



THERMOROSSI

HEATING TECHNOLOGY AND INNOVATION

INSTALLATION, USE AND MAINTENANCE GUIDE

ECOTHERM 5000

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"CE" DECLARATION OF CONFORMITY

In accordance with the following directives:

European Directive	73/23/EEC and its amending directive	93/68/EEC
	89/336/EEC and its amending directives	93/68/EEC 92/31/EEC 93/97/EEC

Thermorossi S.p.A., Via Grumolo 4 - ARSIERO (VI), declares that the heaters of the ECOTHERM series have been designed and manufactured in compliance with the safety requirements of the standards for EC marking.
This declaration refers to the entire range of the specified series.
Ecotherm 5000 complies with EN 14785: 2006.

ARSIERO, 3 May 2010

THERMOROSSI S.p.A.

1 INTRODUCTION

1.1 GENERAL GUIDELINES

This installation, use and maintenance guide is an integral and essential part of the product and must be kept by the user. Before commencing with the installation, use and maintenance of the product, carefully read all the instructions contained in this booklet. At the time of installation of the appliance all local regulations, including those that refer to national and European regulations, must be observed. The Manufacturer recommends carrying out all the maintenance operations described in this manual.

This appliance must only be used as intended by the manufacturer. Any other use is considered incorrect and therefore hazardous; consequently, the user shall be totally liable for the product if used improperly. Installation, maintenance and repairs must be carried out by personnel with professional qualifications and in compliance with current regulatory standards and in accordance with the instructions of the manufacturer of the appliance. Use only original spare parts.

Incorrect installation or poor maintenance could injure or damage people, animals or things; in this case the manufacturer shall be relieved of all responsibility. Before commencing any cleaning or maintenance operation ensure that the appliance has been disconnected from the mains power supply by means of the main system switch or some other disconnecting device installed upstream from the appliance. The product must be installed in locations suitable for fire-fighting and furnished with all the services (power and outlets) which the appliance requires for a correct and safe operation. Any repairs or actions carried out on any systems, components or internal parts of the appliance, or on any of the accessories supplied with it, that are not specifically authorised by Thermorossi s.p.a, will automatically void the warranty and the manufacturer's responsibility, pursuant to D.P.R. 224 of 24/05/1988, art. 6/b. Use only original Thermorossi spare parts. If the appliance is sold or transferred to another user ensure that the guide is handed over with it.

Thermorossi S.p.A. maintains the author's rights on these service instructions.

The information in this booklet may not be reproduced or given to third parties or used for competitive purposes without the appropriate authorization.

1.2 SAFETY GUIDELINES

PERSONAL INJURY

This safety symbol identifies important messages throughout the manual. Read the information marked by this symbol carefully as non-observance of this message can cause serious injury to persons using the heater.



DAMAGE TO PROPERTY

This safety symbol identifies messages or instructions that are fundamental for the heater and system to function well. To avoid serious damage to the heater adhere strictly to these instructions.



INFORMATION

This symbol indicates important instructions for good functioning of the heater. If this information is not correctly observed, the performance of the heater and/or system will not be satisfactory.



1.3 STANDARDS AND RECOMMENDATIONS



NORMATIVE REFERENCES: national and international standards used as reference guides in the following manual for the design, industrialization and production of the products:

- European directive 73/23/EEC
- Standard CEI 61/50
- European directive 93/68/EEC
- Standard CEI EN 60204
- European directive 89/336/EEC
- Standard CEI 64-8 (IEC 364)
- European directive EN 14785: 2006

RECOMMENDATIONS

Before using the appliance, carefully read every section of this instruction manual as knowledge of the information and the regulations contained in it are essential for a correct use of the appliance.

The entire operation concerning the connection of the electric panel must be carried out by expert personnel; no responsibility will be accepted for damages, even to third parties, if the instructions for installation, use and maintenance of the appliance are not followed scrupulously. Modifications made to the appliance by the user or on his behalf, must be considered to be under his complete responsibility. The user is responsible for all the operations required for the installation and maintenance of the appliance before and during its use.

GENERAL WARNINGS

Caution: the appliance must be connected to a system provided with a PE conductor (in compliance with the specifications of 73/23/EEC, 93/98/EEC, concerning low voltage equipment).

Before installing the appliance check the efficiency of the earth circuit of the power supply system. **Caution:** the power supply line must have a section which is suitable for the power of the equipment. The cable section must in any case be no less than 1.5 mm². The appliance must be powered with a voltage of 220/240 V and 50 Hz. Voltage variations which exceed 10% of the nominal value can cause poor functioning or damage the electrical device. Position the appliance so that the electric power plug is easily accessible. Voltage variations less than 10% of the nominal value can cause lighting and use problems. Apply a current regulator. Ensure that a suitable differential switch is installed upstream from the equipment.

1.4 TRANSPORTATION AND STORAGE

TRANSPORTATION AND HANDLING

The heater body must always be in a vertical position when handled and exclusively by means of trolleys. Take special care to protect the electric panel, the glass, the ceramics and all the fragile parts from mechanical impact which could damage them and their correct functioning.

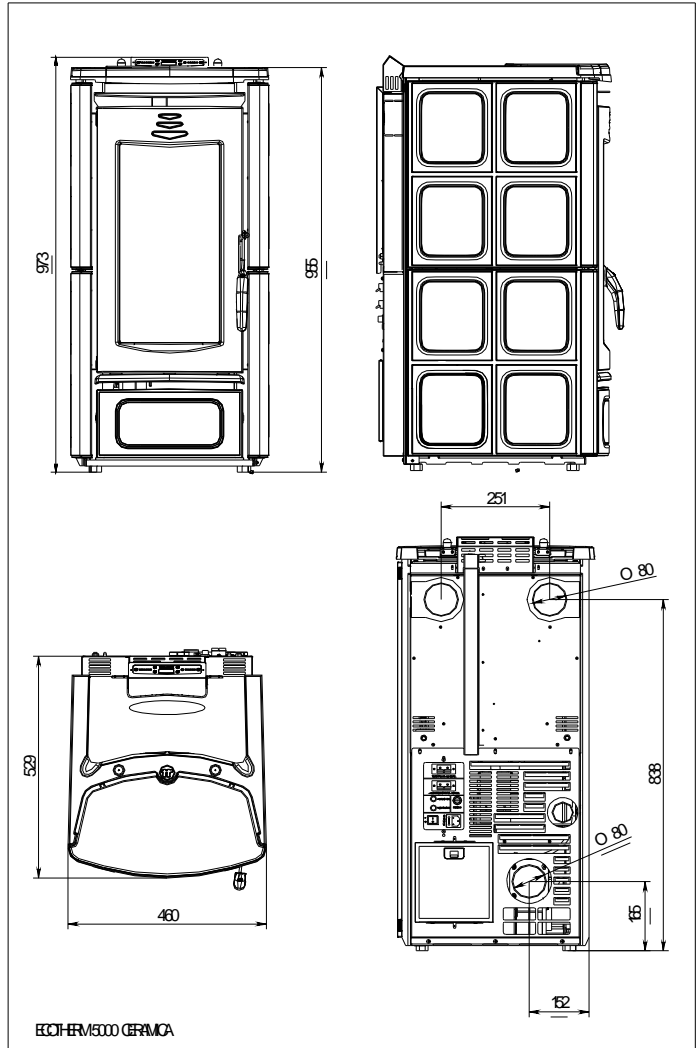
STORAGE

The heater must be stored in a humid-free environment and sheltered from the weather; do not place the heater directly on the floor. The Company denies all responsibility for damage caused to wood floors or floors made from any other material. It is inadvisable to store the heater for long periods of time.

2 TECHNICAL CHARACTERISTICS *

* All the data are based on the appliance fuelled with Austrian standard ÖNORM M 7135 type-approved pellets.

	<i>Ecotherm 5000 Easy</i>	<i>Ecotherm 5000 Metalcolor</i>	<i>Ecotherm 5000 Ceramic element</i>
Height (mm)	973	973	973
Depth (mm)	529	529	529
Length (mm)	460	460	460
Weight (Kg)	128	132	153
Rated power (Kw)	9,2	9,2	9,2
Reduced rated power (Kw)	2,5	2,5	2,5
Consumption min/max (Kg/h)	0,7 – 2,3	0,7 – 2,3	0,7 – 2,3
Smoke outlet tube D. (mm)	80	80	80
Min. draught at rated power (Pa)	12	12	12
Hopper capacity (Kg)	~ 14,5	~ 14,5	~ 14,5
Average smoke temp. at rated power (°C)	180	180	180
Smoke flow at rated power (g/sec)	5,5	5,5	5,5
Electricity	220 V 50 HZ	220 V 50 HZ	220 V 50 HZ
Max electrical consumption	1,17 A – 270 W	1,17 A – 270 W	1,17 A – 270 W
Min electrical consumption	0,34 A – 70 W	0,34 A – 70 W	0,34 A – 70 W



LEGENDA

Ecotherm 5000 Easy (In questo modello non è presente la ceramica inferiore)
Ecotherm 5000 Ceramica

Key

Ecotherm 5000 Easy The lower ceramic panel is not included in this model
Ecotherm 5000 Ceramic

3 GENERAL DESCRIPTION

3.1 OPERATING TECHNOLOGY

- Your heater has been built to fully satisfy all your heating and practical requirements. Top-grade components and functions managed with microprocessor technology guarantee high reliability and optimal performance.

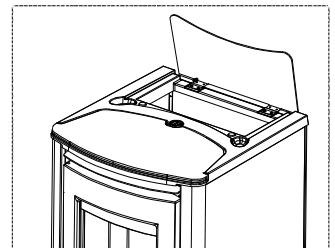
3.2 PELLETS

- The appliance is fuelled by pellets, that is, cylinders of compressed sawdust; this will make it possible for you to enjoy to the full the heat of the flame without having to manually stoke the combustion.
- The pellets are cylinders of compressed sawdust having a 6 mm diameter and a maximum length of 15 mm. They have a maximum moisture content of 8%, a thermal value 4000/4500 Kcal/Kg and a density of approx. 620-630 Kg/m³.

3.3 THE FEEDBOX

The feedbox is situated in the top part of the heater. The maximum load capacity of the tank is approximately 14,5 Kg, but varies according to the specific weight of the pellets. The manufacturer recommends emptying the hopper and vacuuming the screw feeder once a month and during the summer period. Take special care when loading the hopper as the screw feeder at its base is in motion.

ERMOROSSO



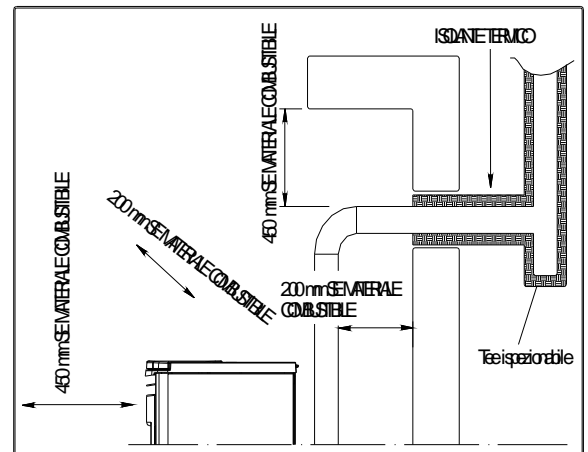
4 INSTALLATION



4.1 HEATER LOCATION

CAUTION : Always use trolleys to move the appliance and the appliance must always be in a vertical position. Follow the general guidelines set out in paragraph 1.1 to the letter. Keep in mind that the flooring of the room in which the heater is to be installed must withstand the combined weight of the appliance and the pellets contained in the tank.

CAUTION: The room in which the appliance will operate must be adequately ventilated (minimum air intake 1300 m³/h). The appliance must be positioned at a minimum safe distance from walls and furnishings. This distance will have to be increased considerably if the objects surrounding the appliance are inflammable (matchboarding, furniture, curtains, picture frames, sofas, etc...). The recommended minimum distances are illustrated in the drawing below on the right. Installation in the vicinity of heat-sensitive materials is only permitted if suitable insulating protection is placed between the object and the appliance (ref. Uni 10683). Adjust the mounting feet to obtain a slight gap between heater and flooring to ensure that the heater is not resting directly on the floor. It is advisable to interpose a floor protector plate between the heater and the floor if the latter is made of wood or other combustible material.



LEGENDA

200 / 450 mm se materiale combustibile	200 / 450 mm if combustible material
Isolante termico	Heat insulating material
Tee ispezionabile	Inspectable Tee element
Figura	Figure

Key

200 / 450 mm if combustible material
Heat insulating material
Inspectable Tee element
Figure

4.1.1 INSTALLATION OF METALCOLOR CASING

Once the heater has been positioned the next step is to install the side panels and the top ceramic panel as shown in the image below on the left. Carry out the following operations:

- Unscrew and remove the 2 knobs (H).
- Remove the cover (I).
- Now insert the side panel (M); position the bottom holes on the folds in the base and fix the 2 top screws (Figure 1).
- Next remount the complete cover (I) and the top ceramic panel (L) and screw back on the 2 knobs (H) removed earlier.
- Fix the lower front ceramic panel to its support with the silicone provided; degrease and clean the ceramic panel support before gluing the parts to ensure optimal adhesion. Leave the ceramic panel in the position illustrated in Figure 2 and wait 24 hours before handling it.
- Next fasten the lower ceramic panel to the heater following the instructions in Figure 3.

