



# THERMOROSSI

*HEATING TECHNOLOGY AND INNOVATION*



**INSTALLATION, USE AND MAINTENANCE GUIDE**

**ECO 7000 THERMOCOMFORT**

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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 ECO 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.

ECO 7000 THERMOCOMFORT complies with EN 14785:2006

ARSIERO, June 2011

**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 professionally qualified personnel, professionally certified according to Decree no. 37 of 22 January 2008 and in compliance with current regulations and in accordance with the instructions provided by 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.

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*These instructions may not be reproduced or communicated to third parties or used in any other way without the necessary authorisation.*

## 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 mm<sup>2</sup>. 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.

CAUTION: the heater must not come into contact with water, do not touch the electrical parts with wet hands.

### Caution! Warning for Swiss users

Refer to the local cantonal regulations imposed by the Fire Department (Mandatory signalling and safety distances ) and the Note concerning installation of heaters issued by the Association of Cantonal Fire Agencies (VKF - AEAI).

## 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

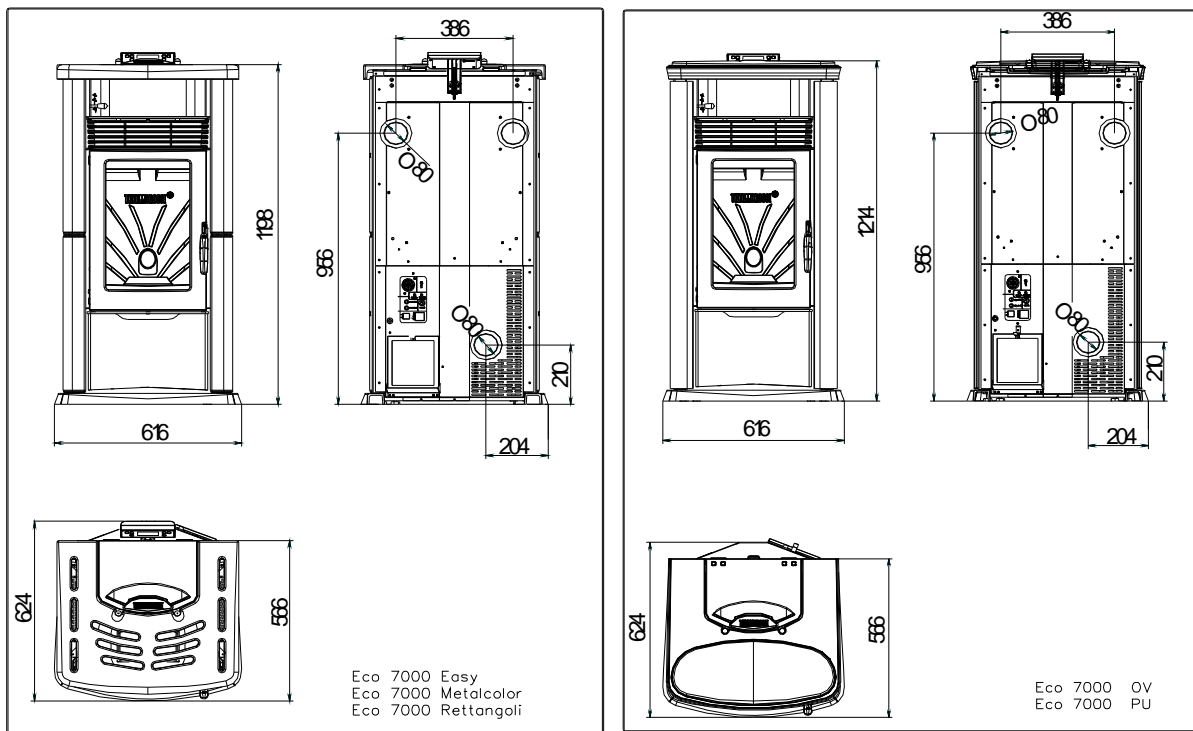
The heater must be stored in a humid-free environment and sheltered from the weather; do not place the heater directly on the floor. The Company denies all responsibility for damage caused to wood floors or floors made from any other material.

It is inadvisable to store the heater for long periods of time.

## 2 TECHNICAL CHARACTERISTICS \*

	<b>Eco 7000 Easy Metalcolor Rectangles</b>	<b>Eco 7000 OV PU</b>
Height (mm)	1214	1198
Depth (mm)	624	624
Length (mm)	616	616
Weight (Kg)	189 / 189 / 216	221 / 221
Total rated power (Kw)	12,4	12,4
Total reduced rated power (Kw)	3,3	3,3
Consumption min/max (Kg/h)	0,7 – 2,8	0,7 – 2,8
Smoke outlet tube D. (mm)	80	80
Min. draught at rated power (Pa)	12	12
Hopper capacity (Kg)	30	30
Average smoke temp. at rated power (°C)	173	173
Smoke flow at rated power (g/sec)	0,0089	0,0089
Smoke flow at red. power (g/sec)	0,0041	0,0041
Electricity	220 V 50 HZ	220 V 50 HZ
Max electrical consumption	1,17 A – 270 W	1,17 A – 270 W
Min electrical consumption	0,34 A – 70 W	0,34 A – 70 W

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



CAUTION : it is important to take into consideration the fact that the heatable volume is greatly influenced by the insulation of the house (energy class of the building) and by the position of the heater in the planimetry of the house.

### 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 of 4000/4500 Kcal/Kg and a density of 620-630 Kg/m<sup>3</sup>.



The use of fuel which does not comply with the description given above immediately voids the heater warranty. Do not use the appliance as an incinerator, at the risk of voiding the warranty.

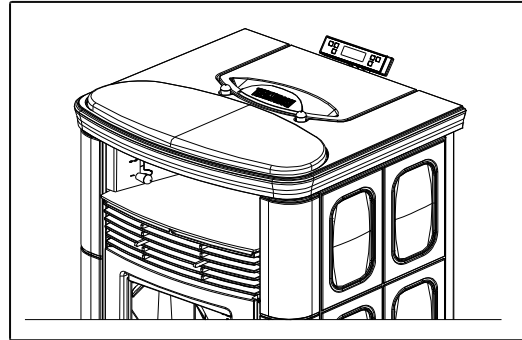
#### 3.3 THE FEEDBOX



- The feedbox is situated in the top part of the heater.
- The maximum load capacity of the tank is approximately 30 Kg, but varies according to the specific weight of the pellets. The manufacturer recommends emptying the tank and vacuuming the screw feeder zone 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. Only pellets that comply with the specifications listed above must be fed into the hopper; never insert foreign objects into the hopper.



#### LEGENDA

200-450 mm se  
materiale combustibile  
T ispezionabile  
Isolante termico

#### KEY

200-450 mm if the material  
is combustible  
Inspectable Tee element  
Heat insulating material

### 4 INSTALLATION

#### 4.1 HEATER LOCATION

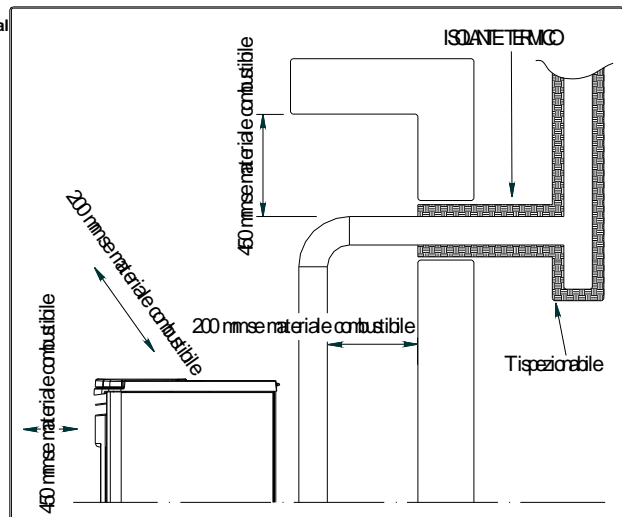


Follow the general guidelines set out in paragraph 1.1 to th letter. A vital aspect to consider is that the flooring of the room in which the hater is installed must be capable of bearing th weight of the heater. CAUTION : The heater must be installed in a room with adequate ventilation.



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.

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. Installation in the vicinity of heat-sensitive materials is only permitted if suitable insulating protection is provided.(ref.Uni 10683)



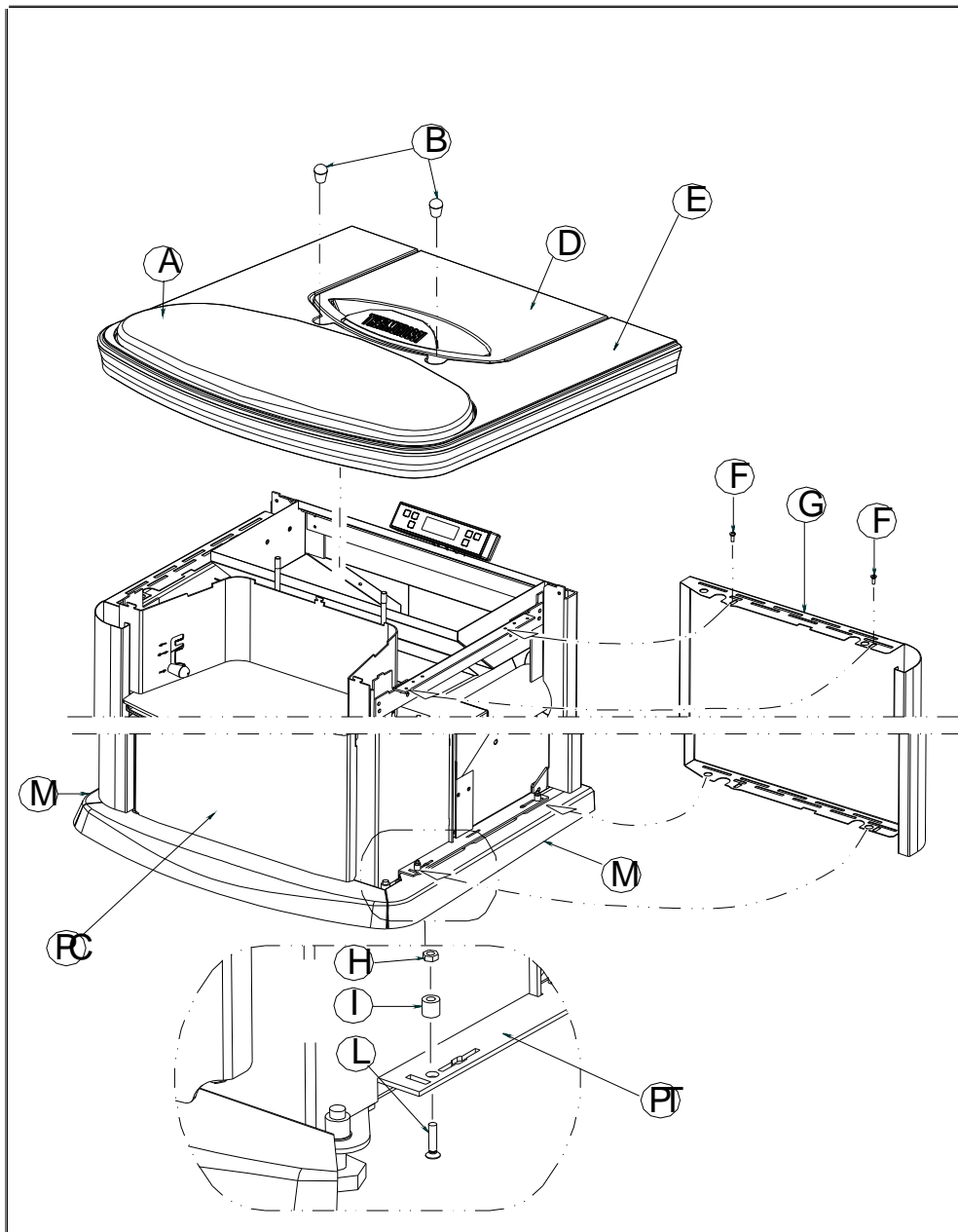
**CAUTION: DO NOT LEAN ON THE TOP CONTROL PANEL WHEN MOVING THE HEATER AS IT IS A PARTICULARLY DELICATE DEVICE AND CAN EASILY BREAK (DAMAGE CAUSED IN THIS WAY IS NOT COVERED BY WARRANTY).**

#### 4.1.1 MOUNTING METALCOLOR - EASYCASING

Once the heater has been positioned the next step is to mount the side panels and ceramic top panel:

Carry out the procedure described below and follow the key drawing on the next page:

- Unscrew and remove the knobs (B) .
- Remove the fixed cover (E) that includes the movable cover (D).
- Fasten the 4 spacers (I) with the supplied nuts M4 (H) and screws M4x16 (L) to the lower base.
- Adjust the mounting feet and position the kickplates (M) as illustrated, making sure that the kickplates are inserted under the plate (PT); then check that the door can be easily removed (PC) and if necessary raise the feet.
- Mount the side panels by firstly inserting the lower holes on the spacers (I) that were fastened beforehand.
- Fasten the screws (F) to lock the side panels (G).
- Replace the cast iron cover (E) that includes the cover (D), the ceramic cover (A) and lastly the knobs (B).



The casing on the EASY model is factory-mounted before being packaged. To move the heater from the pallet the casing and the 2 screws that secure the heater to the wood pallet must firstly be removed.

