

# THERMOROSSI

## ESPRIT INFINITY

ITA - MANUALE DI INSTALLAZIONE, USO E MANUTENZIONE.  
FRA - MANUEL D'INSTALLATION, D'UTILISATION ET D'ENTRETIEN.  
ENG - INSTALLATION, USE AND MAINTENANCE GUIDE.  
DEU - INSTALLATIONS-, BETRIEBS- UND WARTUNGSANLEITUNG.  
ESP - MANUAL DE INSTALACIÓN, USO Y MANTENIMIENTO.  
NL - HANDLEIDING VOOR INSTALLATIE, GEBRUIK EN ONDERHOUD.



ITA - Informazioni importanti per la sicurezza ed il corretto funzionamento.  
FRA - À lire impérativement ! Informations importantes pour la sécurité et le bon fonctionnement.  
ENG - Must read! Important information for safety and correct operation.  
DEU - Unbedingt lesen! Wichtige Informationen zur Sicherheit und zum sicheren Betrieb.  
ESP - ¡Leer! Informaciones importantes para la seguridad y el correcto funcionamiento.  
NL - Belangrijke informatie voor de veiligheid en correcte werking.



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**EU Declaration of Conformity (DoC) / Dichiarazione di Conformità UE (DoC)**

<b>Company name:</b> <b>Azienda:</b>	<b>THERMOROSSI S.P.A.</b>	<b>Postal address:</b> <b>Indirizzo:</b>	<b>VIA GRUMOLO, N° 4</b>
Postcode and city: Codice postale e città:	<b>36011 ARSIERO (VI)</b>	Telephone number: Numero di telefono:	<b>0445/741310</b>
E-mail address: Indirizzo e-mail:	<b>INFO@THERMOROSSI.IT</b>		

declare that the DoC is issued under our sole responsibility and belongs to the following product:  
dichiara che la dichiarazione viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

<b>Apparatus model / Product:</b> <b>Descrizione prodotto:</b>	<b>Pellet insert</b> Inserto a pellet	<b>Trademark:</b> <b>Marchio:</b>	<b>THERMOROSSI S.P.A.</b>
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**Model:**  
**Modello:** **ESPRIT INFINITY**

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:  
L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

- **Direttiva 2014/30/UE, EMCD**
- **Direttiva 2014/35/UE, LVD**
- **Direttiva 2011/65/UE, RoHS**
- **2014/30/EU Directive, EMCD**
- **2014/35/EU Directive, LVD**
- **2011/65/EU Directive, RoHS**

Sono state applicate le seguenti norme armonizzate e/o specifiche tecniche:  
The following harmonised standards and/or technical specifications have been applied:

EN 55014-1	EN 60335-1	
EN 55014-2	EN 60335-2-102	EN 50581
EN 61000-3-2	EN 62233	
EN 61000-3-3		


EN 14785 tests carried out by the notified laboratory Kiwa Cermet Italia S.p.a (N.B. 0476) Viale Venezia, 45 31020 San Vendemiano (TV).

Arsiero, 28/09/2023

Firma/Sign.

  
THERMOROSSI S.P.A.  
Un Administrator

## ESPRIT INFINITY

THERMOROSSI <i>The Experts</i>		DICHIARAZIONE DI PRESTAZIONE IN ACCORDO CON IL REGOLAMENTO (UE) 305/2011 DECLARATION OF PERFORMANCE ACCORDING TO REGULATION (EU) 305/2011		N° 63	
1	Codice di identificazione unico del prodotto-tipo: <b>ESPRIT INFINITY</b> <i>Unique identification code of the product type:</i>	2	Modello, lotto, serie ai sensi dell'articolo 11, paragrafo 4: <b>ESPRIT INFINITY</b> <i>Model, batch or serial number required under Article 11(4):</i>		
3	Usi previsti del prodotto da costruzione, conformemente alla relativa specifica tecnica armonizzata: <i>Intended uses of the construction product, in accordance with the applicable harmonised technical specification:</i> <b>Apparecchio per il riscaldamento domestico, senza acqua, alimentato a pellet di legna</b> / <i>Residential space heating appliance without water fired by wood pellet</i>				
4	Nome registrato e indirizzo del fabbricante ai sensi dell'articolo 11, paragrafo 5: <i>Name and contact address of the manufacturer as required pursuant to Art. 11 (5):</i> <b>THERMOROSSI S.P.A. Via Grumolo, n° 4 36011 Arsiero (Vicenza)</b>	5	Nome e indirizzo del mandatario ai sensi dell'articolo 12, paragrafo 2: <i>Name and address of the agent as required pursuant to Article 12 (2):</i> -		
6	Sistema di valutazione e verifica della costanza della prestazione del prodotto da costruzione di cui all'allegato V: <b>Sistema 3 e 4</b> <i>System of assessment and verification of constancy of performance of the construction product as set out in Annex V: System 3 and 4</i>				
7	Laboratorio notificato: <i>Notified laboratory:</i> <b>KIWA CERMET ITALIA S.p.A. N° 0476</b>	Numero del rapporto di prova secondo il sistema 3 / <i>Test report number based on System 3:</i> <b>2011743</b>			
<b>Prestazione dichiarata / Declared performance</b>					
Specifica tecnica armonizzata/ <i>Harmonized technical specification:</i>			<b>EN 14785:2006</b>		
Caratteristiche Essenziali / <i>Essential characteristics</i>			<b>Prestazione / Performance</b>		
Reazione al fuoco / <i>Reaction to fire</i>			<b>A1</b>		
Distanza da materiali combustibili <i>Distance to combustible materials</i>			Minime distanze / <i>Minimum distances</i> (mm): posteriore/rear = <b>200</b> lati/sides = <b>200</b> frontale / front = <b>800</b> soffitto/ceiling = - pavimento / floor = -		
Rischio di fuoriuscita di braci incandescenti / <i>Risk of burning fuel falling out</i>			<b>Conforme / Compliant</b>		
Temperatura superficiale/ <i>Surface temperature</i>			<b>Conforme / Compliant</b>		
Sicurezza elettrica / <i>Electrical safety</i>			<b>Conforme / Compliant</b>		
Pulizia / <i>Cleanability</i>			<b>Conforme / Compliant</b>		
8	Emissione di prodotti della combustione / <i>Emission of combustion products</i>		CO = <b>121.0 mg/m<sup>3</sup></b> a potenza termica nominale / <i>CO at Nominal heat output</i> CO = <b>262.0 mg/m<sup>3</sup></b> a potenza termica ridotta / <i>CO at reduced heat output</i>		
	Pressione massima di esercizio / <i>Maximum operating pressure</i>		<b>- bar</b>		
	Temperatura fumi a potenza termica nominale / <i>Flue gas temperature at nominal heat output</i>		<b>T 139 °C</b>		
	Resistenza meccanica (per sopportare il camino) / <i>Mechanical resistance (to carry a chimney)</i>		<b>NPD {No Determined Performance}</b>		
	Potenza termica nominale / <i>Nominal heat output</i>		<b>13.30 kW</b>		
	Potenza termica resa in ambiente / <i>Room heating output</i>		<b>13.30 kW</b>		
	Potenza termica ceduta all'acqua / <i>Water heating output</i>		<b>--- kW</b>		
	Rendimento / <i>Efficiency</i>		<b>92.60 %</b> alla potenza termica nominale / <i>Nominal heat output</i> <b>93.80%</b> alla potenza termica ridotta / <i>Reduced heat output</i>		
9	La prestazione del prodotto di cui ai punti 1 e 2 è conforme alla prestazione dichiarata di cui al punto 8. Si rilascia la presente dichiarazione di prestazione sotto la responsabilità esclusiva del fabbricante di cui al punto 4. <i>The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.</i> Arsiero, 28/09/2023				Firma/Signature: 
IT – SCHEDA PRODOTTO (UE 2015/1186) EN – PRODUCT FICHE (EU 2015/1186) FR – FICHE PRODUIT (UE 2015/1186) NL – PRODUCTGEGEVENSBLAD (EU 2015/1186) DE – PRODUKTDATENBLATT (EU 2015/1186) ES – FICHA DE PRODUCTO (UE 2015/1186)		IT – MARCHIO EN – BRAND FR – MARQUE NL – MERK DE – MARKE ES – MARCA		<b>THERMOROSSI S.P.A.</b>	
IT – MODELLO EN – MODEL FR – MODÈLE NL – MODEL DE – MODELL ES – MODELO		<b>ESPRIT INFINITY</b>			
IT – CLASSE DI EFFICIENZA ENERGETICA EN – ENERGY EFFICIENCY CLASS FR – CLASSE D'EFFICACITÉ ÉNERGÉTIQUE NL – ENERGIE EFFICIENTIEKLASSE DE – ENERGIEEFFIZIENZKLASSE ES – CLASE DE EFICIENCIA ENERGÉTICA		<b>A +</b>			
IT – POTENZA TERMICA DIRETTA EN – DIRECT HEAT OUTPUT FR – PUISSANCE THERMIQUE DIRECTE NL – DIREKTE WARMTEAFGIFTE DE – DIREKTE WÄRMELEISTUNG ES – POTENCIA CALORÍFICA DIRECTA		<b>13.3</b>			
IT – POTENZA TERMICA INDIRETTA EN – INDIRECT HEAT OUTPUT FR – PUISSANCE THERMIQUE INDIRECTE NL – INDIRECTE WARMTEAFGIFTE DE – INDIRECTE WÄRMELEISTUNG ES – POTENCIA CALORÍFICA INDIRECTA		<b>-</b>			
IT – INDICE DI EFFICIENZA ENERGETICA EN – ENERGY EFFICIENCY INDEX FR – INDICE D'EFFICACITÉ ÉNERGÉTIQUE NL – ENERGIE-EFFICIENTIE-INDEX DE – ENERGIEEFFIZIENZINDEX ES – ÍNDICE DE EFICIENCIA ENERGÉTICA		<b>124</b>			
IT – EFFICIENZA UTILE ALLA POTENZA TERMICA NOMINALE EN – USEFUL ENERGY EFFICIENCY AT NOMINAL HEAT OUTPUT FR – RENDEMENT UTILE À LA PUISSANCE THERMIQUE NOMINALE NL – NUTTIG RENDEMENT BIJ NOMINAAL VERMOGEN DE – BRENNSTOFF-ENERGIEEFFIZIENZ BEI NENNWÄRMELEISTUNG ES – EFICIENCIA ENERGÉTICA ÚTIL A POTENCIA CALORÍFICA NOMINAL		<b>92.6</b>			
IT – EFFICIENZA UTILE AL CARICO MINIMO EN – USEFUL ENERGY EFFICIENCY AT MINIMUM LOAD FR – RENDEMENT UTILE À LA CHARGE MINIMALE NL – NUTTIG RENDEMENT BIJ MINIMALE WARMTEAFGIFTE DE – BRENNSTOFF-ENERGIEEFFIZIENZ BEI MINDESTLAST ES – EFICIENCIA ENERGÉTICA ÚTIL A CARGA MINIMA		<b>93.8</b>			

**ESPRIT INFINITY**

IT – RISPETTARE TUTTE LE ISTRUZIONI RIPORTATE SUL MANUALE DI INSTALLAZIONE USO E MANUTENZIONE  
EN – ALWAYS FOLLOW THE INSTRUCTIONS PROVIDED IN THE OPERATING AND MAINTENANCE MANUAL  
FR – RESPECTER TOUTES LES INSTRUCTIONS CITÉES DANS LA NOTICE D'INSTALLATION, UTILISATION ET ENTRETIEN  
NL – VOLG ALTIJD DE INSTRUCTIES VAN DE INSTALLATIE-, GERUIKERSHANDLEIDING EN DE ONDERHOUDSVOORSCHRIFTEN  
DE – ERFÜLLEN DIE ANWEISUNGEN DER INSTALLATION, NUTZUNG UND WARTUNG, DIE IN DEM ANLEITUNGSBUCH SIND  
ES – RESPECTAR LAS INSTRUCCIONES REPORTADAS EN EL MANUAL DE UTILIZACIÓN Y MANTENIMIENTO

## 1 – INTRODUCTION

### 1.1 SAFETY GUIDELINES

This installation, use and maintenance manual 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 this guide. All local, national and European regulations regarding the installation and use of the appliance must be met. 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, certified according to Decree no. 37 of 22 January 2008 and in compliance with current regulations. In case of repairs only original spare parts supplied by the manufacturer must be used. Incorrect installation or poor maintenance can injure or damage people, animals or things; in this case the manufacturer shall be relieved of all responsibility.

Before beginning any cleaning or maintenance operation switch off the appliance by means of the O/I main switch and disconnect the plug from the electrical power socket. The product must be installed in suitable locations 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 Italian Decree no. 224 of the President of the Republic of 24/05/1988, art. 6/b.

