIPLE OF OPERATION

The thermo-stoves is fuelled by pellets. These are little, cylindrical shapes of pressed wood whose combustion is controlled electronically. The heat produced by combustion is mainly transmitted to the water and partly emitted into the room by radiation.

The fuel tank (A) is located at the rear of the thermo-stoves. Filling the tank is through the back of the lid at the rear of the top.

The fuel (pellets) is taken from the storage tank (A) and, via an Archimedes' screw (B) activated by a gear motor (C), is transported into a second Archimedes' screw (D) activated by a second gear motor (E) it is then transported to the combustion crucible (F).

The ignition of the pellet is via air heated by an electrical heating element (G) and is sucked into the crucible by a smoke extractor (H).

The combustion air is drawn into the room (where there must be an air intake) smoke extractor (H). The smoke produced by combustion, is extracted from the thermo-stoves through the smoke extractor (H), and expelled from the pipe union (I) located in the bottom portion of the rear of the thermo-stoves. The ash falls under and beside the crucible in which is housed an ash tray from which the ash must be periodically removed by vacuuming when cool.

The hot water produced by the thermo-stoves is transferred via a circulator built into the stove itself, to the heating system circuit. The thermo-stoves also contains a built in kit for producing hot water.

The thermo-stoves is designed to function with closed expansion tank and pressure valve, both of which are built in. Fuel quantity, smoke extraction/combustion air supply and pump activation are regulated by the control board, which is equipped with Leonardo® software to achieve high combustion efficiency and low emissions.

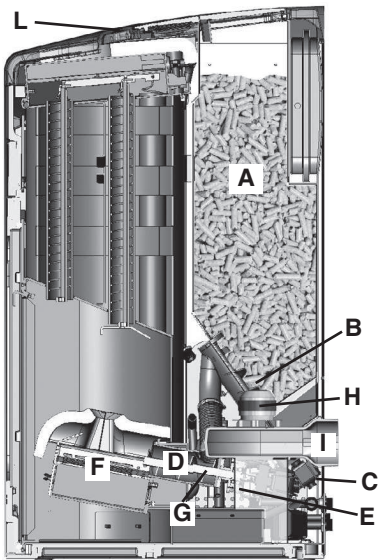
The synoptic panel (L) (on the front for Montreal / Miami / Ottawa / Atlanta) is installed on the top, through which all phases of operation can be displayed and controlled. The main phases can even be handled by radio control (Ottawa / Atlanta model) and remote control (Quebec / Toronto / Montreal / Detroit / Boston / Miami models). A serial port is found at the back of the thermo-stoves (optional cable: code 640560) to be connected to devices that allow remote ignition (e.g. remote telephone, local thermostat).

## Operating modes

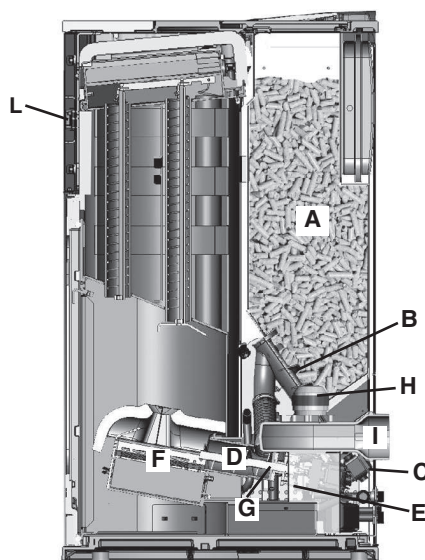
(for further details, please see page 42)

The temperature of the water required in the system is set via the panel (standard recommendation 70° C) and the stove manually or automatically modulates the power to maintain or reach this temperature. The Eco function can be enabled in small systems (the thermo-stoves shuts down and goes on again according to the water temperature required).

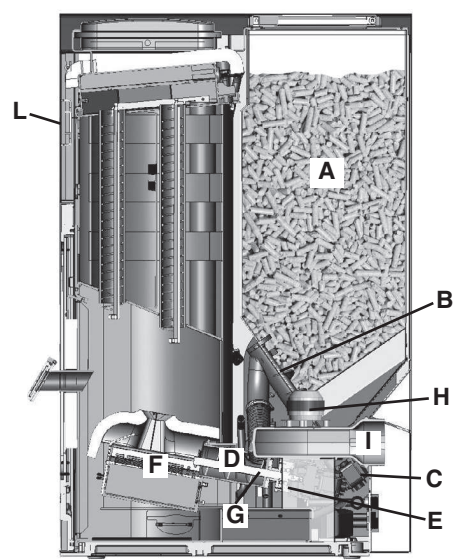
### QUEBEC / TORONTO DETROIT / BOSTON



### MONTREAL / MIAMI



### OTTAWA / ATLANTA



## NOTE regarding the fuel.

The pellet thermal stoves are designed and programmed to burn wood pellets, 6 mm in diameter.

Pellets are a type of fuel made from compacted sawdust and chopped waste wood, compressed under high pressure with no adhesives or foreign materials. They are small in size, approximately 6 mm in diameter and have a cylindrical shape.

They are sold in bags of 15 kg.

For the thermal thermo-stoves to function properly, you **MUST NOT** burn anything else in it.

Using other materials (including wood) will render the warranty null and void. Such use is detected by laboratory analyses.

Edilkamin has designed, tested and programmed their stoves to guarantee the best performance when pellets with the following characteristics are used:

diameter: 6 millimetres;

maximum length: 40 mm;

maximum moisture content: 8 %;

calorific value: at least 4300 kcal/kg

Using unsuitable pellets may: decrease efficiency; cause malfunctions; stop the stove from functioning due to clogging, dirt on the glass, unburnt fuel, etc.

Refer to CTI recommendations available from the website [www.cti2000.it](http://www.cti2000.it).

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# SAFETY AND DETECTION DEVICES

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## Smoke thermocouple

placed on the smoke exhaust pipe to detect the temperature. It controls the ignition phase and if the temperature is too high or too low it triggers a block phase (Stop Flame or Overheated Smoke).

## Feed Screw safety thermostat

placed near the pellet hopper. It disconnects the electrical supply to the gear motor if the temperature detected is too high.

## Water temperature sensor

detects the water temperature in the thermo-stoves and transmits this to the information card to manage the pump and adjust the power. If the temperature is too high, a block phase is triggered.

## Water overheating safety thermostat

detects the water temperature in the thermo-stoves. If this is too high, it triggers the shutdown process by disconnecting the electrical supply to the gear motor. In the event that the thermostat has been operated, it must be re-activated by acting on the reset button behind the thermo-stoves (see page. 52).

## Overpressure valve

upon reaching the pressure stipulated on the plate, the system is triggered to discharge the water and consequently the water must be topped up.

WARNING!!!! remember to carry out the connection with the sewage system.

## Manometer

placed on the side of the thermal thermo-stoves (at the rear for the Ottawa model), it allows you to read the water pressure in the thermal thermo-stoves. With the thermal thermo-stoves running, the recommended pressure is 1bar (see page. 42).

## Microswitch door opening detection (Boston - Detroit - Miami - Atlanta)

## Electro-hydraulic pressure switch (Boston - Detroit - Miami - Atlanta)

IF THE THERMAL THERMO-STOVES BLOCKS, THE REASON WILL APPEAR ON THE DISPLAY AND THIS WILL BE SAVED.

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## COMPONENTS

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## Resistance

triggers pellet combustion. It remains on until the smoke temperature increases by 15 °C from that prior to ignition.

## Smoke extractor

"pushes" the smoke into the flue and draws out combustion air via a vacuum.

## No. 2 Gear motors

Activate the Archimedes' screw allowing the transportation of the pellets from the storage tank to the crucible.

## Pump (circulator)

"pushes" water toward the heating system.

## Closed expansion tank

'absorbs' changes in the volume of the water contained in the thermal thermo-stoves.

A heating technician must evaluate the need to add a second tank to the existing one, depending on total amount of water in the system.

## Venting valve:

positioned in the upper part, it allows for the "bleeding" of any air present during the loading of water inside the thermo-stoves.

## Drain tap

placed inside the lower part of the thermal thermo-stoves. This is to be opened if the water inside the thermal thermo-stoves must be emptied.

## Incorporated kit for hot tap water

Allows for the production of hot tap water instantaneously, or rather with no accumulation.

# INSTALLATION

Refer to local regulations in the country of use for anything that is not specifically covered in this manual. In Italy, refer to standards UNI 10683/2005 and UNI 10412-2, as well as the Ministerial Decree No. 37, ex Law No. 46/90, in addition to any Regional or Local Health Authority regulations. If installing in a block of apartments, first consult the block administrator.

## Verify compatibility with other devices

According to standard UNI 10683/2005, the thermo-stoves must NOT be installed in the same room as extractors, type A and B gas appliances and, in any case, devices that diminish the ventilation inside the room.

## Check electrical connections (POSITION THE SOCKET IN AN ACCESSIBLE PLACE)

The stove is equipped with a electrical power cable to be connected to a 230V 50 Hz socket, preferably with a magnetothermic switch. Voltage variations exceeding 10% can damage the thermo-stoves (unless already installed, an appropriate differential switch must be fitted). The electrical system must comply with law; particularly verify the efficiency of the earthing system. The power line must have suitable cross-section for the thermo-stoves' power.

Lack of efficiency of the "ground" circuit causes malfunction for which Edilkamin cannot be held responsible.

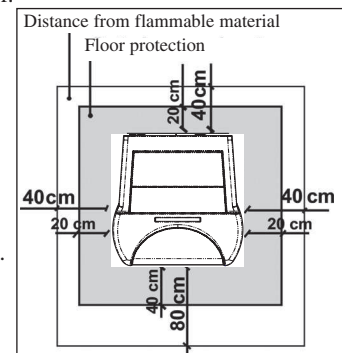
## Positioning

The thermo-stoves must be level for it to function correctly. Verify the bearing capacity of the floor.

## Fire prevention safety distances

The thermo-stoves must be installed in compliance with the following safety conditions:

- medium flammability items must be kept at a minimum distance of 40 cm from the sides and back of the thermo-stoves
  - highly flammable items must be kept at a minimum distance of 80 cm if placed in front of the thermo-stoves
  - if the thermo-stoves is installed on flammable flooring, a sheet of heat insulating material must be placed on the floor. This must extend at least 20 cm from the sides and 40 cm from the front.
- Flammable objects must not be placed above the thermo-stoves or at a distance that is any less than the stipulated safety distances. If connected to wooden walls or other flammable materials, the smoke exhaust pipe must be appropriately insulated with ceramic fibre or other similar material.



## Air inlet: to be mandatorily implemented.

The room where the thermo-stoves is placed must have an air inlet with a cross-section of at least 80 cm<sup>2</sup> so as to guarantee sufficient air supply to the stove for combustion.