#### 4.1.2 MOUNTING RECTANGULAR CERAMIC TILES CASING

Once the heater has been positioned the next step is to mount the rectangular ceramic tiles (packed separately) :

- Unscrew and remove the 2 knobs (B), remove the cover (E) that includes the mobile cover (D) (figure 1).
- Unpack the ceramic casing then proceed to secure the flat ceramic tiles with rectangular decor (CP) and the convex ceramic tiles (CT) to the steel backing plates (SA) :
- Fasten the steel backing plates to each other using the screws M4x12 (O), the washers d.4 (P), the nuts M4 (Q) (see figure 2). Place the elements on a flat surface ( e.g. a table) to secure them and make sure that the edges match up (see detail figure 2 )
- Next fasten the flat tiles to the steel backing plate using the screws M3 x 6 (R) and washers d.3 (S) provided (see figure 3): to carry out this operation place the flat tiles on a table and lay the steel backing plate (SA) on top, then fasten them with screws and washers. Handle the ceramic tiles with extreme care to prevent accidental breakages.
- Then secure the convex ceramics to the steel backing plate with the screws M3 x 6 (R) and washers d.3 (S) (see figure 3): to carry out this operation fasten the ceramics to the steel support (SA) with screws and washers as illustrated in figure 4 and adjust their alignment with the flat ceramics. Handle the ceramic tiles with extreme care to prevent accidental breakages.
- Do not tighten the screws M3X6 (R) excessively as this could damage the ceramic tiles; this damage is not covered by warranty.

Figura 1

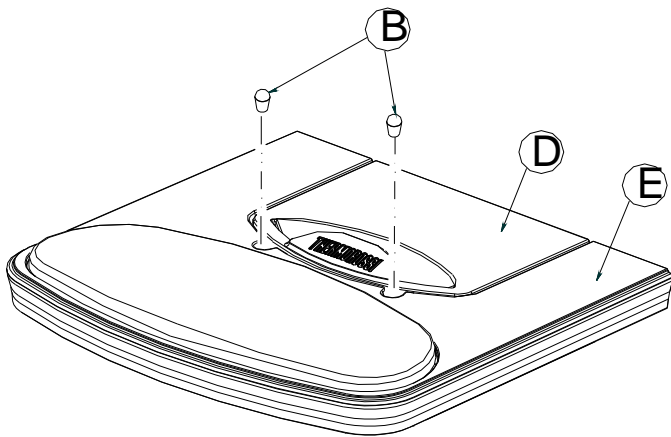


Figura 2

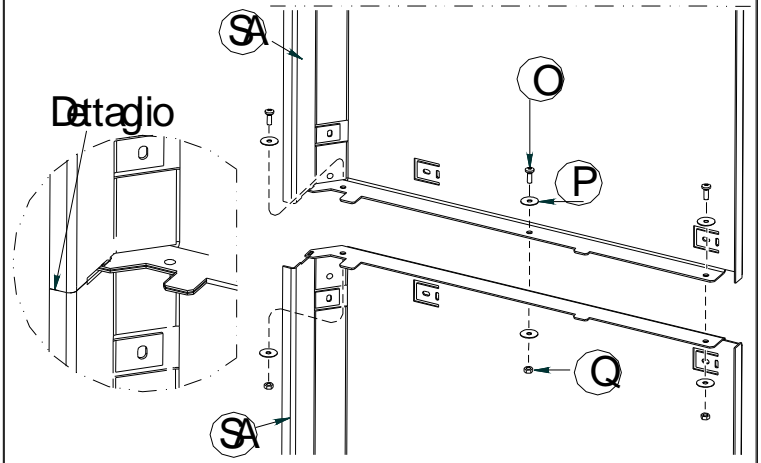


Figura 3

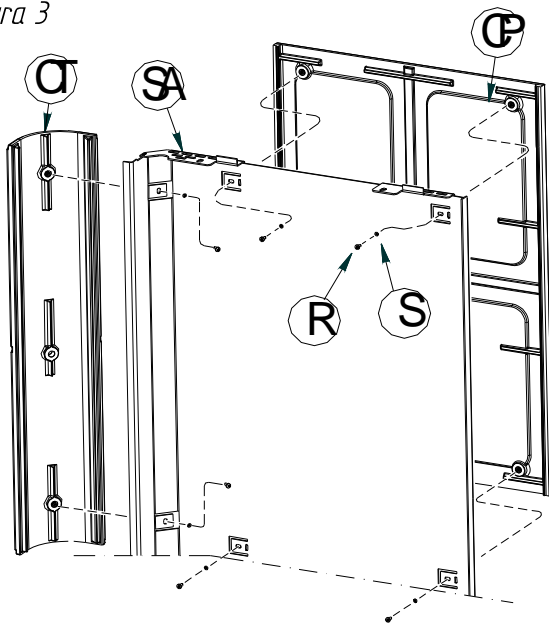
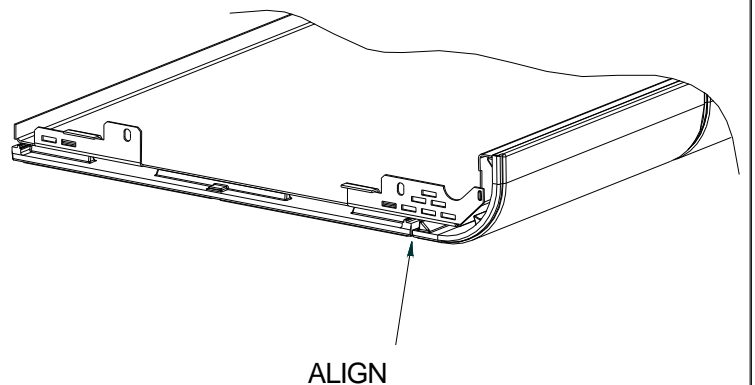


Figura 4



- Lay the food warmer ceramic (**CPS**) as illustrated in figure 5: slightly undo the 4 screws (**VL**), remove the top (**PSV**), tighten the screws (**VL**) and insert the ceramic (**CPS**). It is recommended to secure the ceramic (**CPS**) in a few points with high temperature silicone sealant; this is to avoid breakage of the ceramic by accidentally dropping it.

-Adjust the mounting feet.

-Position the kickplates (**M**) (figure 6 and figure 7), then check that the door (**PC**) can be removed and if necessary raise the mounting feet, mount the side with ceramic tiles by firstly inserting the bottom folds on the base and fastening with the 2 screws (**F**) at the top.

- Proceed to mount the cover (**E**) that includes the movable cover (**D**), then screw in the knobs (**B**) (figure 1).

- Lastly position the ceramic top (**A**) (figure 1).

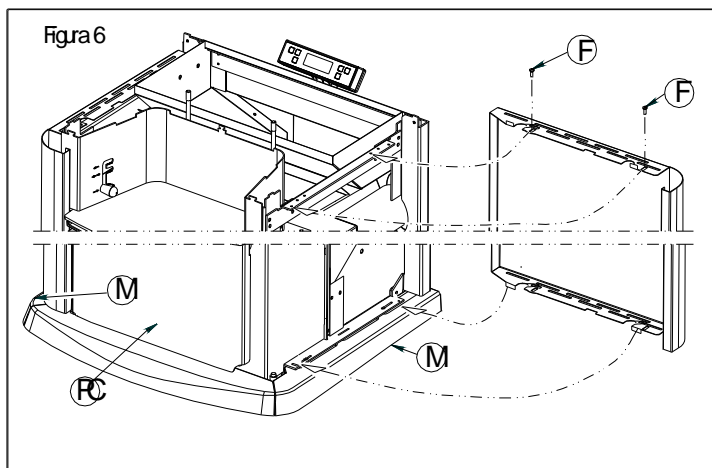
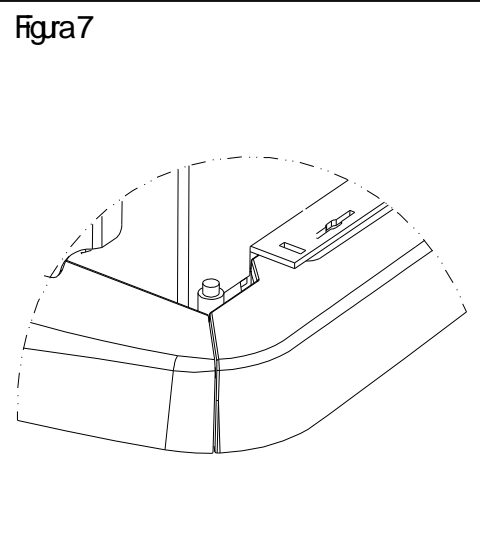
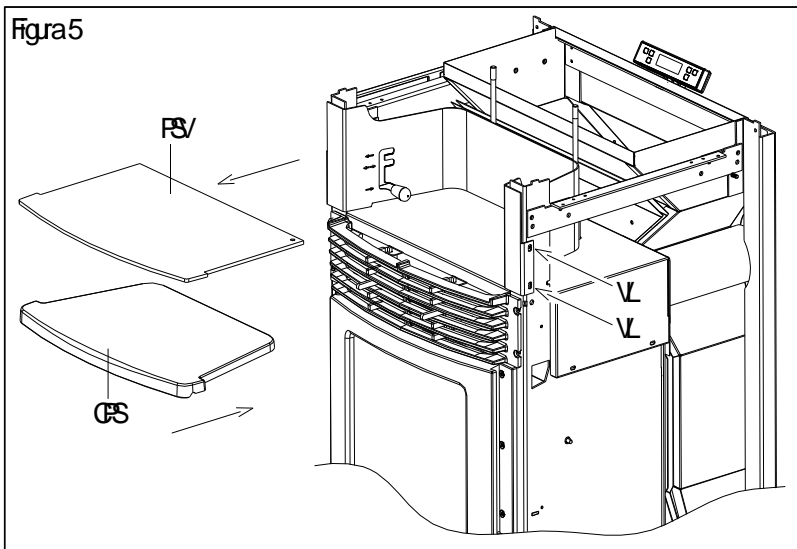


It is important to take special care when mounting the ceramic side panels (**CP**) and the sheet metal support (**SA**) in order to prevent irregular bending which could cause breakages not covered by warranty.

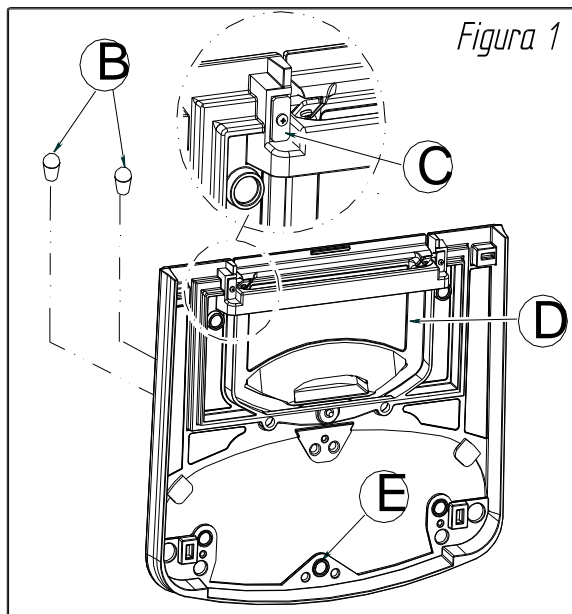


Small imperfections on the surfaces of the ceramics such as: dimples, shivering and slight colour variations are normal characteristics of handcrafted ceramics which make each piece unique. Remove any stickers from the brass bushes to facilitate screwing in the screws M3.





#### 4.1.3 MOUNTING THE MAJOLICA OV CASING



Once the heater has been positioned the next step is to mount the "Majolica backing plate kit" (packed separately) and the majolica OV casing (packed separately). The heater body is supplied with a factory-mounted cast iron cover (E) and (D) (see figure 1).

- Unscrew the 2 knobs (B). Remove the cover unit (D) and (E). Undo and remove the 2 screws (C) and the corresponding brackets. Separate the movable cover (D) from the fixed cover (E).
- Unpack the "Majolica backing plate kit" and the "Majolica OV kit".
- Adjust the mounting feet and position the kickplates (M) (figure 3 and detail figure 3); then check that the door can be easily removed (PC) and if necessary raise the feet, fasten the majolica backing plate (K) by firstly inserting the folds on the holes in the base then fasten the screws (F).
- Fasten the retainers (J) with the screw M4X25 and nut (Y) (see figure 4).
- Next mount the majolica side panels (CL) as illustrated in figure 2; handle the panels with extreme care to avoid accidental breakages.
- Fix cover (D) to cover (N) with the special screws (Q) (M4 screws, plates and pins - see figure 2) previously removed from the cast iron cover (E).
- Next fix the 2 self-tapping screws (AA) (figure 2).
- Position the cover (N) as illustrated in figure 3 and fasten the hardware (O) (Screw M6X20 and 2 nuts M6) and hardware (P) (Screw M4X25 and Nut M4) required for the adjustment of the majolica top.
- Next firmly secure the ceramic support to the heater with the 2 self-tapping screws (AB) (see figure 4).
- Mount the top majolica tile and the knobs (B).



Small imperfections on the surface of the majolica tiles such as: dimples, shivering and slight colour variations are normal characteristics of handcrafted ceramics which make each piece unique.