It is recommended to keep this manual in a safe place that is easily accessible to all users; if the manual is lost or deteriorated contact the manufacturer for a replacement copy. If the appliance is sold or transferred to another user ensure that the manual is handed over with it. The images and figures featured in this manual are purely illustrative and may differ from the actual product. Furthermore, Thermorossi reserves the right to apply changes to the content of this manual anytime and without notice.

*Thermorossi S.p.A. retains copyright on this manual. These instructions may not be reproduced or communicated to third parties or used in any other way without the necessary authorisation.*

### 1.2 SAFETY STANDARDS



#### 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 appliance.



#### DAMAGE TO PROPERTY

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



#### INFORMATION

This symbol indicates important instructions for good functioning of the appliance. If this information is not correctly observed, the performance of the appliance will not be satisfactory.

### 1.3 RECOMMENDATIONS



Before using the appliance, carefully read every section of this installation, use and maintenance guide 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 maintenance of the appliance before and during its use.

## 1.4 GENERAL GUIDELINES



Attention: the appliance must be connected to a system provided with a PE conductor (in compliance with the specifications concerning low-voltage equipment). Before installing the appliance check the efficiency of the earth circuit of the power supply system.

Attention: 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 requires powering with a voltage of 230V and 50 Hz. Voltage variations greater than 10% of the nominal value can cause irregular operation or damage the electrical device. Position the appliance so that the electric power outlet in the room is easily accessible. Ensure that a suitable differential switch is installed upstream from the equipment. Position the power supply cable in order to prevent any contact of the latter with the smoke exhaust pipe or hot parts of the appliance. If the power cord is damaged it must be replaced by the manufacturer or by an authorised technical assistance service in order to avoid risks.

Your appliance has obtained the CE marking and has been made to run for 1 hour to check that it functions correctly.

The product must not be used by children under the age of 8 years, by persons with physical, mental or sensorial impairments, or by persons who are not familiar with the instructions for use and maintenance of the product (the instructions are found in this booklet). Children must not play with the appliance.

ATTENTION: Before every use make sure that the burners are clean and positioned correctly in their seat, check that the ash pan is clean and that the firebox door is firmly closed and tight.

ATTENTION: The door must always remain shut tight when the appliance is operating. It is strictly forbidden to open the door while the appliance is in operation. While the appliance is in operation the smoke exhaust pipes and some parts of the appliance itself can reach extremely high temperatures: do not touch them! Do not expose your body to hot air for long, do not overheat the room in which the appliance is installed, as these actions could cause health problems. Do not expose plants or animals directly to the hot air flow as this could have noxious effects on them. It is strictly prohibited to use any type of fuel (liquid, solid...) to light up the appliance: lighting must occur automatically as intended and described in this installation, use and maintenance booklet; consequently, it is also strictly forbidden to feed pellets (or any other material) into the braziers. Do not place non-heat resistant or inflammable or combustible objects in the vicinity of the appliance: keep them at a suitable distance. Do not place wet clothing to dry on the appliance. When using a clothes horse, keep at a suitable distance. It is strictly prohibited to disconnect the appliance from the electrical power mains while it is in operation.



Caution: do not wet the appliance 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 appliance is cold and shut off.



Attention! 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).



ATTENTION: it is mandatory to earth the appliance. If this instruction is not observed serious damage, which is not covered by warranty, may result to the product. Have an electrician check the earthing.

## 1.5 TRANSPORTATION AND STORAGE

### TRANSPORTATION AND HANDLING

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

### STORAGE

The appliance must be stored in a humid-free environment and sheltered from the weather; avoid placing the appliance directly on the ground. The Company denies all responsibility for damage caused to wood floors or floors made from any other material. It is inadvisable to store the product for long periods of time.

## 1.6 GUIDELINES FOR CORRECT DISPOSAL OF THE PRODUCT



At the end of the product's useful life it must be disposed of in compliance with applicable regulations and in respect of the environment, not with urban waste. The product must be consigned to designated sorted waste collection centres for the disposal of electronic waste authorised by the local municipal councils. Correct disposal not only helps safeguard the environment but it also promotes recovery and recycling of the materials.

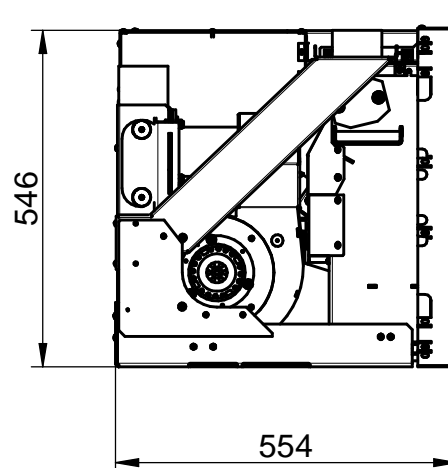
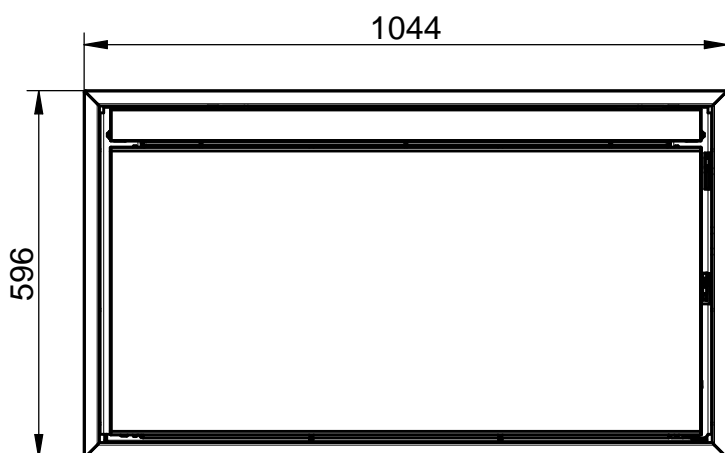
## 2 – TECHNICAL CHARACTERISTICS

	M.U.	ESPRIT INFINITY
Height	mm	596
Depth	mm	554
Width	mm	1,044
Empty weight without casing	Kg	155
Firebox power Min. / Max.*	kW	3.8 / 14.3
Rated power Min. / Max.*	kW	3.6 / 13.3
Consumption min/max *	Kg/h	0.79 / 2.97
Ø smoke exhaust pipe	mm	80
Min. draught at rated power	Pa	12
Min. draught at reduced power	Pa	12
Tank capacity *	Kg	30
Average smoke temperature at rated power *	°C	139
Average smoke temperature at reduced power *	°C	71
Smoke flow at rated power *	g/sec	7.6
Smoke flow at reduced power *	g/sec	4.5
Efficiency at rated power *	%	92.6
Efficiency at reduced power *	%	93.8
CO emissions with 13% O2 at rated power *	mg/m <sup>3</sup>	121
CO emissions with 13% O2 at reduced power *	mg/m <sup>3</sup>	262
Power supply voltage and frequency	V – Hz	230 – 50
Max electrical consumption	A – W	2.35 – 540
Min electrical consumption	A – W	0.33 – 75
Heatable volume **	m <sup>3</sup>	355

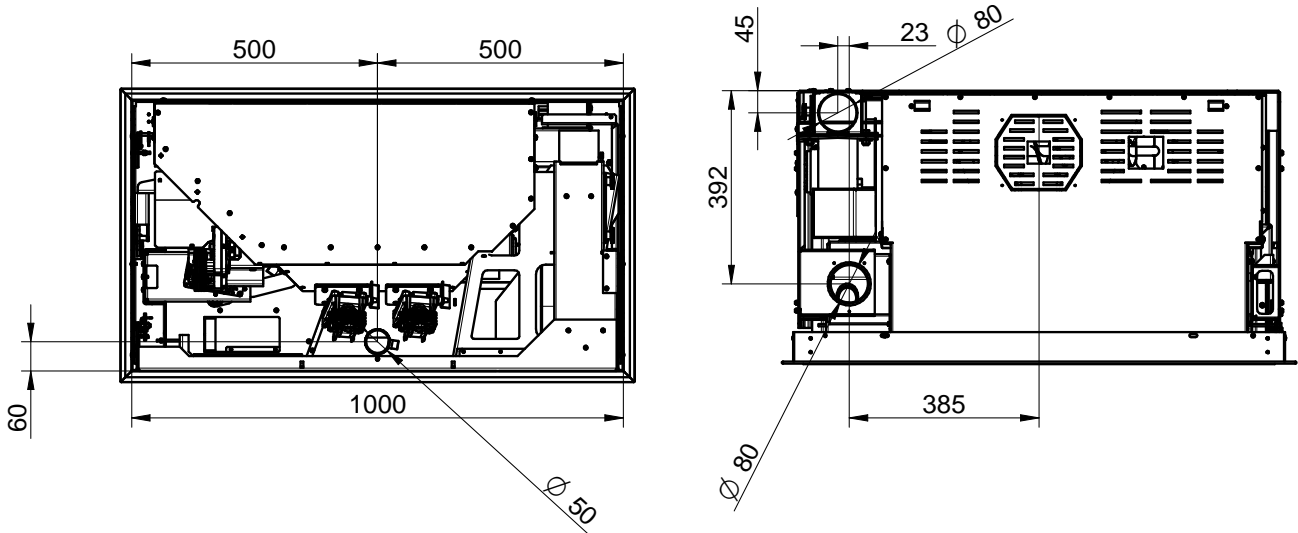
\* All the data are based on the stove fuelled with standards UNI EN 14961-2 A1 and A2 type-approved pellets.

\*\* Important: 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 appliance in the planimetry of the house, therefore the indicated values may vary, even significantly.

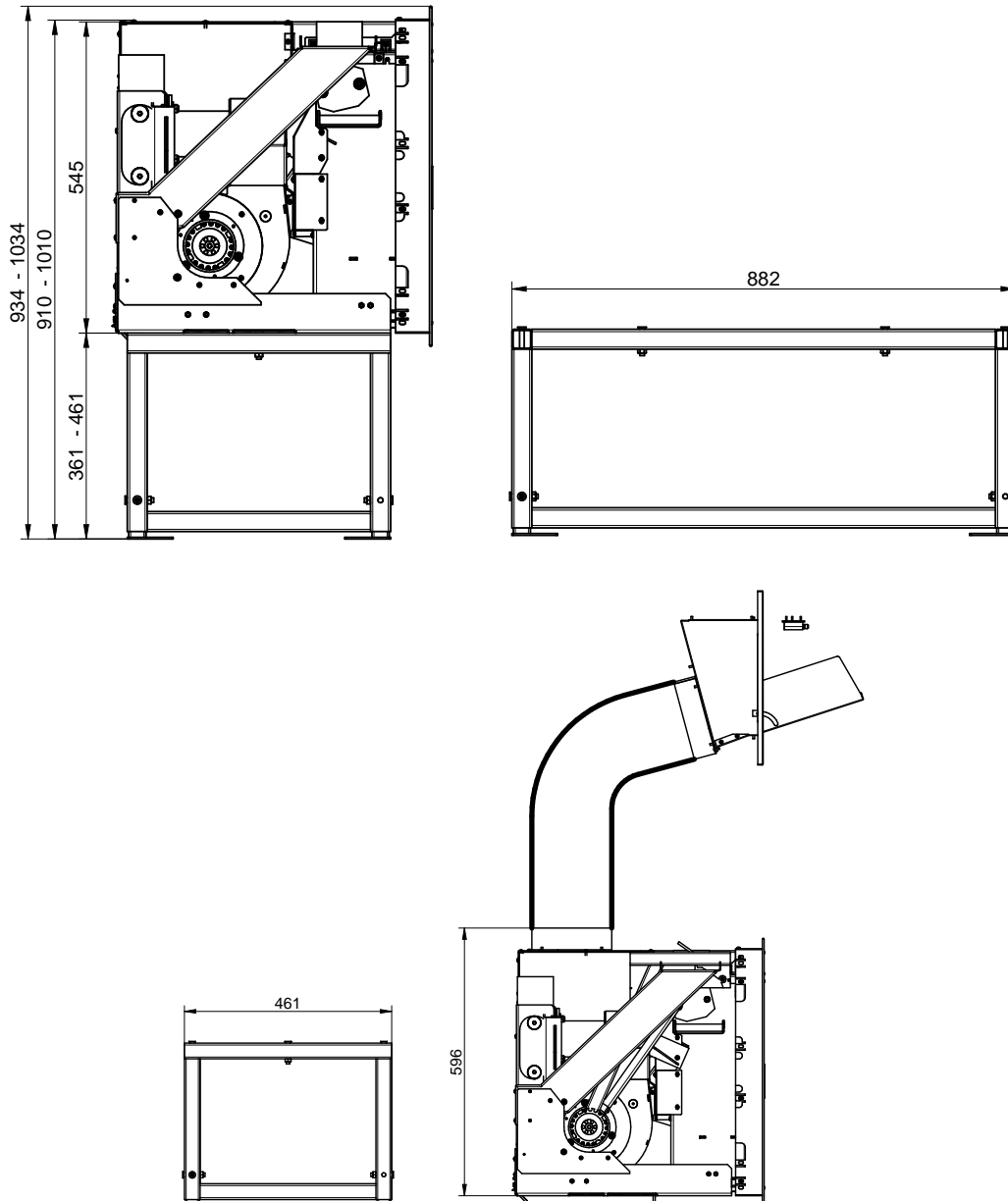
### - ESPRIT INFINITY



**ESPRIT INFINITY**



- **ESPRIT INFINITY WITH PEDESTAL (OPTIONAL) and/or FIXED QUICK KIT (OPTIONAL)**





### 3 – GENERAL DESCRIPTION

#### 3.1 OPERATING TECHNOLOGY

Your appliance 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 THE PELLETT

The appliance is fuelled by pellets, that is, cylinders of compressed sawdust; it his allows you to fully enjoy the heat of the flame without having to manually stoke the combustion.