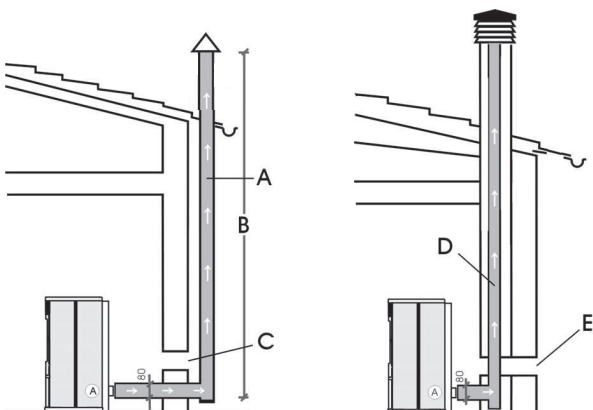
## Smoke outlet

The discharge system must only be used for the thermo-stoves (the smoke cannot be discharged into a chimney flue used by other devices).

The smoke is discharged through the 10 cm diameter outlet at the back of the thermo-stoves. A T-junction must be set up with a condensation collection stopper at the beginning of the vertical section. The thermo-stoves smoke discharge must be connected with outside by means of steel or black pipes EN 1856 certified.

The pipe line must be hermetically sealed. The pipes must be sealed and insulated using materials that are resistant to high temperatures (high temperature silicone or mastic). The only horizontal section allowed may be up to 2 m long. The horizontal section must have a minimum inclination of 3% and a maximum of two 90° bends. If the outlet is not fitted into a chimney flue, a vertical section of at least 1.5 m will be required, complete with a wind guard. The vertical duct can be internal or external. If the smoke channel is outside, it must be insulated.

If the smoke channel is fitted inside a chimney flue, the latter must be suitable for solid fuel. If it is wider than 150 mm in diameter, a pipe must be entered and the outlet sealed to the masonry. All sections of the smoke duct must be accessible for inspection.



- A: insulated steel chimney flue, Insulated
- B: minimum height 1.5 m, and however beyond the eaves of the roof
- C-E: air intake from outside (through section at least 80 cm<sup>2</sup>)
- D: steel chimney flue inside existing masonry chimney flue



# HYDRAULIC CONNECTIONS

## (Reserved for DEALER)

The stoves have a boiler with a capacity of 80 Lts. of water. This significant amount of water renders the stove extremely smooth in operation, little affected by variations in demand of users. This will provide for highly consistent combustion with excellent yield. The stoves are equipped with a kit for producing instant Domestic Hot Water for bathrooms and kitchens as well as kits for the heating system (circulator, safety, loading and unloading).

The stoves are also equipped with a solenoid valve that, in the start-up phase plays a very useful RECIRCULATION function; moving the water inside the stove, and speeding up the heating phase.

THE THERMO-STOVE MUST NEVER BE MADE TO OPERATE WITHOUT WATER IN THE SYSTEM NOR AT A PRESSURE OF LESS THAN 1 BAR.

IT CAN BE DAMAGED IF IT IS IGNITED WITH NO WATER IN THE SYSTEM.

The hydraulic connection must be performed by qualified personnel who can issue a declaration of conformity according to the Ministerial decree no. 37 ex L.46/90. Reference must however be made to the laws in force in the individual countries.

## Practical NOTE

- 1) Consider appropriate solutions when connecting the supply, return and drains, which will facilitate moving the thermo-stoves in the future, if necessary.
- 2) To improve the functioning of the primary circuit (where there is a heat generator) must be separated from the secondary circuit (user). For example, through a plate heat exchanger that allows the exchange of energy in the form of heat without mixing the waters.

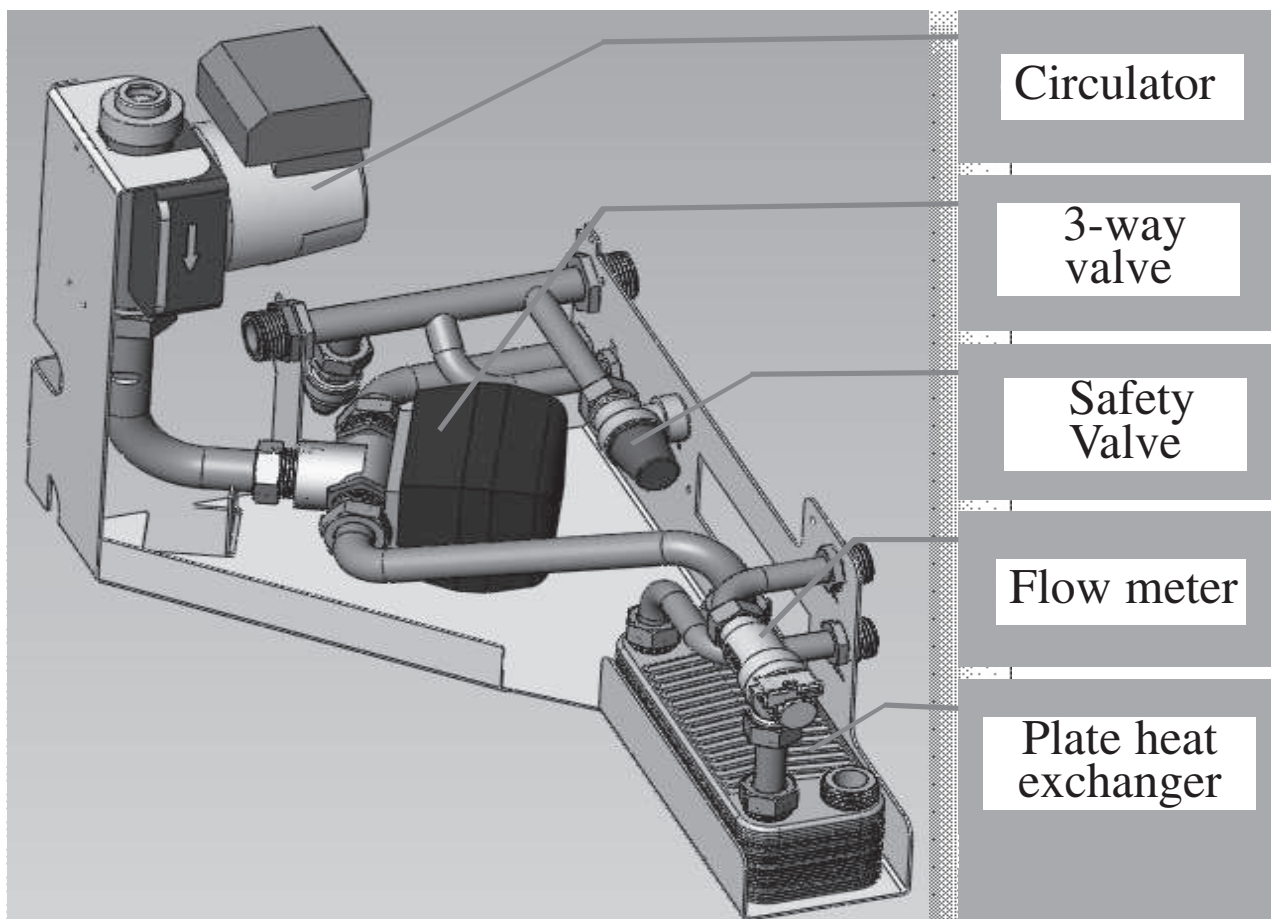
## Water treatment

Foresees the addition of antifreeze, de-scaling and corrosion substances. In the event that the water used for filling and topping up has a hardness greater than 35° F, use a water softener. For suggestions please refer to regulation UNI 8065-1989 (Water Treatment In Heating Systems For Civil Use).

## Note on return water temperature.

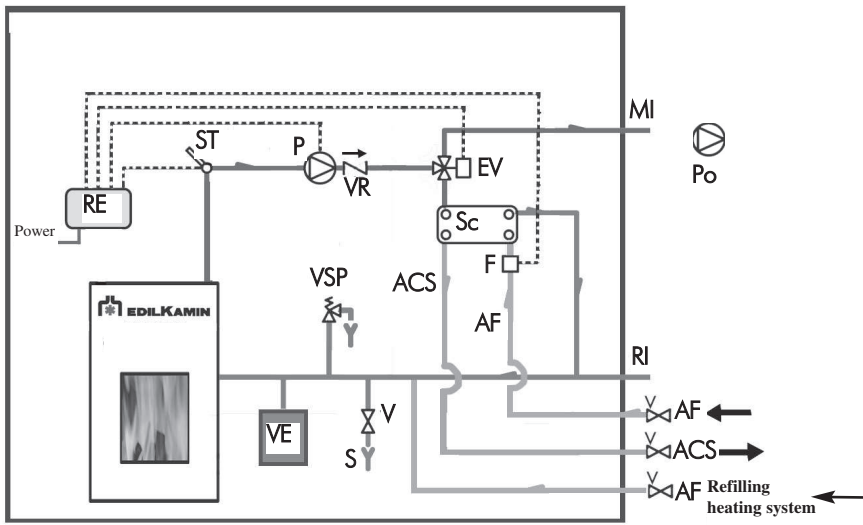
An appropriate system must be set up to guarantee that the return water temperature does not fall below 45 °C.

The following is a schematic diagram of the hydraulic kit built into the stove for instant production (without accumulation) of ACS.



# HYDRAULIC CONNECTIONS

Hydraulic schematic diagram of built in kit.

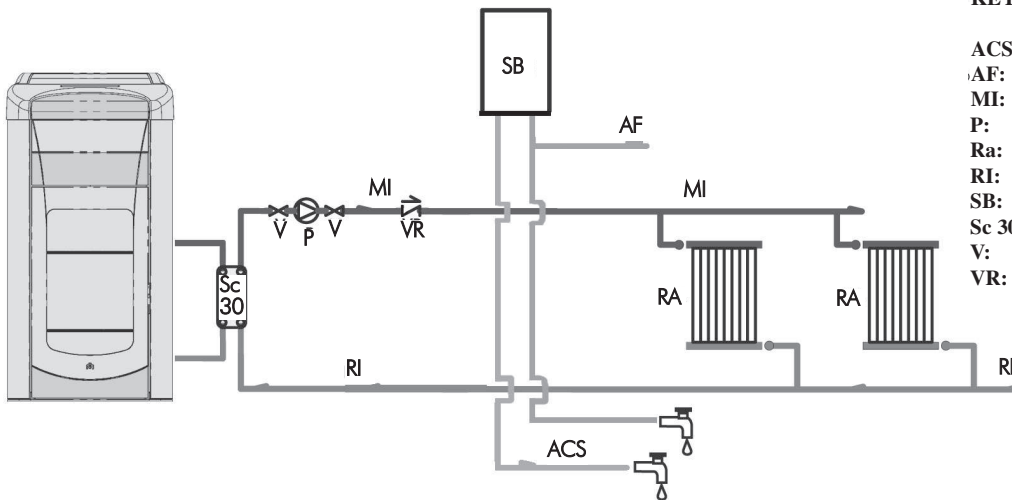


**KEY**

- ACS: Domestic Hot Water
- AF: Cold Water
- MI: System delivery
- EV: 3 way Solenoid valve
- F: Flow meter
- P: Pump (circulator)
- Po: Pump OPTIONAL
- RE: Electronic Regulator
- RI: System Return
- S: Drainage
- Sc: Exchanger
- ST: Temperature Probe
- V: Valve
- VE: Expansion tank
- VR: Check Valve
- VSP: Safety valve
- VST: Thermal discharge valve

The following are some schematic diagrams indicative of possible systems.