Figura 2

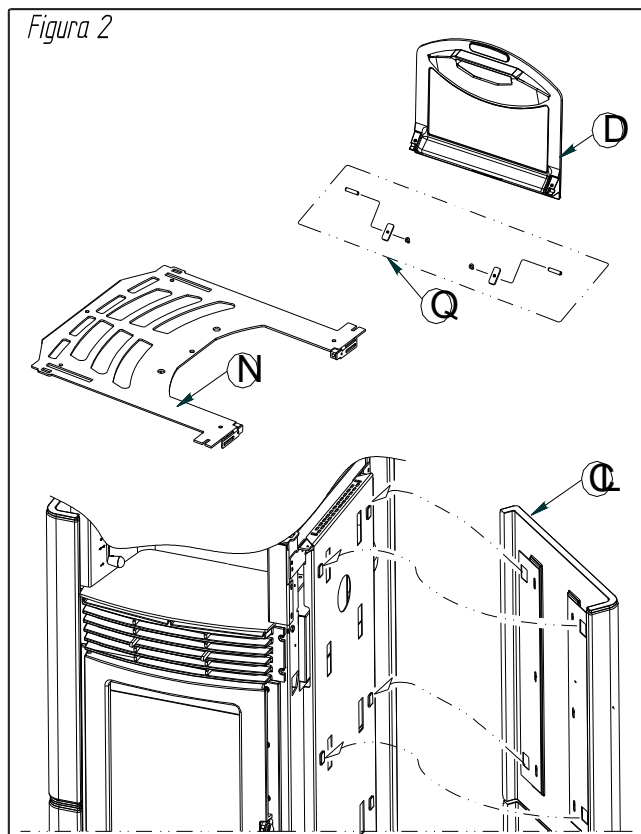
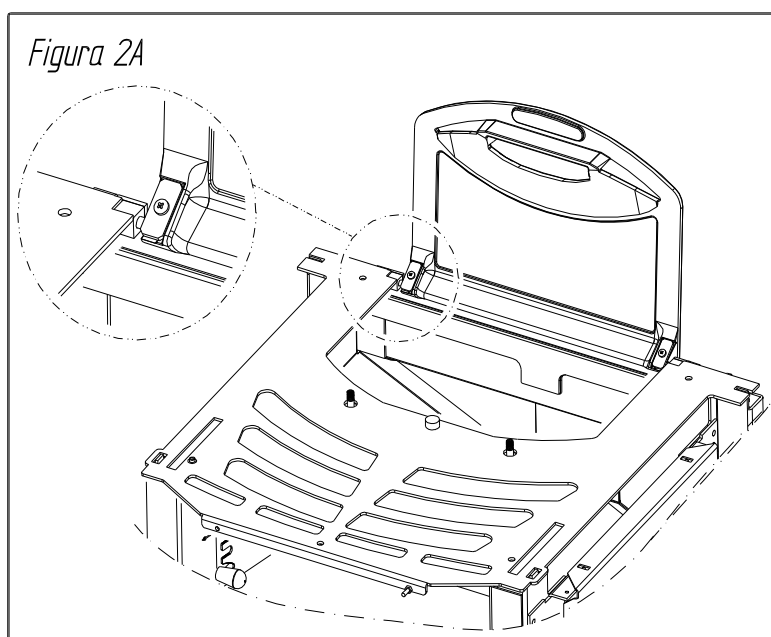


Figura 2A



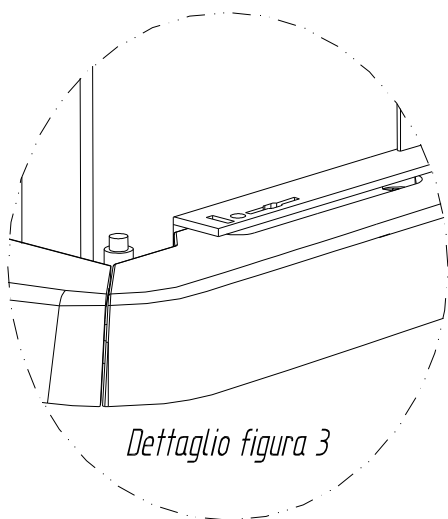
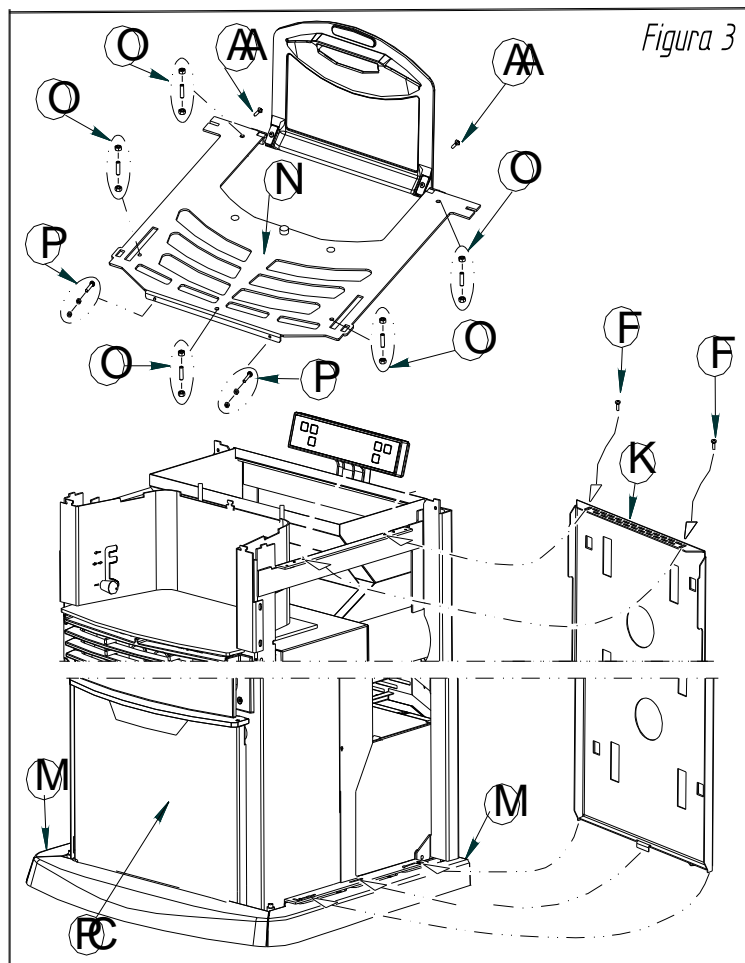
**LEGENDA**

Figura  
Dettaglio figura

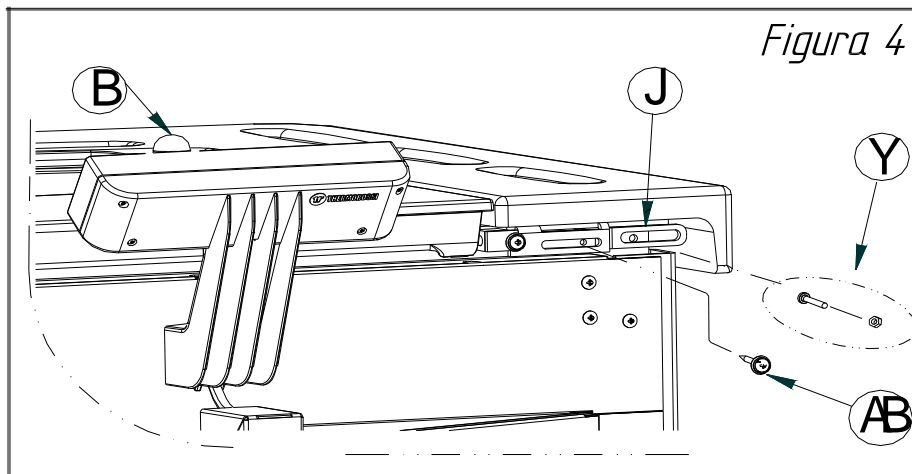
**KEY**

Figure  
Detail Figure

Figura 3



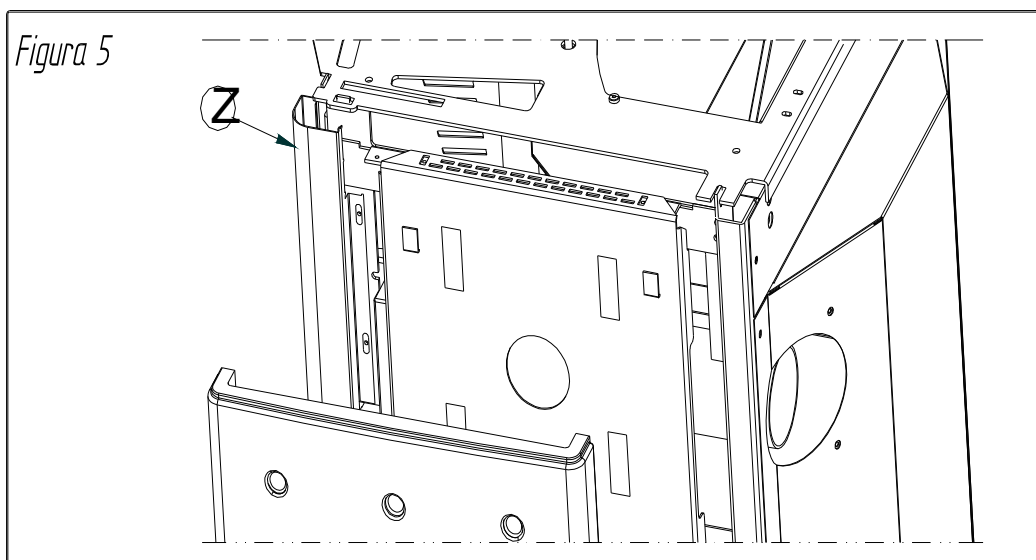
Dettaglio figura 3



#### 4.1.4 MOUNTING MAJOLICA PU CASING

Once the heater has been positioned the next step is to mount the "Majolica backing plate kit" (packed separately) and the majolica PU casing (packed separately). The heater body is supplied with a factory-mounted cast iron cover (E) and (D) (see figure 1 in the previous paragraph).

- Unscrew the 2 knobs (B). Remove the cover unit (D) and (E). Undo and remove the 2 screws (C) and the corresponding brackets. Separate the movable cover (D) from the fixed cover (E).
- Unpack the "Majolica backing plate kit" and the "Majolica PU kit".
- Adjust the mounting feet and position the kickplates (M) (figure 3 and detail figure 3 in the previous paragraph); then check that the door can be easily removed (PC) and if necessary raise the feet, fasten the majolica backing plate (K) by firstly inserting the folds on the holes in the base then fasten the screws (F).
- Fasten the vertical uprights (Z) to the corresponding bases and eliminate the pre-cut section from the top of the part (figure 5).
- Fasten the retainers (J) with the screw M4X25 and nut (Y) (see figure 4 in the previous paragraph).
- Next mount the majolica side panels (CL) as illustrated the previous paragraph (figure 2); handle the panels with extreme care to avoid accidental breakages.
- Fix cover (D) to cover (N) with the special screws (Q) (M4 screws, plates and pins - see figure 2 in the paragraph above) previously removed from the cast iron cover (E).
- Next fix the 2 self-tapping screws (AA) (figure 2 in the previous paragraph).
- Position the cover (N) as illustrated in the previous paragraph (figure 3) and fasten the hardware (O) (Screw M6X20 and 2 nuts M6) and hardware (P) (Screw M4X25 and Nut M4) required for the adjustment of the majolica top.
- Next firmly secure the ceramic support to the heater with the 2 self-tapping screws (AB) (see figure 4 in the previous paragraph).
- Mount the top majolica tile and the knobs (B).



Small imperfections on the surface of the majolica tiles such as: dimples, shivering and slight colour variations are normal characteristics of handcrafted ceramics which make each piece unique.

## 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 (7). 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 smoke probe, detected by the smoke probe, reaches a temperature over 70°C. The ventilation can be set up to 6 speed levels (7): 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 (7) switches to **START / WORK / OFF**. Press repeatedly to activate up to 5 bars on the display (7)

**(2) Ventilation setting button.** Press this button to set the desired level of ventilation: you can select up to a maximum of 6 speeds, acknowledged by the corresponding bars lighting on the display (7). One bar is always lit up even in OFF status.

**(3) (4) Auxiliary setting keys.**

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

**5) Programming Enable / Disable / Chrono Reset keys**

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

**(7) Display**

**(8) Infrared sensor for infrared control**

for

#### LEGENDA

#### KEY

Zona del display dove viene visualizzato il giorno corrente (per esempio 3 pallini = mercoledì)

Display area in which the current day is displayed (for example, 3 dots = Wednesday)

Zona del display dove vengono visualizzati fasi di funzionamento, ora,....

Display area in which the operation steps are displayed, time...

Indicatore livello di ventilazione

Ventilation level indicator

"Thermocomfort On" ovvero connesso

"Thermocomfort On" i.e. connected

Indicatore livello di combustione

Combustion level indicator

Termostato ambiente

Room temperature thermostat

Cronotermostato - modem

Chronothermostat - modem

Spia Motor

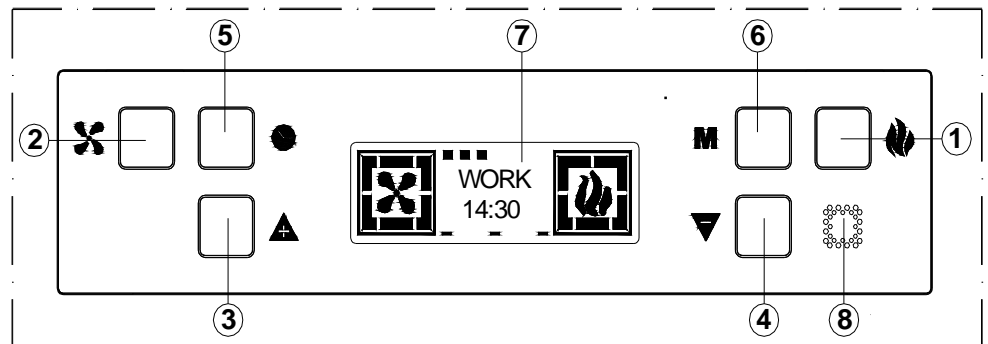
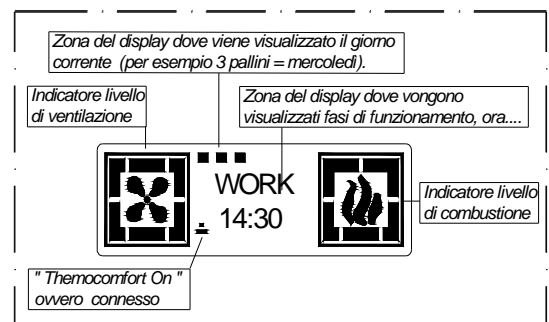
Motor LED

Spia riarmo

Reset LED

Riarmo

Reset



#### 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.

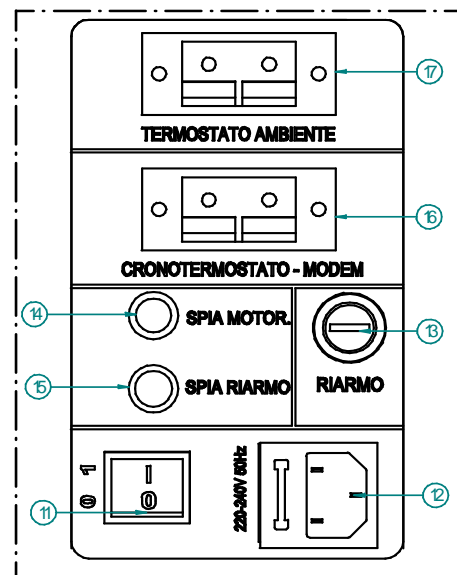
To restart the heater you need to wait until it cools down, then verify the cause for the overheating, remove the cause, unscrew the protective cap and press the button (13).