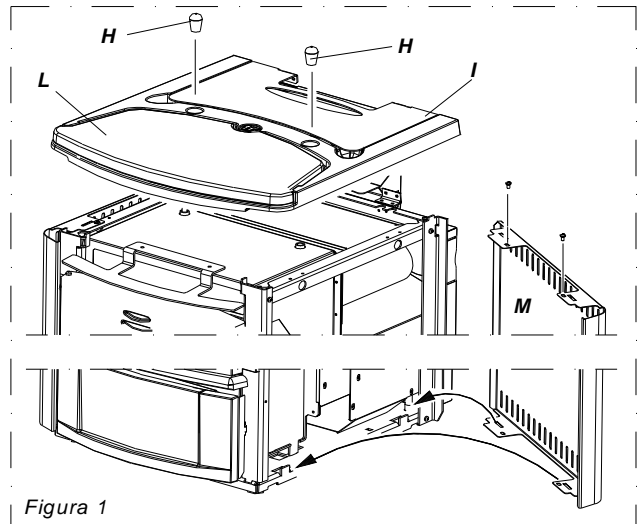


Figura 1

Remember that the heater must be completely cooled down before the side panel can be cleaned with a soft cloth and water.

The casing on the easy model is factory-mounted before delivery .

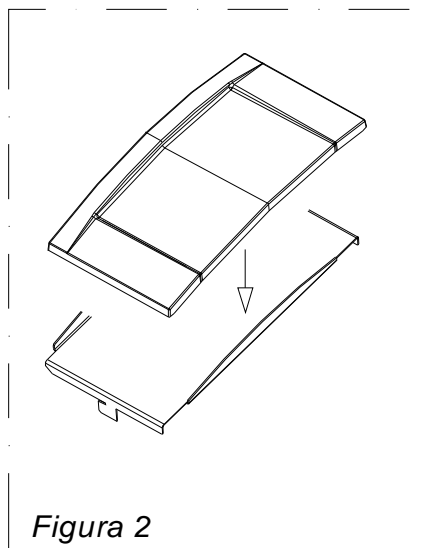


Figura 2

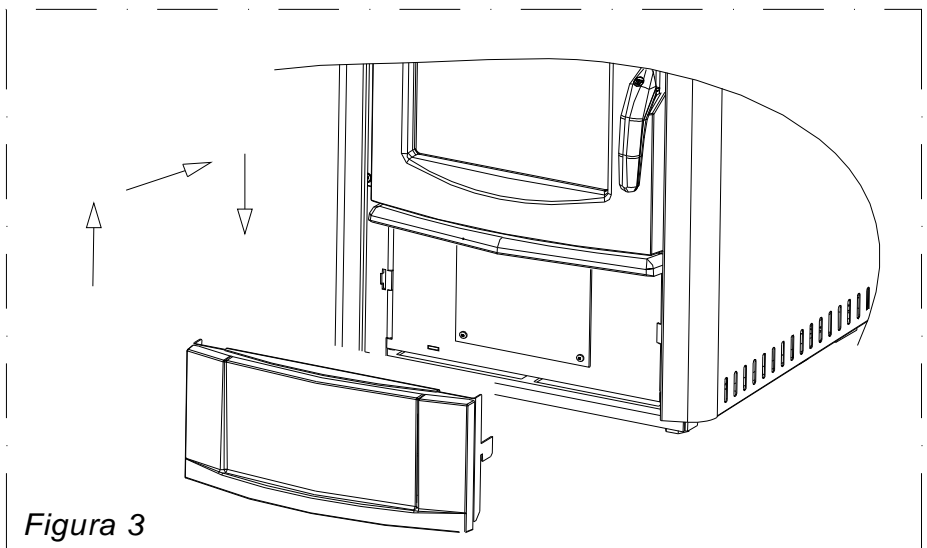


Figura 3

4.1.2 MOUNTING CERAMIC CASING

The next step, after positioning the heater, is to mount the ceramic casing as illustrated in the figures below.

Carry out the following operations:

- Unscrew the 2 knobs and remove the top cast iron cover.
- Mount the right ceramic panel supports (figure 2) following the procedure set out below:
Undo screws **A** and **B** and remove them momentarily. Fix support **SD** by firstly inserting the bottom folds on the seat of the heater base, next re-insert and fasten screws **A** and **B**. Undo screws **C** and **D** and remove them momentarily. Fix support **SSD** then re-insert and fasten screws **C** and **D**. Next screw in screws **E** and **F** provided. Screw in screws **G** and **H** provided.
Bend the tabs slightly (indicated in detail A of Figure 2) outwards from the heater. Next fix the side ceramics to the supports by securing them to the bent tabs.
- Next mount the left ceramic panel supports using the same procedure as described above for the right ceramic panel supports (Figure 2). Next attach the side ceramic panels to the supports.
- Fix the lower front ceramic panel to its support (Figure 3) with the silicone provided; degrease and clean the ceramic panel support before gluing the parts to ensure optimal adhesion. Leave the ceramic panel in the position illustrated in Figure 3 and wait 24 hours before handling it.
- Next fasten the lower ceramic panel to the heater following the instructions set out in Figure 4.
- Lastly position the top ceramic panel (Figure 1) and screw in the 2 knobs removed earlier.



Special care must be taken when handling and mounting the ceramics in order to prevent breakages that are not covered by warranty. Small imperfections on the surfaces of the ceramics such as: dimples, shivering and slight colour variations are normal characteristics of handcrafted ceramics which make each piece unique.

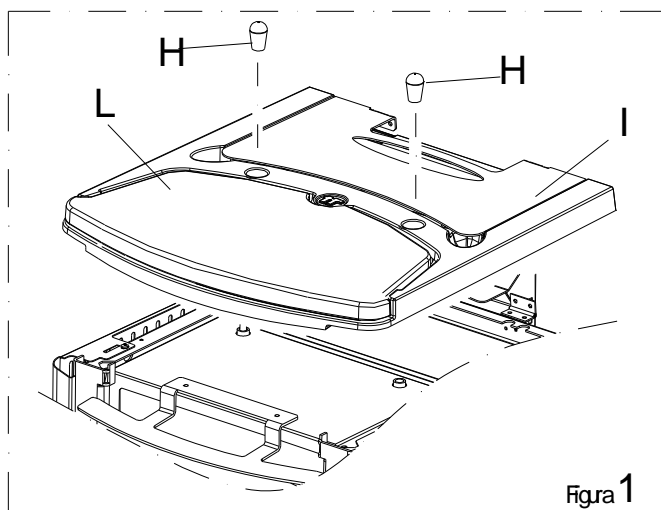


Figura 1

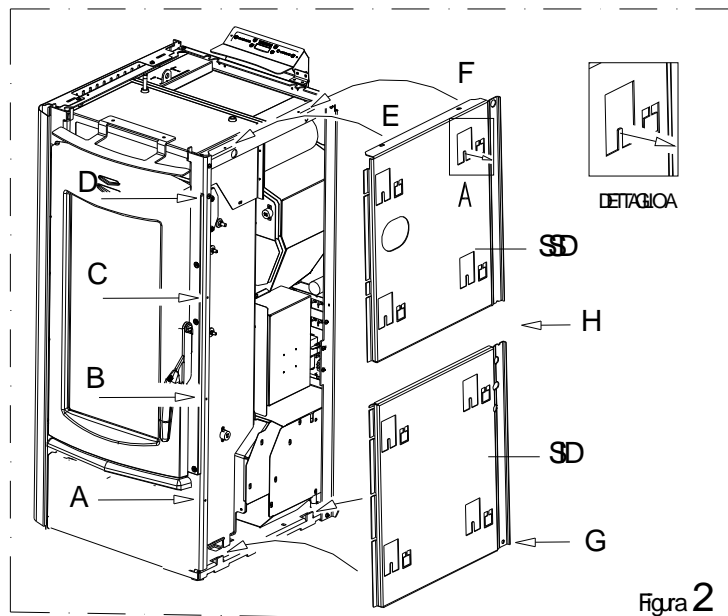


Figura 2

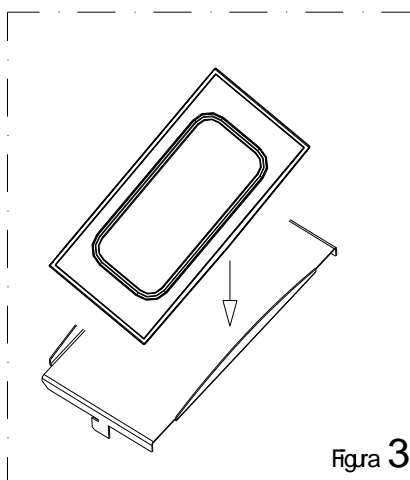


Figura 3

LEGENDA
 Dettaglio A
 Figura

Key
 Detail A
 Figure

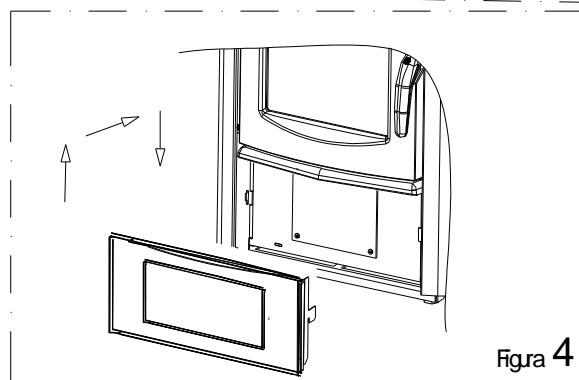


Figura 4

5 DESCRIPTIONS OF CONTROLS

5.1 DESCRIPTION OF CONTROL PANEL AND HEATER REAR PANEL

5.1.1 DESCRIPTION OF THE CONTROL PANEL

There are two main control pushbuttons marked with the ventilation symbol (2) and the symbol of the flame (1). The flame pushbutton (1) sets the power of the heater with 5 levels available which are activated as the 5 leds light up in sequence (10). The off cycle is activated when all power leds are turned off. Key (2) controls the ventilation of the heater. It is activated when the heater body reaches a temperature over 42 °C. The fan can be set to any of speed levels (9): when the heater is on the ventilation cannot be switched off.

All controls and indicators are presented here below :

(1) Insert on/off and flame adjustment button . When you press this button the appliance (10) switches to **Start / ON / OFF**.

Up to 5 leds (10) are activated when pressed repeatedly.

(2) Ventilation setting button . Press this button to set the desired level of ventilation: up to a maximum of 6 speeds are available, indicated by the lighting of the corresponding leds (9).

(3) (4) Auxiliary setting keys.

Keys (3) and (4) are operating keys necessary when on-off cycles are programmed, for operative levels, clock setting, etc..

5) Programming Enable / Disable keys.

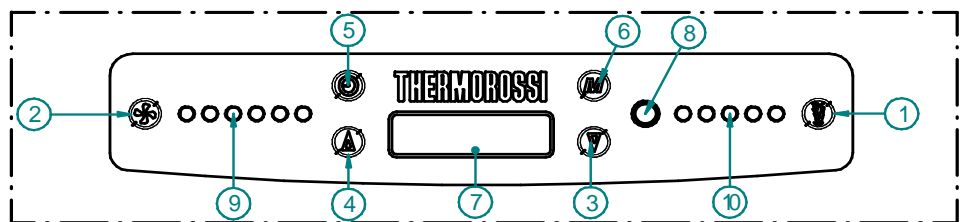
(6) "MENU" selection button To access the main menu press the button marked with 6. Press button 6 repeatedly to scroll the adjustment, setting and programming windows.

(7) Display

(8) Infrared sensor for remote control

(9) Ventilation level leds .

(10) Combustion level leds



5.1.2 BACK PANEL OF THE HEATER

A description of the functions of the buttons and LEDs on the back panel of the heater:

(11) Main switch 0-1

(12) Heater electrical power outlet 220-240V 50 Hz.

(13) Overtemperature thermostat button cap.

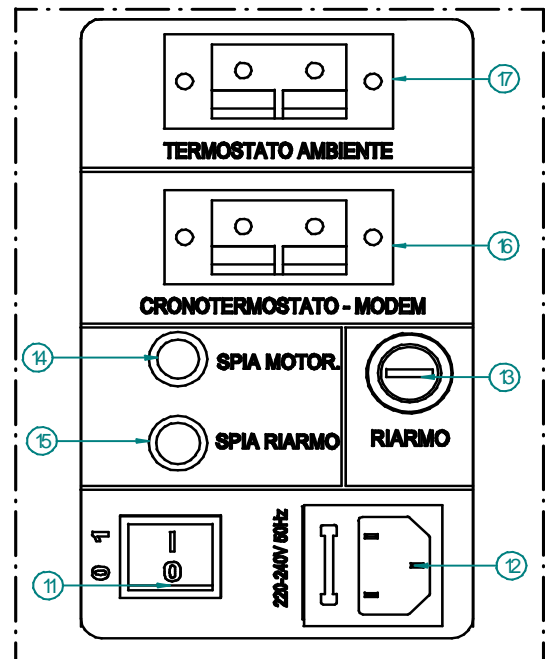
In the event of overtemperature this safety thermostat stops the loading of pellets. When it is activated LED 15 comes on. To restart the heater you need to wait until it cools down, then verify the cause for the overheating, remove the cause, unscrew the protective cap and press the button (13) .

(14) Feed motor test indicator light. When the pellet screw feeder is set in motion the light must come on.

(15) Reset thermostat tripped indicator light. This LED comes on when the reset thermostat is activated.