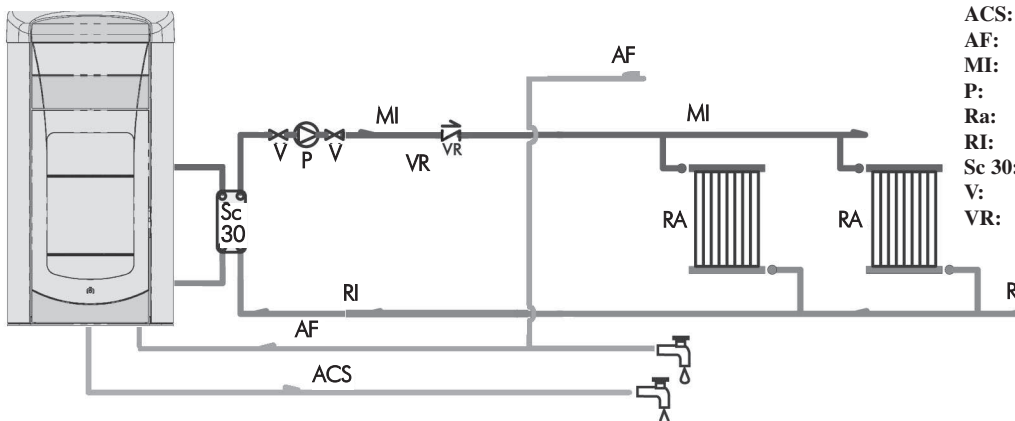
Heating system combined with boilers.



**KEY**

- ACS: Domestic Hot Water
- AF: Cold Water
- MI: System delivery
- P: pump (circulator)
- Ra: Radiators
- RI: System Return
- SB: boiler
- Sc 30: 30 Plate Exchanger
- V: Valve
- VR: Non-return valve

Heating system with single source of heat for the production of heat and domestic hot water

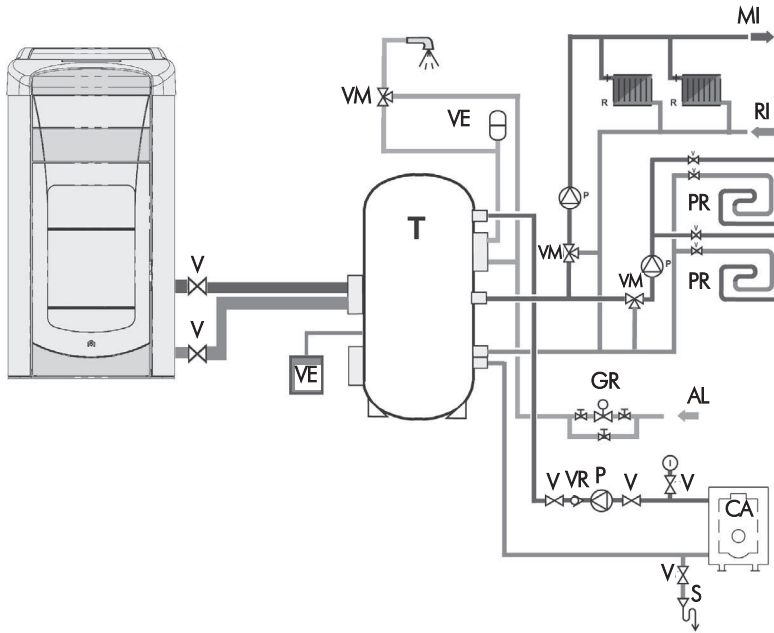


**KEY**

- ACS: Domestic Hot Water
- AF: Cold Water
- MI: System delivery
- P: pump (circulator)
- Ra: Radiators
- RI: System Return
- Sc 30: 30 Plate Exchanger
- V: Valve
- VR: Non-return valve

# HYDRAULIC CONNECTIONS

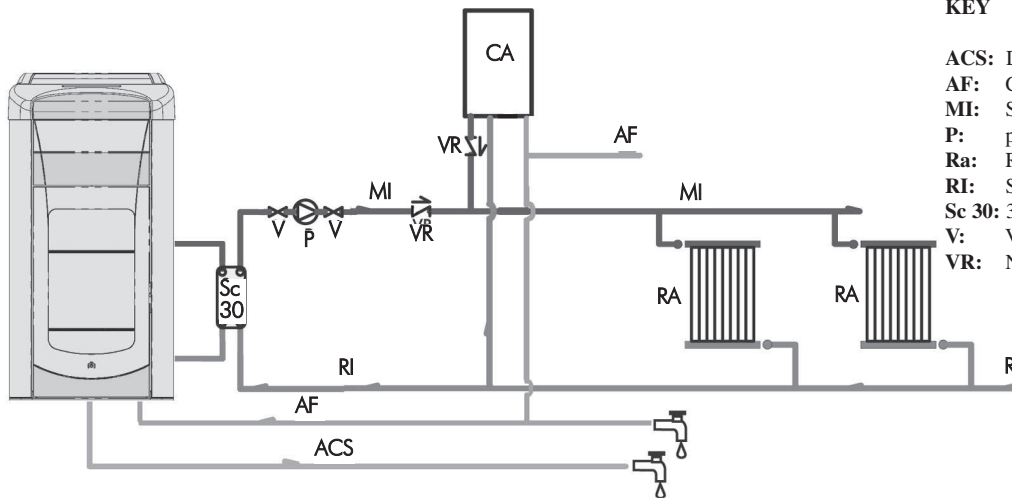
## Heating system with heat accumulator for heating and domestic hot water



**KEY**

- AL: Mains water supply system
- CA: Boiler
- GR: Filling Unit
- M: Delivery to system
- P: pump (circulator)
- PR: Heating Panels
- R: Radiators
- RI: System Return
- T: Heat Accumulator
- V: Valve
- VE: Expansion tank
- VR: Check Valve
- VM: Tempering Valve
- VST: Thermal discharge valve

## Heating and domestic hot water production system in combination with wall mounted boiler



**KEY**

- ACS: Domestic Hot Water
- AF: Cold Water
- MI: System delivery
- P: pump (circulator)
- Ra: Radiators
- RI: System Return
- Sc 30: 30 Plate Exchanger
- V: Valve
- VR: Non-return valve

**NOTE:**

The installer must assess the possible need for an additional expansion tank, depending on the type of system being serviced

**WARNING:**

during the production of domestic the power to the radiators decreases temporarily.

**ACCESSORIES:**

In the diagrams referred to in the previous pages the use of accessories available from the Edilkamin catalogue has been assumed.

Individual spare parts are also available (exchanger, valves, etc). For information, please contact your local dealer.

**1. START UP (DEALER)**

Make sure the plumbing system has been properly executed and is equipped with an expansion tank which is sufficient to guarantee safety. The presence of the tank built in to the stove does NOT guarantee adequate protection from thermal expansion experienced by the water inside the system.

Power on the stove electrically and run the test cold.

Carry out the filling of the system through the inlet valve (it is recommended that you maintain a pressure of approximately 1 bar)

During the loading phase, "bleed" the pump and open the manual vent (see page 42)

This operation must also be performed subsequently on a periodic basis.

# MOUNTING THE COVERING

## QUEBEC - TORONTO - DETROIT - BOSTON

### Phase 1: Representation of the stove after unpacking

N.B.: the Thermo-stoves come furnished with the ceramics packed in separate boxes in order to avoid damage during transport as well as to lighten and facilitate the manual handling of the product. The Ottawa/Atlanta Boiler has its steel front sides preassembled at the factory.

### Phase 2: Mounting the ceramic lower front panel

Position the front panel on the lower portion of the door so that the protruding portions on the back fit into the holes (A). Attach the front panel using the brackets (B) and screws supplied for this purpose, working from the back face of the small door (N.B.: the plates can be found in a small bag inside the hearth of the thermo-stove).

When opening the door, check whether it rubs against the ceramic sides of the covering.

(N.B.: if necessary, use the supplied trim between the ceramic front panel and the cast iron front panel in order to compensate for any inaccuracies, which are typical of ceramics).

### Phase 3: Mounting the ceramic upper front panel

Remove the cast iron upper front panel (C) by pulling it forward to disengage it from the springs that hold it in place (hold the door open to facilitate the operation).

Apply the plates (E) to the rear of the upper front panel in ceramic and fastening them within the appropriate holes using the supplied self-threading screws. (N.B.: the plates can be found in a small bag inside the hearth of the thermo-stove).

Place the ceramic front panel in place so that the two protuberances at the back fit into the holes (D) on the cast iron front panel (C).

Attach the ceramic front panel using the brackets (E) and supplied hexagon-head screws, working from the back face of the cast iron front panel. (N.B.: if necessary, use the supplied trim between the ceramic front panel and the cast iron front panel in order to compensate for any inaccuracies, which are typical of ceramics).

Replace by fitting into the appropriate fastening clips.

### Phase 4: Installation of ceramic side panels

4/2. Apply the plates (I) to the rear of the ceramic side panels (large G and small H) and fastening them within the appropriate holes using the supplied screws (N.B.: the plates can be found in a small bag inside the hearth of the thermo-stove).

Disassemble the sheet metal half panels at the rear by removing their fastening screws (Refer to the letter P in the diagram shown below).

4/1. Mount the ceramic side panels (G and H) in the correct sequence small/large following these steps:

- Each element should be approached from the side and fitted into the slot (M - present along the front edge of the element itself) on the vertical toothed sheet metal profile of the structure.

4/1. Fasten the plates (I) applied, to the structure of the stove using the screws supplied in the appropriate holes (N).

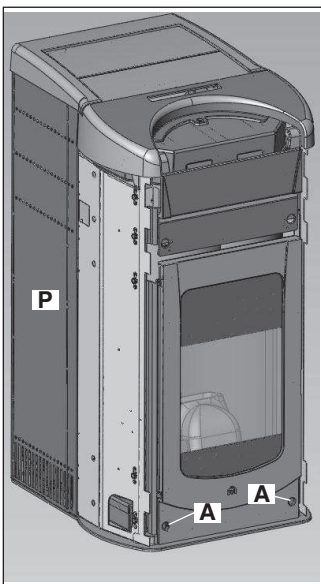
4/2. Adjust the couplings and the alignments using the appropriate adjustment screws (O); the adjustment screw is located below each ceramic element so it is therefore necessary to remove the elements in question one at a time in order to work on them.

-Replace the rear cast iron semi-side panels (Refer to the letter P in the diagram shown below)..

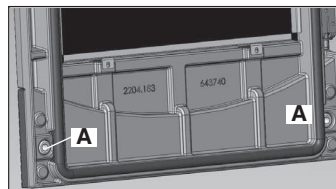
### Phase 5: Mounting the ceramic top

Place the ceramic top in its housing so that the protuberance at the back fits into the hole (P) in the cast iron top.