The pellets have a 6 mm diameter and a length between 10 e 20 mm. They have a max moisture content of 8%; a thermal value of 4000/4500 Kcal/kg and density of 630-640 kg/m<sup>3</sup>. It must be approved according to UNI EN 14961-2 A1 A2.

**It is strictly forbidden to use any pellet type other than that specified above. The use of fuel that does not comply with the above specifications not only immediately invalidates the warranty for the appliance but can also create dangerous situations. Do not use the appliance as an incinerator, at the risk of voiding the warranty.**

#### 3.3 PELLETT REFUELLING

When the pellet in the tank is about to end, the appliance may warn the user to reload the tank through the flashing of the following symbol on the display:



After reloading the pellet, the symbol will automatically disappear after a short while. Please note that the warning is purely indicative: its appearance may not indicate that the tank must be actually refilled.

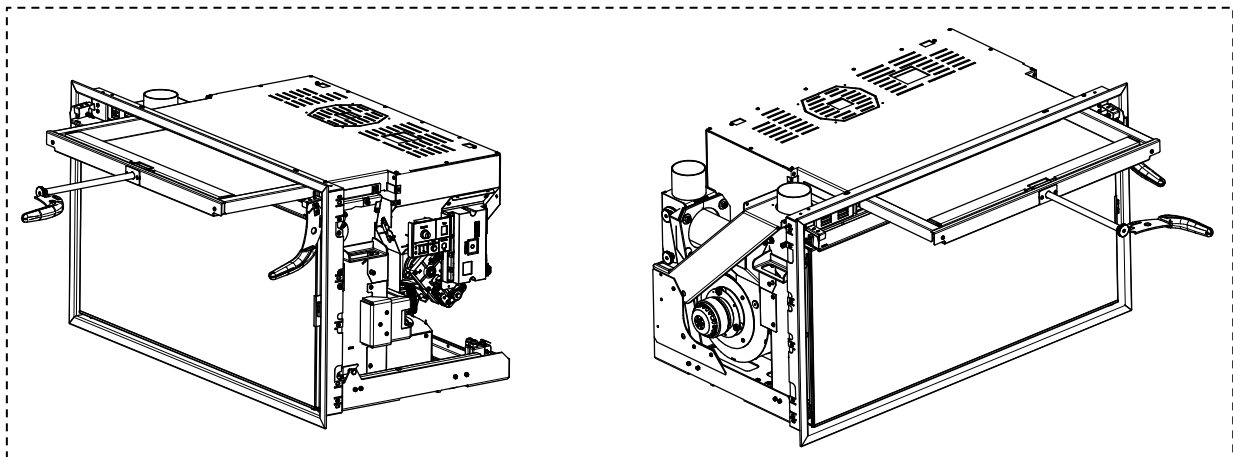
This warning is to be considered reliable if the operation of the appliance is stable, in terms of both ventilation and power, as well as according to the combustion trend and the length and dimensions of the pellets. Frequent variations of power and/or ventilation may alter this warning.

Therefore, it should be interpreted with a certain degree of tolerance during operation. Under no circumstances can it be used for complaints about the actual heating function of the generator.



The feedbox is situated in the top part of the appliance. The load capacity specified in the technical data can vary according to the specific weight of the pellets. The pellet can be reloaded as follows:

- The pellet can be reloaded via the drawer.



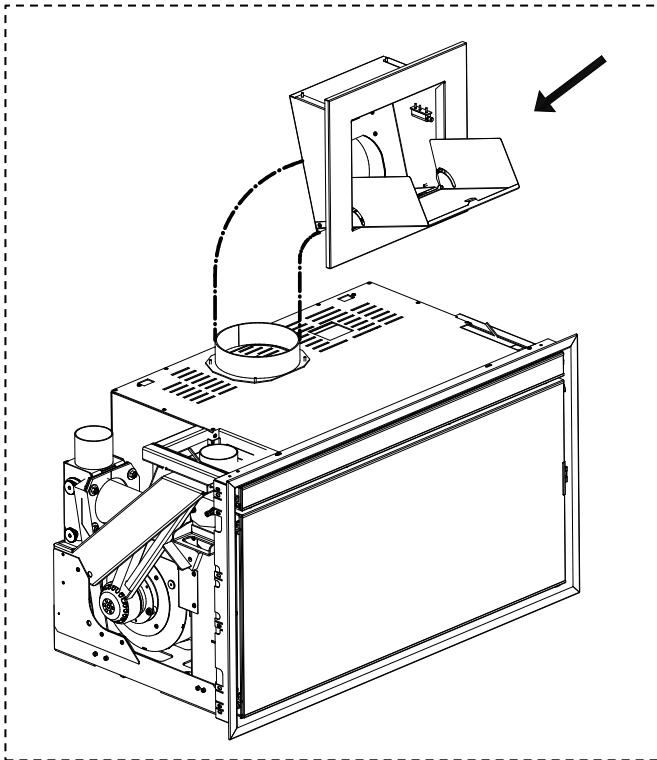
If feeding via the drawer:

- To extract the drawer, open the glass door using the handle provided as standard (see image above).
- Extract the rod by pulling the knob outwards and using the handle provided as standard (see image above).
- Feed the pellet and close the drawer. After feeding the pellet, pay particular attention that no pellets or sawdust remains in the closed drawer as this may lead to open flames in extreme cases.
- It will anyway be possible to feed the pellet via the Fixed quick kit (Optional).



When filling up the tank, take care not to drop any pellets into the internal parts of the appliance, as, in extreme cases, this could generate live flames.

- If you purchase the **Fixed quick kit** (Optional), the pellet is recharged through the loading hatch provided.



ATTENTION:

In case of installation of the Fixed quick kit:

- The pellet can anyway be fed via the drawer.
- When filling up the tank, take care not to drop any pellets into the internal parts of the appliance, as, in extreme cases, this could generate live flames.



The manufacturer recommends emptying the tank and vacuuming the screw feeder zone once a month and during the summer period. If the screw feeder can be seen when loading the pellet in the tank, or one of the two braziers is switched off (pellet almost exhausted in the tank), the appliance must be turned off, cooled down and the braziers must be cleaned. Do not switch off the appliance by means of the main switch O/I on the power panel or by cutting off the power supply. Then restart the appliance.



Should you notice an excessive stagnation of flue gas in the combustion chamber, move away from the appliance immediately. In particular move away from the glass door of the combustion chamber. The excessive concentration of unburned gases could create an explosion that could break the glass. Do not open the fuel feed door for any reason and do not go near the appliance until said gases have been exhausted. Contact a technical service centre to determine the causes. Do not switch off the appliance by means of the main switch O/I on the power panel or by cutting off the power supply. Do not turn on the appliance for any reason whatsoever following an event such as this.

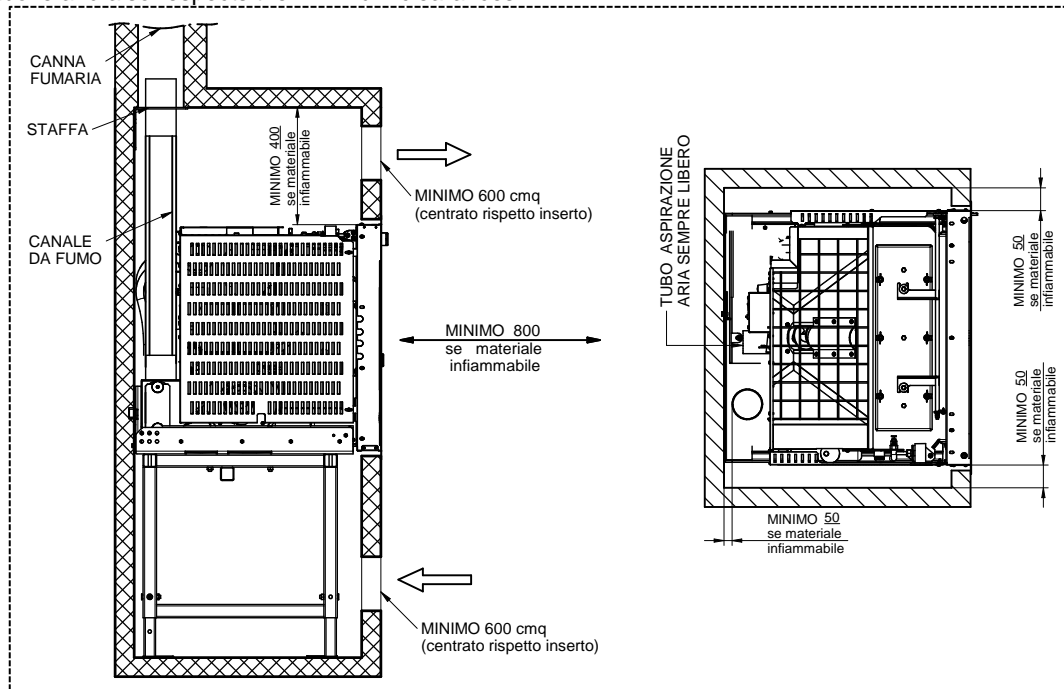
**Only pellets complying with the above specifications are to be loaded into the tank; in no case whatsoever must foreign substances or objects be introduced into the tank, the braziers or any part of the product.**

## 4 – INSTALLATION

### 4.1 APPLIANCE LOCATION



Follow the general guidelines set out in paragraph 1.1 to the letter. Above all keep in mind that the floor of the installation site must be capable of bearing the weight of the appliance added to the weight of the pellets in the tank. **ATTENTION:** The room where the appliance is installed must be well-ventilated and free from humidity and salty air. A high level of humidity or saltiness in the room can lead to the onset of rust or corrosion which will not be covered by warranty. If inflammable materials are located in the vicinity of the appliance (e.g.: matchboarding, furniture, curtains, pictures and paintings, sofas) it is mandatory to comply with the minimum distances (in mm) illustrated (see figure below). **ATTENTION:** it is mandatory to ensure that the shaft in which the insert is placed is well-vented as illustrated above and also respects the minimum clearances.



LEGENDA	KEY
CANNA FUMARIA	FLUE OUTLET
STAFFA	BRACKET
CANALE DA FUMO	FLUE PIPE
MINIMO 400 se materiale infiammabile	MINIMUM 400 if the material is combustible
MINIMO 800 se materiale infiammabile	MINIMUM 800 if the material is combustible
MINIMO 50 se materiale infiammabile	MINIMUM 50 if the material is combustible
MINIMO 600 cmq (centrato rispetto inserto)	MINIMUM 600 sq. cm (centred with respect to the insert)
TUBO ASPIRAZIONE ARIA SEMPRE LIBERO	AIR EXHAUST TUBE ALWAYS FREE



**ATTENTION:** It is recommended to leave a gap of 250 mm on the RH and LH sides of the insert to facilitate routine and extraordinary maintenance operations.

**ATTENTION:** It may be necessary to carry out extraordinary maintenance work on the back or on the sides of the insert, so for this reason it is mandatory to ensure that the fireplace plasterboard can be dismantled quickly or provide an access door.

Installation in the vicinity of heat-sensitive materials is only permitted if suitable insulating and fireproof protection is placed between the object and the appliance (ref. Uni 10683). If the support base is made of wood or any other combustible material, it is mandatory to install a fireproof floor protector plate between the appliance and the floor. Failure to observe this instruction will immediately invalidate the warranty.