(16) Power outlet for additional chronothermostat connection. (additional chronothermostat not supplied)

(17) Power outlet for additional room temperature thermostat connection. (additional room temperature thermostat not supplied)



LEGENDA

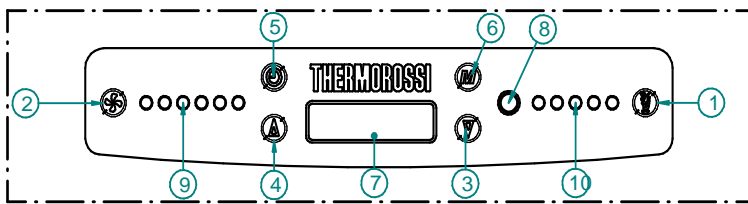
Termostato ambiente
Cronotermostato - modem
Spia motor.
Spia riarmo
Riarmo

Key

Room temperature thermostat
Chronothermostat - modem
Motor. LED
Reset LED
Reset

5.2 DAY AND TIME SETTING

The heater must be fed with the rear switch in position "1". Display (7) may show the inscriptions **On** , **OFF** or **Start**.



To set the time and the day of the week carry out the procedures described below. Press once the key (6), and the inscription HoUr will flash. After a few seconds the fixed inscription **days** will appear. In order to adjust the day, repeatedly press key (4) and/or (3) until the led turns on in area (9) which corresponds to the present day; Monday is indicated by the 1st led on, Tuesday is indicated by the 2nd led on,..... Saturday is indicated by led (6) on, while Sunday corresponds to all 8 leds being on. Then confirm the day by

pressing the key (1). The 2 digits representing the hours will start flashing in the display: it is possible to select the present hour using the arrow keys (4) and/or (3); the selection must be confirmed by pressing key (1). The 2 digits indicating the minutes will start flashing: it is possible to select the present minutes using the arrow keys (4) and/or (3), the selection must be confirmed by pressing the key (1). The setting of the day and of the hour is now completed. For the entire procedure to be confirmed and to move back to the heater status display, key (6) must be repeatedly pressed until the operating status is displayed: On , Off, or Start. :

5.3 ON/OFF PROGRAMMING.

The heater must be fed with the rear switch in position "1". Display (7) may show the inscriptions **On** , **OFF** or **Start**.

It is possible to carry out the weekly programming by setting up to 3 on/off cycles for each day from Monday to Sunday. To carry out the

programming, push button (6) must be pressed twice until the inscription **cr on** is on.: in area (9) a led goes on (which indicates that the first day of the week, Monday, is being programmed). Inscription **On1** will appear on the display, and the 2 digits representing the hours will turn on. Press button (3) and/or (4) to enter the hour of the first cycle start time. To confirm the selection press the button (1). The two digits representing the minutes will be turn on. Press button (3) and/or (4) to enter the minutes of the first cycle start time. For the selection to be confirmed press the key (1). The

first hour for the Monday on-cycle has been set. Then the inscription **OFF1** will appear in the display and the two digits representing the hours will turn on. When the (3) and/or (4) is pressed the hour of the first off-cycle is entered. To confirm the selection press the button (1). The two digits representing the minutes will be turn on. By pressing the key (3) and/or (4) the minutes for the first off-cycle will be entered. To confirm the selection press the button (1). At this point the first on-off cycle for Monday has been entered. Later, it is possible to set the Monday's second on-off cycle (shown with the display of **On2** and **OFF2**) and the third Monday's on-off cycle (shown with the display **On3** and **OFF3**). Inside the programming menu, if for example the Wednesday's programming is to be changed, go to the third green led by pressing key(2): then it is possible to change the on-off programs for Wednesday, confirm the change by pressing the key (6). If the second on-off cycle is not required simply set the ON2 time as 00:00 and the OFF2 time as 00:00 .

The programming procedure ends when you confirm the last data entered by pressing button (6) or when you exiting the programming menu. Pressing pushbutton (5) programming is enabled/disabled (Enabled= message **on cr** temporarily displayed and, at the same time, a fixed point is present on the right side at the bottom of the display. Disabled= message **of cr** temporarily displayed and, at the same time, the point on the right side at the bottom of the display is not present.) : this function is useful if one wants to prevent the weekly established programming. With the programming active, the operating conditions at the start-up (combustion power – ventilation speed) are the same as set-up before the last off-cycle of the heater: this is the case if the off-cycle has been done through the programming and not through a manual action. In case the off-cycle (if carried out while the heater cycle is being controlled by the programming) is activated manually, at the next start up controlled by the programming the heater will be set at the 1st combustion power level and the 1st ventilation speed.

In order to display the present time and programmings, key (6) must be repeatedly pressed until the current time is displayed. By pressing keys (3) and/or (4) all programming values will be displayed : to exit this condition, twice press the key (6) .



In the event of a programmed cycle on always ensure that the brazier is clean and seated correctly in its lodging: failure to keep the brazier clean can reduce the life of the spark plug.

LEGENDA

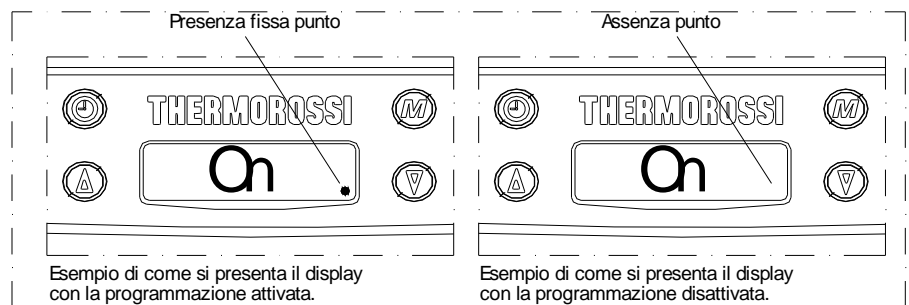
Presenza fissa punto
Assenza punto

Esempio di come si presenta il display con la programmazione attivata / disattivata

Key

Point steady presence
Point absence

Example of how the display appears with the programming activated/deactivated.

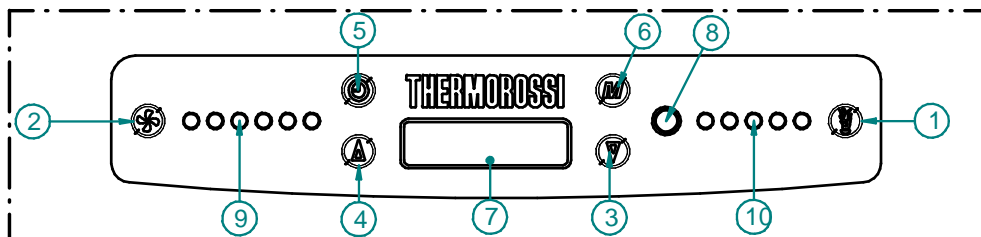




When the programming is enabled (temporary inscription **on cr** on the display and, at the same time, a fixed point is present on the right side at the bottom of the display) any additional chronothermostat (see para. 7.2) is deactivated.

5.4 OPERATING LEVEL SETTING

The heater must be fed with the rear switch in position "1". Display (7) may show the inscriptions **On** , **OFF** or **Start** .".



Your appliance is delivered with an excellent program installed that favours combustion yield; the program is called **P 1**.

If you are using pellets with an out-of-standard incidence of residues after combustion in the brazier, alternative levels may be selected:

P 2 : this program increases the smoke suction unit speed acceleration.

(program P2 increases air delivery to the burner which promotes the combustion of tightly compacted pellets: this program reduces combustion efficiency).

P 0 : when using too long pellets and/or flue outlets with very high vacuum, over 2 mm water column.

The pellet consumption value is not affected by the operating level settings.

Select the required level by acting as follows:

Repeatedly press three times the key (6) until the inscription LIV flashes on the display and, then, the corresponding level set on the heater will show (P1 o P2 o P0) In order to change the operating level as key (4) is kept pressed, press the key (3).

By holding down button (4) and pressing button (3) repeatedly the level changes in the following sequence: **P2... ..P0 ... P1**.



If the change is made while the insert is running the difference in the flame will be apparent. It is mandatory to pay particular care when selecting the most appropriate operating cycle for your installation. After the selection of the operating cycle a thorough cleaning of the brazier is mandatory.

For an overall confirmation and to return to the status display of the heater, repeatedly press the key (6) until the operating status is displayed.

6 USE OF THE HEATER

6.1 5.1 SWITCHING ON THE HEATER

Before using the appliance check that all the movable parts are in place; also remove any labels and stickers from the glass to avoid having permanent traces remain on the surfaces.

Turn the switch installed on the back of the heater to position "1" (= ON). Press button (1) to start the start up phase. When key (1) is repeatedly pressed, the desired combustion level can be set and it will be active at the end of the ignition stage.

The electrical heater will start to overheat and after a few minutes the first lot of pellets will start dropping into the brazier. This occurs because the screw feeder has to fill up because it is completely empty. The first time the heater is started up the start up phase will have to be carried out twice for this very reason.



CAUTION : The start up phase (word **Start** appearing on the display) takes 20 minutes during which the heater ignores any commands transmitted to it. After this time has elapsed the word **ON** appears on the display. The fan starts as soon as the heater body exceeds 42°C. During the work stage it is then possible to adjust combustion and the ventilation:

Combustion is adjusted by 5 leds (through key (1)) , while the ventilation adjustment is distributed over 6 levels shown by the leds that turn on in succession (through key (2)).



To turn the heater on it is necessary for the inscription OFF to be present on the display; if it is not present, the key (6) must be repeatedly pressed until the inscription OFF appears.

6.2 HEATER COMBUSTION AND VENTILATION ADJUSTMENTS

The heating capacity is adjusted by pressing key (1) or on the remote control provided . Act on this command to adjust the quantity of pellets fed to the firebox. Maximum combustion power is achieved when all 5 leds are lit.



Caution: The fan starts as soon as the heater body exceeds 42°C. The fan setting is expressed visually by means of 6 different positions represented by 6 bars: press button (2) repeatedly to regulate it.
A slight vibration of the heater is quite normal when it is running.

6.3 INFRARED REMOTE CONTROL

A practical infrared remote control is supplied with the heater: press the left button to adjust the ventilation level, press the right button to adjust the combustion level. If the heater is supplied with a white radio control (optional) the infrared control only works when the MANUAL setting is set on the white handheld radio control.

6.4 OPERATION OF THE WHITE HANDHELD RADIO CONTROL (OPTIONAL)

INTRODUCTION

The handheld radio control is the device that allows you to control Ecotherm in order to optimise consumption and its functions. Keep in mind that radio wave transmissions can be affected by the surrounding environment: the presence of thick walls can reduce the transmission that normally extends to 6-7 metres.

Caution: to guarantee optimal data transmission it is advisable to always place the radio control in its support in a vertical position.



The following operations must be carried out the first time the heater is started up :

- Turn the switch (11) to ON (see drawing below)
- Connect the radio control by means of the battery charger supplied to the power line, (it must be recharged for at least 5 days); as the rechargeable batteries could be partially or completely flat). Leave the radio control connected at all times, by means of the battery charger, to the power supply line.



The heater must be energised and the switch turned to position "1".

At the end of the winter season it is mandatory to switch off the radio control completely, by means of the switch situated inside the battery compartment, in order to preserve the life of the batteries. The batteries are guaranteed for 6 months. When the batteries are exhausted dispose of them safely. It is normal for the temperature sensor to detect temperatures which are slightly different to the real ones: variations caused by the environment in which the radio control is positioned.

6.4.1 Indicators of the handheld radio control

(1) Flame adjustment button

(2) Ventilation adjustment button

(3) (4) Auxiliary keys.

(5) "Room temperature detected by the radio control's sensor" indicator .

(6) "Ventilation" indicator.

(7) " Combustion" indicator.

(8) " Room temperature setting" indicator : this is the room temperature that you wish to reach by means of buttons 3 and 4.

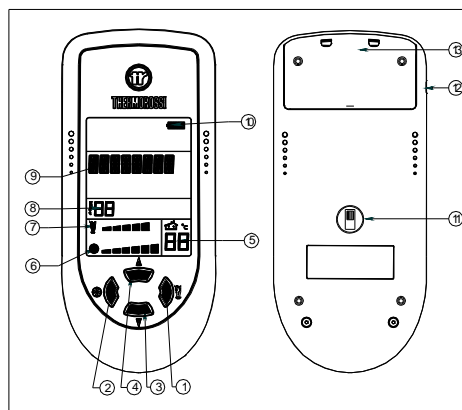
(9) Area of the display where the operating program is displayed.

(10) Battery charge level

(11) Switch 0-1 radio control power

(12) Battery charger connection.

(13) Code selector and Batteries compartment cover



The Thermocomfort radio control can be used with 4 different operating programs:

- **Manual** (MANUAL appears in area (9) of the display).
- **Automatic 5** (AUTO 5 appears in area (9) of the display).
- **Automatic 3** (AUTO 3 appears in area (9) of the display) .
- **Economy** (ECONOMY appears in area (9) of the display).

To change the operating program turn the switch (11) to "1". Press and hold down button (3) until the set program begins to blink on the display (9). Now release button (3) and press button (3) and/or (4) repeatedly until you select the desired operating program.

MANUAL program

In the MANUAL program the room temperature thermostat is disabled. Press button (1) and the flame symbol begins to blink. Press button (3) to decrease the combustion level **by lighting up the bars sequentially**, vice versa press button (4) to increase the combustion level. The combustion level changes with each press of buttons (3) and (4).

Press button (2) and the ventilation symbol blinks. Press button (3) and the combustion level decreases, vice versa press button (4) to increase the combustion level. The ventilation level changes with each press of buttons (3) and (4) . Caution: it is possible that, due to radio interference **or sending commands too close together, the changes will not be implemented**. With this program you can also use the infrared control supplied. It is normal that in the manual cycle the ventilation is often set at the maximum speed in order to cool the heater body more effectively.