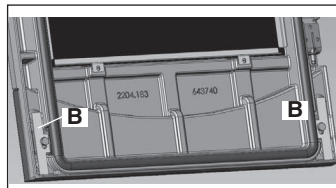
## Phase 1



## Phase 2 Mounting the lower front panel



rear view of small door



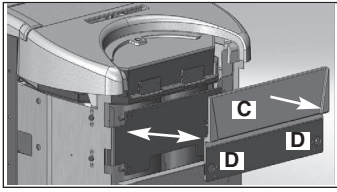
rear view of small door



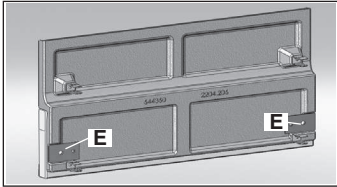
finished view

# MOUNTING THE COVERING

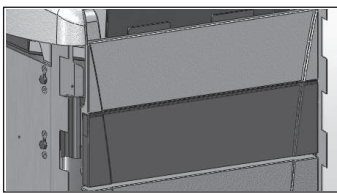
## Phase 3 Mounting upper front panel



Front view of the cast iron front panel

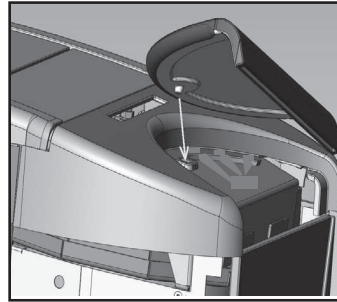


rear view of the cast iron front panel finished view

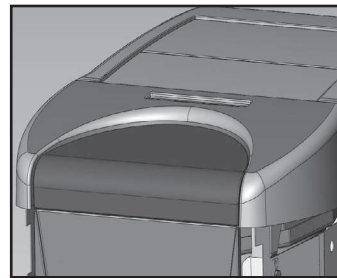


finished view

## Phase 5 mounting ceramic top



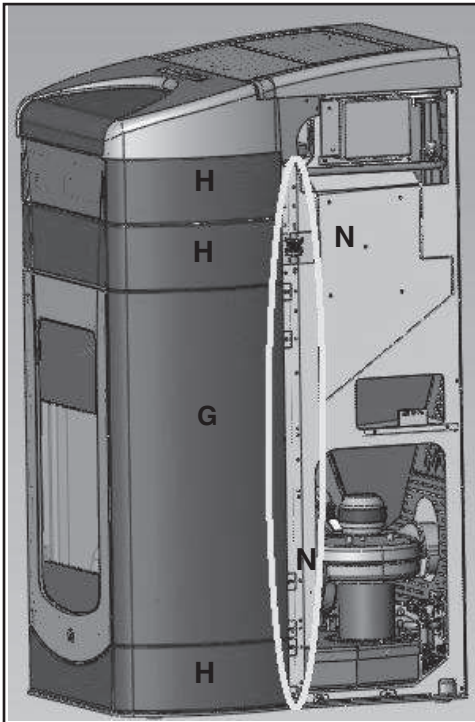
fixing



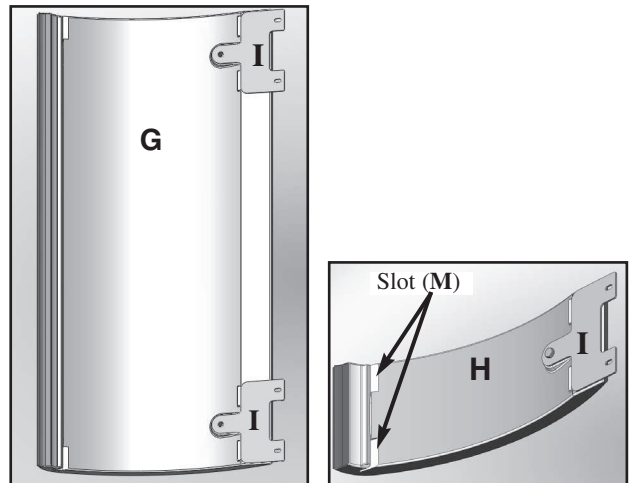
finished view

## Phase 4 mounting ceramic side panels

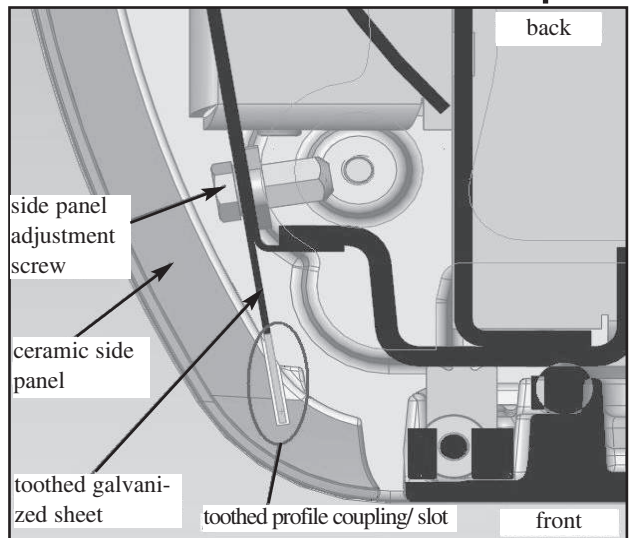
4/1



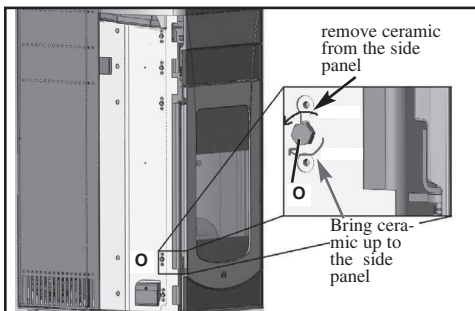
4/2



4/4



4/3



remove ceramic from the side panel

Bring ceramic up to the side panel

# MOUNTING THE COVERING

## MONTREAL - MIAMI

**Photo 1:** Representation of the stove after unpacking

N.B.: the Thermo-stoves come furnished with the ceramics packed in separate boxes in order to avoid damage during transport as well as to lighten and facilitate the manual handling of the product.

### Installing ceramic tops

Remove the 4 pins (A) from the plating top and move the 2 aluminium sides (B) slightly forward.

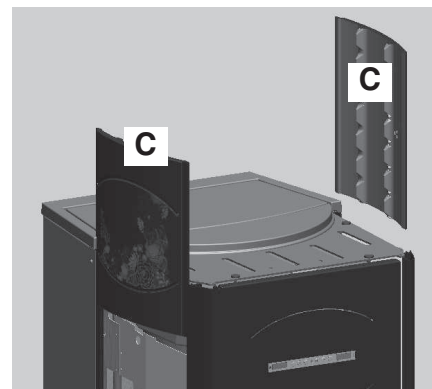
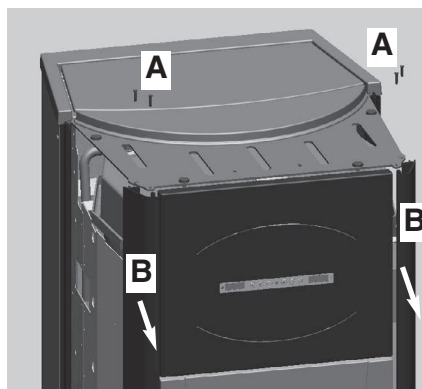
Put in the ceramic sides (C) in from the top downwards. On the inside of the ceramic sides there is an arrow (D) that indicates the side of the tile that must be towards the front of the stove (follow the views of the sides E and F).

Put the 2 aluminium sides back in position, fix the 4 pins removed before, and position the ceramic top (G).

**Photo 1**

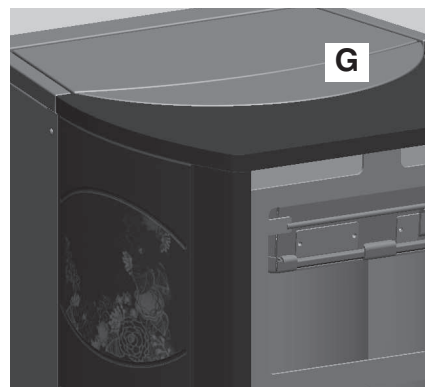
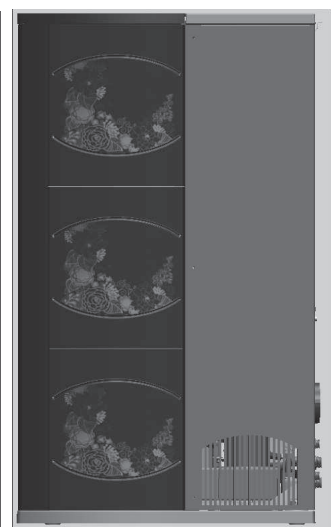
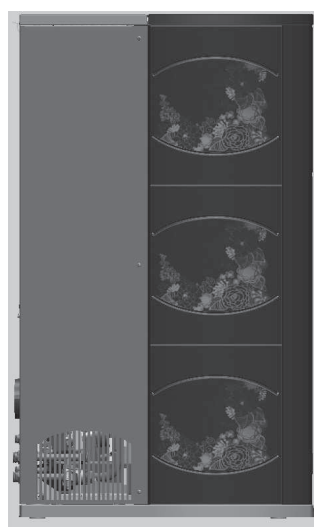
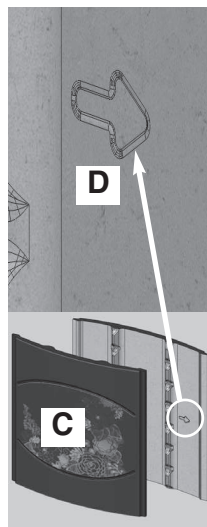