The installer must issue a certificate of conformity for the installation which includes the design plans and the following documents:

- a) Report containing the type of materials utilised.
- b) Project as defined in Article 5 of Ministerial Decree n° 37 22 January 2008.
- c) Drawing of the finished installation.
- d) References to existing partial or previous declarations of conformity (e.g. electrical wiring).
- e) Copy of the certificate of recognition of the professional technical qualifications.

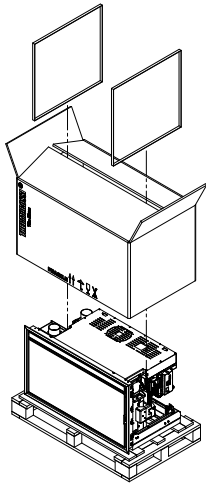


These documents must, by law, be kept together with the use and maintenance booklet. The customer is responsible for verifying, directly or indirectly, that the installation has been carried out to perfection in accordance with relevant regulations in force. Do not install the appliance in unsuitable rooms such as bedrooms, bathrooms, garages and/or lock-ups. It is forbidden to place the appliance in environments with an explosive atmosphere. ATTENTION, the appliance is not simply a household appliance: if the instructions set out in this booklet are not followed and/or if installation of the appliance is not executed perfectly and/or the provisions in force are not strictly complied with, dangerous conditions could arise for both objects and persons. It is the user's responsibility to verify the presence, in the room, of a vent necessary for supplying oxygen to the generator.

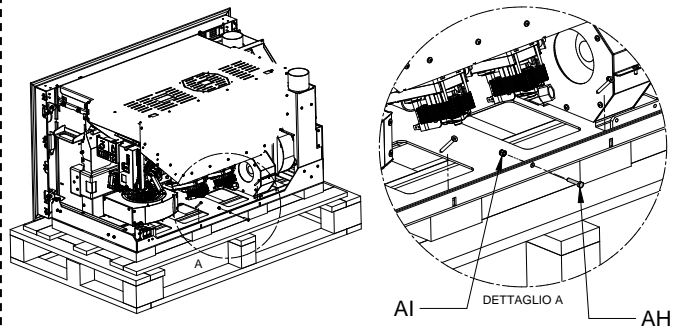


The installer must provide the final user with verbal instructions on the correct use of the appliance when the appliance is set at work for the first time.

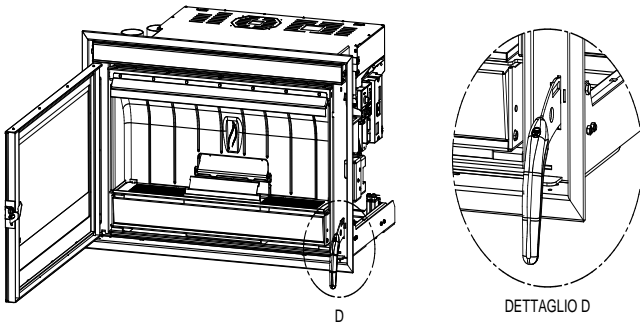
**4.2 UNPACKING**



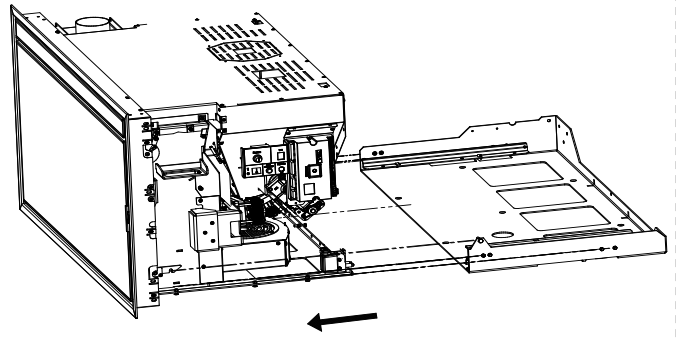
1) Remove the insert from the box, taking away the straps.



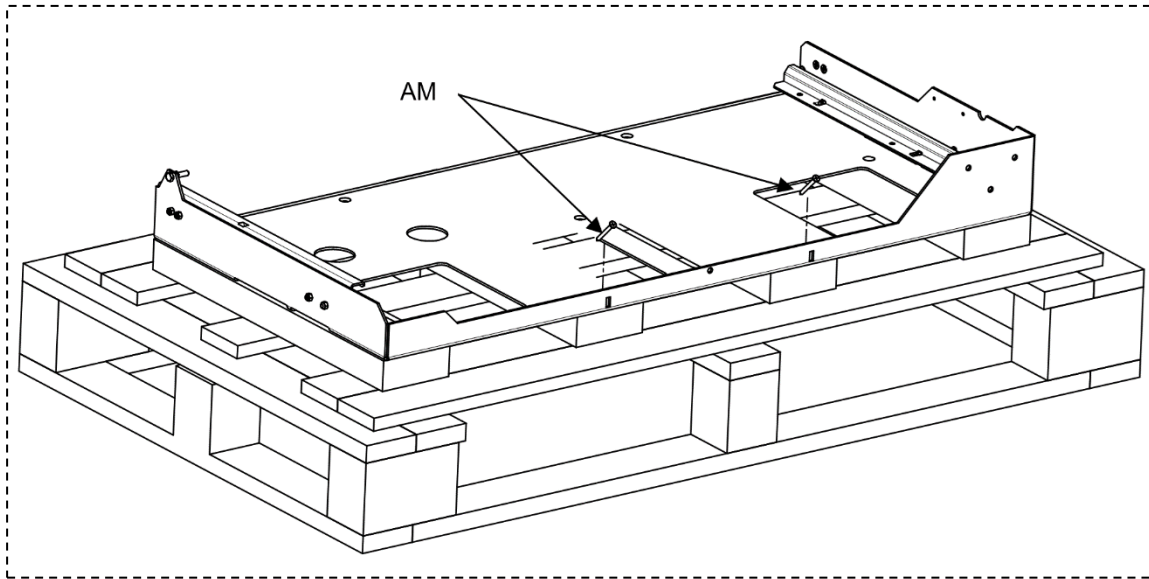
2) Remove screw AH and nut AI.



3) Open the firebox door and unlock the anti-extraction system by pushing the lever downwards using the dedicated handle.



4) Remove the insert from the fixed base.



5) Remove the screws AM that keep the base fixed to the pallet.

LEGENDA	KEY
Dettaglio	Detail

### 4.3 FIXING THE BASE

If the base of the insert is to be fastened to an existing fireplace or to a brick support then follow the instructions set out below:

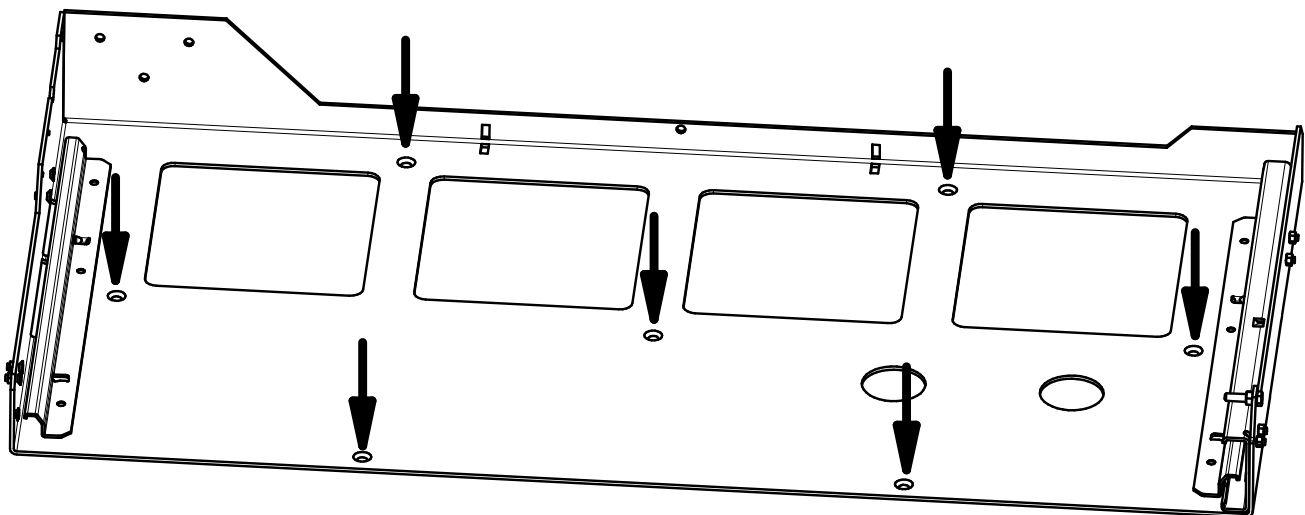
- 1) Fix the fixed base with 10 mm steel screw anchors (not supplied) in the locations indicated in Figure 1.



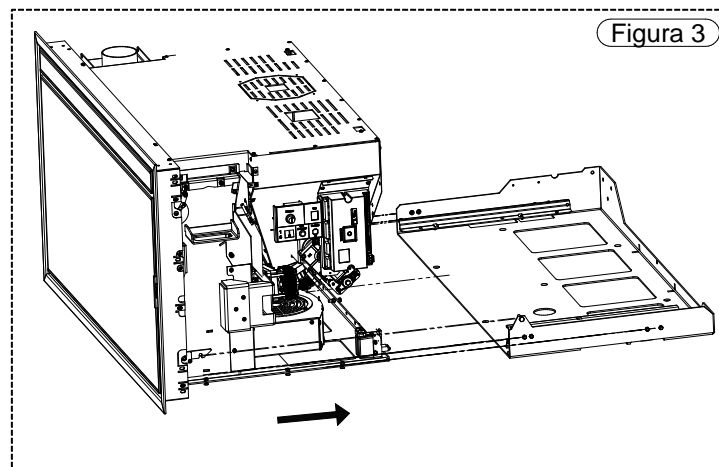
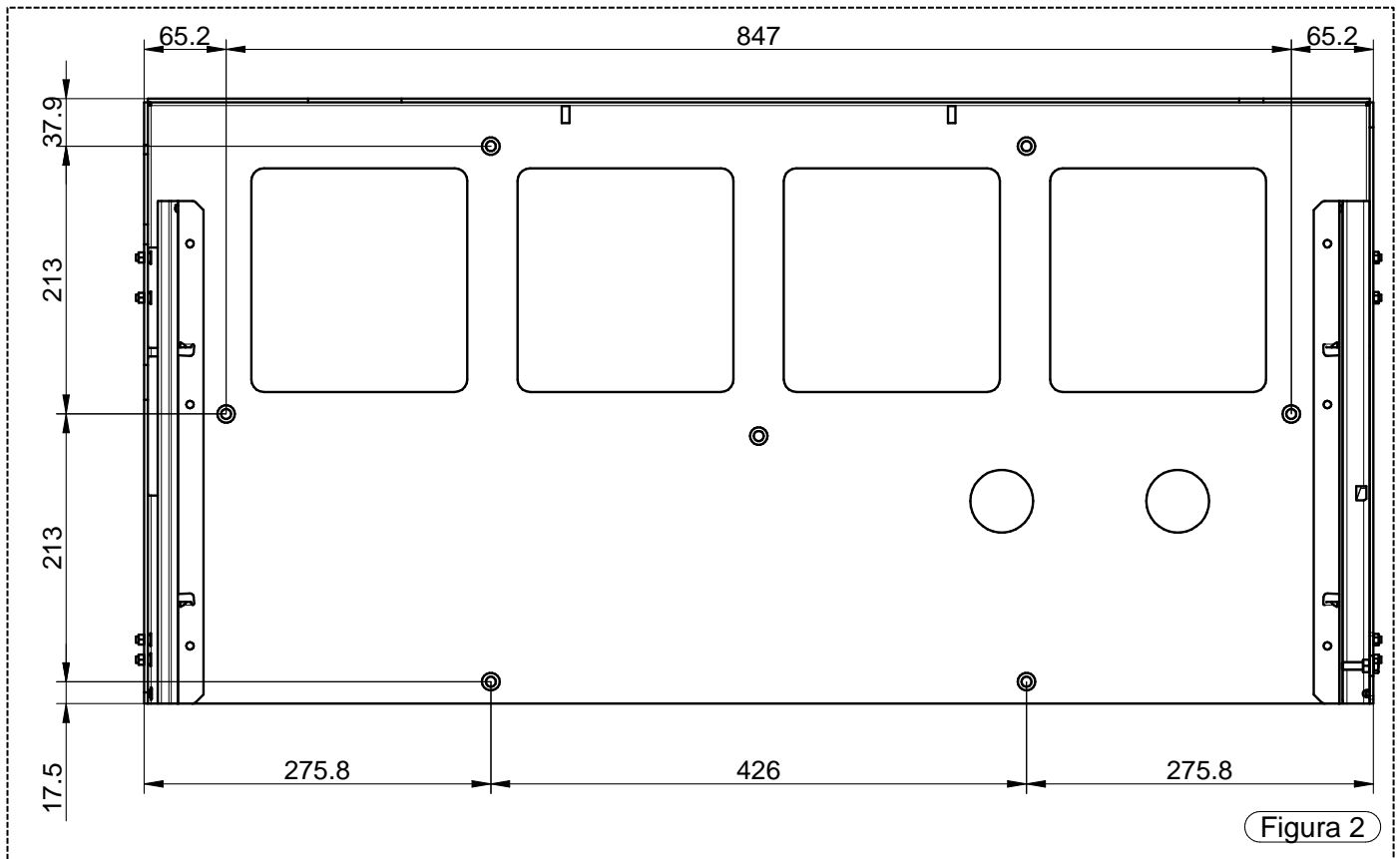
The number of anchors you need to use depends on the type of support structure that the insert is being installed on; use the drilling template in Figure 2 as a guide. If the support is not compact then we recommend redoing it in concrete to ensure a stable anchor for the base.