AUTO 5 program

In program AUTO 5 the room temperature thermostat is enabled. The radio control adjusts the ventilation and the combustion automatically in relation to the target room temperature set in display area (8). **The desired room temperature appears in area (8).** You can vary the desired room temperature by simply pressing button (3) and/or (4) (variation indicated in area (8)). The remote control will set the maximum combustion and ventilation levels and modulate them both as the room temperature (5) approaches the target temperature (8). When the target temperature (8) in the room (5) is reached, the combustion level will stabilise on a bar as will the ventilation level. Caution: it is possible that, due to radio interference, the commands sent to the heater will not be implemented. You cannot use the infrared control with this program. **Caution: the power and the ventilation depend on the preset value, if the required temperature is too high or not reachable the heater could operate at maximum power for long periods of time.**

AUTO 3 program

In program AUTO 3 the room temperature thermostat is enabled. The remote control adjusts the ventilation and combustion automatically in relation to the target room temperature set in display area (8). **The desired room temperature is displayed in area (8).** You can vary the desired room temperature by simply pressing button (3) and/or (4) (variation indicated in area (8)). The remote control will set the combustion power at level 3 and the ventilation at level 4 and modulate them both as the room temperature (5) approaches the target temperature (8). When the target temperature (8) in the room (5) the combustion level will stabilise on a bar as will the ventilation level. Caution: it is possible that, due to radio interference, the commands sent to the heater are not acknowledged??implemented. You cannot use the infrared control with this program. **Caution: the power and the ventilation depend on the preset value, if the required temperature is too high or not reachable the heater could operate at maximum power for long periods of time.**

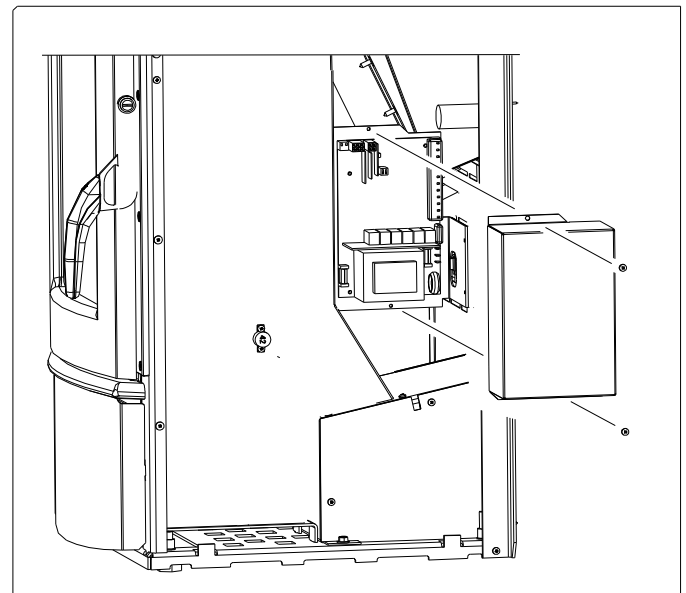
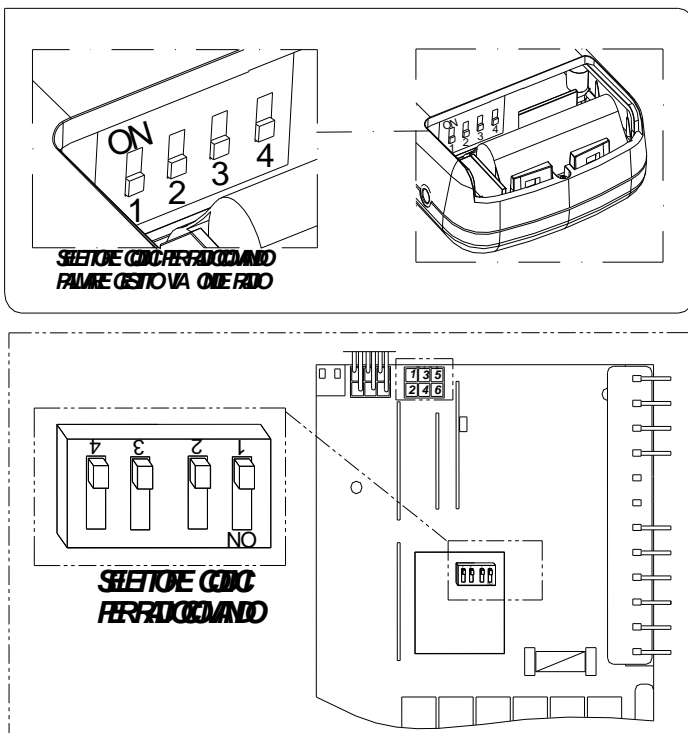
ECONOMY program

In the ECONOMY program the heater always operates at the minimum combustion level and the minimum ventilation level. You cannot use the infrared control with this program.

CAUTION: THE HEATER MUST ALWAYS BE SWITCHED ON AND OFF FROM THE CONTROL PANEL LOCATED ON THE HEATER. FOR THE RADIO CONTROL TO WORK THERE MUST NOT BE AN ACTIVE PROGRAM SET ON THE CONTROL PANEL LOCATED ON THE HEATER OR AN EXTERNAL ROOM TEMPERATURE THERMOSTAT OR AN EXTERNAL CHRONOTHERMOSTAT.

6.4.2 TRANSMISSION CODES SETTINGS.

Before beginning any maintenance operation ensure that the appliance is in the OFF phase and disconnect it from the electric power outlet. If several heaters are installed in close locations it may be necessary to set different transmission codes. The change of code must be made both on the motherboard inserted in the heater (see figure below left), and in the radio control (see figure below left). Position the switch 0-1 (located on the back of the heater) on 0. To access the board you need to remove the heater's right side panel as described in the dedicated paragraph and remove the board cover by undoing the two screws as indicated in the figure below on the right. The codes must be identical, and for this purpose you could use the numbers marked on the microswitches as reference. Firstly set the new code on the motherboard, next set the new code on the remote control and then switch the remote control on and off with the switch (11) located on the back of the remote control.



Caution: ensure correct and equivalent position of the microswitches.

LEGENDA
selettore codici per radiocomando
selettore codici per radiocomando
palmare gestito via onde radio

KEY
code selector for handheld radio control
radio wave-controlled code selector for
handheld radio control

6.4.3 CARE AND MAINTENANCE RADIO CONTROL



The radio control has been designed and produced to the strictest standards and must be handled with great care.

If you observe the guidelines set out below, the radio control will provide a long trouble-free performance:

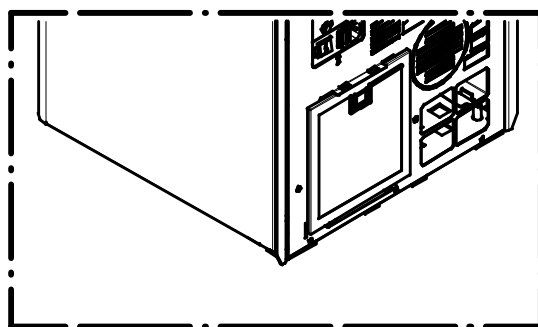
- Protect the radio control against humidity! Precipitation, humidity and liquids corrode the electronic circuits. If the radio control is wet, disconnect it immediately from a power source, remove the battery, open it and allow it to dry at room temperature.
- Do not use or store the radio control in dusty or dirty environments. The dust/dirt could damage the movable parts of the radio control.
- Do not store the radio control in very hot environments. High temperatures could shorten the life of the electronic devices, damage the batteries and deform or even melt plastic parts.
- Do not store the radio control in cold environments. When it heats up (when it returns to normal operating temperature), humidity could form inside it and damage the electronic circuits.
- Do not drop the radio control, do not hit or bump it and do not shake it. Actions such as these could damage the internal circuits of the device.
- Do not use corrosive chemical substances, caustic solutions or detergents to clean the radio control.

All the above guidelines apply equally to the radio control, the battery, the battery charger, and all the accessories.

The parts subject to wear (such as batteries, keypads, lodging compartments, small compartment parts) are guaranteed for 6 months from the purchase date. The guarantee does not apply if the defect is caused by non-conforming use and/or if the instructions and guidelines described above are not observed to the letter. Non-conformities must be reported within two months of having identified them. Devices or parts returned for replacement become the property of Thermorossi. The presence of irregular black-blue lines on the display (also present when de-energised and battery flat or missing) indicate that the glass screen of the display is damaged following a fall or impact: in this case the breakage is not covered by the guarantee.

6.4 FILTER

This practical device prevents the circulation of dust which is always present in household environments. The filter is installed at the back of the heater (see figure on the right). Clean frequently to ensure the maximum availability of hot air when the heater is operating (wash the filter with cold water then dry thoroughly every 5 days).



6.4 CHANNELLING

To obtain an optimal flow of channelled hot air:

- Avoid narrow or reduced sections, sharp curves, downhill runs in the tubing.
- Reduce the horizontal runs as much as possible.
- Use pipes with smooth inner surfaces made of material capable of resisting continuous temperatures of 150°C.
- Insulate pipes with mineral wool (resistant to at least 150°C).

If you follow the instructions given above it is possible to channel:

- up to 16 metres using 1 vent
- up to 16 metres using 2 vents
- up to 16 metres using 3 vents
- up to 16 metres using 4 vents

The heater is supplied with both fittings already mounted.

If you wish to channel the air with 1 vent only then you must (see figure 4) partially undo the screw **C1** using a suitable screwdriver, remove screws **C2** and **C3**, remove the pipe **E** and replace it with the cover **D** which you must fasten to the heater (see figure 4). To start the air channelling act on lever **A** (figures 1 2 and 3).

To act on lever **A** firstly open the hopper compartment and, using the hook provided, lift the lever and position it where necessary.

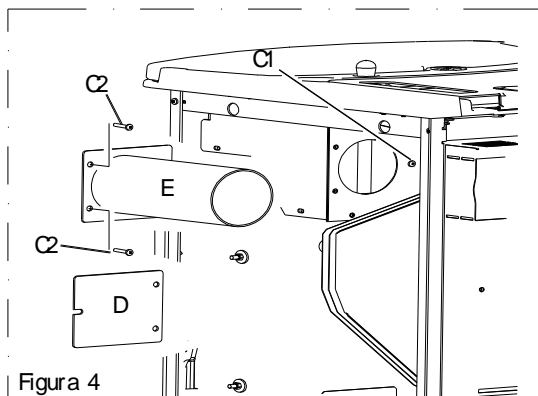


Figura 4



The **A** control is extremely hot. In order to prevent burns, it is mandatory to use the tool provided to act on the control.

LEGENDA

- Figura 1 (tutta l'aria canalizzata)
- Figura 2 (Posizioni intermedie)
- Figura 3 (nessuna canalizzazione)
- Figura 4

Key

- Figure 1 (all the hot air is channelled)
- Figure 2 (Intermediate positions)
- Figure 3 (no channelling)
- FIGURE 4

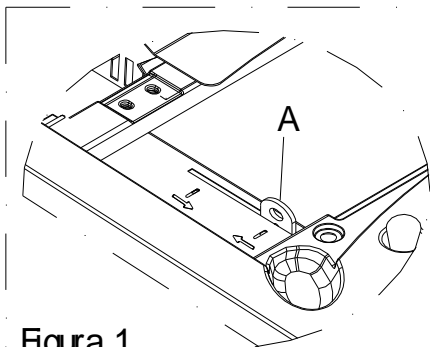


Figura 1
(Tutta l'aria canalizzata)

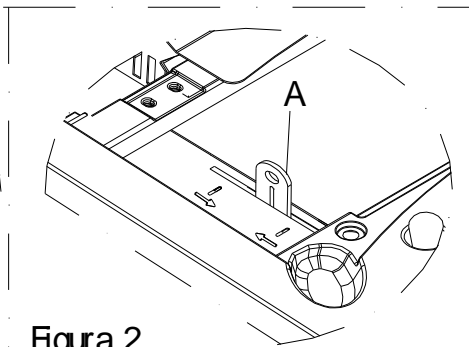


Figura 2
(Posizioni intermedie)

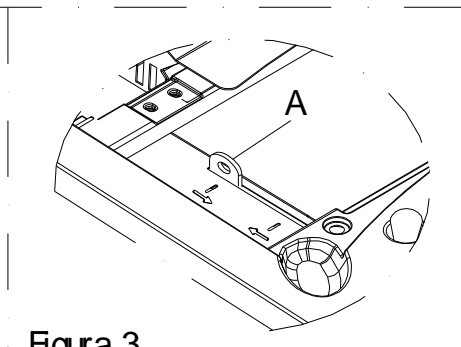


Figura 3
(Nessuna canalizzazione)

7 **ADDITIONAL ROOM TEMPERATURE THERMOSTAT (not supplied)** **ADDITIONAL CHRONOTHERMOSTAT (not supplied)**

The control panel ensures that your heater is provided with all the required programming and temperature adjustment functions:

Two gland nuts are fitted to the back of the heater near the power point.

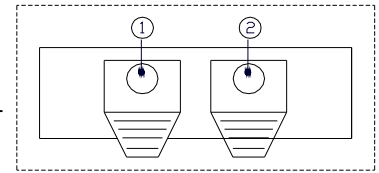
They refer to two operating modes:

→ With the room temperature thermostat. → With the chronothermostat or modem.

Simply connect the additional room temperature thermostat to the gland nut on the heater marked

"Room Temperature Thermostat" or the additional chronothermostat to the gland nut on the heater marked "Chronothermostat - modem".

Use only contacts 1 and 2.



Contacts 1-2 are defined as "CLEAN" contacts and they must never be fed with 220 V. If the board is energised with 220V or voltages exceeding 6 V the control board will be permanently damaged and will not be covered by the GUARANTEE.