(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)

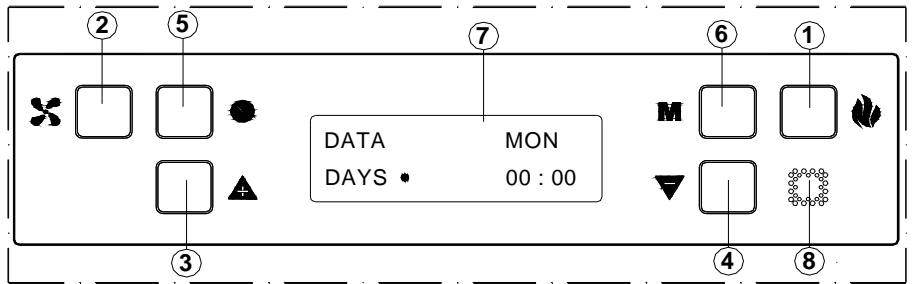


## 5.2 DAY AND TIME SETTING

The heater must be energised and the rear switch in position "1". The words **START** or **WORK** or **Off** could be present on the display (7). To set the time and day of the week proceed as described below. Press button (6) once; the word **DATA** will appear on the display followed by the words illustrated in the figure on the right. To set the day press arrow button (4) and/or (3) repeatedly until the desired day appears: (MON and one dot for Monday

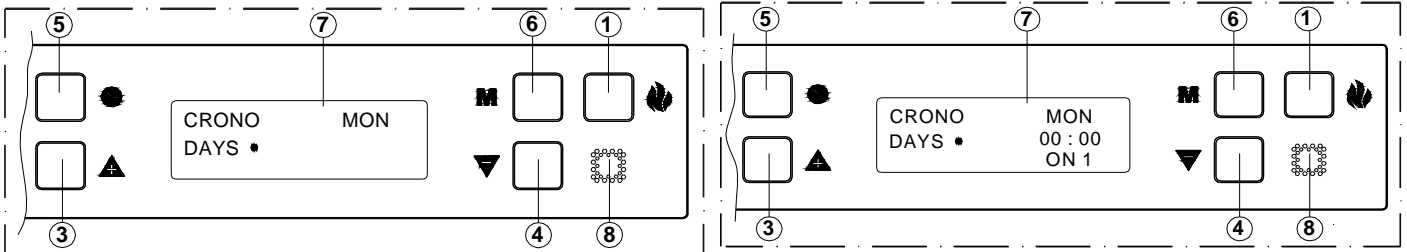
-- TUE and two dots for Tuesday -- WED and 3 dots for Wednesday -- THU and 4 dots for Thursday -- FRI and 5 dots for Friday -- SAT and 6 dots for Saturday -- SUN and 7 dots for Sunday).

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: **START**, **WORK** or **OFF**.



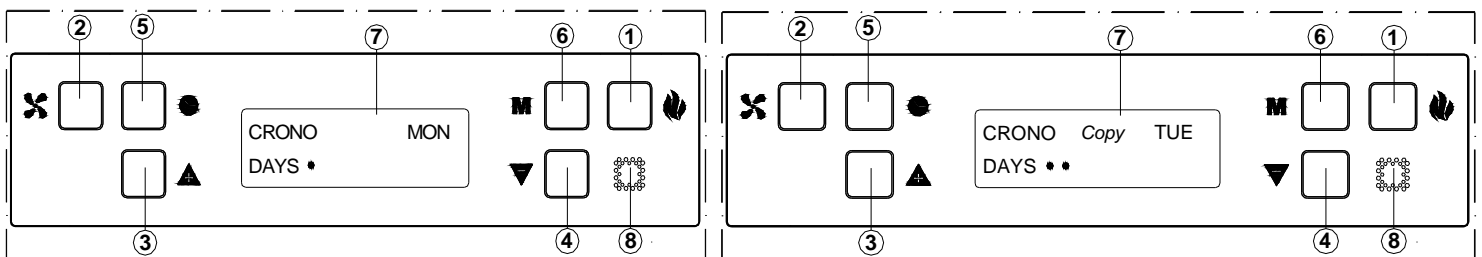
## 5.3 ON/OFF PROGRAMMING

The heater must be fed with the rear switch in position "1". The words **START** or **WORK** or **OFF** could be present on the display (7).



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 program the heater press button (6) twice until the word **CRONO** appears followed by the words illustrated in the figure above on the left. Now you can begin programming the first day of the week - Monday - by pressing button (1). Press the arrow button (3) and/or (4) to choose another day to be programmed, to confirm the selection press button (1) again. The words **ON1** will appear on the display followed by 2 blinking digits indicating the hours (figure above right). 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 2 digits indicating the minutes will start flashing. Press button (3) and/or (4) to enter the minutes of the first cycle start time. To confirm the selection press button (1). The first start up time for the selected day has now 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 2 digits indicating the minutes will start flashing. 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). This concludes the setting of the first on-off cycle for the selected day. 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**). Next the display appears as illustrated in the figure above on the left. Press arrow button (3) and/or (4) to select another day to program, to confirm the selection press button (1).

If you wish to copy all the on-off programs, for example the Monday settings, to the other days of the week, proceed as follows: press button (6) until the word "CRONO" appears followed by the screen illustrated in the figure below on the left. Next press button (2) and the display appears as illustrated in the figure below on the right: the program for Monday has been copied to Tuesday. Press button (2) again to copy the program to Wednesday, Thursday ..... To confirm and return to the status screen press button (6) repeatedly until one of the following function status words appear: **START**, **WORK** or **OFF**. In the programming menu if you wish, for example, to edit the programming for Sunday press button (3) and/or (4) to go to Sunday and then press button (1). If the second on-off cycle is not required simply set the ON2 time as 00:00 and the OFF2 time as 00:00.

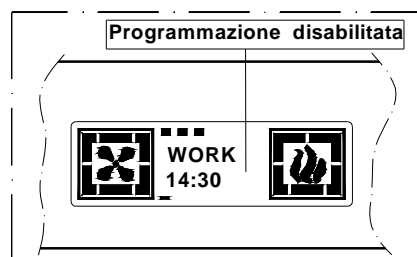
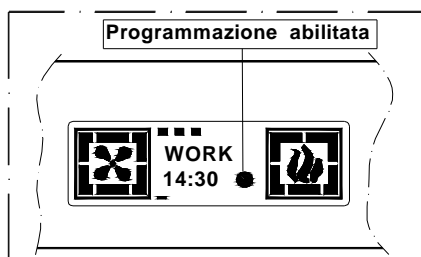


The programming procedure ends when you confirm the last data entered by pressing button (6) or when you exit the programming menu. During the **START** or **WORK** or **OFF** phases press button (5) to enable / disable the programming (Enabled = **CR.ON** appears momentarily on the display together with the fixed presence of the chrono symbol on the bottom right of the display). Disabled: message **CR.OFF** 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. Moreover, you can reset, or delete, all the programmings by holding down (in **OFF** or **START** or **WORK** phase) button (5) for approximately 8 seconds; the word "RESET CRONO" appears momentarily in order to indicate deletion of all the programmings previously set. 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. Manual shut down can only be carried out with the programming disabled. After shut down, by re-enabling the programming, at the next start up controlled by the programming the heater will be set at the 1st combustion power position and first fan speed.

In the event of a programmed cycle on always ensure that the brazier is clean and seated correctly in its lodging: failure to clean the brazier can reduce and/or affect the life of the spark plug as it would be subjected to high temperatures due to poor cooling. When the programming is enabled (**CR.ON** appears momentarily with the together with the fixed presence of the chrono symbol on the bottom of the display) any additional chronothermostats (see para. 7.2) are disabled.

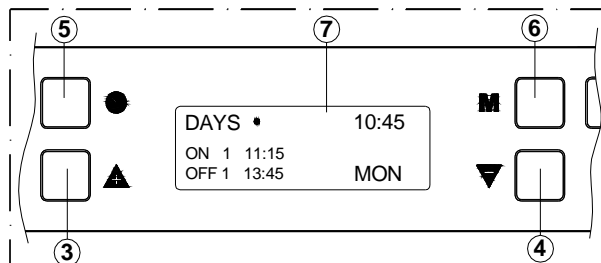
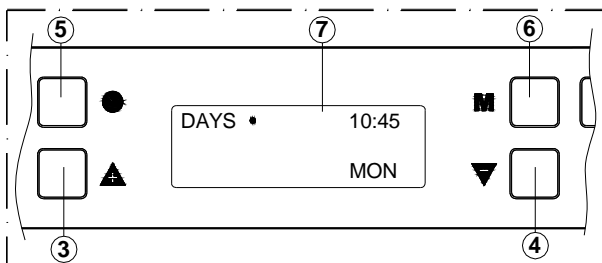


LEGENDA	KEY
Programmazione abilitata	programming enabled
Programmazione disabilitata	programming disabled



### 5.3.1 ON-OFF PROGRAMMING DISPLAY

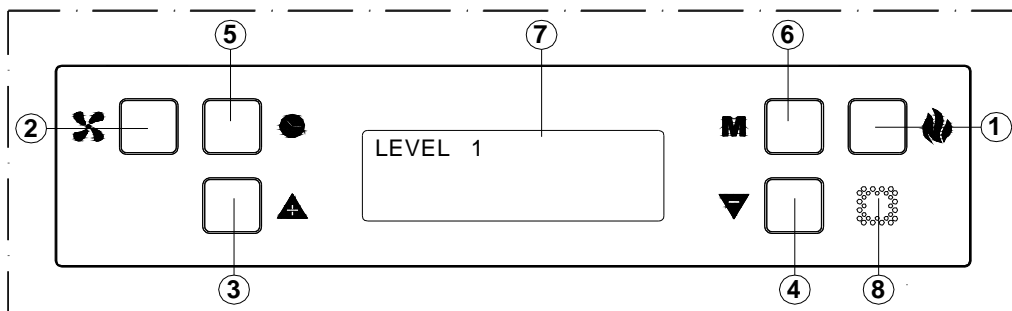
To view the programmings press button (6) 5 times until the words "Show Crono appear". After a few seconds the display appears as illustrated in the figure below on the left. Press button (3) repeatedly to scroll the programmings for all the days of the week (see figure below on the right) : press button (6) to exit.



**i** Caution: The on-off programmings cannot be modified from the "SHOW CRONO" menu; this menu is used only for viewing the programs that have been entered and/or edited through the "CRONO menu".

### 5.4 OPERATING LEVEL SETTING

The heater must be fed with the rear switch in position "1". The words **START** or **WORK** or **OFF** could be present on the display (7) .



Your appliance is delivered with an excellent program installed that favours combustion yield; the program is called **LEVEL 1**. If you are using pellets with an out-of-standard incidence of residues after combustion in the brazier, alternative levels may be selected:

**LEVEL 2** : this program increases the smoke suction unit speed acceleration. (Level 2 program increases the air flow to the burner to improve combustion of more tightly compacted wood pellets: with this program reduces combustion efficiency).

**LEVEL 0** : when using too long pellets and/or flue outlets with very high vacuum, over 2 Pascal. When operating at LEVEL 0 the burner becomes dirty very easily.

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

Select the required level by acting as follows:

Press button (6) three times until the word LEVEL appears on the display after which the level set on the heater will appear (**LEVEL 1** or **LEVEL 2** or **LEVEL 0**). In order to change the operating level as key (3) is kept pressed, press the key (4). By holding down button (3) and pressing button (4) repeatedly the level changes in the following sequence: **LEVEL 2**... **LEVEL 0** ... **LEVEL 1**.



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. Once the operating cycle has been selected it is mandatory to thoroughly clean the brazier. To confirm and return to the heater status screen press button (6) repeatedly until the operating status appears.

## 6 USE OF THE HEATER

**CAUTION** : Before each use make sure that the burner is clean and positioned correctly in its lodging, check that the ash pans are clean and shut tight and check that the firebox door handle is locked.



**CAUTION** : the door must always remain shut tight when the heater is operating. It is strictly forbidden to open the door while the heater is in operation. While the heater is in operation the smoke exhaust pipes and the heater can reach extremely high temperatures: do not touch them! It is strictly forbidden to use any type of fuel (liquid, solid...) to light the heater: the heater will light up automatically as designed and described in this installation, use and maintenance booklet. Do not place objects that are not heat resistant near the heater (see also para.4.1.)



### 6.1 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 (the word **START** appearing on the display) continues until the word **START** remains lit; during this time the heater ignores all commands transmitted to it. Once this phase has ended the word **WORK** appears on the display. The fan will begin operating as soon as the combustion smoke reaches a suitable temperature.

During the work stage it is then possible to adjust combustion and the ventilation: The combustion can be adjusted by 5 bars through button (1), the ventilation setting can be set on 6 levels indicated by the sequential lighting up of the corresponding bars on the display (through button (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 room fan starts up as soon as the temperature of the combustion smoke reaches a suitable threshold. 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. One bar is always present on the display even in OFF status.

### 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 remote control is the instrument that allows you to optimise both consumption and 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 (11R) 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".

CAUTION: the Thermocomfort function is disabled, that is, OFF. To enable it, in the START, WORK, OFF phases, repeatedly press button (6) on the local control panel until the word "THERMOCOMFORT" appears on the display (7) followed by the words Thermocomfort Off".

To activate the Thermocomfort function simply press the button (3): " Thermocomfort On". To return to the original operating function simply press the button (6) again.

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

(1R) Flame adjustment button

(2R) Ventilation adjustment button.

(3R) (4R) Auxiliary keys.