- 2) Reposition the insert on top of the fixed base (Figure 3).

Figura 1

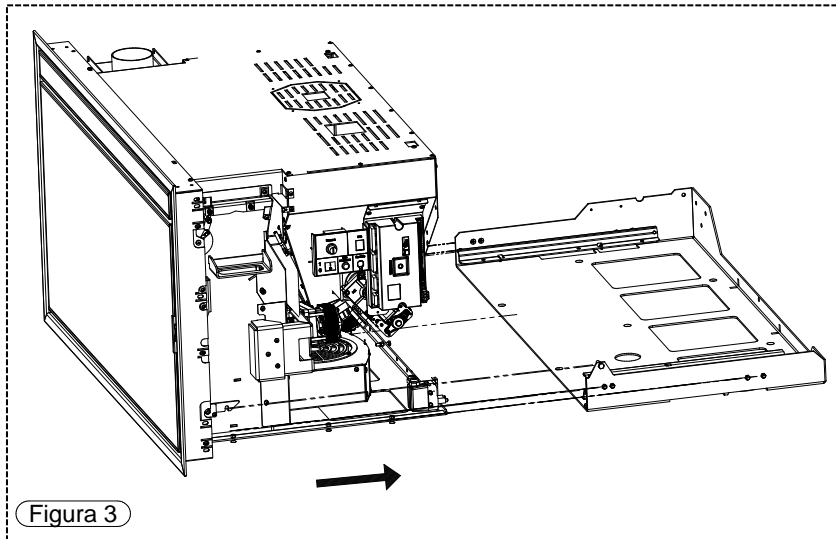
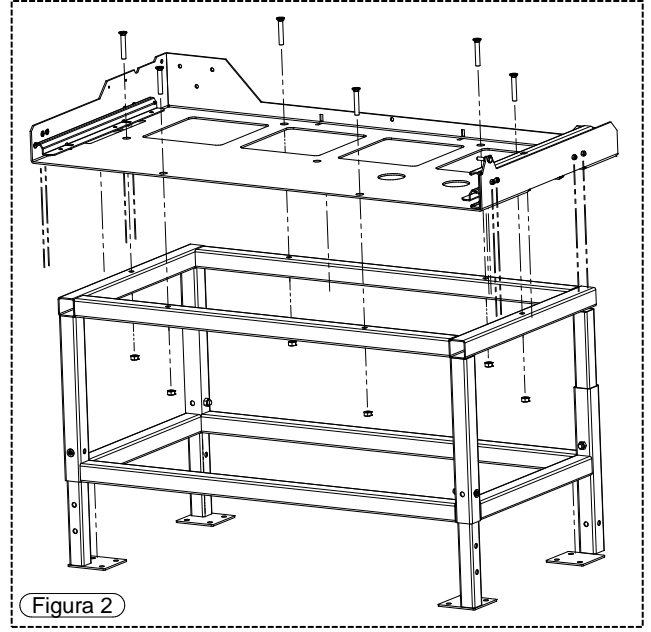
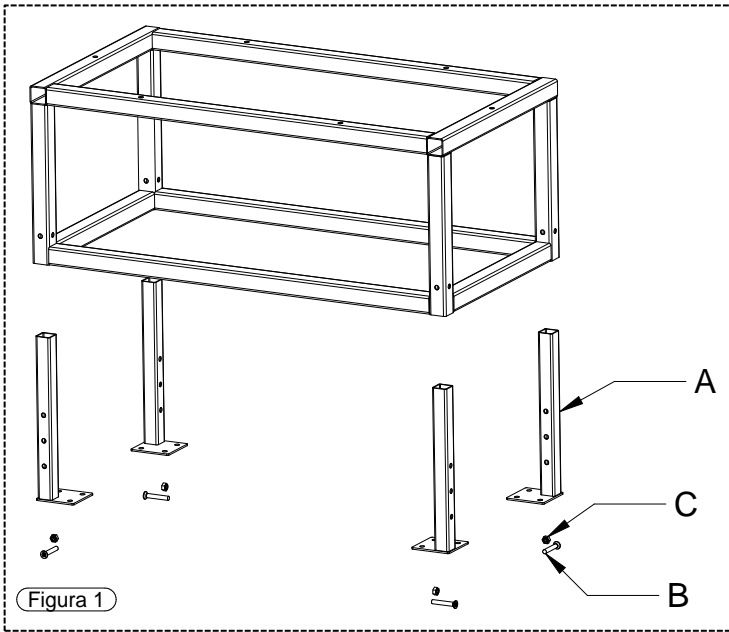


LEGENDA	KEY
Figura	Figure



To secure instead the insert in a new fireplace using the "Adjustable pedestal" (optional), follow the indications below:

- 1) Mount the feet of pedestal A as shown in Figure 1 using the screws B and C provided.
- 2) Firmly secure the pedestal to the floor with 10 mm steel expansion anchors. It is important to make sure that the floor where the anchors are secured is compact and suitable to support the potential traction given by the extraction of the insert and then mount the fixed base to the pedestal (Figure 2).
- 3) Afterwards, reposition the insert on top of the base until the end stop (Figure 3).



**4.4 INSTALLATION WITH "FIXED QUICK KIT" (optional)**

To install the "Fixed Quick Kit", follow the procedure below according to the chosen insert model.

**ESPRIT 490**

- Remove the pre-cut flange located at the top of the tank. For this operation it is recommended to use a blade for iron.

**ESPRIT 540**

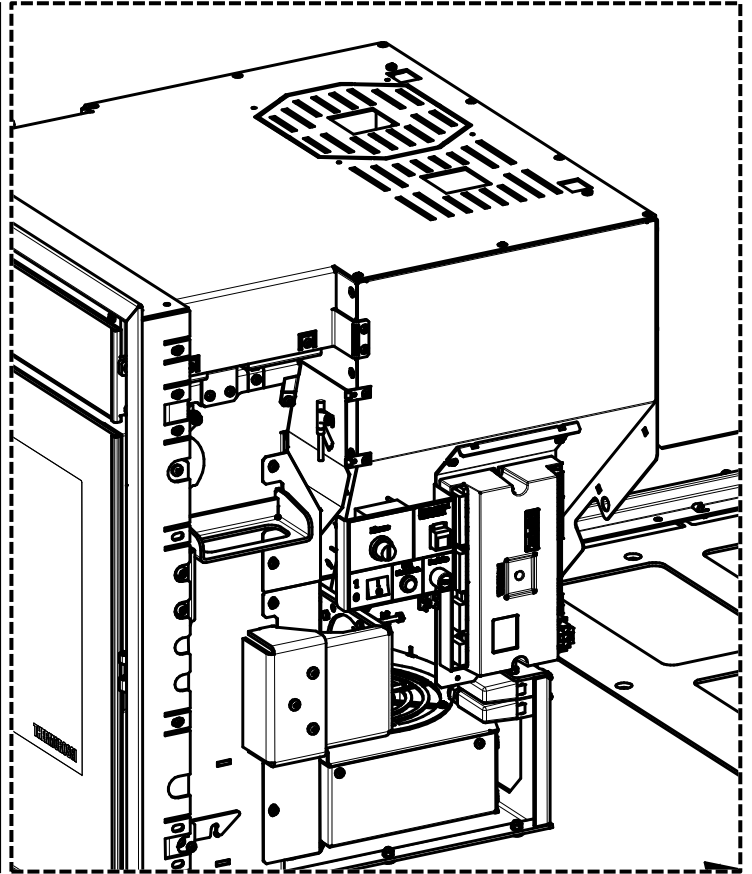
- Remove the pre-cut flange located at the top of the tank. For this operation it is recommended to use a blade for iron.

**ESPRIT 600**

- Remove the pre-cut flange located at the top of the tank. For this operation it is recommended to use a blade for iron.

**ESPRIT INFINITY**

- Remove the pre-cut flange located at the top of the tank. For this operation it is recommended to use a blade for iron.



**ESPRIT 490**

- Take note of the position of holes F0. Cut the bracket at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron.

**ESPRIT 540**

- Take note of the position of holes F0. Cut the bracket at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron.

**ESPRIT 600**

- Go directly to the next point.

**ESPRIT INFINITY**

- Take note of the position of holes F0. Cut the bracket at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron.

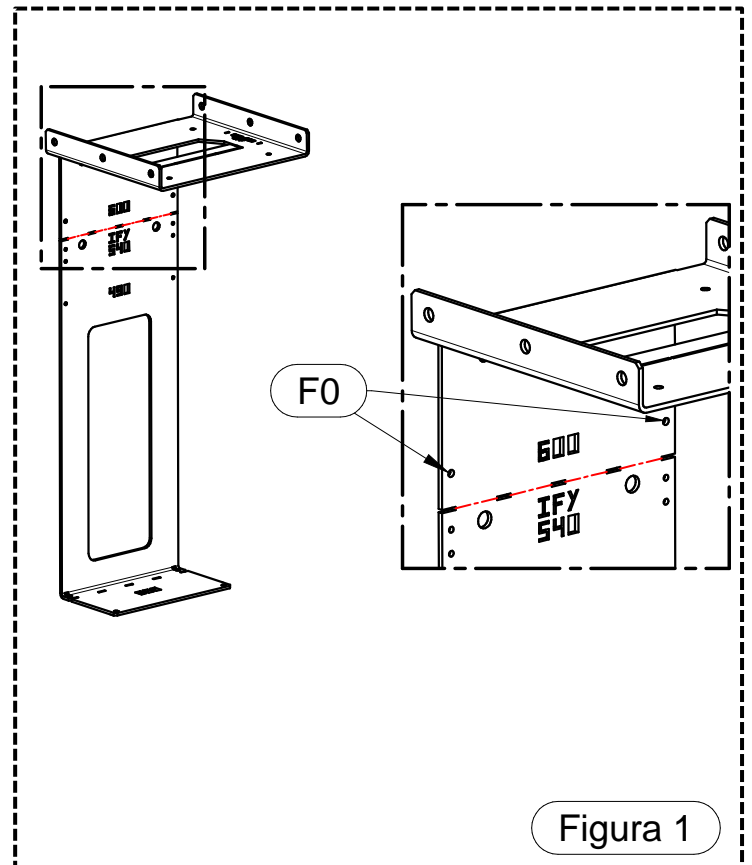


Figura 1



**ESPRIT 490**

- Remove the pre-cut flange located at the top of the bracket. For this operation it is recommended to use a blade for iron.

**ESPRIT 540**

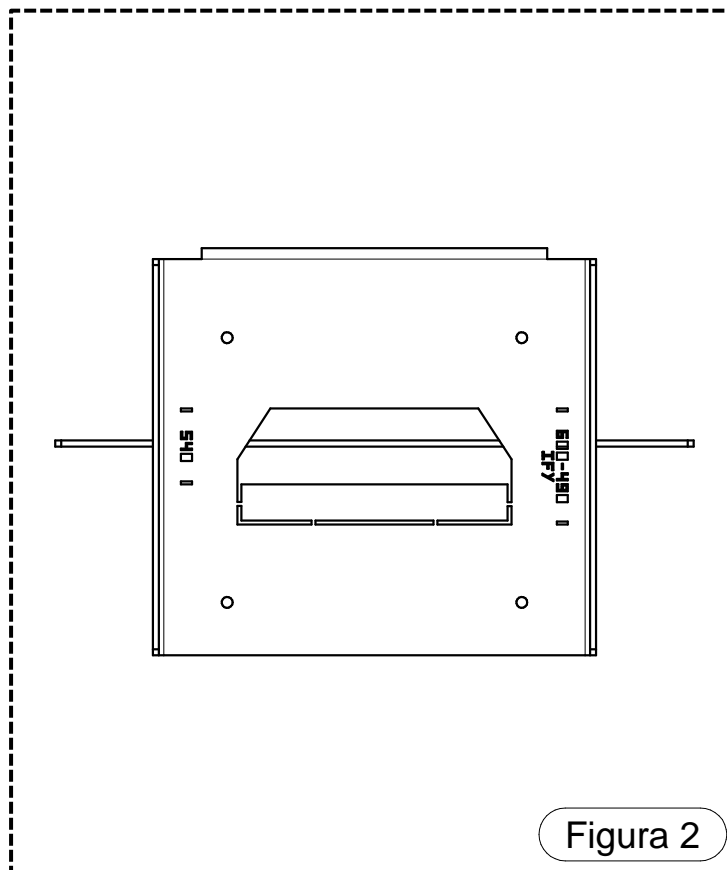
- Go directly to the next point.