7.1 OPERATING WITH THE ADDITIONAL ROOM TEMPERATURE THERMOSTAT (NOT SUPPLIED)

An additional room temperature thermostat can be installed by connecting it to the cable gland marked "THERMOSTAT" at the back of the heater. The operating principle is as follows:

-When the room temperature reaches the set temperature (only during the RUNNING phase) the thermostat closes the contact and the heater shifts to the minimum room fan speed and minimum combustion power. By using the room temperature thermostat the heater does not shut down, therefore electrical energy consumption is kept to the minimum and the heater has a longer life.

-When the room temperature drops the thermostat opens the contact and the heater returns to its original position in terms of thermal power and ventilation.

-In this position it is not possible to start up the heater automatically or shut it down automatically.



CAUTION: N.C. (normally closed) contacts must be used for the connection to the additional room temperature thermostat. Contacts 1-2 of the chronothermostat mod. "Perry".

7.2 OPERATING WITH THE ADDITIONAL CHRONOTHERMOSTAT (NOT SUPPLIED)

As an alternative to the room temperature thermostat, a chonothermostat can be installed by connecting it to the cable gland marked "CHRONOTHERMOSTAT" fitted to the back of the heater. Using this outlet when the chronothermostat contact closes the START cycle starts, whereas when the contact opens the OFF cycle starts. The operating level at start up (combustion power - fan speed) is the same as the level used before the last time the heater shut down. This operation can also occur by adjusting its room temperature. Once the desired temperature set on the chronothermostat is reached the contact opens and executes the shut down cycle. Similarly when the room temperature drops below the set temperature the contact closes and the START cycle starts. If an unsuitable room temperature value is selected the heater will be subjected to continual ON-OFF cycles, consequently the increased number of start ups will result in greater consumption of electrical energy. The chronothermostat can be used to program temperatures, times and dates for the ON-OFF cycles. It is therefore possible to program a momentary shutting down of the heater according to the room temperature.



CAUTION: The manufacturer denies all responsibility for the life of the electrical heater if subjected to excessive start ups. The manufacturer recommends setting a suitable room temperature value in the chronothermostat in order to prevent this possibility.

CAUTION: Use N.O. (normally open) contacts for the connection to the chronothermostat. Contact 1-3 of the chronothermostat mod. "Perry".

CAUTION: In the event of connections to the chronothermostat Thermorossi shall not be held responsible for the insert not starting up, smoke leaks, breakage of the lighting component. In the event of a programmed cycle on always ensure that the brazier is clean and seated correctly in its lodging.

8 **CLEANING AND MAINTENANCE**

8.1 **FOREWORD**



Before commencing any operation disconnect the appliance from the electric power outlet. Your ECOTHERM pellet heater does not require any special maintenance; simply adhere to the simple and basic but regular controls and general cleaning. This will guarantee regular operation and optimal output at all times. If the product is unused for a prolonged period of time it is mandatory to inspect the smoke channel and outlet to ensure that there are no obstructions before use. It is necessary to accurately follow the directions given below: Otherwise severe damages may occur for the product, the installation, objects and the people who use the generator.

8.2 CLEANING AND MAINTAINING THE HEATER

- **EVERY DAY** remove all combustion residues from the brazier then remount the brazier and the catalyst (Figure 1 shows a clean brazier). Caution: make sure, before every start up, that the brazier is clean and if necessary also thoroughly clean the burner with a suction unit. Take particular care to clean the area near the spark plug : this will guarantee the correct operation of the appliance .
- **EVERY 3 DAYS** lift and drop the tube scraper rods several times (Figure 2)
- **EVERY 5 DAYS** clean the room air filter located at the back of the heater (Figure 11).
- **EVERY WEEK** empty the ash pan "V" of all residual ash (figure 9).
- **EVERY WEEK** vacuum the residual ash from the compartment "V1" under the brazier. To facilitate vacuuming remove the blade and brazier (Figure 10).
- **EVERY 2 WEEKS** clean the smoke exhaust "T" at the heater inlet .
- **EVERY MONTH** undo the screws to inspect and clean vent A1 shown in Figure 5; to access this area remove the lower covering as indicated in Figures 3 and 4. In the Easy model press the 2 side folds of the lower cover inwards to extract it.
- **EVERY MONTH** check that the smoke exhaust is free from fly ash deposits, particularly in the initial sections.
- **EVERY MONTH** vacuum the ash deposited on the bottom of the tank (when the tank is empty).
- **AT THE END OF THE WINTER SEASON OR WHENEVER NECESSARY** we recommend thoroughly cleaning the Ecotherm firebox, using brushes and vacuum cleaner.
- **TWICE A YEAR** clean the smoke exhaust, including the flue outlet. clean the inside of the combustion chamber behind the tube bundle (Figures 6,7,8). To access this area lift the shell (Figures 6 , 7) by rotating it as shown in Figure 8: now clean the area with a suction device.



A vacuum device simplifies the cleaning procedure. Use a damp cloth or a crumpled up piece of newspaper, dampened and rolled in the ash, to wipe the glass until it is perfectly clean. Do not clean the glass while the heater is operating.

The glass remains reasonably clean if the catalyst - deviator blade is installed correctly in the brazier as shown in figure 9. The insert must be completely cooled down before the side panel can be cleaned with a soft cloth and water.

Caution: A daily deposit of soot and combustion residues on the glass is quite normal. It is normal for the ash to fall to the floor when the door is opened.



Figura 1

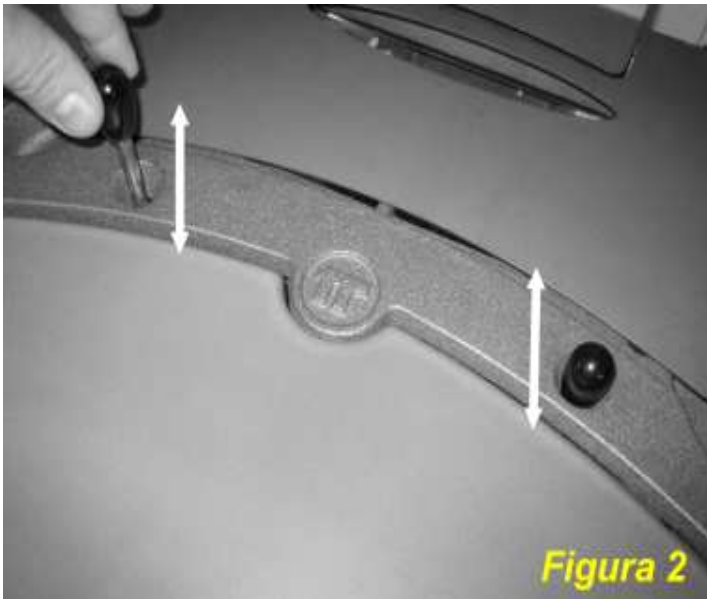


Figura 2

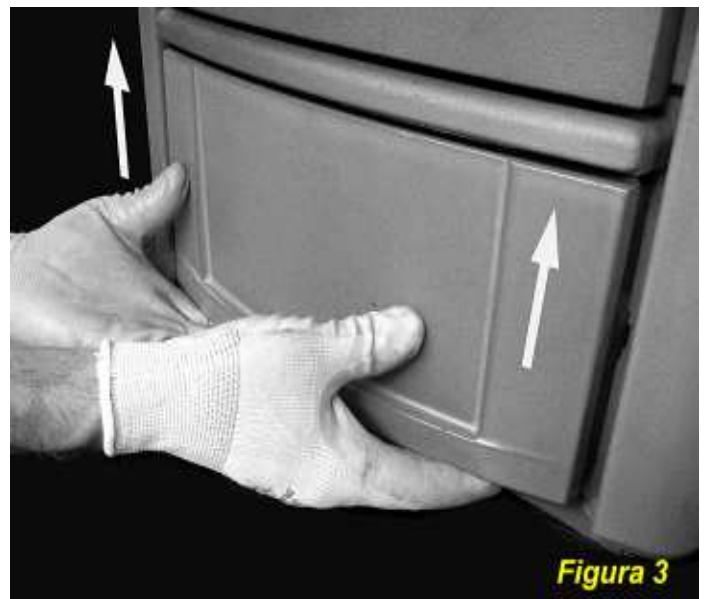


Figura 3

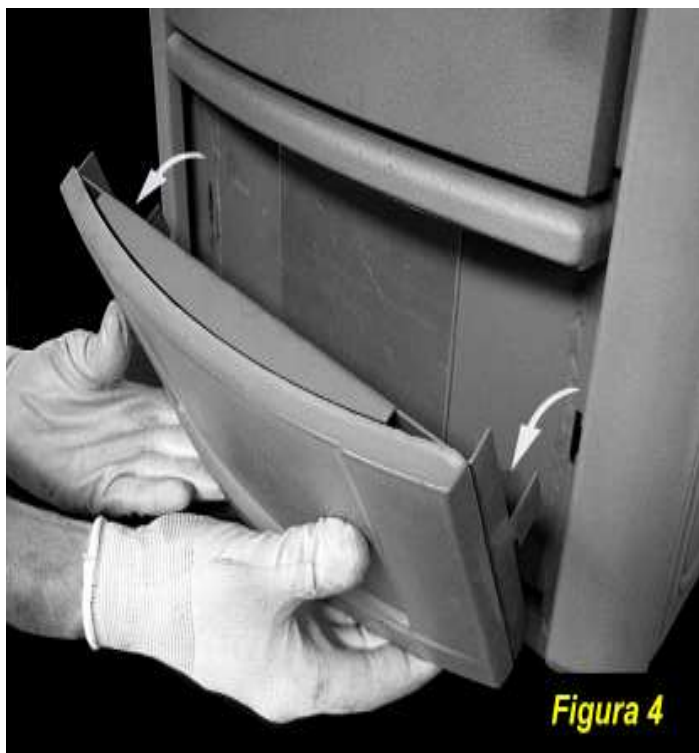


Figura 4

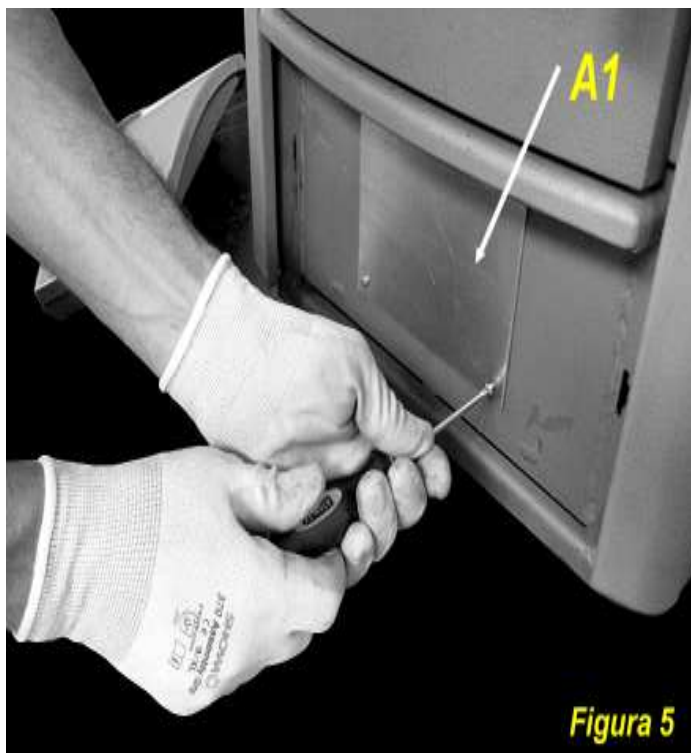


Figura 5



Figura 6

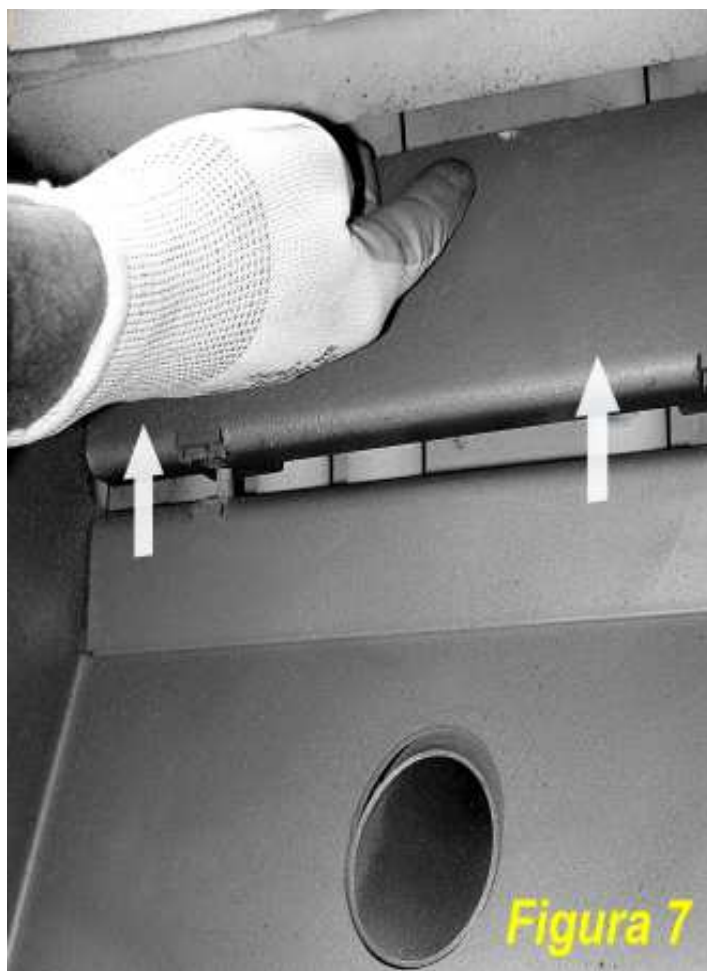
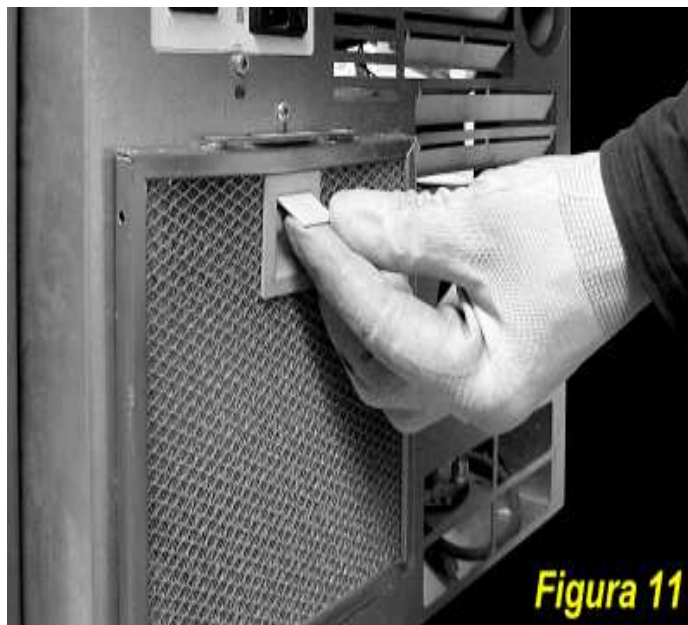