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

(6R) "Ventilation" indicator.

(7R) "Combustion" indicator.

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

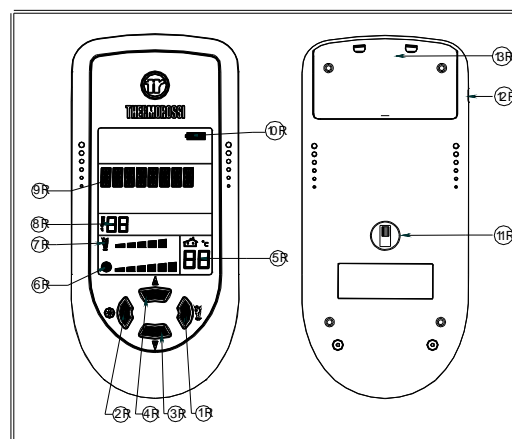
(9R) Area of the display where the operating program is displayed.

(10R) Battery charge level

(11R) Switch 0-1 radio control power

(12R) Battery charger connection

(13R) 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 (11R) to "1". Press and hold down button (3R) until the set program begins to blink on the display (9R). Now release button (3R) and press button (3R) and/or (4R) repeatedly until you select the desired operating program.

**MANUAL program** (the "Thermocomfort On" symbol is blinking on the display on the heater)

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

Press button (2R) and the ventilation symbol blinks. Press button (3R) to decrease the combustion level, vice versa press button (4R) to increase the combustion level. The ventilation level changes every time buttons (3R) and (4R) are pressed. 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** (the "Thermocomfort On" symbol is steady on the display on the heater)

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 (8R). The desired room temperature appears in area (8R) . You can vary the desired room temperature by simply pressing button (3R) and/or (4R) (variation indicated in area (8R)). The remote control will set the maximum combustion and ventilation levels and modulate them both as the room temperature (5R) approaches the target temperature (8R). When the target temperature (8R) in the room (5R) 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** (the "Thermocomfort On" symbol is steady on the display on the heater)

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 (8R). The desired room temperature is displayed in area (8R). You can vary the desired room temperature by simply pressing button (3R) and/or (4R) (variation indicated in area (8R)). 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 (5R) approaches the target temperature (8R). When the target temperature (8R) in the room (5R) 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.

**ECONOMY program** (the "Thermocomfort On" symbol is steady on the display on the heater)

In the ECONOMY program the heater always operates at the minimum combustion level and the minimum ventilation level. When using this program the infrared remote control cannot be used.

**ATTENTION : THE HEATER MUST ALWAYS BE STARTED UP AND SHUT DOWN FROM THE LOCAL CONTROL PANEL OR THROUGH PROGRAMMING.**

### 6.4.2 TRANSMISSION CODES SETTINGS.

The heater must be fed with the rear switch in position "1". The words **START** or **WORK** or **OFF** could be present on the display (7).

If there are several heaters installed in rooms closeby to each other it may be necessary to set different transmission codes as this type of interference deactivates operation of the optional Thermocomfort radio control. To change the transmission codes proceed as follows:

-Disable the Thermocomfort function. To disable it, in the START, WORK, OFF phases, repeatedly press button (6) on the local control panel until the word "THERMOCOMFORT" appears on the display (7) followed by the words Thermocomfort Off". To deactivate the Thermocomfort function simply press the button (3) : " Thermocomfort Off". To return to the original operating function simply press the button (6) again.

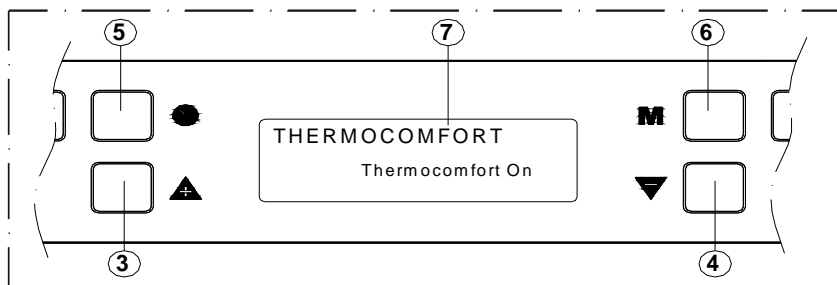
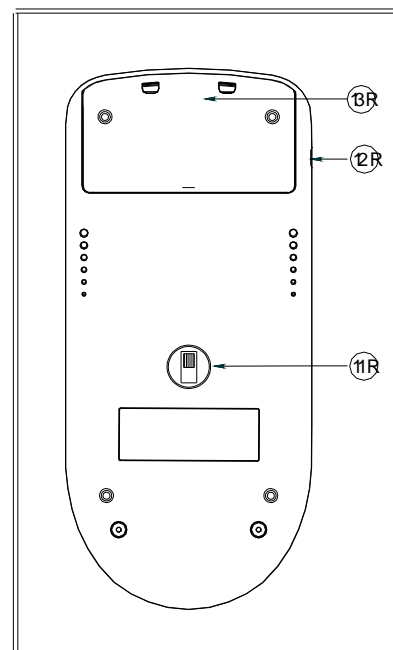
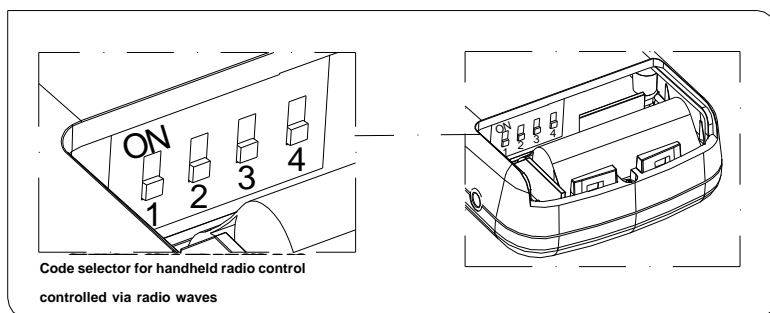
-Switch off the Thermocomfort radio control by pressing the button (11R) on the device.

-To change the transmission codes, open the cover (13R) and act as indicated in the figure below.

-Next switch on the radio control by pressing the button (11R).

-Activate the Thermocomfort function. To enable it, in the START, WORK, OFF phases, repeatedly press button (6) on the local control panel until the word "THERMOCOMFORT" appears on the display (7) followed by the words Thermocomfort Off". To activate the Thermocomfort function simply press the button (3) : " Thermocomfort On". To return to the original operating function simply press the button (6) again.

The radio control may still not function even after having changed the transmission codes. If this occurs change the codes once again using the procedure described above.



### 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.

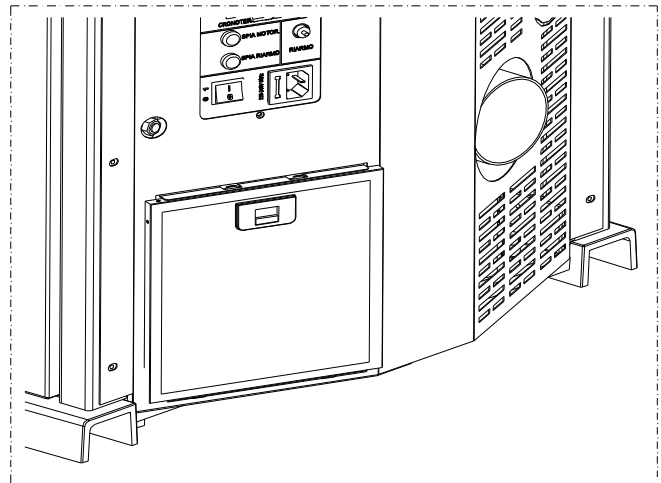
All the above guidelines apply equally to the radio control, the battery, the battery charger, and all the accessories.

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.

### 6.5 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).



### 6.6 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:

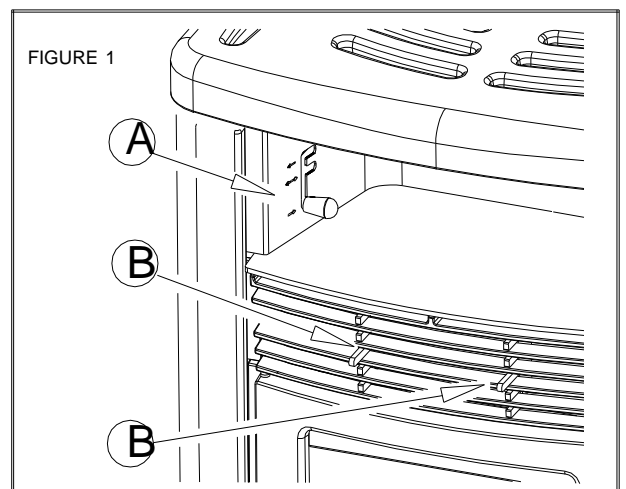
- to 16 metres using 1 output - to 8 metres using 2 outputs
- to 6 metres using 3 outputs - to 4 metres using 4 outputs

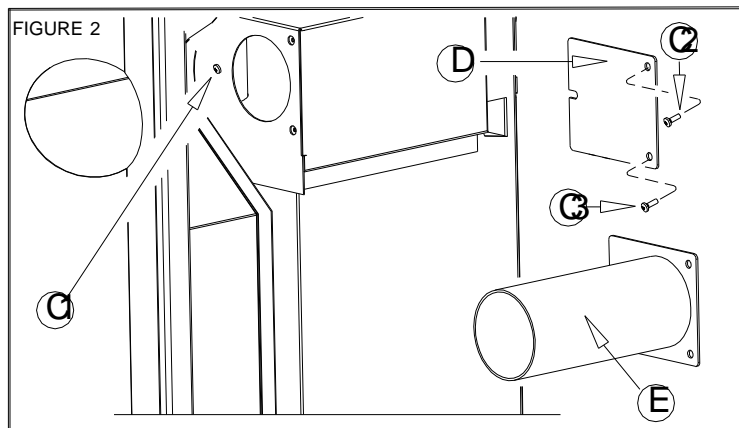
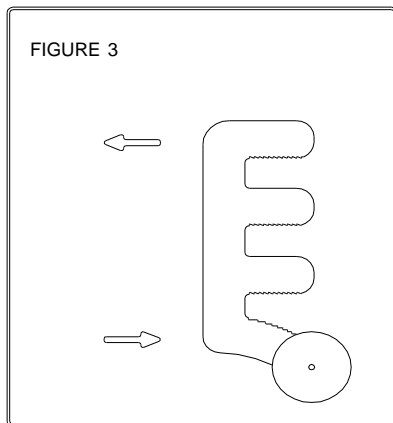
The heater is supplied with both fittings already mounted.

If you wish to channel the air with 1 vent only then you must (see figure 2) 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 1). To start the air channelling act on lever **A** (figures 1 and 3). Act on the 2 levers **B** (figure 1) to direct part of the ventilation air towards the right or the left.



Controls **A** and **B** heat up considerably; use suitable protection to prevent burns.





## 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.

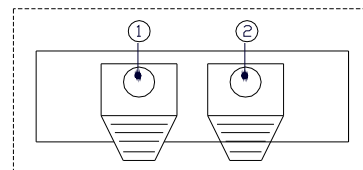
They refer to two operating modes:

→ 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. This condition is indicated on the display by the blinking ventilation bar and combustion bar: the heater ignores all commands transmitted to it. 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 the heater can be started up automatically both via the programming and via the chronothermostat-modem rear contact.



**CAUTION:** N.C. (normally closed) contacts must be used for the connection to the additional room temperature thermostat. The thermostat must have a thermal hysteresis that is not less than 2°C.

### 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 output when the chronothermostat contact closes the START cycle begins, whereas when the contact opens the OFF cycle begins. 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. **Caution: When using the chronothermostat program up to a maximum of 3 on-off cycles without setting the desired target temperature or set it at the highest possible value for the chronothermostat.** At the end of the preset time the contact will open and perform the shut down process. Similarly at the preset startup time the contact will close and initiate the START cycle. The chronothermostat can be used to program start up and shut down times and dates for the heater. It is therefore possible to program a momentary shut down of the heater according to the preset time. **Do not shut down the heater according to the room temperature.** It is mandatory to deactivate the Chrono symbol on the display (see para. 5.3) if an external chronothermostat is used.



**CAUTION:** The manufacturer denies all responsibility for the life of the electrical heater if subjected to excessive start ups. It is recommended not to set the desired room temperature or to set it at the highest possible value for the chronothermostat in order to avert this danger.

**CAUTION:** Use N.O. (normally open) contacts for the connection to the chronothermostat.

**CAUTION:** In the event of connections to the chronothermostat Thermorossi shall not be held responsible for the heater 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. A maximum of 3 on-off cycles per day are permitted.

The chronothermostat must have a thermal hysteresis that is not less than 2°C.

## 8 CLEANING AND MAINTENANCE

### 8.1 FOREWORD



Before commencing any operation disconnect the appliance from the electric power outlet.

Your pellet heater does not require any special maintenance; simply adhere to the simple and basic but regular controls and general cleaning. This will guarantee consistently smooth operation and optimal efficiency of the appliance. In the event of prolonged non-use of the product it is mandatory to check for obstructions in the smoke channel and flue outlet before putting it back into 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. Caution: the heater must not come into contact with water and do not touch the electrical parts with wet hands. Never vacuum hot ash: this could damage the vacuum device. All the cleaning operations described in this manual must be carried out when the heater is cold.

### 8.2 CLEANING AND MAINTAINING THE HEATER

- **EVERY DAY** clean out all the combustion residues from the brazier **B** and remount the brazier **B** and catalyst **A** (figure 2,2A).  
**CAUTION** : make sure, before every start up, that the brazier is clean and if necessary thoroughly clean the burner with a vacuum device. Pay particular attention to the area around the spark plug: it must be perfectly clean to guarantee correct operation of the appliance. .
- EVERY 3 DAYS** lift and drop the tube scraper rods several times (figure 1)
- EVERY 5 DAYS** clean the room air filter located at the back of the heater (see para. 6.4).
- EVERY WEEK** clean out all the ash from the ash pans **V** and **V1** (figure 2, figure 6, 6A): to access the pan **V** simply lift out the brazier **B** and the catalyst **A** (figure 2). To remove the ash pan **V1** firstly you need to remove the bottom door **F** (figure 3) by pressing the handle downwards, rotating the cover outwards and sliding it up: then remove the drawer **V1** (figure 6, 6A).
- EVERY 2 WEEKS** clean the smoke exhaust "T" at the heater inlet .
- EVERY MONTH** inspect and clean the vents identified as "A1" , "A2". (figure 5, 5A).
  