**Installing ceramic tops**



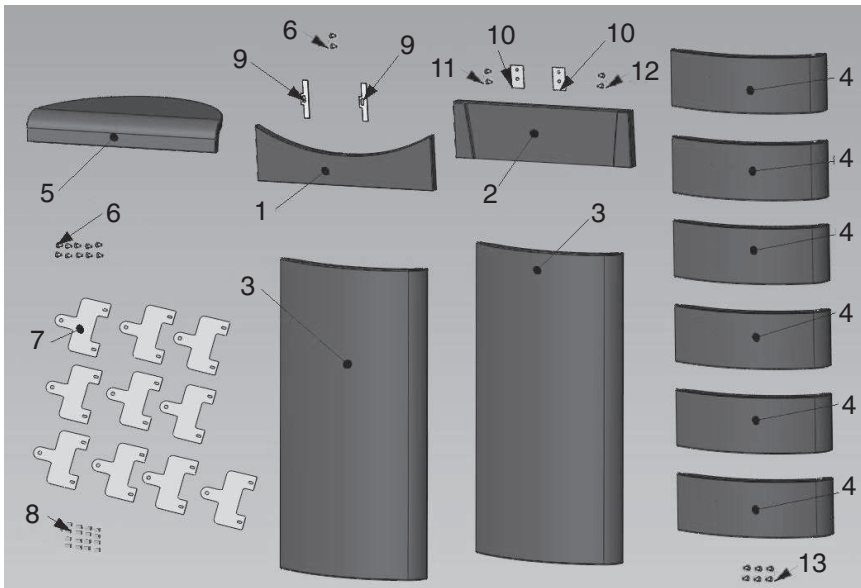
Left side view E

Right side view F



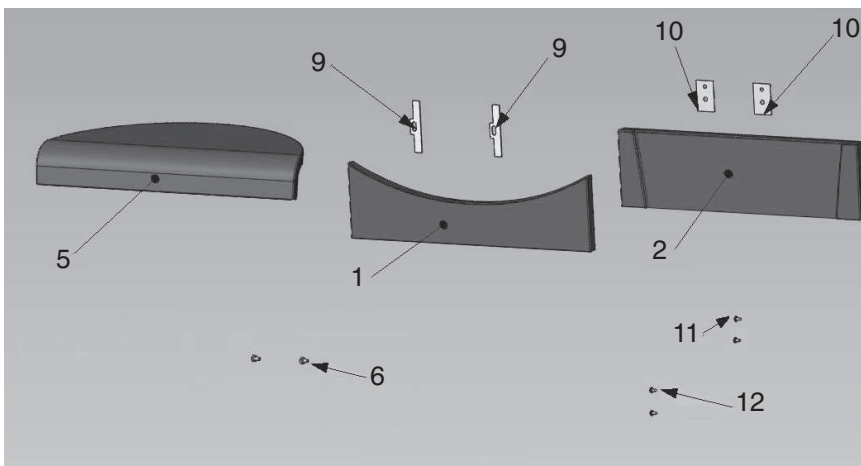
# MOUNTING THE COVERING

## QUEBEC / DETROIT



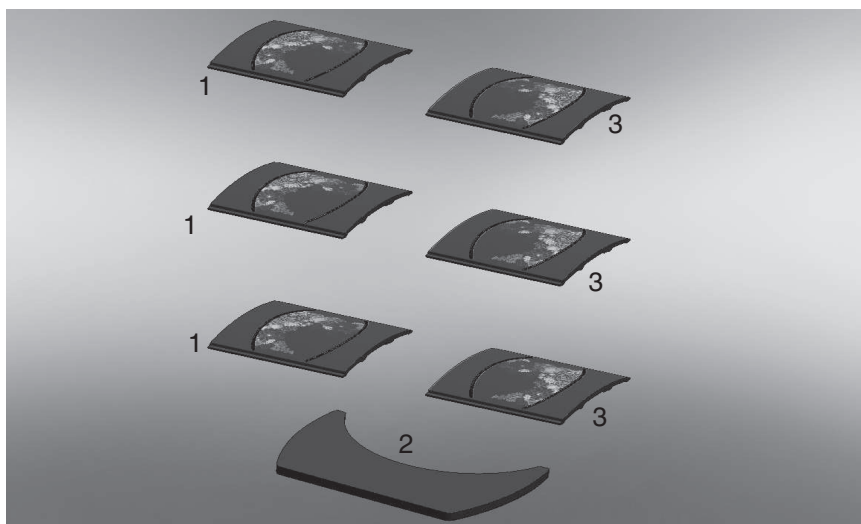
		n°	cod.
1	Red lower front panel	1	642050
1	Off-white lower front panel	1	642040
2	Red upper front panel	1	642070
2	Off-white lower front panel	1	642060
3	Red large side panel	2	642090
3	Off-white large side panel	2	642080
4	Red small side panel	6	46160
4	Off-white small side panel	6	645750
5	Red top	1	642130
5	Off-white top	1	642120
6	Screw T.B. 6x12	12	284380
7	Piastrine ceramiche	10	647670
8	Screw 4,8x10	16	266940
9	Door ceramic blocking plate	2	387530
10	Front ceramic blocking plate	2	388890
11	Screw T.E. 6x16	2	18650
12	Screw 4,2x6,5	2	235990
13	Spacer	6	266670

## TORONTO / BOSTON



		pz	cod.
1	Red lower front panel	1	642050
1	Off-white lower front panel	1	642040
2	Red upper front panel	1	642070
2	Off-white lower front panel	1	642060
5	Red top	1	642130
5	Off-white top	1	642120
6	Screw T.B. 6x12	2	284380
9	Door ceramic blocking plate	2	387530
10	Front ceramic blocking plate	2	388890
11	Screw T.E. 6x16	2	18650
12	Screw 4,2x6,5	2	235990

## MONTREAL / MIAMI



		pz	cod.
1	Right side	3	655220
2	Top	1	655210
3	Left side	3	657430

# INSTRUCTIONS FOR USE

## Mimic panel



to turn on and off (hold down for 2") and to exit from the menu during programming



to access the menu during programming



to increase the various settings



to decrease the various settings



(pellet loading/reserve button)

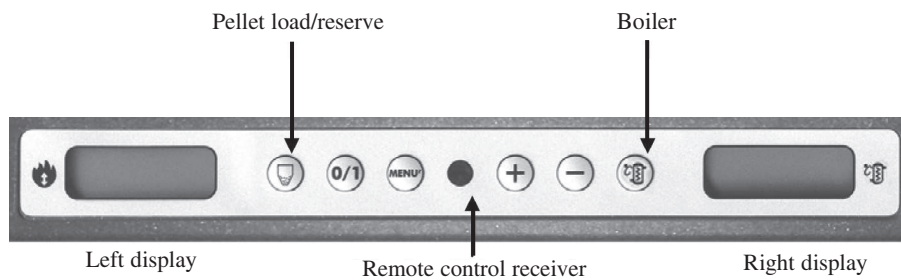
press once to 'inform' the thermo-stoves memory that a 15 kg sack of pellets has been loaded, thereby allowing it to keep track of the reserve.



(boiler setting button)

this button together with the +/- keys controls a secondary circuit, e.g. that of a boiler.

The right side of the display shows the temperature of any external storage tank/boiler (if the boiler sensor is connected). Press the 'boiler' button to see the set value. If the boiler sensor is not connected, dashes will appear instead of the temperature (--- °C).



## 1st ignition

The first start up must, without fail, be performed by DEALER.

You must consult the DEALER in your area when igniting the stove for the first time, in order for the thermo-stoves to be calibrated according to the type of pellets and installation conditions

The DEALER must also:

- Verify that the hydraulic system is correctly installed and is equipped with an expansion tank that is sufficiently large to guarantee safety. **The presence of a tank within the thermo-stoves does NOT guarantee appropriate protection from thermal expansion occurring in the whole system.**

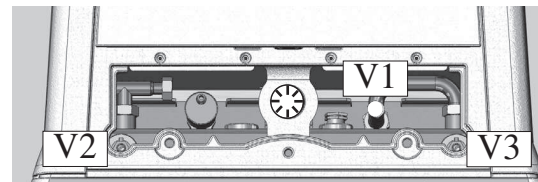
- Connect the electrical power to the thermo-stoves and implement a cold test (to be carried out by the DEALER).

- Fill the system using the filling tap (it is recommended not to exceed a pressure of 1bar).

When filling, 'bleed' the pump and the relief tap.

## Warning:

During the initial start up phase, use the manual valves (V1-V2-V3) beneath the cast iron cover to perform the air/water purging operation. This operation must also be repeated during the first days of use and whenever the system is reloaded, even partially. The presence of air within the pipelines can hinder the unit's proper functionality. Rubber tubes are supplied with valves V1 and V2 to facilitate relief operations.



## First ignitions.

There may be a slight smell of paint the first few times it is ignited, however, this will disappear quickly.

Before igniting you must check:

- that installation is correct /
- the power supply/
- that the door closes properly to a perfect seal
- that the combustion chamber is clean/
- that the display is on stand-by (time and temperature set).



# INSTRUCTIONS FOR USE

## Filling the feed screw

If the pellet storage tank is completely emptied, it follows that the Archimedes' screw is also emptied. Before restarting the stove you must fill it by following these steps: press the +/- keys simultaneously (via the radio control/ remote control or the synoptic panel) for a few seconds, after which, having released the keys, the display will show the text "Reload".

It is quite normal for some pellet residue to remain inside the hopper, this is what the feed screw is unable to pick up. Once a month, fully vacuum the hopper to prevent dusty residue from accumulating.

## Automatic ignition

With the thermo-stoves on stand-by, press the **0/1** button for 2 seconds (on the synoptic panel or radio control/ remote control). This will start-up the ignition process, 'Start' will appear on the display and a countdown will commence in seconds (1020). There is no preset time for the ignition process: its duration will be automatically shortened if the control board detects that certain tests have been carried out positively. The flame appears after about 5 minutes.

## Manual ignition (in case of start up failure)


At a temperature lower than 3 °C – too low for the electrical resistance to become red hot - or if the resistance is temporarily not working, you can use a firelighter to ignite the thermo-stoves.

Insert a well-lit firelighter into the combustion chamber, close the door and press **0/1** on the synoptic panel or radio control/ remote control.

## Operating modes

Operating from synoptic panel/radio control/ remote control. With the thermo-stoves running or on stand-by, from the synoptic panel:

- press the + or – keys to increase or decrease the desired water temperature.

- by pressing the  key you can change the SET temperature of the boiler or of the secondary circuit in general, using the +/- keys. It is possible to visualise (if the boiler probe is connected) the temperature of any boiler/external storage, by pressing the "boiler" key the set value is displayed, by pressing the +/- keys while viewing the boiler value set that setting can be varied. If the boiler probe is not connected dashes appear in place of the temperature (--.-° C).

## Shutdown

While the stove is working pressing the 0/1 key for 2 seconds begins the shutdown process and "OFF" is displayed (for 10 minutes).

The turning off phase includes:

-The interruption of falling pellets

-The circulation of running water.

Never pull the plug during shutdown.

**N.B.** Please note that the circulator runs until the water temperature drops below 40° C.

## Setting the clock

Press the **MENU** button for 2 seconds and use the + and – keys to follow the instructions given on the display to access the 'Clock' menu.

This allows you to set the time on the electronic control board. Then press **MENU** and the following data appears in sequence – this can be adjusted: day, month, year, hour, minutes, day of the week. When 'Save?' appears on the display, you can check that the settings have been entered correctly before confirming. Press **MENU** to save the information ('Save OK' then appears on the display).

## Programmer to ignite and shutdown the thermo-stoves at various times during the week.

Press the **MENU** button on the radio control/ remote control for 2 seconds to access the time setting function and press the + key to access the weekly timer function 'Program ON/OFF' will appear on the display.

The timer allows you to set a number of ignitions and shutdowns per day (up to a maximum of three), for each day of the week. As you confirm via the **MENU** button, one of the following options will appear:

- No Prog. (no program is set)

- Program/daily (a single program is set for every day)-

- Program/weekly (a program is set for each day of the week)

# INSTRUCTIONS FOR USE

Move from one to the other using the + and – keys.

Use the **MENU** button to confirm the 'Daily program' option and access the selection of the number of programs (ignition/shutdown) to be set per day.

Use the 'Program/daily' option to set the identical program/s for every day of the week.

The following will be displayed if the + key is pressed:

- No Prog.

- Prog. No. 1 (one ignition and one shutdown per day), Prog. No. 2 (same as before), Prog. No. 3 (same as before)

Use the button to show them in reverse order. If the 1st program is selected, the ignition time is shown.

The display shows: 1 Ignition Hour 10.30; use the +/- keys to change the hour and press **MENU** to confirm.

The display shows: 1 Ignition Minutes 10.30; use the +/- keys to change the minutes and press **MENU** to confirm.

In the same way, adjust the shutdown times.