Figura 7

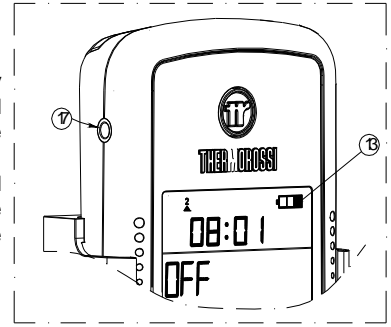


8.3 CHARGING THE BATTERY OF THE HANDHELD RADIO CONTROL (optional)

As soon as the battery symbol on the display begins to blink, as shown in the drawing, the battery needs to be charged. While it is being charged and consequently while it is connected to the electrical power mains the battery symbol blinks continuously even when the batteries of the radio control are completely charged.

This operation is necessary as otherwise the communication between the heater and the radio control could be cut off. The batteries of the handheld radio control require regular recharging in relation to the amount of use made of it. The duration of the battery charge is variable and depends on how often the remote control is used. The batteries must be recharged using the supplied battery charger :

INPUT 100V-240V 50/60 Hz 0,3/A OUTPUT 5,5V 750 ma



The battery charger must be connected to a 220-240V 50Hz power mains. To obtain a total recharge of the batteries they must be charged for at least 5 days: lower charge times could reduce the duration and life of the batteries. Leave the radio control connected at all times, by means of the battery charger, to the power supply line. It is completely normal for symbols and/or lines to appear haphazardly on the display while the battery is being charged. The optimal battery autonomy is achieved after several battery charge / discharge cycles. If the radio control is not used for more than one week it is mandatory to switch it off completely in order to preserve the life of the batteries. Turn the switch located in the battery compartment to 1, that is, OFF.

The batteries are guaranteed for 6 months.



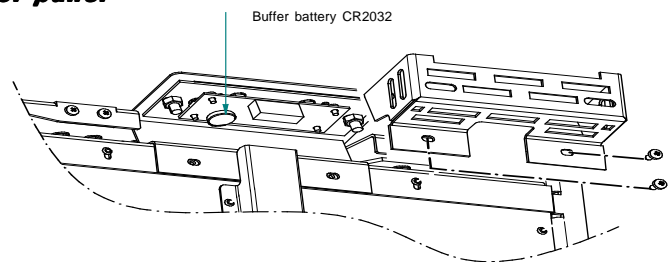
Caution: Use only the battery charger provided by Thermorossi. The use of any other type of battery charger will invalidate the product warranty.

8.4 BATTERY REPLACEMENT FOR INFRARED REMOTE CONTROL.

When the infrared remote control does not send out the transmission signal (led on), the battery must be replaced. Use a Phillips screwdriver of proper size, to separate the half shells and replace the battery. The dead battery must be disposed of safely.

8.5 Replacing the buffer battery of the control panel

Inside the control panel there is a buffer battery type CR2032. When hour and programming are not kept in storage, the battery must be replaced using the 2 screws in the rear of the control panel. The dead battery must be disposed of safely.



9 SMOKE DISCHARGE TUBE



Due to the frequent accidents caused by poor functioning of flue outlets installed in private dwellings, we have prepared the following paragraph to assist the installer in his inspection of the parts concerned with eliminating the gases produced by combustion. The gases must be discharged in compliance with UNI 7129/92, UNI 10683 and EN 14785. 2006. It is necessary to accurately follow the directions given below: Otherwise severe damages may occur for the product, the installation, objects and the people who use the generator.

9.1 VENTILATION OF THE ROOMS

•The room where the heater is installed must have a good air flow to guarantee secondary air for the appliance for the combustion process and for ventilation of the room. The natural air flow occurs directly through permanent apertures to the outside made in the walls of the room, or by means of single or multiple ventilation ducting.

The ventilating air must come from outside and if possible, away from sources of pollution. Indirect ventilation is also allowed by taking in air from rooms adjacent the one where the insert heater is installed taking into account all the warnings and limitations specified below.

•The apertures in the walls must comply with the following requirements:

- have an unobstructed section of at least 6cm² for each Kw of installed thermal power, with a minimum limit of 100cm²;
- be made in such a way that the vent openings, both on the inside and outside of the wall, cannot be obstructed;
- be protected with grills or similar systems in order not to reduce the section described above;
- be situated at floor-level.

•The air flow can also be obtained from an adjacent room as long as:

- the adjacent room is equipped with direct ventilation in compliance with the points described above;
- in the room to be ventilated the installed appliances are only connected to one flue outlet;
- the adjacent room is not used as a bedroom or a common area of the building;
- the adjacent room is not a room with a fire hazard, such as storage sheds, garages, combustible material store rooms, etc...;
- the adjacent room does not become a vacuum compared to the room to be ventilated due to an opposite draught effect;
- the air flow from the adjacent room to the room to be ventilated is unobstructed through the permanent apertures having an overall net section of no less than that indicated above. These apertures can be obtained by enlarging the space between the door and the floor.



This chapter is not intended to replace UNI 7129/92, UNI 10683 and EN 14785 standards to which it refers. The qualified installer must in any case be fully aware of this standard and its amending versions.

9.1.1 COMBUSTION AIR INTAKE

The air required for combustion is taken directly from the room in which the heater is installed. The room where it is installed must always be adequately ventilated (1300 m³/h) .

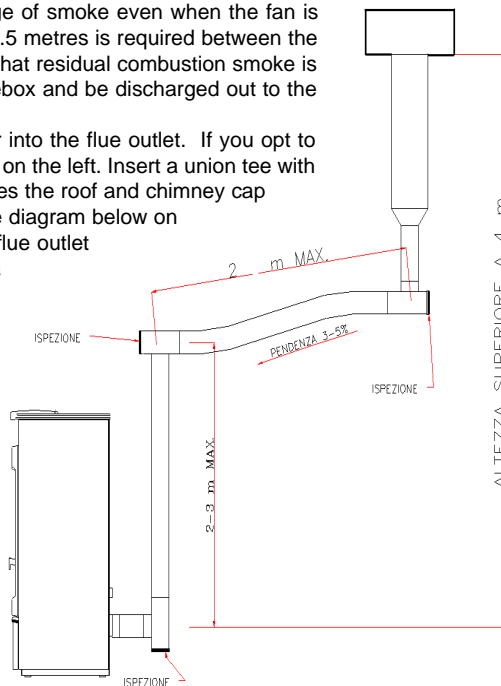
CAUTION: The presence of extraction fans or similar appliances, if operating in the same room or space in which the heater is installed, could cause problems for the correct operation of the heater.

9.2 SMOKE OUTLET

•The smoke exhaust shown in the following figures is the best solution to ensure the discharge of smoke even when the fan is not operational, such as for example if there is an electrical power failure. A minimum drop of 1.5 metres is required between the T terminal on the outside of the building and the outlet at the back of the appliance, to ensure that residual combustion smoke is discharged in the case described above (Otherwise the residues would stagnate inside the firebox and be discharged out to the free atmosphere).

The figures below illustrate the best solution for discharging the smoke out through the roof or into the flue outlet. If you opt to discharge the smoke out through the roof it is important to operate as shown in the figure below on the left. Insert a union tee with inspection cap, connecting brackets suitable for the height of the flue outlet, flashing that crosses the roof and chimney cap to protect against bad weather conditions. If you decide to use a classic masonry outlet see the diagram below on the right. A union tee with inspection cap and suitable supporting brackets are required. If the flue outlet

is too big we recommend inserting a stainless steel or porcelain-coated steel tube with a diameter not exceeding 150mm. Seal area where the inlet and outlet part of the smoke exhaust meets the wall. **It is strictly forbidden to apply mesh to the end of the outlet tube , as it could cause the heater to malfunction** If the smoke tube is installed in a fixed position it is advisable to provide inspection openings for clean-out purposes especially in the horizontal sections. See the diagram. These openings are essential to allow for the removal of ash and unburned products which tend to accumulate along the discharge path. **The appliance functions with the firebox in a vacuum, while the discharge of smoke to the flue outlet has a slight pressure, consequently it is imperative to ensure that the discharge system is hermetically sealed.** The smoke discharge tube must be made from suitable materials such as for example: porcelain-coated steel tubes, and the various fittings sealed with red silicone (resistant to 350°C). The outer casing of the tube must be made with insulating material (mineral wool, ceramic fiber) or use pre-insulated tubing.



It must be possible to inspect and remove all the smoke tube sections for clean-out purposes. The appliance must always and only be installed in a single flue outlet system dedicated exclusively to the appliance. If the appliance is connected to a flue system that is non-compliant with the standards the appliance could show signs of early damage due to an anomalous continual overheating of the heater itself : in this case the damaged parts will not be replaced under warranty.



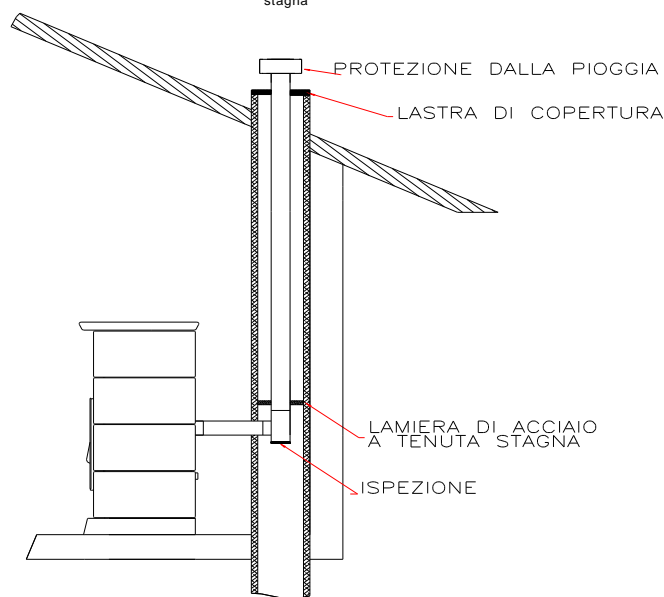
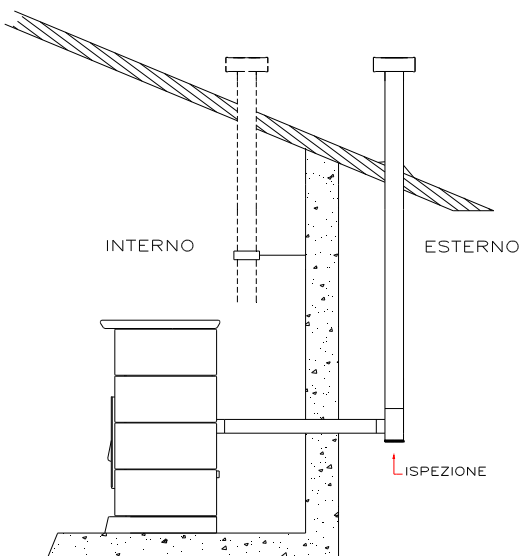
In the event of a fire call the fire brigade immediately.

LEGENDA

Ispezione
Pendenza 3-5%
Altezza superiore a 4m
Interno
Esterno
Protezione dalla pioggia
Lastra di copertura
Lamiere di acciaio a tenuta stagna

KEY

Inspection
Slope 3-5%
Height more than 4m
Internal
External
Rain protection
Cover slab
Watertight steel sheet



10 ALARMS

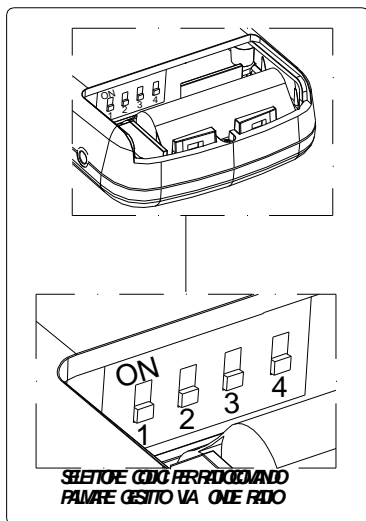
The heater is programmed to communicate 3 fundamental alarms. The alarms are listed below:

- AL PE** : is communicated when the temperature during the **On** mode drops below 42 °C.
This indicates that the heater is switching off due to lack of pellets.
- AL AC** : is communicated if after the start up phase the temperature does not rise above 42°C.
- AL OP** : this occurs when the smoke outlet is partially blocked.