- 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 hopper (when the hopper is empty).
- TWICE A YEAR** clean the flue outlet and the smoke channels.
- TWICE A YEAR** remove the back of the combustion chamber (figure 4 and figure 4A) to clean it by lifting and rotating it outwards<.

Legenda KEY  
Figura Figure

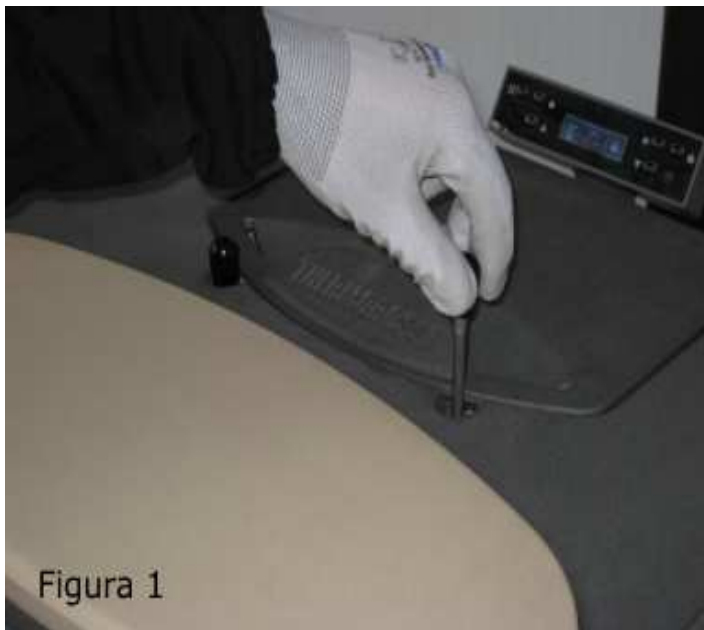


Figura 1

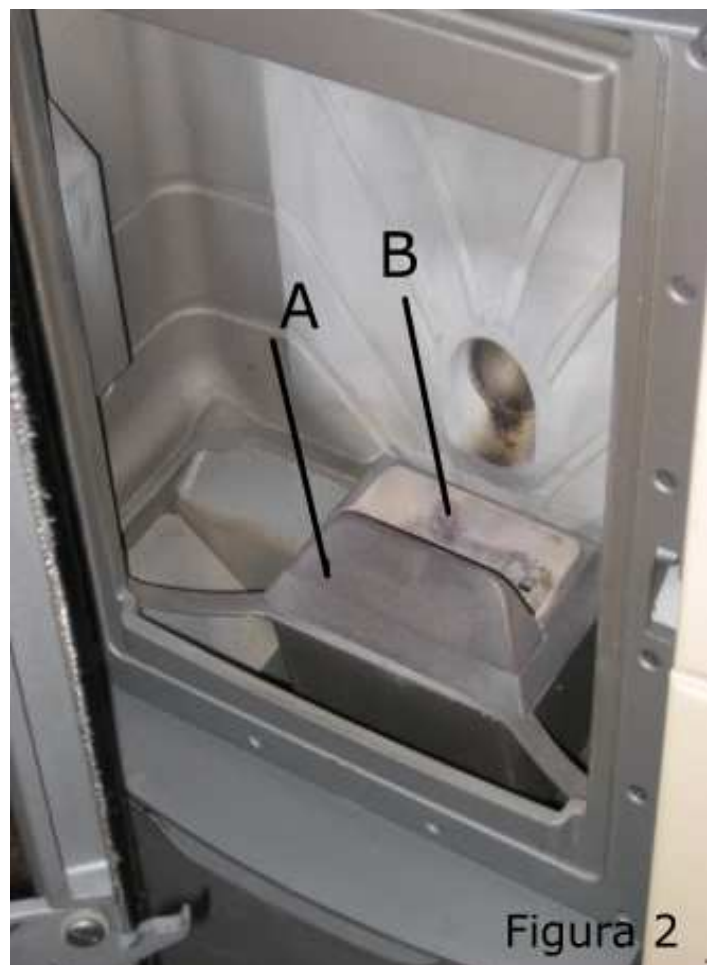


Figura 2



**AT THE END OF THE WINTER SEASON OR WHENEVER IT IS NECESSARY** we recommend doing an in-depth cleaning of the Eco 7000 Thermocomfort firebox, with brushes and a vacuum cleaner. Using a vacuum device simplifies cleaning out the ashes.

Use a damp cloth or a scrunched 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 2. Remember that the heater 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.

**CAUTION** : after cleaning it is mandatory to carefully check that the combustion chamber door and the ash pan " V1" are shut tight.

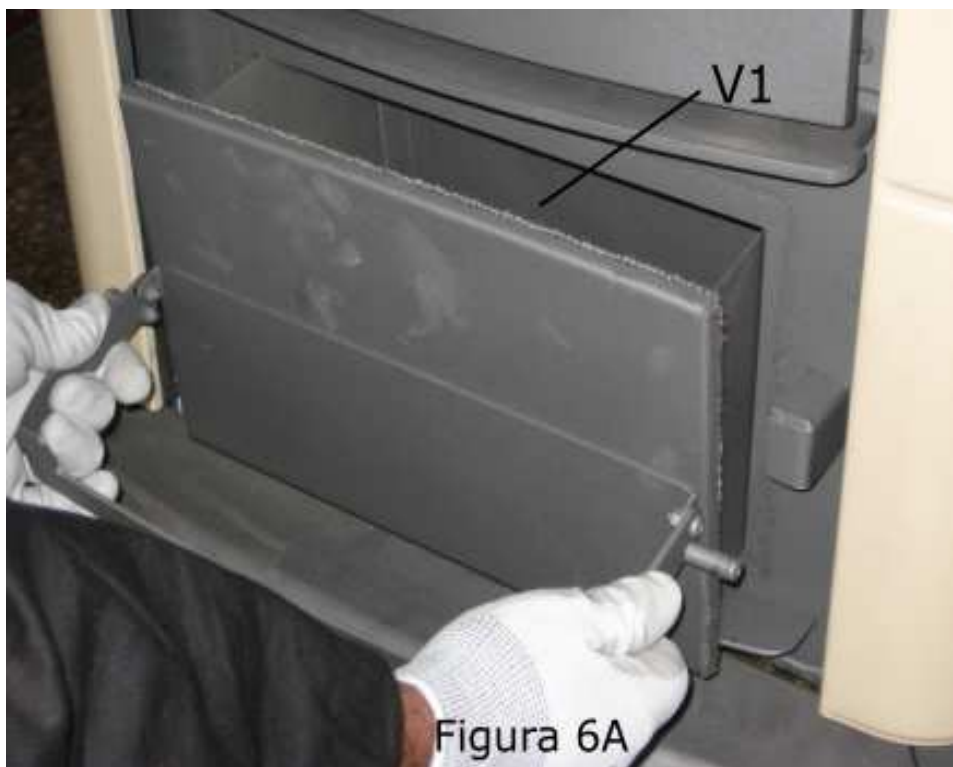
**CAUTION** : the smoke channel and flue outlet generator must be cleaned in accordance with the specifications described above and use of inflammable products is strictly forbidden. Total or partial lack of maintenance will affect the heater's performance. Any problems resulting from total or partial lack of maintenance will immediately void the warranty.





Legenda	KEY
Figura	Figure

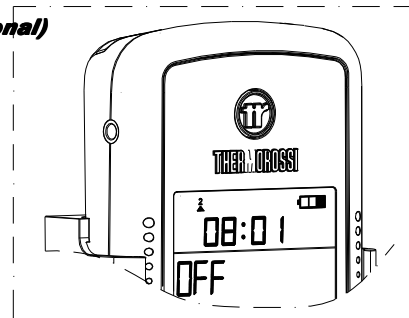




### 8.3 CHARGING THE BATTERY OF THE HANDHELD RADIO CONTROL (optional)


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. Flat batteries must be removed and safely disposed of. Use rechargeable AAA 1.2 V min.750 mAh batteries. Use only rechargeable batteries but do not mix different brands and types.

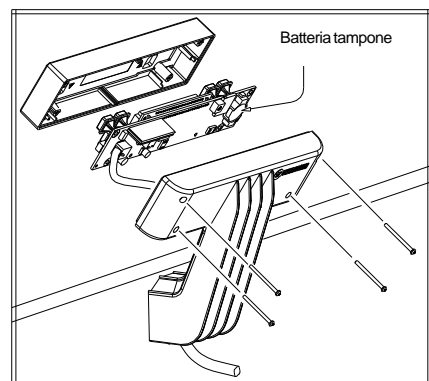
### 8.4 BATTERY REPLACEMENT FOR INFRARED REMOTE CONTROL

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 CR 16 32

When the time and programming are not being memorised (this malfunction is not considered a defect as it is the result of normal wear/consumption) replace the battery by removing the 4 screws at the back of the control panel. The dead battery must be disposed of safely.



## 9 SMOKE DISCHARGE TUBE

•Due to the frequent accidents caused by poor operation of the flue outlets in private dwellings, we have prepared the following paragraph with the aim of facilitating the task of the installer in controlling all the parts dedicated to the elimination of the smoke produced by the combustion. The smoke exhaust must be installed in compliance with UNI7129/92, UNI 10683 and EN14785 and must respect the following reference values: it must be able to withstand the action of a fire (in case of fire call the fire brigade immediately).

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 eater 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 6cm<sup>2</sup> for each Kw of installed thermal power, with a minimum limit of 100cm<sup>2</sup>;
- 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 can be taken directly from the room in which the heater is installed. The room where it is installed must however be suitably ventilated.

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

**CAUTION:** do not obstruct the vents or the air inlets on the heater.

### 9.2 SMOKE OUTLET

The user must possess a certificate of conformance for the flue outlet (Ministerial Decree 22 January 2008, no. 37). The flue outlet must be built in compliance with UNI 10683.

•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:

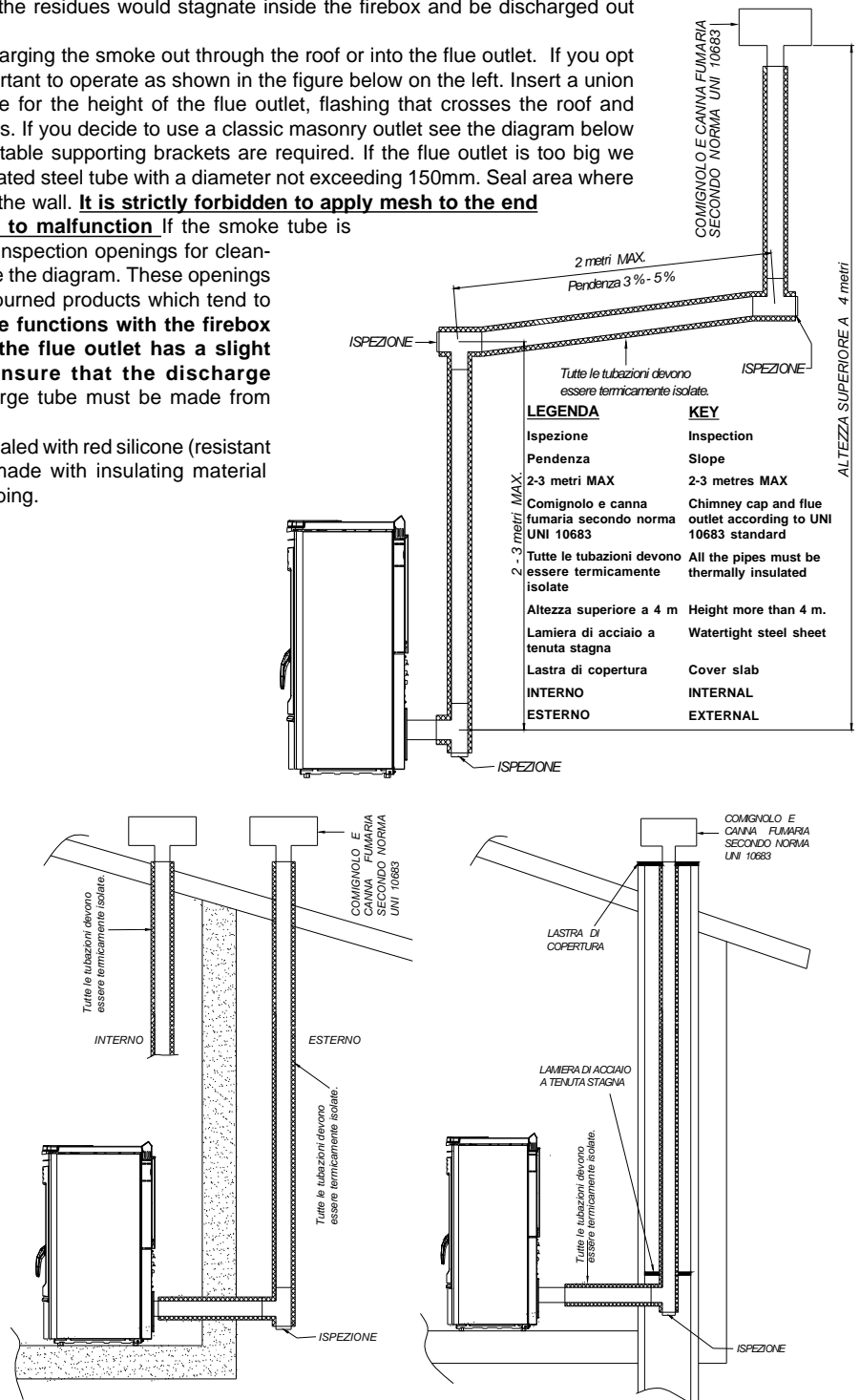
porcelain-coated steel tubes, and the various fittings sealed with red silicone (resistant to 350°C). The outer casing of the tube must be made with insulating material (mineral wool, ceramic fiber) or use pre-insulated tubing.