The program is confirmed by pressing the **MENU** button when "Saved" appears on the display.

When confirming 'Program/week', you will need to choose the day to which the program is to apply:

1 Mon; 2 Tues; 3 Wed; 4 Thurs; 5 Fri; 6 Sat; 7 Sun

Once you have chosen the day by scrolling through them with the + and – keys, confirm by pressing **MENU** and proceed with the settings of the programs in the same way as for the 'Program/daily', selecting whether or not to enable a program for each day of the week and choosing the number and times of interventions.

Should you make a mistake whilst setting the programs you can exit without saving by pressing the 0/1 key and 'Saved' will appear on the display.

Should the hopper run out of pellets, the stove will block and 'Stop Flame' will appear.

## Pellet reserve warning

The thermal stoves are equipped with an electronic pellet detection system.

The pellet detection system is integrated into the electronic control board, allowing the stove to monitor how many kilos of pellets are left.

This verification is implemented at any point whilst the stove is in operation mode.

For correct system operation, it is important that the following procedure is adhered with during the first ignition (that must be implemented by the DEALER). Before starting to use the pellet detection system, you must load and consume a full sack of pellets.

This allows for a brief running-in of the loading system.

Subsequently load 15 kg of pellets.

**Then press the 'reserve' button once, thereby storing the data into the memory that 15 kg have been loaded.**

From now on the display will show the remaining pellets as they decrease in kg (15...14...13). Each time pellets are reloaded you must enter the quantity. E.g. when loading 15 kg, simply press the 'pellet load' button to enter this into the memory.

For other quantities, or in the event of an error, you can specify the quantity using the pellet reserve menu as follows:

Press the **MENU** button for 2 seconds to view the SETTINGS.

Press + or – consecutively to view **T. Max exit.**

Confirm by pressing **MENU** and the remaining quantity of pellets will be displayed + that being loaded (default is 15 and can be changed using the +/- keys).

Should the hopper run out of pellets, the stove will block and 'Stop/Flame' will appear.

# INSTRUCTIONS FOR USE

## RADIO CONTROL code 633290 (OTTAWA / ATLANTA)

This controls all the functions.

For further information contact our customer service centre.

### Key to buttons and display:



: to turn off and on (to go from remote control on stand-by to radio control on)

+/- : to increase/decrease the various regulations

A : to select function

M : to access the control and programming menus



- icon flashing: radio control searching for network  
- icon fixed: radio control with connection enabled



flat battery  
(3 mini alkaline batteries type AAA)



keypad locked  
(press "A" and "M" in parallel for a few seconds to lock or unlock the keypad)



programming enabled



alphanumeric display consisting of 16 figures arranged in two lines of 8 figures



- icon flashing: thermo-stoves turning on  
- icon fixed: thermo-stoves working



automatic function  
(display shows temperature)

The display also shows other useful information in addition to the icons described above.

### Stand-by Position:

shows the set water temperature (Set 70°C), the flow temperature (Tm 65°C), the kg of pellets remaining (15 kg) in the tank and the current time (15:33)

### - Automatic operating phase:

shows the set water temperature (Set 70°C), the flow temperature (Tm 65°C), the kg and remaining autonomy (50KG 10H) and the current time (15:33)

Press button "A" on the radio control unit to switch from the classic "Power\_Module" mode to "Comfort\_Climate" mode.

In "Comfort\_Climate" mode, press the +/- button on the radio control unit's synoptic panel to set the desired room temperature.

The following situations, for example, will occur:

- With a room temperature below the setting, the thermo-stoves will modulate the power levels normally in order to pursue the output set.
- If the room temperature has been reached, the thermo-stoves will set its power to P1.
- The temperature is transmitted from the supplied radio control, which must be within range of the radio field (unobstructed linear distance of 15 m).
- In the event that the connection between the radio control unit and the stove should be lost, the thermo-stove will continue its working phase at the P1 power level.
- an alternate temperature monitoring system is available. In fact, it is possible to connect an external room thermometer (readily available on the market) to the serial port:  
The thermo-stoves will automatically recognise the thermostat's connection to the serial port and, as a result, one of the following situations will occur:
  - With a room temperature below the external thermostat's setting, the stove will modulate the power levels normally in order to pursue the output set.
  - If the external thermostat's room temperature has been reached, the thermo-stoves will set its power to P1.
  - An asterisk on the display indicates that the external thermostat is requesting for the rooms to be heated.

# INSTRUCTIONS FOR USE

## Clock regulation

Press and hold the key "M" for 2 seconds to access the "CLOCK" menu. This allows you to set the internal electronic board clock.

By then pressing the key "M", the following data appears in sequence and can be regulated:

day, month, year, hour, minutes, day of the week.

The wording "SAVE??" will appear for confirmation with "M". This will allow you to check that the operations performed are correct, prior to completion (the wording "SAVE" will then be shown on the display).

## Weekly timer

Press and hold the "M" key on the remote control for 2 seconds. This turns on the clock regulation and by pressing the '+' key, the weekly timer function is accessed, with the display showing the description "PROGRAMM ON/OFF". This function allows you to set a number of times the insert turns on and off per day (up to a maximum of three), each day of the week.

As you confirm the display with the key "M", one of the following options will appear:

NO PROG. (no programme set)

DAILY PROGRAM (single programme for every day of the week)

WEEKLY PROGRAM. (specific programme for each day individually)

Use the "+" and "-" keys to switch between programmes.

Use key "M" to confirm the option "DAILY PROGRAM" to choose the number of programmes (turn on/off) to be carried out per day.

Use the "DAILY PROGRAM" to set identical programme/s for every day of the week.

By then pressing the "+" key, the following can be seen:

- Prog. no.

- 1st prog. (one turn on and one turn off per day), 2nd prog. (identical), 3rd prog. (identical)

Use the "-" key to show in reverse order.

If the 1st programme is selected, the turn on time is shown.

The display shows: 1 "ON" at 10 Use the "+" and "-" key to change the hour. Confirm with the "M" key.


The display shows: 1 "ON" at 30 Use the "+" and "-" key to change the minutes. Confirm with the "M" key.

The same applies for the turn-off time to be set and for subsequent turning on and off.

Confirm by pressing "M" and the wording "SAVE??" will appear on the display.

When confirming "WEEKLY PROGRAM", you will need to choose the day to which the programming is to apply:

1 Mon ; 2 Tues; 3 Wed; 4 Thurs; 5 Fri; 6 Sa; 7 Sat

Once you have chosen the day, use the "+" and "-" key and confirm with the "M" key, to programme in the same way as for the "DAILY PROGRAM", choosing whether or not to enable a programme for each day of the week, and if so choosing number of interventions and at what times. Should you make an error during programming, you can leave the programme without saving. As you press a key,  the display will show the word "NO SAVE".

## Variation feeding pellets (ONLY AFTER SUGGESTED BY DEALER)

Press and hold the "M" key on the remote control for two seconds. Scroll through the display instructions using the "+" and "-" keys, to the description "ADJ-PELLET". By confirming this function using the menu key you can adjust the supply of pellets, by reducing the set value, you decrease the supply of pellets, increasing the set value increases the supply of pellets. This function can be useful in the event that one changes the type of pellets used, no longer using those for which the stove was calibrated, thus necessitating an adjustment of the load setting.

**Should this correction not suffice, contact the Edilkamin-authorized Dealer, to establish the new operating axis.**

*Notes on flame variability: Any changes in the state of the flame depend on the type of pellets used, as well as on normal variation of solid fuel flames and on the periodic cleaning of the crucible the stove automatically carries out (Note: This does NOT replace the necessity cold vacuuming by the user prior to start up).*

## LOW BATTERY INDICATOR



When the battery icon lights up it indicates that the batteries inside the radio control are almost flat. Replace them with three new batteries of the same model (size AAA 1.5V).

- Do not use new batteries with used ones.
- Do not mix brands and different types as every type and brand has a different capacity.
- Do not mix traditional batteries with rechargeable ones;
- Do not try recharging alkaline and zinc-carbon batteries as this can cause them to break and/or a liquid leakage.



## INFORMATION FOR USERS

In accordance with Art. 13 of the Legislative Decree No. 151, dated 25 July 2005, "Implementation of Directives: 2002/95/EC, 2002/96/EC and 2003/108/EC, pertaining to the reduction of hazardous substances used in electrical and electronic equipment, as well as disposal of waste".

The crossed-out wheeled bin symbol shown on the equipment or on the packaging indicates that the product must be disposed of separately at the end of its useful life. Therefore, at the end of the equipment's useful life, the user must hand in the equipment to suitable collection facilities for electrical and electronic waste, or return it to the retailer when a new, equivalent appliance is purchased in a ratio of one to one.


# INSTRUCTIONS FOR USE

## REMOTE CONTROL cod. 633310 (QUEBEC/TORONTO/MONTREAL/DETROIT/BOSTON/MIAMI)

This controls all the functions. It is necessary to point it directly at the thermo stove.

For further information contact our customer service centre.

### Key to buttons and display:

-  : ignition / shutdown button (press for approximately 1 second) this button can also be pressed to exit the programming menu
- +** : button to increase the power/operating temperature (when inside a menu, it increases the displayed variable)
- : button to decrease the power/operating temperature (when inside a menu, it decreases the displayed variable)
- A** : button to switch to the “*EASY TIMER*” program
- M** : key for viewing/setting the set temperature (Set 70°C) and the kg of consumed pellets (Pellet KG. UTE 200)



Indicates data transmission between the remote control and the control board.



low batteries; replace them and put them in their appropriate containers.



blocked keypad; avoid turning on the remote control for no reason (press "A" and "M" simultaneously for a few seconds to block/unblock the keypad)



Indicates that ignition / shutdown is being via the “*EASY TIMER*” program



Indicates the room temperature detected by the remote control (it indicates the values of the set parameters during its technical set-up).



On icon: thermo stove in start-up/operating phase



Indicates that the flow temperature can be set manually



pellet/water thermo-stoves remote control setting indicator




# INSTRUCTIONS FOR USE


## USING THE "EASY TIMER" PROGRAM

The new remote control allows you to manage a new timer program that is very intuitive and easy to use:

- **If the thermo-stoves is on:** a delayed shutdown can be set from the remote control - from one to twelve hours. The remaining time for the scheduled shutdown is shown on the display of the synoptic panel.
- **If the thermo-stoves is off:** a delayed ignition can be set from the remote control - from one to twelve hours. The remaining time for the scheduled ignition is shown on the display of the synoptic panel.
- **Setting:** proceed as follows to set the timer:

- Press the "A" button and the icon  will light up on the display, thereby confirming the "Easy timer" program has been accessed.
- Set the hours by pressing the +/- buttons, for example:



- Point the remote control towards the synoptic panel receiver
- Confirm the setting by pressing the "A" button for a few seconds; the icon  will go off and the remaining time will appear on the synoptic panel after which the "Easy timer" setting will intervene.
- Repeat points a), b), c), d) to cancel the setting, and set the hours to "00H"

## BLOCKED KEYPAD

The remote control buttons can be blocked so as to prevent it from going on accidentally.

Press the **A** and **M** buttons simultaneously and the key symbol  will light up confirming that the keys have been blocked. Press the **A** and **M** buttons simultaneously once again to unblock the keypad.