In order to set the alarms to zero, the feed to the heater must be turned off and restored using switch 0-1 on the back of the heater.

11A ELECTRICAL WIRING FOR MODEL

If another heater is installed in the vicinity of this heater then code selector in both the power board and the handheld ra control (optional) will have to be reset; this is necessary to prev interferences with the operation of the two heaters. The code in out products is standard. If you wish to alter the transmiss code act on the selectors in the power board and the hand radio control, making sure that they are set identically (see dedica paragraph).

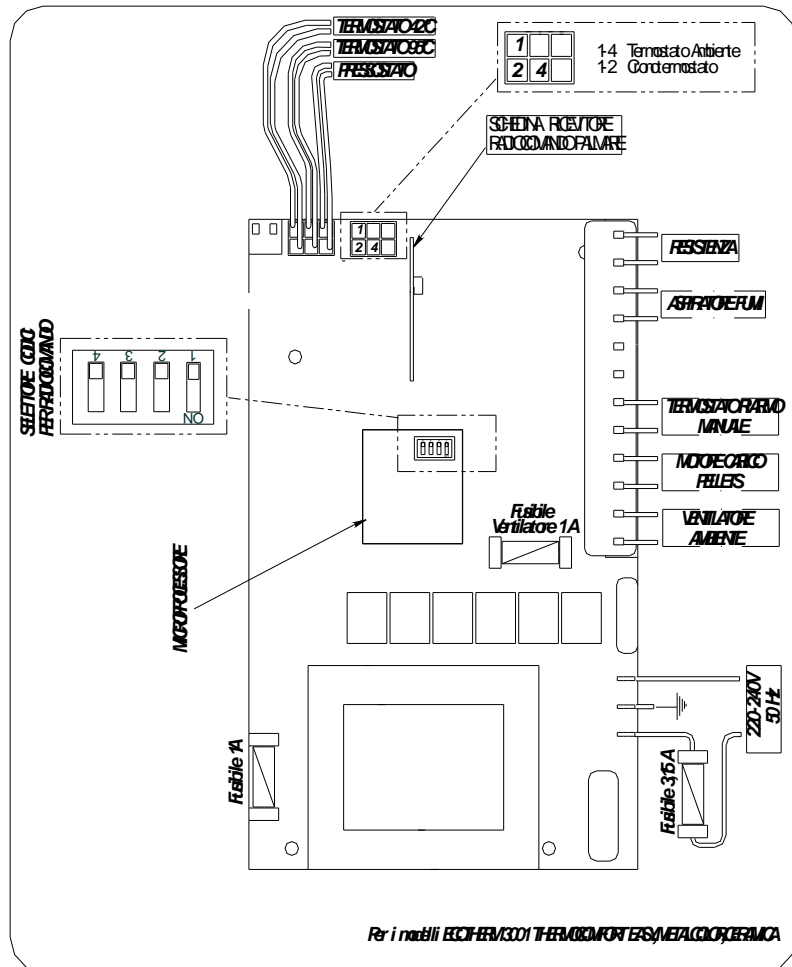


LEGENDA

Selettore codici per radiocomando palmare gestito via onde radio
Selettore codici per radiocomando
Termostato 42°/95°C
Pressostato
Termostato ambiente
Cronotermostato
Schedina ricevitore radiocomando palmare
Resistenza
Aspiratore fumi
Termostato riarmo manuale
Motore carico pellets
Ventilatore ambiente
Microprocessore
Fusibile ventilatore 1A
Fusibile 1 A / 3,15 A
Per i modelli ECOTHERM3001, THERMOCOMFORT, EASY, METALCOLOR, CERAMICA

KEY

Radio wave-controlled code selector for handheld radio control
Code selector for handheld radio control
Thermostat 42°/95°C
Pressure switch
Room temperature thermostat
Chronothermostat
Handheld radio control receiver card
Heater
Smoke suction unit
Manual reset thermostat
Pellet feed motor
Room fan
Microprocessor
Fan fuse 1A
Fuse 1 A / 3,15 A
For models ECOTHERM3001, THERMOCOMFORT, EASY, METALCOLOR, CERAMIC



12 INFORMATION FOR THE SKILLED TECHNICIAN

12.1 MAIN COMPONENTS AND THEIR OPERATION

SMOKE PRESSURE SWITCH

This is a safety switch that stops the screw feeder motor whenever necessary. The main cause for the pressure switch tripping is a blocked flue outlet or smoke exhaust pipe. Note that it is strictly forbidden to apply any kind of mesh screen to the end of the pipe. When the holes of the mesh clog up they create a plug that trips the pressure switch which stops the pellet feeder.

SCREW FEEDER MOTOR

This motor is powered at regular on/off intervals controlled by a microprocessor. The operation of this motor is affected when:

- The motor's thermal cutout trips.
- Pellets finished.
- The manual reset thermostat trips at 125°C
- The pressure switch trips due to blocked smoke exhaust.
- The heater is switched off intentionally.

ROOM FAN

The fan starts automatically as soon as the 42°C thermostat closes the contact. The fan stops when the fuel hopper is empty or when the insert is switched off intentionally, two situations in which the thermostat's contact is opened.

SMOKE SUCTION UNIT

This is activated when the start up signal is given. In the first two minutes it «washes» the smoke discharge tube, that is, it functions at maximum working rate. Once this time has elapsed it self-adjusts to the optimal speed. The exhaust continues to operate for approximately one hour from the time the heater is switched off to allow for the evacuation of all the smoke and for safety purposes. It stops 30' after the thermostat at 42°C opens.

THERMOSTAT AT 42°C

Its function is critical for the following reasons: When the contact closes the heater powers up and the working cycle starts. Similarly, when the contact opens the smoke exhaust stops.

HOPPER SAFETY THERMOSTAT

This thermostat start operating as soon as the temperature in or near the pellet hopper approaches 85°C and sends an immediate signal to the room fan to operate at maximum power.

125°C MANUAL RESET THERMOSTAT

When the temperature exceeds 125°C the pellet feed screw shuts down. A red light at the back of the appliance remains lit. Once the causes for the overtemperature have been identified and remedied the heater can be reactivated by unscrewing the plastic cover of the thermostat located at the back of the heater and pressing the button (the heater temperature must be below 117 °C).

GLOW PLUG

It is activated in the START phase. Heats the air to 800°C, which assist the first combustion of the pellets present in the brazier.

12.2 USEFUL ADVICE FOR INSTALLATION AND OPERATION

- 1 The appliance must never be deliberately disconnected from the electric power supply. Whenever the appliance is deliberately disconnected from the electric power supply smoke could be emitted into the room and be a hazard. Similarly never switch off the appliance by suddenly cutting off the electric power supply.
- 2 Do not install the appliance with horizontal wall outlets only: evacuation of the combustion products must be guaranteed in a natural manner.
- 3 Do not install the appliance with horizontal sections only: the wall could be exposed to high wind conditions and the appliance could shut down due to back draft.
- 4 Operate the appliance at maximum for 10 hours for a complete drying and baking of the silicates contained in the enamel which covers the body of the heater.
- 5 Do not install a grill or outlet terminal which could restrain the flow of the combustion gases: this could affect the dynamic gas to the point where it would not allow the pellets to burn correctly.
- 6 Read this instruction booklet.
- 7 Keep the appliance clean and check the burner as described in this manual.
- 8 Clean the smoke outlet regularly.
- 9 Use top quality pellets: by saving 20 cents a bag you heat up to 50% less.
- 10 Maximum useable lengths of smoke exhaust tubes:
Painted aluminized steel tubes (1.5 mm minimum thickness), Aisi 316 stainless steel tubes or 0.5 mm enamelled tubes may be used.

Minimum vertical length	4 m
Maximum vertical length	8 m
Length with min slope .5%	0.5 m
Maximum number of elbows at least 0.5 m apart	2

12.3 TROUBLESHOOTING CAUSE-SOLUTION

PROBLEM	CAUSE	SOLUTION
PELLETS DO NOT DROP INTO THE BURNER	PELLET TANK IS EMPTY (DISPLAY SHOWS THE INSCRIPTION AL PE)	FILL UP THE TANK
	FOREIGN BODY SUCH AS NAIL, NYLON, PIECE OF WOOD ON THE FEEDER SCREW ON THE BOTTOM OF THE TANK (DISPLAY SHOWS THE INSCRIPTION AL PE)	REMOVE THE FOREIGN BODY
	SMOKE EXHAUST NOT FREE, OR WITH TERMINAL THAT OBSTRUCTS THE PASSAGE OF SMOKE (DISPLAY SHOWS THE INSCRIPTION AL OP)	CHECK THE SMOKE EXHAUST AS IT COULD BE DIRTY OR CLOGGED
	OUTLET TERMINAL CLOGGED BECAUSE A GRILL OR TERMINAL HAS BEEN INSERTED WHICH PREVENTS THE FREE PASSAGE OF SMOKE (DISPLAY SHOWS THE INSCRIPTION AL OP)	REMOVE THE TERMINAL AND REPLACE IT WITH A MORE SUITABLE ONE.
	SUDDEN GUST OF WIND WHICH HAS MADE THE APPLIANCE GO INTO SAFETY MODE (DISPLAY SHOWS THE INSCRIPTION AL OP)	SWITCH THE POWER SUPPLY TO THE HEATER OFF THEN BACK ON AGAIN
	THE PELLETS SCREW MOTOR DOES NOT WORK	REPLACE THE PELLETS SCREW MOTOR
THE APPLIANCE ACCUMULATES PELLETS IN THE BRAZIER WHILE OPERATING	THE RESET THERMOSTAT TRIPS AND LOCKS THE GEARMOTOR	THE ROOM FAN IS BROKEN AND MUST BE REPLACED; THEN, PUT BACK INTO SERVICE THE RESET THERMOSTAT, WAIT UNTIL THE HEATER COOLS DOWN AND RESET THE THERMOSTAT. THE VENTILATION FILTER IS VERY DIRTY AND MUST BE CLEANED; THEN, PUT BACK INTO SERVICE THE RESET THERMOSTAT, WAIT UNTIL THE HEATER COOLS DOWN AND RESET THE THERMOSTAT.
	SMOKE EXHAUST NOT FREE, OR WITH TERMINAL THAT OBSTRUCTS THE PASSAGE OF SMOKE	REMOVE THE TERMINAL AND REPLACE IT WITH A MORE SUITABLE ONE. CHECK THE SMOKE EXHAUST AS IT COULD BE DIRTY OR CLOGGED
	BURNER IS DIRTY	CLEAN THE BURNER ON A MORE FREQUENT BASIS CARRY OUT ALL CLEANING OPERATIONS INDICATED IN PARA. 8.2
	PELLETS WITH DEPOSIT ABOVE PERMISSIBLE LIMITS	CLEAN THE BURNER MORE OFTEN. SET OPERATING PROGRAMS P2
	THE BURNER IS NOT PROPERLY PLACED ON ITS SEAT	SET THE BURNER ON ITS SEAT PROPERLY
THE HEATER SMOKES	THE BURNER STAYS LIFTED FROM ITS SEAT	SET THE BURNER ON ITS SEAT PROPERLY
	OCCURS THE FIRST TIME THE HEATER IS SWITCHED ON AS THE SILICONE PAINT IS BEING BAKED	RUN THE HEATER AT FULL POWER FOR 1 HOUR TO COMPLETE THE BAKING.
	THE SMOKE EXHAUST IS NOT SEALED CORRECTLY	MAKE SURE THAT THE GASKETS HAVE BEEN FITTED TO THE SMOKE EXHAUST PIPES
	IF THE APPLIANCE STARTS TO SMOKE AFTER 25 MINUTES: DIRTY BURNER, VERY DELAYED START.	CLEAN THE BURNER
THE APPLIANCE SHUTS OFF 5 MINUTES AFTER THE END OF THE START UP CYCLE	IF THE APPLIANCE STARTS TO SMOKE AFTER 25 MINUTES: DELAYED START BECAUSE THE SCREW FEEDER IS EMPTY	FILL UP THE TANK
	DELAYED START BECAUSE THE SCREW FEEDER IS EMPTY (DISPLAY SHOWS THE INSCRIPTION AL AC)	FILL UP THE TANK
	DIRTY BURNER, VERY DELAYED START. (DISPLAY SHOWS THE INSCRIPTION AL AC)	CLEAN THE BURNER
THE HEATER DOES NOT START UP	THE 42°C THERMOSTAT IS FAULTY (DISPLAY SHOWS THE INSCRIPTION AL AC)	REPLACE THE THERMOSTAT
	THE SPARK PLUG IS BLOWN (DISPLAY SHOWS THE INSCRIPTION AL AC)	REPLACE THE SPARK PLUG