**ESPRIT 600**

- Remove the pre-cut flange located at the top of the bracket. For this operation it is recommended to use a blade for iron.

**ESPRIT INFINITY**

- Remove the pre-cut flange located at the top of the bracket. For this operation it is recommended to use a blade for iron.



**ESPRIT 490**

- Mount collar F on bracket S2 using the 4 screws AE. Then move on to the next point.

**ESPRIT 540**

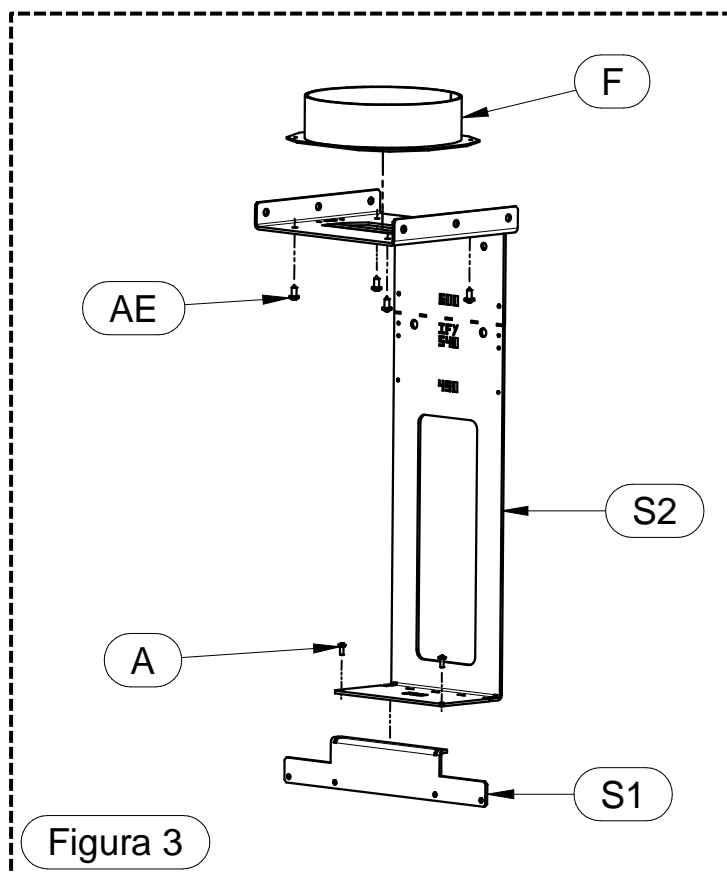
- Mount collar F on bracket S2 using the 4 screws AE. Then move on to the next point.

**ESPRIT 600**

- Mount collar F on bracket S2 using the 4 screws AE. Mount flange S1 on bracket S2 using the screws (A).

**ESPRIT INFINITY**

- Mount collar F on bracket S2 using the 4 screws AE. Then move on to the next point.



**ESPRIT 490**

- Cut the lower part of the bracket S2 at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron. Mount flange S1 on bracket S2 using the screws (A).

**ESPRIT 540**

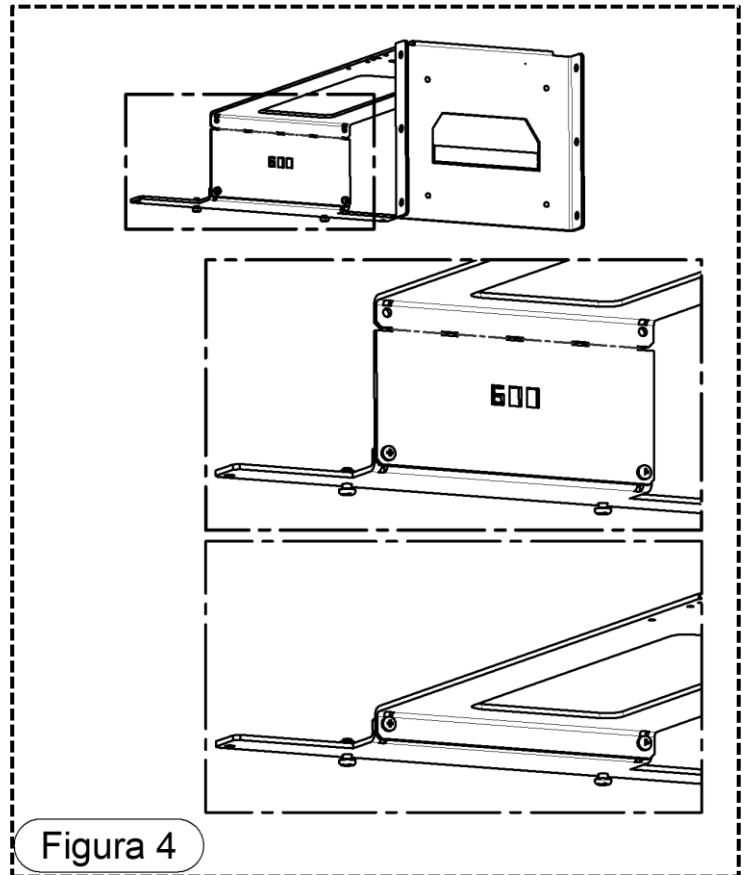
- Cut the lower part of the bracket S2 at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron. Mount flange S1 on bracket S2 using the screws (A).

**ESPRIT 600**

- Go directly to the next point.

**ESPRIT INFINITY**

- Cut the lower part of the bracket S2 at the height of the pre-cut part indicated by the arrow. For this operation it is recommended to use a blade for iron. Mount flange S1 on bracket S2 using the screws (A).

**ESPRIT 490**

- Go directly to the next point.

**ESPRIT 540**

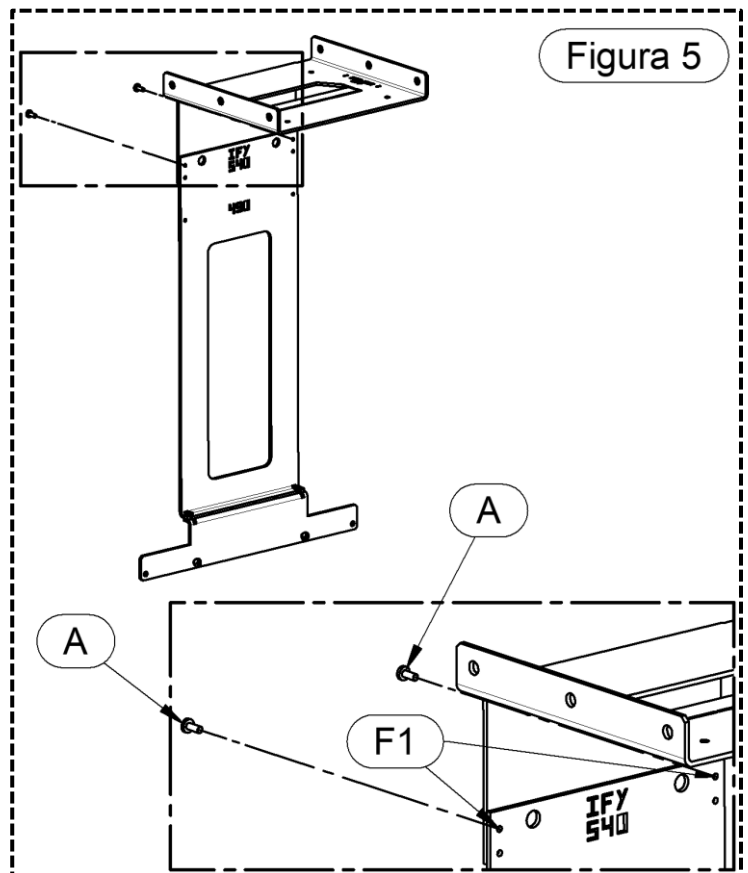
- Go directly to the next point.

**ESPRIT 600**

- Go directly to the next point.

**ESPRIT INFINITY**

- Use screws A to fasten the top part of the previously cut bracket to the back of bracket S2: use the holes of the IFY writing as reference points for the height.



**ESPRIT 490**

- Go directly to the next point.

**ESPRIT 540**

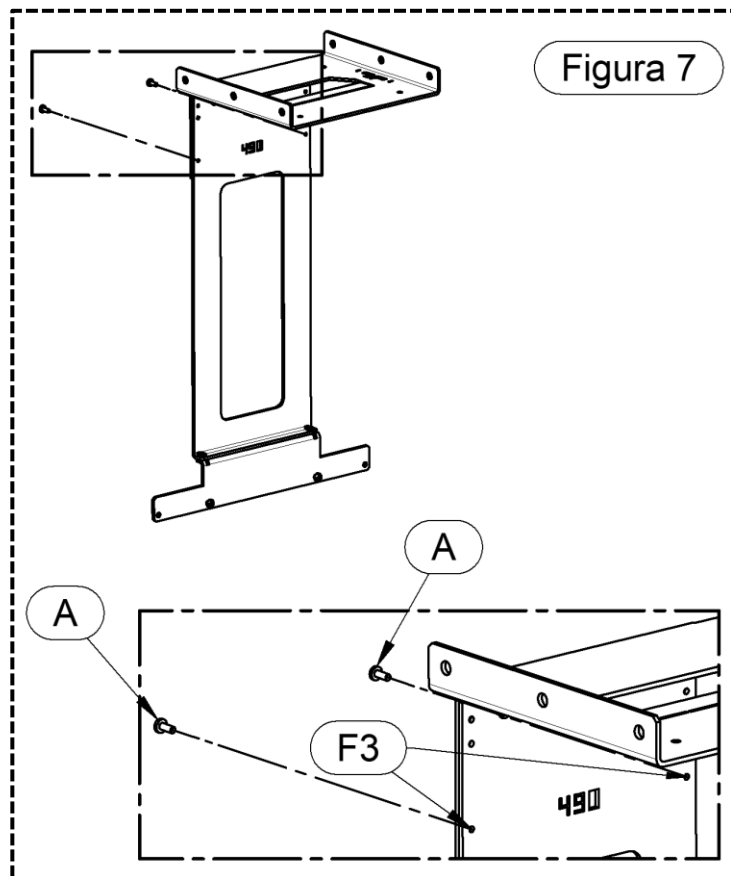
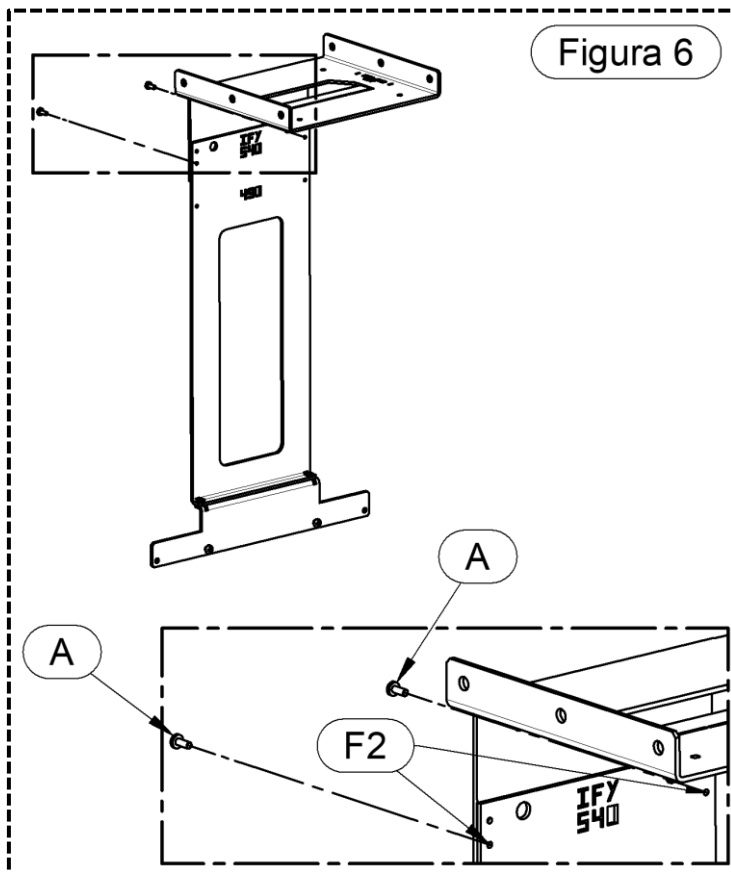
- Use screws A to fasten the top part of the previously cut bracket to the back of bracket S2: use the holes of the 540 writing as reference points for the height.