## LOW BATTERY INDICATOR

When the battery icon lights up it indicates that the batteries inside the remote control are almost flat. Replace them with three new batteries of the same model (size AAA 1.5V).

- Do not use new batteries with used ones.
- Do not mix brands and different types as every type and brand has a different capacity.
- Do not mix traditional batteries with rechargeable ones;
- Do not try recharging alkaline and zinc-carbon batteries as this can cause them to break and/or a liquid leakage.



### INFORMATION FOR USERS

In accordance with Art. 13 of the Legislative Decree No. 151, dated 25 July 2005, "Implementation of Directives: 2002/95/EC, 2002/96/EC and 2003/108/EC, pertaining to the reduction of hazardous substances used in electrical and electronic equipment, as well as disposal of waste". The crossed-out wheeled bin symbol shown on the equipment or on the packaging indicates that the product must be disposed of separately at the end of its useful life. Therefore, at the end of the equipment's useful life, the user must hand in the equipment to suitable collection facilities for electrical and electronic waste, or return it to the retailer when a new, equivalent appliance is purchased in a ratio of one to one.

# MAINTENANCE

Should ignition fail, **DO NOT** re-ignite until you have emptied the combustion chamber.

Regular maintenance is required for the thermo-stoves to function correctly.

The thermo-stoves will trigger the message: 'smoke °C/high' or 'Mainten.' to appear on the panel when further cleaning is necessary.

**FAILURE TO PERFORM at least SEASONAL MAINTENANCE can cause the thermo-stoves to malfunction and any problems deriving from this will not be covered by the warranty.**

**Non-compliance with maintenance procedures will render the warranty null and void.**

**Before performing any maintenance, disconnect the appliance from the mains.**

## Weekly cleaning (see illustration on next page)

Cleaning should be carried out with the aid of a vacuum cleaner (see optional page. 53).

Operation to be carried out when the stove is cold.

**Never vacuum hot ashes, as this would damage your vacuum cleaner.**

- Vacuum the door and if necessary clean the glass (cold).
  - Open the small door and remove and empty the ash tray (Fig. A-1) vacuum the fire bed.
  - Remove the front tile (Fig. B-2).
  - Vacuum the crucible or scrape it with the spatula provided, clear any obstructions from the holes on all sides, after removing the front plate (fig. C -3).
  - Clean the spark plug
  - Remove the inspection plugs on both sides of the hearth and vacuum the crucible (Fig. D-4).
  - Move the cleaning rods (\*) :
    - For the Quebec/Toronto models, remove the ceramic top and make movements with the lever (see fig. E).
    - For the Ottawa model, remove the metal top and make movements with the lever (see fig. F).
    - For the Montreal/Miami models, open the top door and act on the lever (see fig. G).
  - Following a period in which the stove has been inactive and in any case at least every month, empty the pellet storage tank and vacuum the bottom.
- NOTE: The DEALER, upon commissioning, sets the kg value of consumed pellets; after which, the message "SERVICE UTE" will appear on the display. The thermo stove continues operation, but the end client is invited to perform careful maintenance, described above and explained by the DEALER during commissioning, to the extent of his abilities. To eliminate the message from the display, press the boiler button for at least 5 seconds after having completed maintenance.**

## Seasonal cleaning (implemented by the dealer)

The DEALER, upon commissioning, sets the kg value of consumed pellets; after which, the message "Mainten." will appear on the display. The thermo stove continues operation, but the end client must contact the DEALER to perform necessary seasonal maintenance. The end client is invited to perform seasonal maintenance regardless of which messages may appear on the display.

**Before performing any maintenance, disconnect the appliance from the mains.**

**The Dealer will provide you, on the occasion of the first start up, with the stove maintenance book, where the steps for seasonal cleaning, outlined here below, are listed.**

- Clean the thermo-stoves internally and externally
- Carefully clean the heat exchange tubes
- Carefully clean and remove dirt from the combustion chamber and the relative compartment
- Clean the motors, verify mechanical and clam loosening
- Clean smoke channel (replace seals on pipes) and smoke extraction fan chamber
- Check the expansion tank
- Check and clean the circulator
- Check the sensors
- Check and if necessary replace the clock battery on the control board
- Clean, inspect and scrape any residue from the ignition resistance compartment and if necessary, replace it
- Clean/check the Synoptic Panel
- Visually inspect the electrical wires, connections and power cable
- Clean the pellet hopper and check loosening of the feed screw - gear motor assembly
- Check and if necessary replace the door seal
- Functionality test: load the feed screw, ignite, let it run for 10 minutes and shutdown

**If maintenance is not implemented, the warranty will be rendered null and void.**

**If the thermo-stoves is used very often, it is recommended to clean the smoke channel every 3 months.**

When maintenance is implemented in the smoke channel, consider UNI 10847/2000 Individual chimney installations for generators running on liquid and solid fuel. Maintenance and control.

**The chimney stacks and smoke ducts to which solid fuel appliances are connected should be cleaned once a year (verify whether in there are regulations in force in your country regarding this)**

**In the even that regular checks and cleaning are not performed the probability of a chimney fire increases.**

**In the event of such an occurrence proceed as follows: do not extinguish with water; empty the pellet storage tank; contact the Dealer before re-starting after such an incident.**

# MAINTENANCE

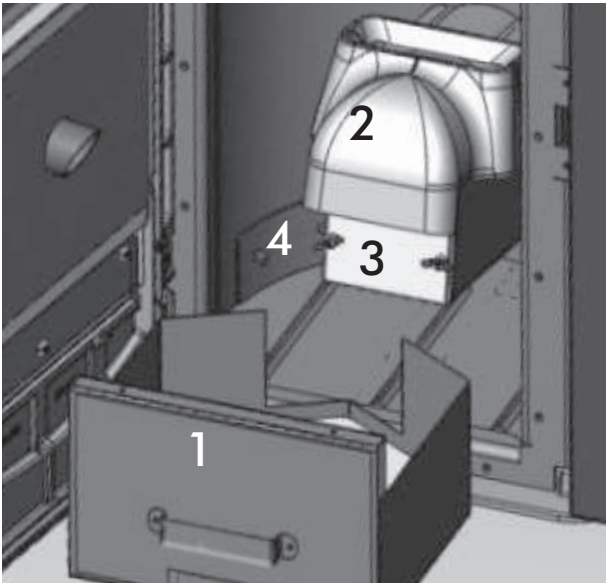


fig. A

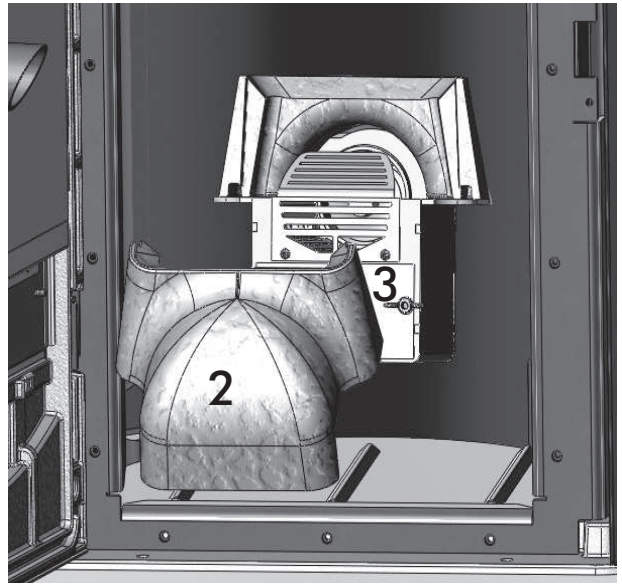


fig. B

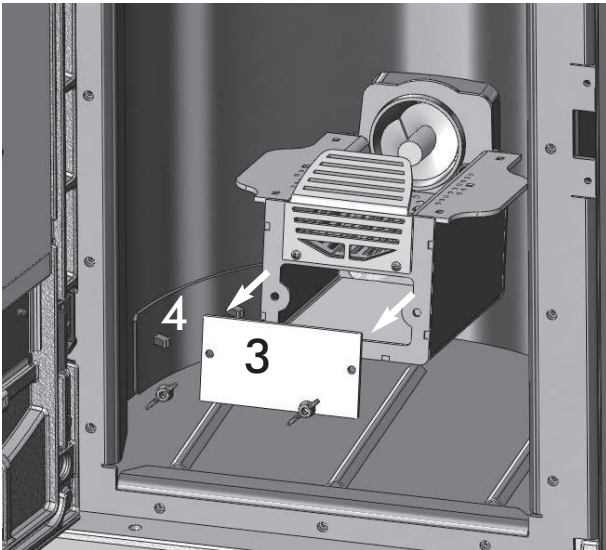


fig. C

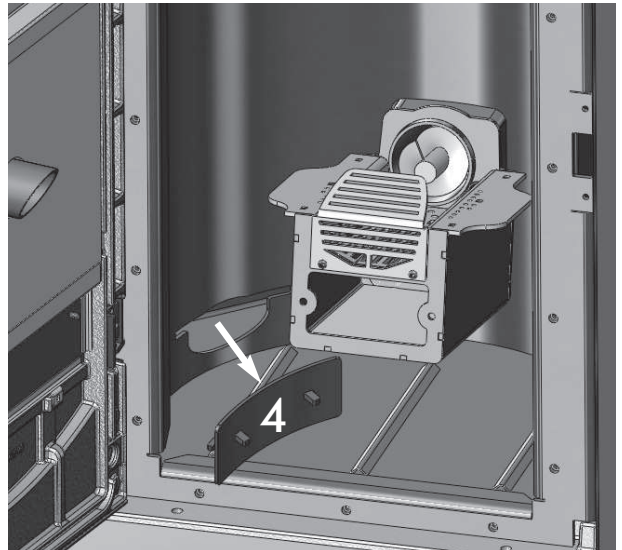


fig. D

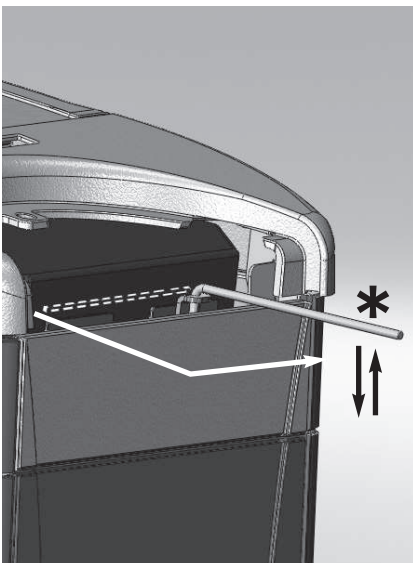


fig. E

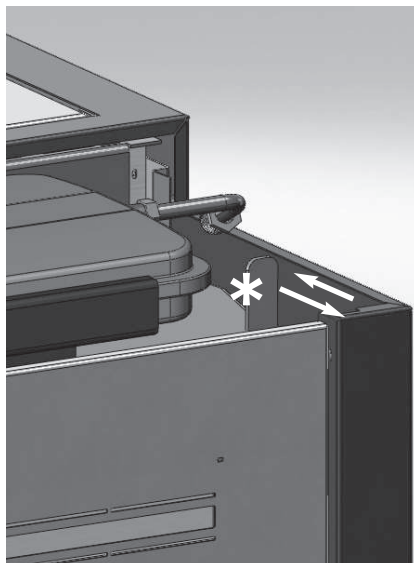


fig. F

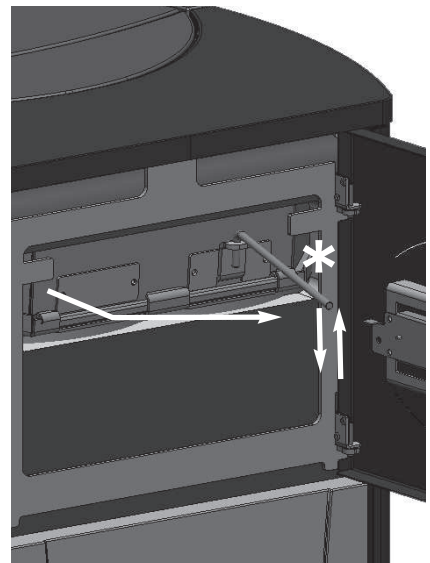


fig. G



# POSSIBLE TROUBLESHOOTING

In the event of problems the thermo-stoves stops automatically and runs the shutdown process and the display shows text regarding the motivation of the shutdown (see the various alarms below).