It must be possible to inspect and remove all the smoke tube sections for clean-out purposes.

**CAUTION:** if the flue outlet is not sufficiently insulated and /or if it is too long it could generate condensation. It is advisable to provide a condensation drain near the smoke outlet of the appliance. The appliance must always and only be installed in a single flue outlet system dedicated exclusively to the appliance.

If the generator is connected to a non-compliant flue system the appliance could rapidly deteriorate due to an abnormal, continuous overheating: in this case the damaged parts will not be covered by warranty. **IF THE CHIMNEY CATCHES FIRE DO NOT HESITATE TO CALL THE FIRE BRIGADE IMMEDIATELY.**



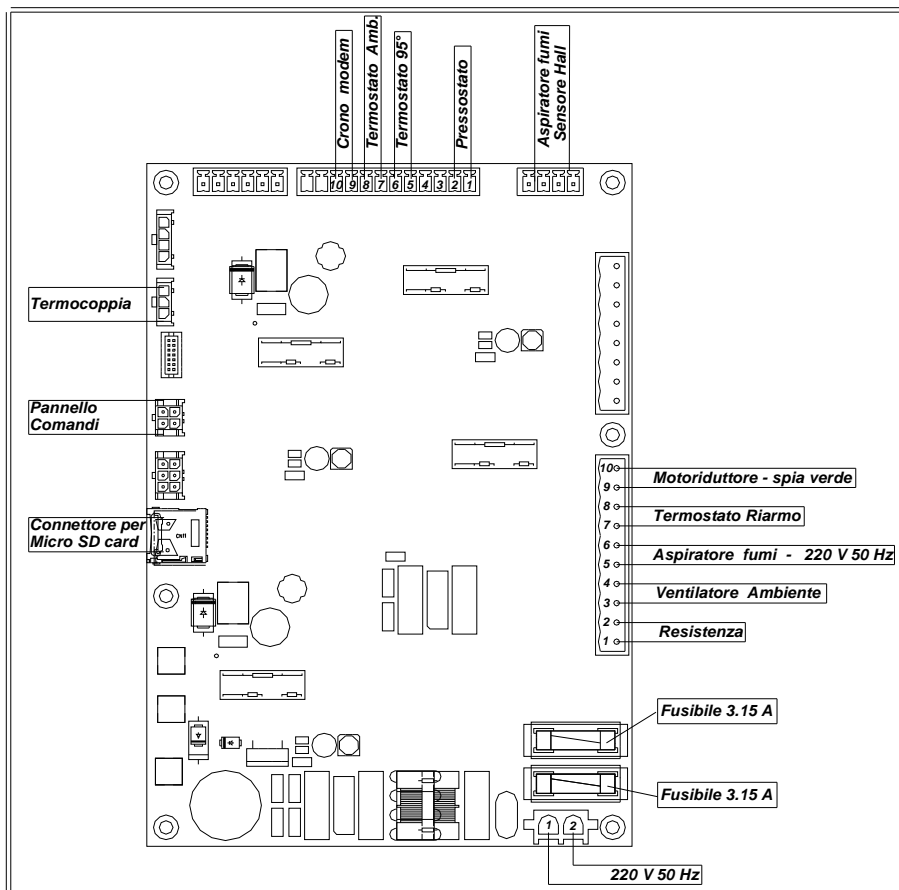
## 10 ALARMS

The heater is programmed to communicate 7 fundamental alarms. The alarms are listed below:

- AL PE** : is communicated when the temperature during the **WORK** mode drops below the fixed threshold: This indicates that the heater is switching off due to lack of pellets. To reset the alarm simply press the flame button (1): The heater will begin a new start up phase. Before repeating the START phase the pellet hopper must be filled up.
- AL14 AC** : appears once the START phase has finished if the smoke does not reach a certain temperature. To reset the alarm simply press the flame button (1); the heater will begin a new start up phase. It is mandatory to empty and clean the brazier before repeating the START phase: pellets emptied from the brazier must not be fed into the hopper.
- AL OP** : this occurs when the smoke outlet is partially blocked. To reset the alarm the power to the heater must be switched off then on by turning the switch at the back of the heater to 0-1.
- AL T max** : appears when the temperature of the heater body exceeds 125°C. Once the causes for the overtemperature have been identified and remedied unscrew the plastic cover of the thermostat located at the back of the heater and press the button (the heater temperature must be below 117 °C ). To reset the alarm the power to the heater must be switched off then on by turning the switch at the back of the heater to 0-1.
- AL SMOKE TEMP SENSOR** : appears when the smoke thermocouple is damaged.
- AL SMOKE FAN** : activates when the smoke suction unit sensor detects a very slow rotation speed: clean out the Tee connecting the flue outlet to the smoke exhaust pipe.
- AL SMOKE RPM SENSOR** : activates when the smoke suction unit sensor does not detect any rotation: the smoke suction unit is not working.

## 11 ELECTRICAL WIRING DIAGRAM

LEGENDA	KEY
Termocoppia	Thermocouple
Pannello Comandi	Control panel
Connettore per Micro SD card	Connector for Micro SD card
Crono modem	Chrono modem
Termostato Amb.	Room thermostat
Termostato 95°	Thermostat 95°
Pressostato	Pressure switch
Aspiratore fumi sensore Hall	Hall sensor for smoke suction unit
Motoriduttore - spia verde	Ratio motor - green LED
Termostato riarmo	Reset thermostat
Aspiratore fumi 220V 50 Hz	Smoke suction unit 220V 50 Hz
Ventilatore Ambiente	Room fan
Resistenza	Heater
Fusibile 3.15 A	Fuse 3.15 A



## 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

Starts automatically as soon as the smoke thermocouple detects a suitable smoke temperature. Similarly it stops when the fuel is finished or during a voluntary shut down when the smoke thermocouple detects a suitable temperature for activating.

#### 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 comes to a stop 30' after the smoke thermocouple detects a suitable drop in the temperature of the smoke.

#### THERMOCOUPLE

Its function is to verify the temperature of the combustion smoke: when the smoke temperature exceeds a certain value it indicates that the heater is on. Similarly, when the temperature drops below a certain limit it causes the smoke exhaust to stop.

#### 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 shut s 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

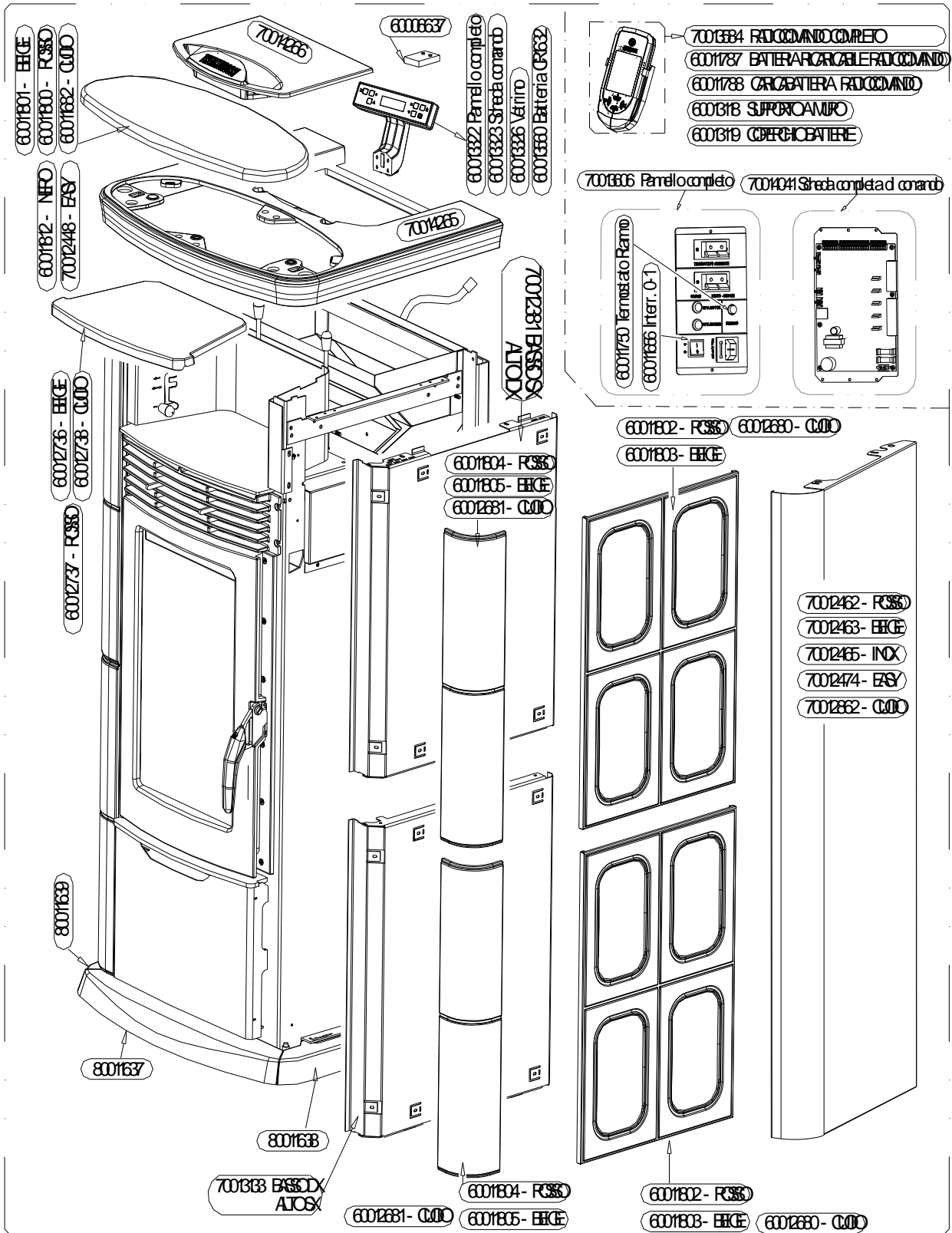
**12.3 TROUBLESHOOTING CAUSE-SOLUTION**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
<b>PELLETS DO NOT DROP INTO THE BURNER</b>	PELLET TANK IS EMPTY ( DISPLAY SHOWS THE INSCRIPTION <b>AL PE</b> )	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 <b>AL PE</b> )	REMOVE THE FOREIGN BODY
	SMOKE EXHAUST NOT FREE, OR WITH TERMINAL THAT OBSTRUCTS THE PASSAGE OF SMOKE (DISPLAY SHOWS THE INSCRIPTION <b>AL OP</b> )	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 <b>AL OP</b> )	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 <b>AL OP</b> )	SWITCH THE POWER SUPPLY TO THE HEATER OFF THEN BACK ON AGAIN
	THE PELLET SCREW MOTOR DOES NOT WORK	REPLACE THE PELLETS SCREW MOTOR
	THE RESET THERMOSTAT TRIPS AND LOCKS THE GEARMOTOR (DISPLAY SHOWS THE INSCRIPTION <b>AL T max</b> )	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.
<b>THE APPLIANCE ACCUMULATES PELLETS IN THE BRAZIER WHILE OPERATING</b>	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 level 2
	THE BURNER IS NOT PROPERLY PLACED ON ITS SEAT	SET THE BURNER ON ITS SEAT PROPERLY
	THE BURNER STAYS LIFTED FROM ITS SEAT	SET THE BURNER ON ITS SEAT PROPERLY
	THE ASH PAN IS NOT CLOSED CORRECTLY	CLOSE THE ASH PAN (SEE PARA. 8.2)
<b>THE HEATER SMOKES</b>	OCCURS THE FIRST TIME THE HEATER IS SWITCHED ON AS THE SILICONE PAINT IS BEING BAKED	RUN THE HEATER AT FULL POWER FOR 10 HOURS 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
	IF THE APPLIANCE STARTS TO SMOKE AFTER 25 MINUTES: DELAYED START BECAUSE THE SCREW FEEDER IS EMPTY	FILL UP THE TANK
<b>THE APPLIANCE SHUTS OFF 5 MINUTES AFTER THE END OF THE START UP CYCLE</b>	DELAYED START BECAUSE THE SCREW FEEDER IS EMPTY (DISPLAY SHOWS THE INSCRIPTION <b>AL AC</b> )	FILL UP THE TANK
	DIRTY BURNER, VERY DELAYED START. (DISPLAY SHOWS THE INSCRIPTION <b>AL AC</b> )	CLEAN THE BURNER

<b>THE HEATER DOES NOT START UP</b>	THE SPARK PLUG IS BLOWN (DISPLAY SHOWS THE INSCRIPTION <b>AL AC</b> )	REPLACE THE SPARK PLUG
<b>THE GLASS IS COVERED IN BLACK SOOT</b>	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
<b>ABSENCE OF FLOW OF VENTILATION AIR</b>	THE VENTILATION FILTER IS DIRTY	CLEAN THE FILTER LOCATED AT THE BACK OF THE HEATER
<b>IT DOES NOT WARM UP</b>	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
<b>THE APPLIANCE IS OFF BUT THERE ARE UNBURNT PELLETS IN THE BRAZIER</b>	THE TANK IS EMPTY	EMPTY THE BURNER AND FILL UP THE TANK
<b>THE PROGRAMMING AND/OR TIME DO/DOES NOT REMAIN IN THE MEMORY</b>	THE BUFFER BATTERY TYPE CR1632 INSTALLED IN THE CONTROL PANEL IS EXHAUSTED	REPLACE THE BATTERY (SEE PARA. 8.5)
<b>THE HEATER EXECUTES RANDOM COMMANDS OR RANDOMLY VARIES THE VENTILATION LEVEL</b>	THE "OPTIONAL WHITE HANDHELD RADIO CONTROL" IS INSTALLED AND THERE IS ANOTHER THERMOCROSSI HEATER NEARBY	CHANGE THE CODE SELECTOR (SEE PARA. 6.4.2)
<b>THE HEATER DOES NOT CARRY OUT THE COMMANDS SET BY THE OPTIONAL WHITE HANDHELD RADIO CONTROL</b>	THERE IS ANOTHER THERMOCROSSI HEATER NEARBY	CHANGE THE CODE SELECTOR (SEE PARA. 6.4.2)