**ESPRIT 600**

- Go directly to the next point.

**ESPRIT INFINITY**

- Go directly to the next point.



**ESPRIT 490**

- Use screws A to fasten the top part of the previously cut bracket to the back of bracket S2: use the holes of the 490 writing as reference points for the height.

**ESPRIT 540**

- Go directly to the next point.

**ESPRIT 600**

- Go directly to the next point.

**ESPRIT INFINITY**

- Go directly to the next point.

**ESPRIT 490**  
**ESPRIT 540**  
**ESPRIT 600**  
**ESPRIT INFINITY**

- Fasten the newly created bracket S2 to the insert base using screws C and nuts D.

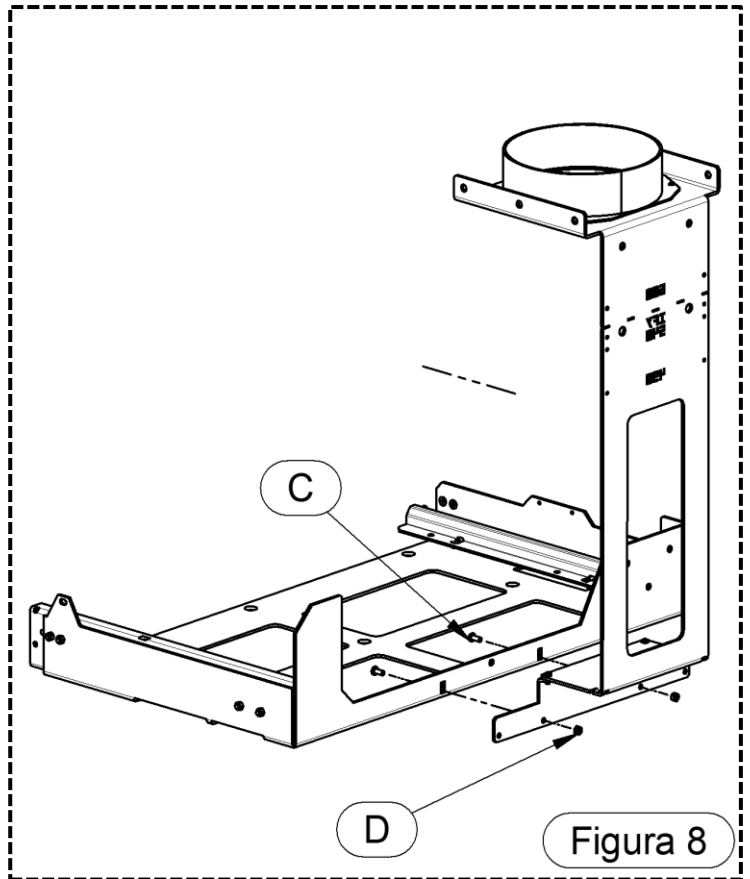


Figura 8

**ESPRIT 490**  
**ESPRIT 540**  
**ESPRIT 600**  
**ESPRIT INFINITY**

- Assemble the loading support AD and the collar AC with screws AE (TC+5.5x13). Next, fix the push-pull magnet AH and the fixing strip AF with screws AG (TC+2.2X9.5) (Figure 9).

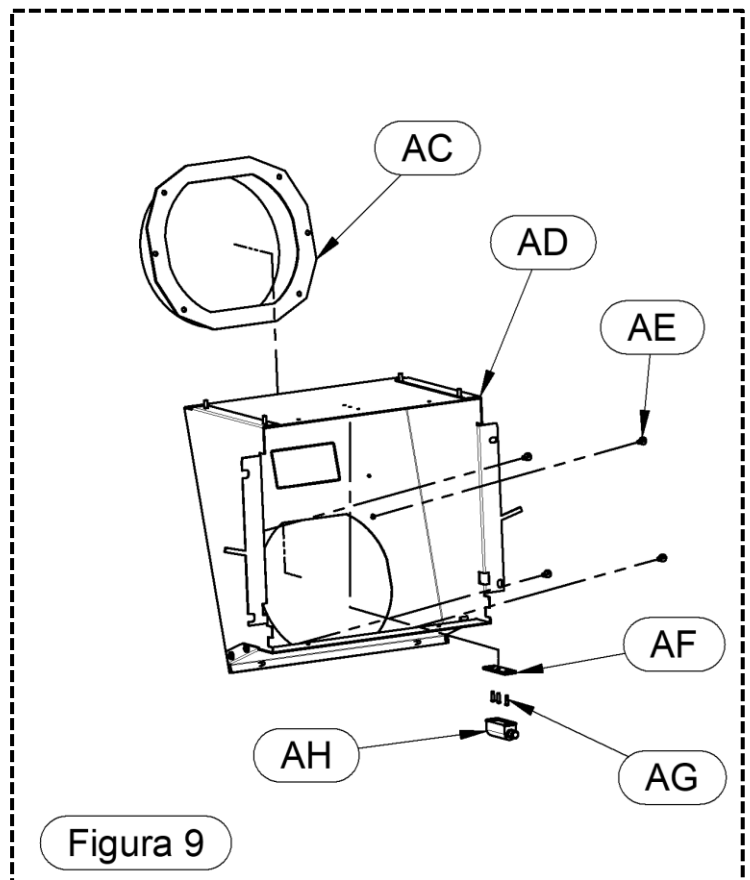
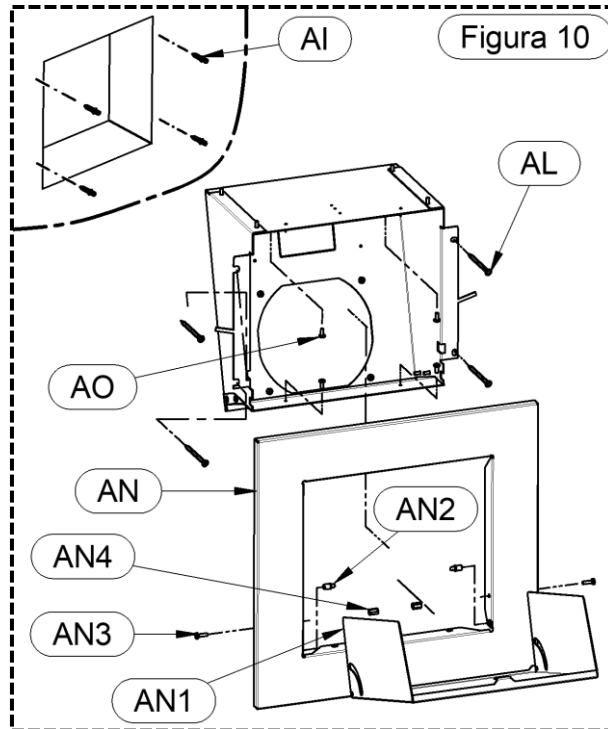
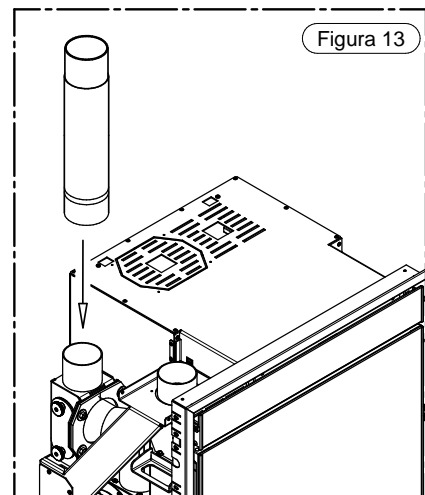
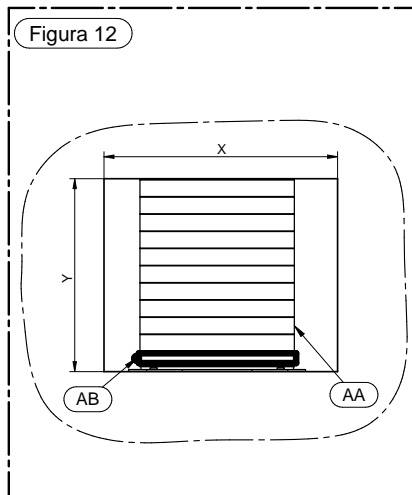
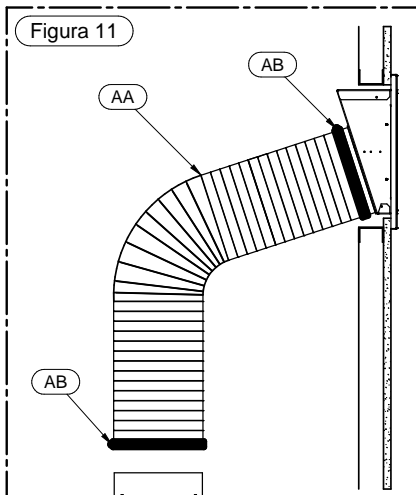


Figura 9



**ESPRIT 490 – ESPRIT 540 – ESPRIT 600 – ESPRIT INFINITY**

- Fix the newly-assembled loading support AD to the chimney hole using 4 anchors AI and screws AL (anchors not provided).
- Assemble door AN1 to profile AN using pins AN2, screws AN3 (TE 4x16) with spacers AN4 (hexagonal spacers). Lastly, assemble the unit AN to the support AD with screws AO (TC + 3.9X9.5) (Figure 10).



**ESPRIT 490 – ESPRIT 540 – ESPRIT 600 – ESPRIT INFINITY**

- Assemble the delivery pipe as indicated in Figure 11. The inflow pipe AA (ducting hose d.180 supplied) must be secured with the 2 clamps AB (supplied clamps d.180).
  - Lastly, connect the flue outlet to the insert (Figure 13). An opening must be provided on the left side of the hood in order to be able to perform this operation and to allow you to clean the Tee on the insert: the absence of this opening will immediately invalidate the warranty.
- ATTENTION: the insert must be installed in such a way as to always guarantee the possibility of removing it for any technical work that may be required.

**4.5 CONNECTING THE APPLIANCE TO THE FLUE OUTLET**

**Connection of the appliance to the flue outlet must be carried out in strict compliance with the instructions contained in this use and maintenance guide.**

**4.6 INSTALLATION OF CONTROL PANEL AND POWER SUPPLY CABLE**

The control panel can be removed from the structure provided on the insert and affixed to a wall, as it is provided with connecting cable. It can be installed inside the loading hatch if you purchase the fixed quick kit, as shown in Figure 3.