THE GLASS IS COVERED IN BLACK SOOT	THE HEATER ACCUMULATES PELLETS IN THE BRAZIER	SEE POINT "PROBLEM-CAUSE-SOLUTION" "THE APPLIANCE ACCUMULATES PELLETS IN THE BRAZIER WHILE OPERATING"
	NO CAUSE	CLEAN THE GLASS MORE OFTEN
	THE BLADE POSITION IS NOT CORRECT/NO BLADE	POSITION THE BLADE CORRECTLY/MOUNT THE BLADE
ABSENCE OF FLOW OF VENTILATION AIR	THE VENTILATION FILTER IS DIRTY	CLEAN THE FILTER LOCATED AT THE BACK OF THE HEATER
IT DOES NOT WARM UP	THE HEATER OPERATES AT INTERVALS.	THE HEATER MUST OPERATE FOR MORE HOURS WITH MORE POWER
	THE ROOM IS TOO LARGE, THE WALLS ARE COLD	SEPARATE THE SPACES. THE HEATER SHOULD OPERATE FOR MORE HOURS AND WITH MORE POWER
	CEILINGS TOO HIGH OR PRESENCE OF STAIRS THAT DISPERSE THE HEAT ELSEWHERE.	SEPARATE THE SPACES. THE HEATER SHOULD OPERATE FOR MORE HOURS AND WITH MORE POWER
THE APPLIANCE IS OFF BUT THERE ARE UNBURNT PELLETS IN THE BRAZIER	THE TANK IS EMPTY	EMPTY THE BURNER AND FILL UP THE TANK.
THE PROGRAMMING AND/OR TIME DO/DOES NOT REMAIN IN THE MEMORY	THE BUFFER BATTERY TYPE CR2032 INSTALLED IN THE CONTROL PANEL IS EXHAUSTED	REPLACE THE BATTERY
THE HEATER EXECUTES RANDOM COMMANDS OR RANDOMLY VARIES THE VENTILATION LEVEL AND THE COMBUSTION LEVEL	NEARBY THERE IS ANOTHER THERMOROSSI HEATER MODEL THERMOCONFORT WITH THE OPTIONAL RADIO CONTROL	CHANGE THE CODE SELECTOR

13 SPARE PARTS

13.1 SPARE PARTS

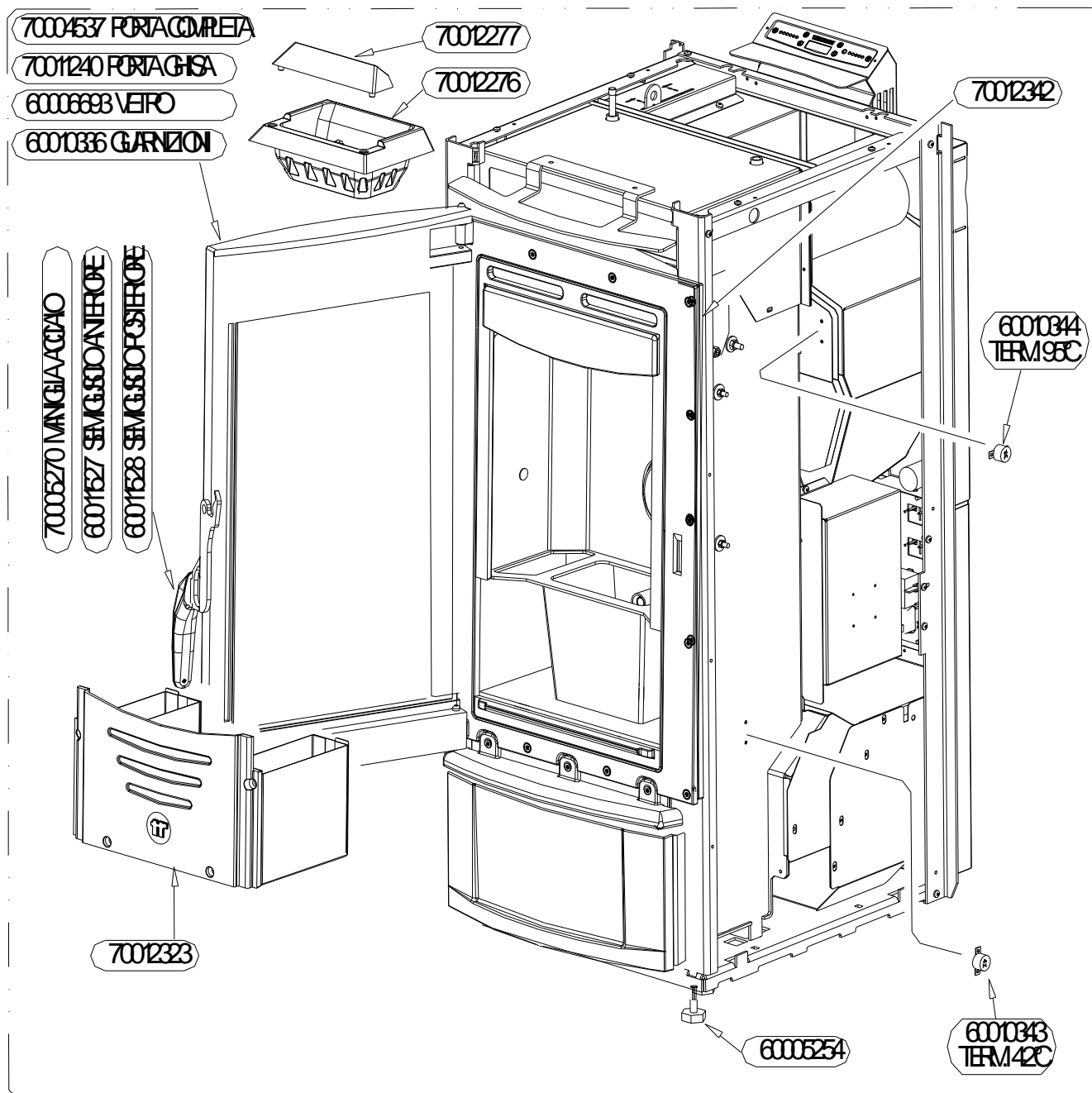
13.2 SPARE PARTS

LEGENDA

Inox
 Beige
 Rosso/a
 Cuoio
 Nero/a
 Porta completa
 Porta ghisa
 Vetro
 Guarnizioni
 Maniglia acciaio
 Semiguscio anteriore
 Semiguscio posteriore
 Term. 42/95°C

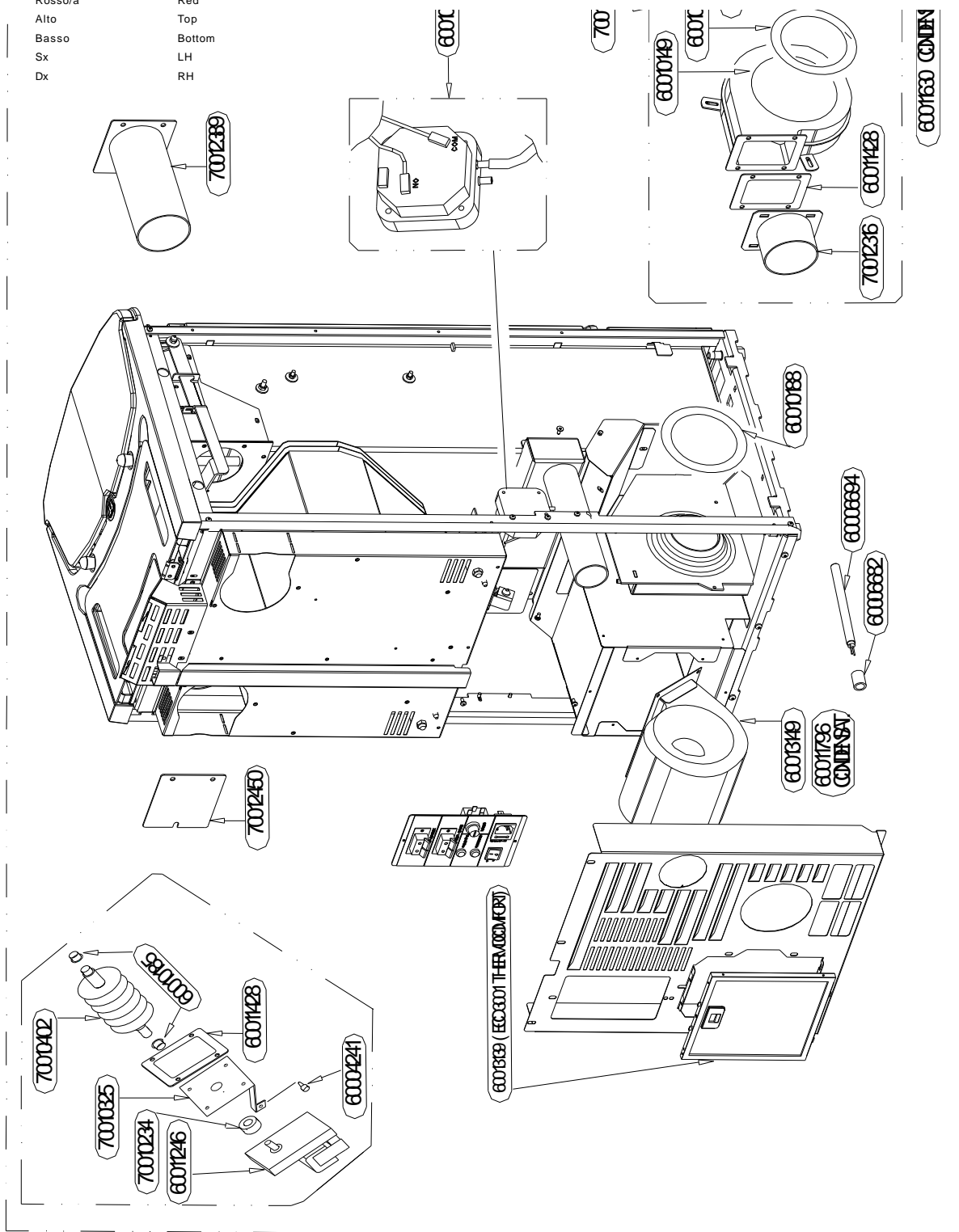
KEY

Stainless steel
 Beige
 Red
 Leather
 Black
 Complete door
 Cast door
 Glass
 Gaskets
 Steel handle
 Front handle cover
 Back handle cover
 Therm. 42/95°C

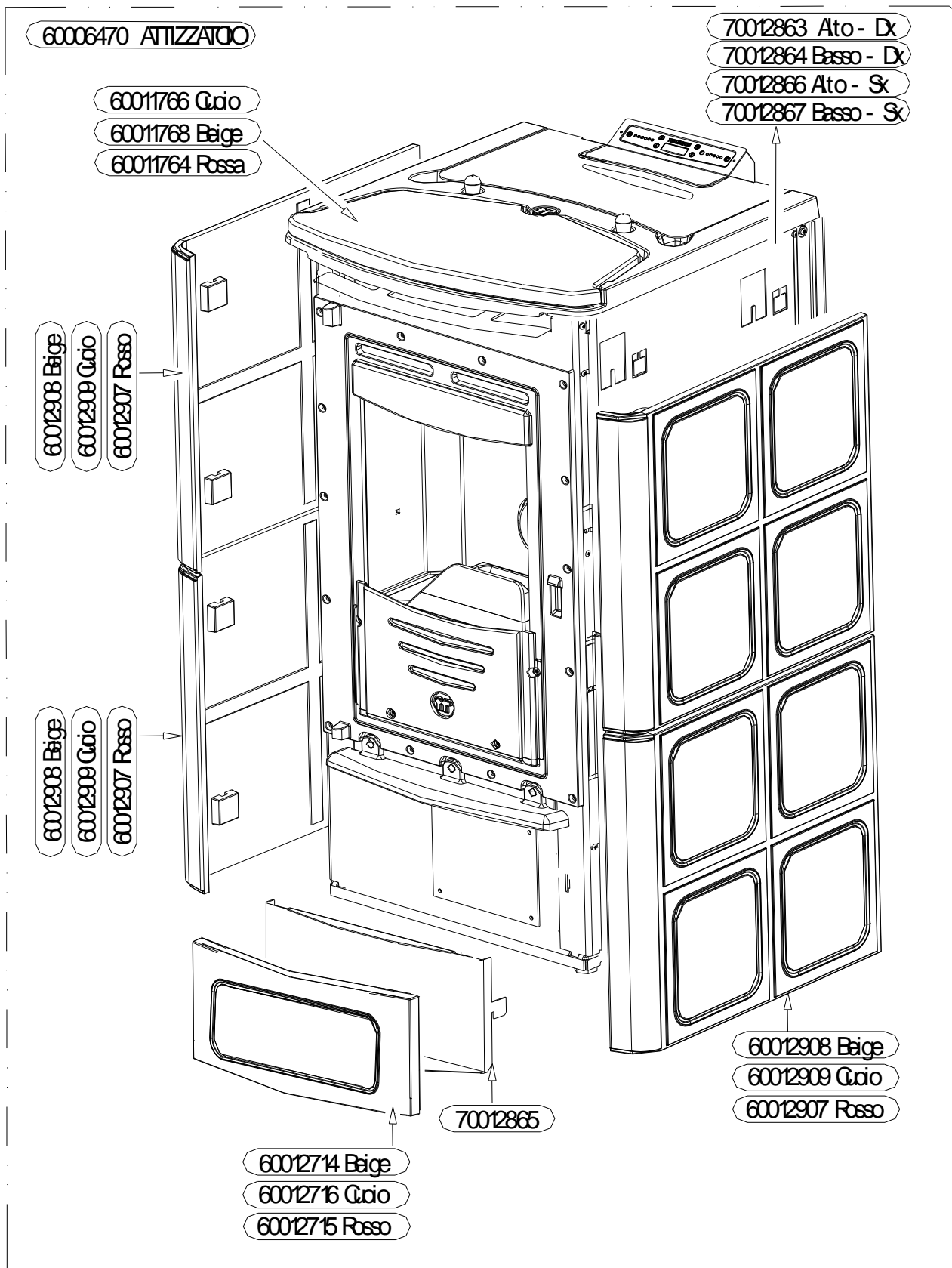


13.3 SPARE PARTS

LEGENDA	KEY
Condensatore	Condenser
Thermocomfort	Thermocomfort
Attizzatoio	Riddling tool
Cuoio	Leather
Beige	Beige
Rosso/a	Red
Alto	Top
Basso	Bottom
Sx	LH
Dx	RH



13.4 SPARE PARTS



13.5 SPARE PARTS