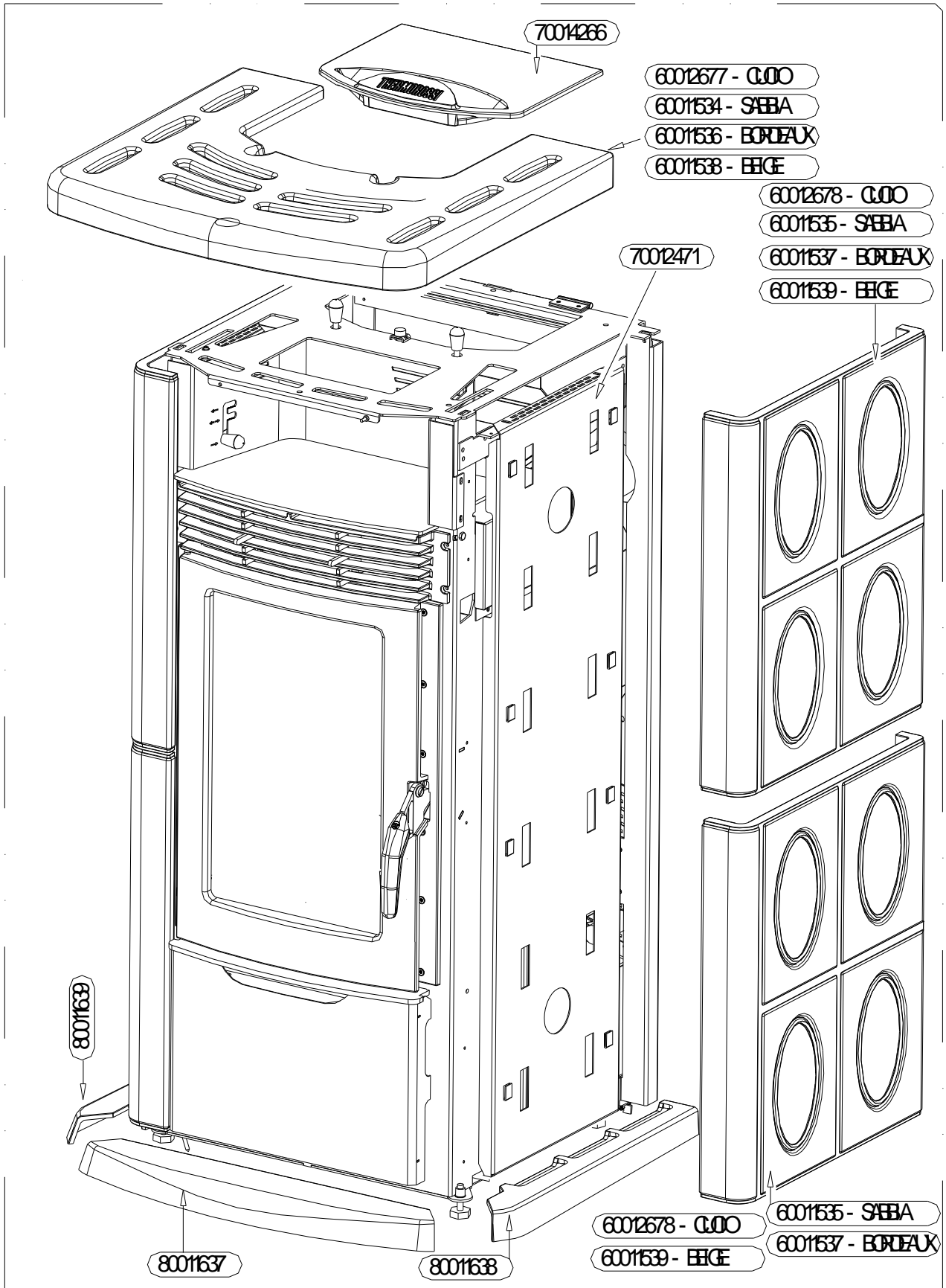
### 13 SPARE PARTS FOR ECO 7000 THERMOCOMFORT

#### 13.1 SPARE PARTS FOR RECTANGULAR CERAMIC, METALCOLOR, EASY CASINGS, RADIO CONTROL



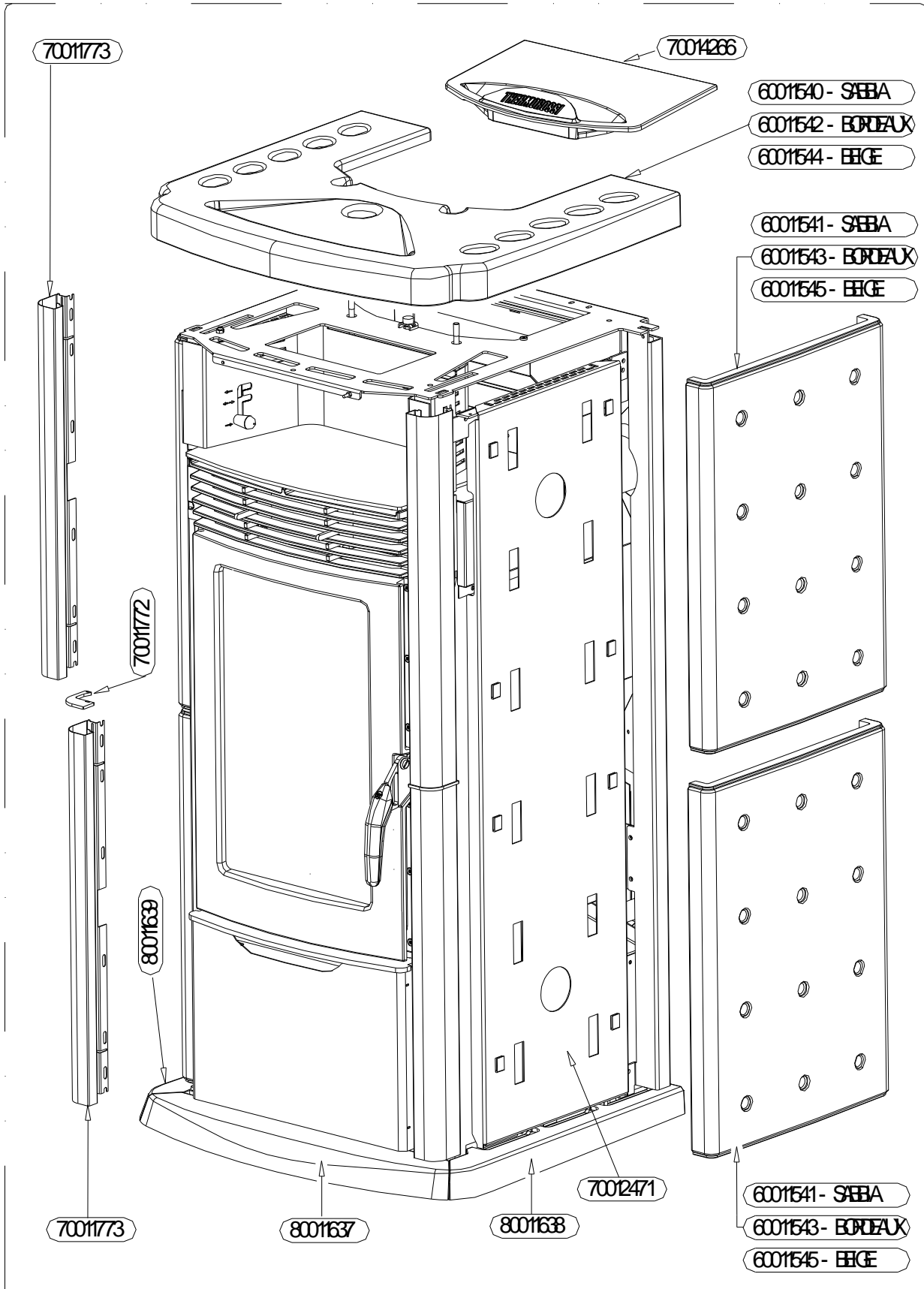
See key page 35

13.2 SPARE PARTS FOR OV CERAMICS



See key page 35

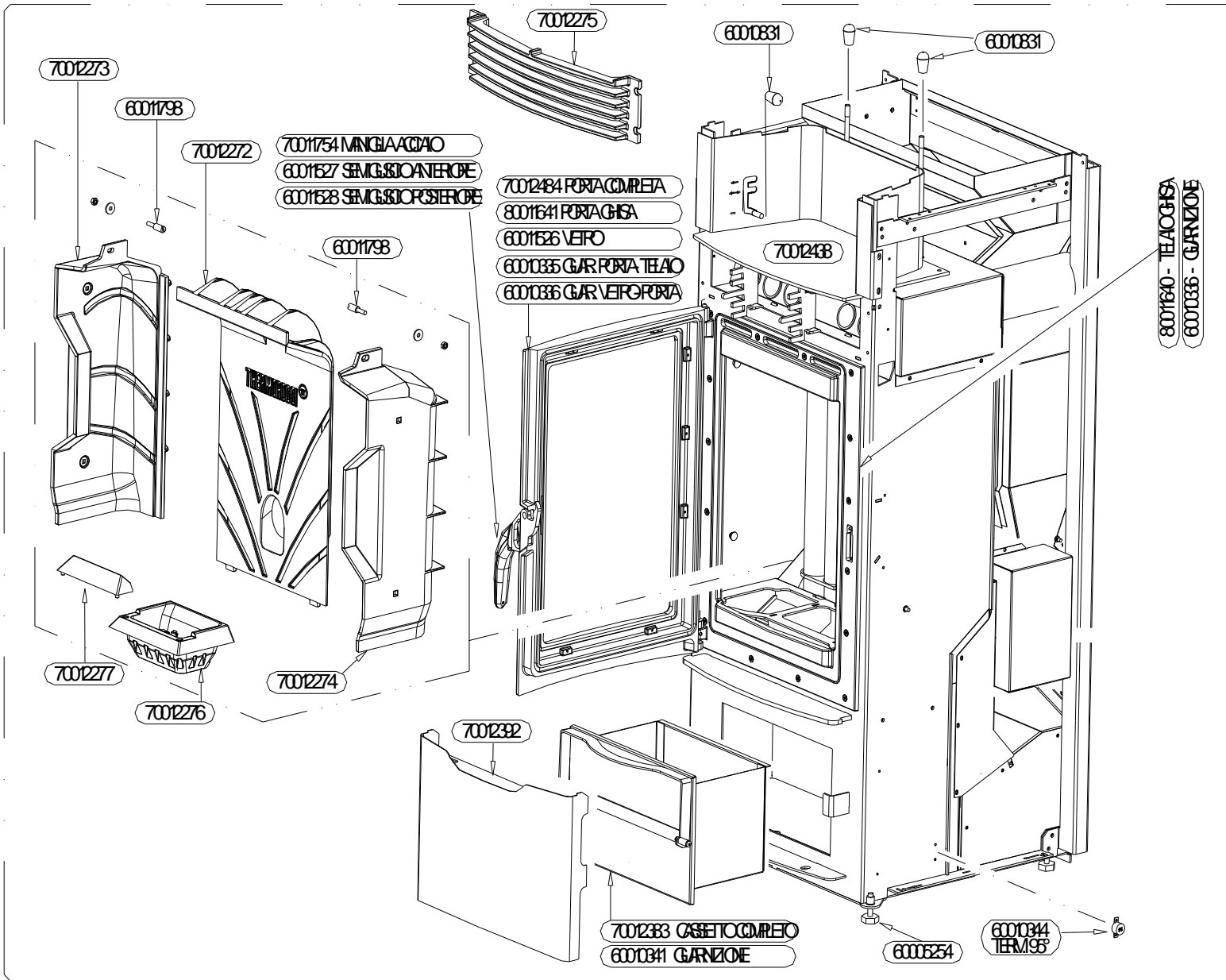
13.3 SPARE PARTS FOR PU CERAMICS



See key page 35



See key page 35



13.4 SPARE PARTS ECO 7000 THERMOCOMFORT (MISCELLANEOUS 1)



**LEGENDA Pagg. 30-34**

Rosso  
Beige  
Sabbia  
Cuoio  
Bordeaux  
Nero  
Easy  
Basso  
Alto  
Sx  
Dx  
Pannello completo  
Scheda comando  
Vetrino  
Batteria CR1632  
Termostato riarmo  
Interr. 0-1  
Radiocomando completo  
Batteria ricaricabile  
radiocomando  
Caricabatteria radiocomando  
Supporto a Muro  
Coperchio Batterie  
Scheda completa di comando  
Maniglia acciaio  
Semiguscio anteriore  
Semiguscio posteriore  
Porta completa  
Porta ghisa  
Vetro  
Guar. porta-telaio  
Guar. vetro-porta  
Cassetto completo  
Guarnizione  
Telaio  
Term. 95°  
Termocoppia  
Portasonda  
Condensatore

**KEY Pages 30-34**

Red  
Beige  
Sand  
Leather  
Burgundy  
Black  
Easy  
Down  
Up  
LH  
RH  
Complete panel  
Control board  
Glass  
Battery CR1632  
Reset thermostat  
Switch 0-1  
Complete radio control  
Radio control rechargeable  
battery  
Radio control battery charger  
Wall mount  
Battery cover  
Complete control board  
Steel handle  
Front handle cover  
Back handle cover  
Complete door  
Cast iron door  
Glass  
Gask. door-frame  
Gask. glass-door  
Complete drawer  
Gasket  
Frame  
Therm. 95°  
Thermocouple  
Probe holder  
Condenser