Never pull the plug during shutdown on account of malfunction.

**If the event of malfunction**, to restart the thermo-stoves it is necessary to let the shutdown procedure proceed (10 minutes with acoustic signalling) and then press the 0/1 key on the synoptic panel.

Do not turn the stove on again before checking the cause of the malfunction and CLEANING/ EMPTYING the crucible.

## INDICATION OF POSSIBLE CAUSES OF MALFUNCTION AND INDICATIONS AND REMEDIES:

**1) H2O PTC\_FAULT:** Shuts down due to the water temperature sensor being broken or disconnected.

*Check connection of the sensor to the control board. Verify functionality by means of a cold test*

**2) Verific./extract.:** Shuts down due to the revolution sensor of the smoke extractor motor detecting an anomaly.

- *Check smoke extractor functionality (connection of the revolution sensor)*

- *Check smoke channel for dirt*

**3) Stop/Flame:** Shuts down due to a drop in smoke temperature (intervenes if the thermocouple detects a smoke temperature that is lower than that which is set, thereby interpreting it as a flame failure).

*The flame may not go on for the following reasons:*

- *lack of pellets*

- *too many pellets in the combustion chamber have suffocated the flame*

- *the maximum thermostat / pressure switch / water safety thermostat has intervened to 'stop' the gear motor*

**4) Block\_FI/NO Start:** Shuts down due to incorrect smoke temperature during ignition (intervenes if the flame fails to appear within a maximum of 15 minutes, or if the ignition temperature is not reached).

Distinguish either of the following cases:

<i>The flame has NOT appeared</i>	<i>The flame has appeared but after Ignition appears on the display, "Block_FI/NO Start" appears</i>
Verify: - <i>positioning and cleanliness of combustion chamber</i> - <i>resistance functionality</i> - <i>room temperature; if lower than 3 °C a fire lighter is needed</i>	Ask the DEALER to check: - <i>thermocouple functionality</i> - <i>set parameters for ignition temperature</i>

**5) Failure/Power:** Shuts down due to an electricity failure (not a defect of the thermo-stoves).

*Check electricity connection and drops in voltage.*

**6) Fault/RC:** Shuts down due to a failure occurring in the thermocouple or it being disconnected

*Verify connection of thermocouple to the control board. Verify functionality in a cold test.*

**7) smoke °C/high:** Shuts down due to excessive smoke temperature

*An excessive smoke temperature may occur because of the following: unsuitable pellet type, anomaly in smoke extraction, blocked smoke channel, incorrect installation, gear motor 'drift'.*

**8) H2O TEMP ALARM:** Shuts down due to water temperature being higher than 90 °C.

*An excessive temperature may occur because of the following:*

- *system too small: ask the DEALER to activate the ECO function*

- *blockage: clean the exchanger pipes, the combustion chamber and the smoke outlet.*

**9) Verific./Air Flow:** (activates if the pressure sensor (vacuum gauge) detects insufficient values)

*The vacuum may be insufficient in the event of an open door:*

- *imperfect door sealing (i.e. gaskets) / - problems with air suction or smoke expulsion/ - clogged chimney flue*

- *vacuum gauge reading point dirty with soot (clean with dry air).*

*Check calibration. Request DEALER assistance with parameters. The alarm may also be set off during the start-up phase.*

**10) check\_a/entrace:**

*Pascal value higher than the "AC max PA" threshold, displayed only for 2" without the blockage phase being activated.*

**11) STOP T/ SCREW 1:**

*Auger 1 turns when it should be still, probable motor control triac malfunction/wiring connection error.*

**12) STOP G/SCREW 1:** (intervenes when the gear motor 1 is blocked or malfunctioning)

*Check the wiring of the gear motor 1 or else replace it.*

# POSSIBLE TROUBLESHOOTING

## 13) STOP G/SCREW 2: (intervenes when the gear motor 2 is blocked or malfunctioning)

*Check the wiring of the gear motor 2 or else replace it*

## 14) Battery check:

*The thermo-stoves does not stop but the error appears on the display. The buffer battery of the control board needs changing. Faulty contact with the clock's battery.*

## 15) WARMING LOADER 2:

The sensor connected to auger 2 has detected a temperature which is superior to the threshold of the "LOAD 2 °C max" parameter.

## 16) No Link/NTC CO.2:

Auger temperature sensor 2 malfunctioning or disconnected.

## 17) The pellet DOES NOT enter the crucible:

- The feed screw is empty: *fill the feed screw by pressing the + and – keys simultaneously.*
- The pellets are blocked in the hopper: *use a vacuum cleaner to empty the pellet hopper.*
- The gear motor is broken (an error is displayed on the synoptic panel).
- The feed screw safety thermostat 'disconnects' the electrical supply of the gear motor: *check that it has not overheated. Use a tester or a temporary bridge to verify.*
- The water overheating safety thermostat 'disconnects' the electrical supply of the gear motor: *check that the thermo-stoves contains water. After having removed the protective cap, press the button on the back of the thermo-stove\* to reset.*
- *In these cases, you MUST contact the DEALER before re-igniting.*

**Warnings are shown until you intervene and press the 0/1 key on the control panel. It is recommended not to use the thermo-stoves before verifying that the problem has been resolved.**

**It is important for the DEALER to know what warning signal appears on the panel.**

## 18) synoptic panel is off:

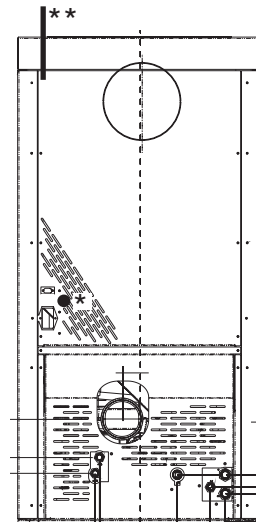
- *check the power cable connection,*
- *check fuse (on power cable),*
- *check connection of flat cable to synoptic panel*

## 19) Radio control / Remote control not working:

- *move closer to the thermo-stoves*
- *check the battery and if necessary, replace it*
- *extract the reclining antenna (OTTAWA/ATLANTA) \*\**

## 20) Water is not hot enough:

- *clean the hearth exchanger*



# CHECK LIST

## Positioning and installation

- Room ventilation
- Only the thermo-stoves outlet passes through the smoke channel/chimney flue
- The smoke channel has: a maximum of 2 curves – a maximum of 2 horizontal metres, at least 1.5 vertical metres
- The exhaust pipes are made of suitable material (recommended: stainless steel)
- When using any flammable materials (e.g. wood), all precautions have been taken to prevent a fire hazard
- The heating capacity has been appropriately assessed considering radiator efficiency: how many kW have been estimated to be necessary???
- The hydraulic system has been declared to be compliant with the Ministerial Decree 37 ex Law No. 46/90 by a qualified technician.

## Use

- Good quality, dry wood pellets are used (diameter 6 mm) (maximum permissible humidity 8%).
- The chimney pot and ash compartment are clean and well positioned.
- The cleaning rods are moved every day.
  - The exchanger tubes and internal parts of the hearth are clean.
  - o The smoke extract duct (see page 34) is clean.
  - The bleeding process has been applied to the hydraulic system.
  - The pressure (read on manometer) is approx. 1 bar.

## FAQ

The answers are listed below in summary form, for further details see the other pages of this document.

### 1) What do I need to prepare in order to install the thermal stoves?

Smoke outlet that is at least 100 mm in diameter.

An air inlet in the room that is at least 80 cm<sup>2</sup>.

¾" G outlet and inlet fitting.

¾" G drains connection for overpressure valve.

¾" G load fitting.

A certified electrical connection with a thermal magnetothermic switch 230V +/- 10% 50 Hz.

(assess the division of primary and secondary circuits).

### 2) Can the thermo-stoves work without water?

NO. Using the thermo-stoves without water will damage it.

### 3) Do thermal stoves emit hot air?

NO. Most of the heat is transferred to the water.

Only Quebec / Toronto / Montreal / Detroit / Boston / Miami emit a small amount in the installation environment in the form of radiation from the glass hearth. It is advisable in any case to use a radiator in the same room.

### 4) Can I connect the inlet and outlet of the thermo-stoves directly to a radiator?

NO, just like other boilers, it must be connected to a collector from which the water is then distributed to the radiators.

### 5) Do thermal stoves also supply hot sanitary water?

It is possible to produce domestic hot water using the KIT built in to the stove, this is an instantaneous production without accumulation.

### 6) Can I discharge the smoke from the thermal stoves along the wall?

NO, a discharge which is conform with standards (UNI 10683/05) must reach the ridge of the roof, and in any case proper functioning requires a vertical stroke of at least 1.5 meters; avoiding that in case of power outage or wind, a slight amount of smoke forms in the installation environment.

### 7) Do I need an air inlet in the room where it is installed?

Yes, to replenish the air used by the thermo-stoves for combustion. The smoke extractor draws the air from the room into the combustion chamber.

### 8) What settings are required on the thermo-stoves display?

The desired water temperature. The thermo-stoves will then adjust the power accordingly to obtain or maintain this.

For small systems, a mode can be set that ignites and shuts down the thermo-stoves accordingly, as the water temperature is reached. (contact DEALER for initial start up)

### 9) Do I need to vacuum the pellet hopper?

Yes, at least once a month when the thermo-stoves is not used for some time.

### 10) Can I burn other fuel apart from pellets?

NO. The thermo-stoves has been designed to burn wood pellets that are 6 mm in diameter. Any other material can damage it.

### 11) Can I ignite the thermo-stoves by sending an SMS?

Yes, if the DEALER or an electrician has installed the connection via an optional cable code 640560 to the serial port behind the thermo-stoves

## CLEANING ACCESSORIES (optional extras)



GlassKamin  
(code 155240)

Used for cleaning the  
ceramic glass



Ash vacuum cleaner  
without motor  
(code 275400)

User for cleaning the  
hearth