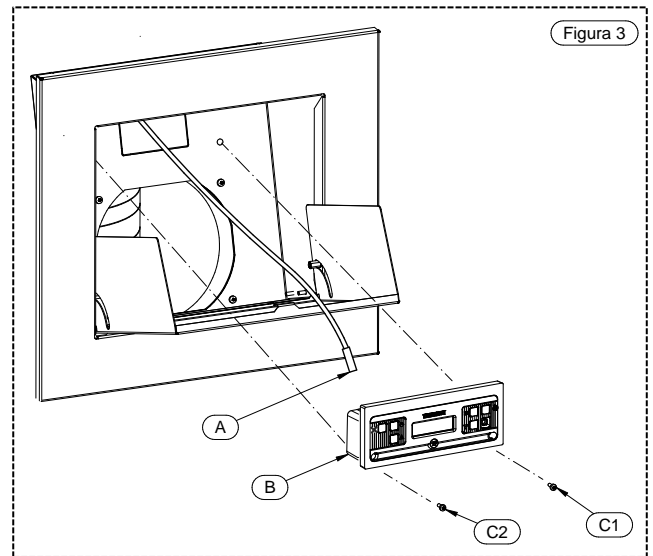
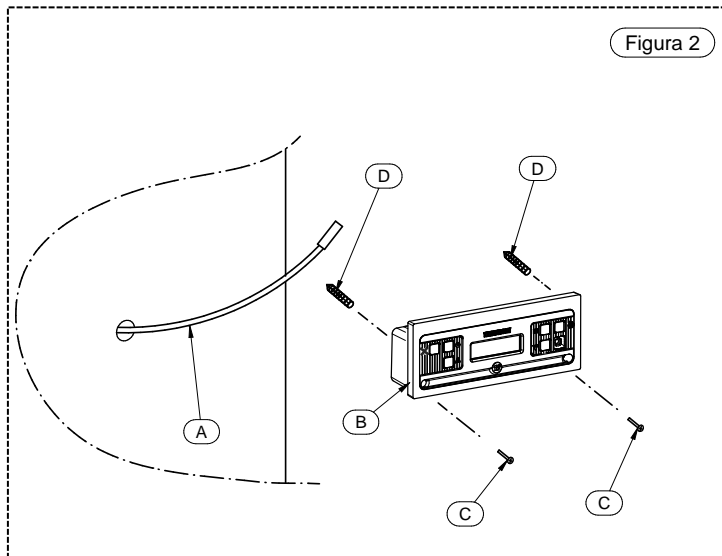
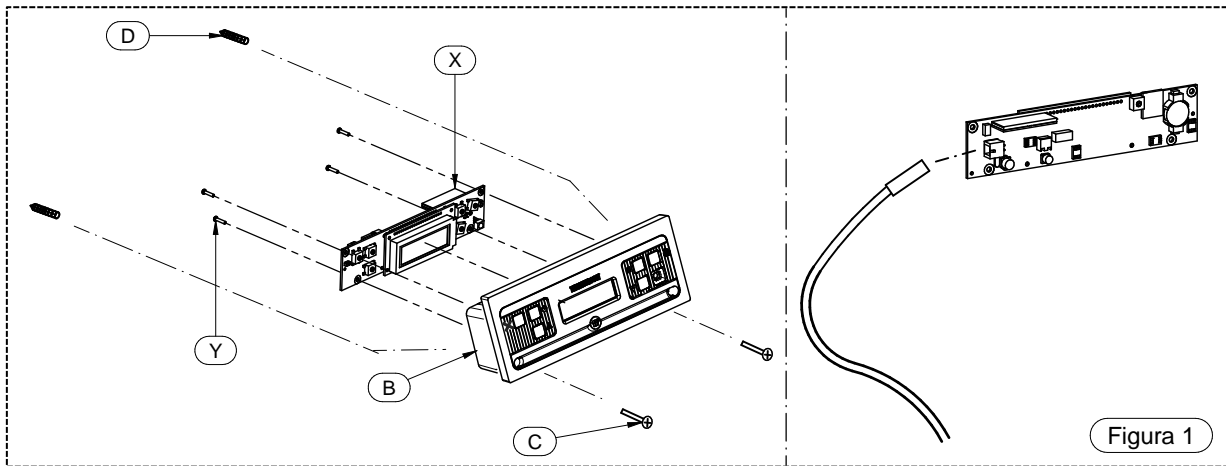
Before commencing this operation disconnect the appliance from the electric power outlet.

Remove board X from the support B, by simply undoing the 4 screws Y and disconnecting the wire from the front piece of the control panel (Figure 1).

- Drill a suitably-sized hole for the **control panel cable** to pass through.
- Next drill the holes to fix support B with the supplied anchors D and screws C.
- Then re-attach the board X, previously removed, to support B by firstly connecting the control panel cable to the board, then fasten with the 4 screws Y and fix the complete control front piece to the mounting wall (Figure 2).
- To fix the control panel inside the hatch, it is instead sufficient to secure it with screws C1 and C2 (Figure 3).

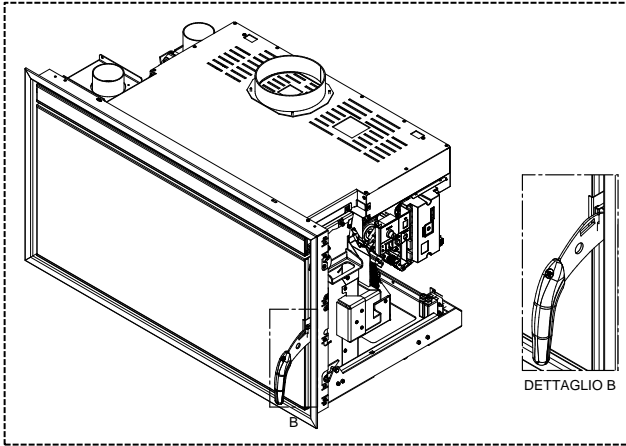


**ATTENTION:** the control panel must be placed in an area where the operating temperature remains below 40°C as higher temperatures can damage it and/or cause it to malfunction (this damage is not covered by warranty). Avoid absolutely to crush and/or deform the panel's connection cable; do not expose it to temperatures over 60°C. Higher temperatures can cause damages.



ESPRIT INFINITY

4.7 HANDLE



Your appliance is supplied with a removable handle used for opening and closing the firebox door to enable carrying out the required cleaning operations (see dedicated paragraph). It is recommended to remove the handle once the cleaning operations are completed to avoid accidental opening of the door.

4.8 CHANNELLING

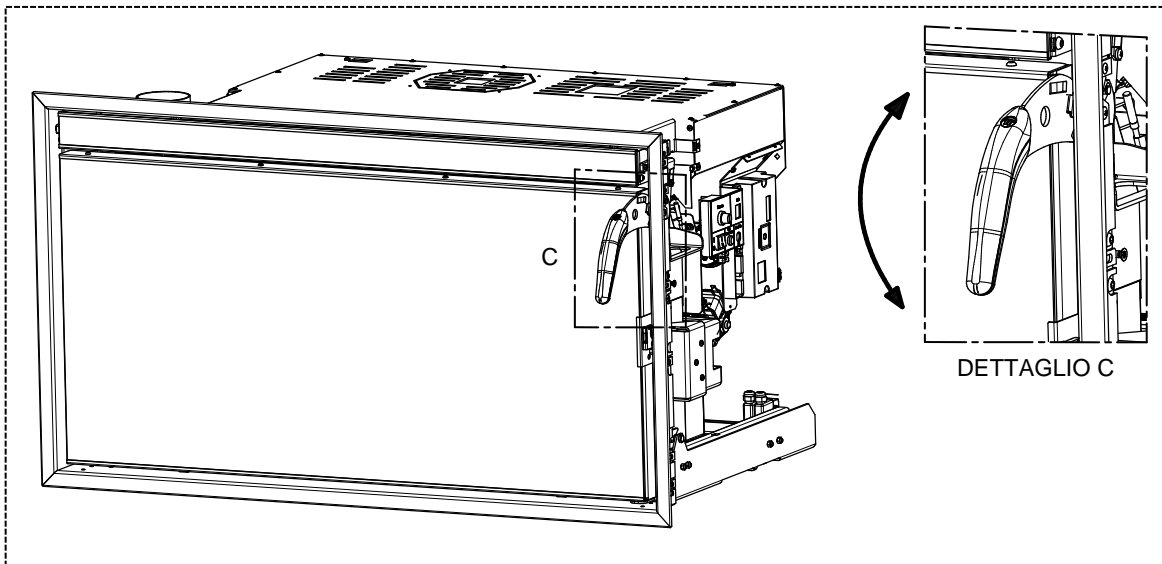
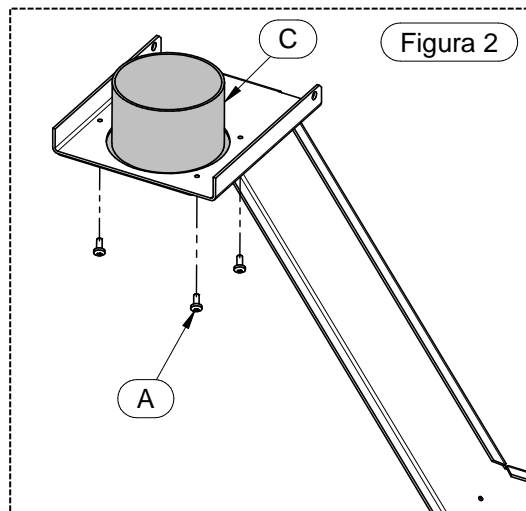
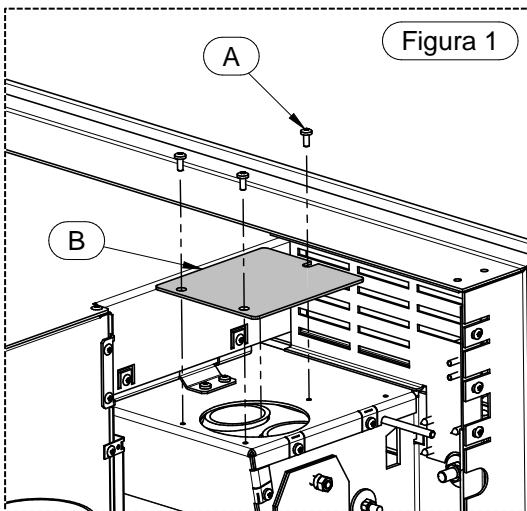
It is possible to channel the hot air flow in the ducts, in order to convey it to other rooms. To channel the insert, collar C must be installed with screws A in the specific bracket (Figure 2).

It is possible to choose whether to direct the flow frontally (lever upwards) or into the channelling (lever downwards). The lever is adjusted via the specific handle as indicated in the figures below.

Should you not channel the insert, the output **must** be closed with specific flange B via screws A (Figure 1).



**ATTENTION:** If the collar is not used to channel air, you must close the channelling hole with the specific flange provided, and make sure in any case that no objects and/or materials that could get damaged with the heat are present in the structure.



Prescriptions for correct channelling:

- Use pipes with smooth inner surfaces capable of resisting continuous temperatures of 150°C.
- It is prohibited to use plastic or internally corrugated pipes.
- It is prohibited to position sections with a downward slope.
- Reduce the number of bends as much as possible (maximum 4).
- To ensure a good result it is mandatory to insulate the pipes with mineral wool resistant to at least 150°C.
- Maintain a distance of at least 20 cm between the channelling pipes and any inflammable materials.
- It is prohibited to reduce any pipe sections, even partially, with respect to the outlet diameter.
- It is prohibited to install devices that could simultaneously close the channelling pipes.

## 5 – DESCRIPTION OF THE CONTROLS



The appliance, when operating, could be hot to the touch, particularly the door of the combustion chamber: take care when handling the appliance components. Your appliance has obtained the CE marking and has been made to run for at least one hour to check that it functions correctly. The product must not be used by children, by persons with physical or mental impairments, by persons who are not familiar with the instructions for use and maintenance of the product (the instructions are found in this use and maintenance booklet). During the heating and cooling stages, the appliance is exposed to considerable thermal expansions that can cause light expansion sounds (tickings). This is a normal process and is not a defect of the product.

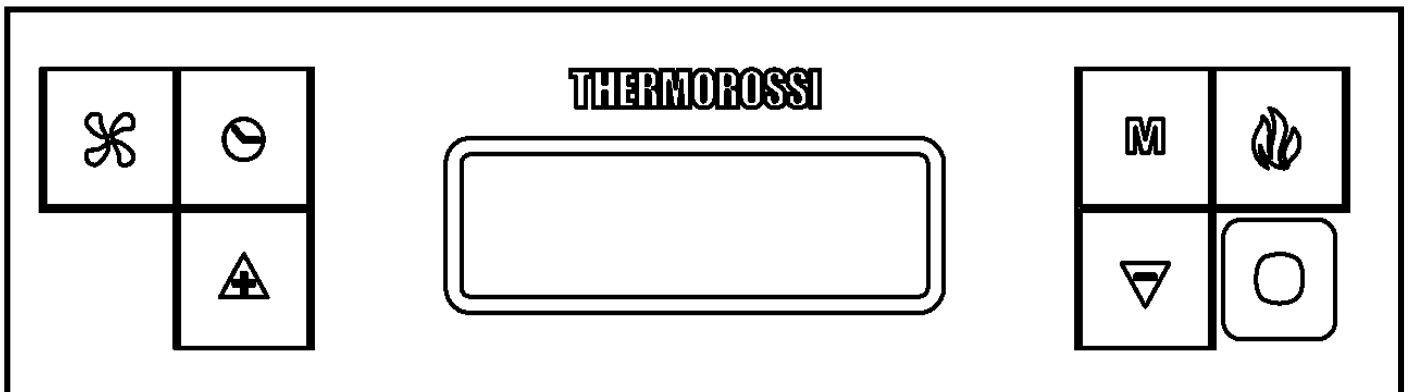


ATTENTION: Before each use make sure that the burners are clean and positioned correctly in their lodging.

ATTENTION: the door must always remain shut tight when the appliance is operating. It is strictly forbidden to open the door while the appliance is in operation. While the appliance is in operation, the smoke exhaust pipes can reach extremely high temperatures: do not touch them! It is strictly prohibited to use any type of fuel (liquid, solid...) other than pellet to light up the appliance: lighting must occur automatically as intended and described in this installation, use and maintenance booklet; consequently, it is also strictly forbidden to feed pellets (or any other material) into the braziers. Do not place non-heat resistant or inflammable or combustible objects in the vicinity of the appliance: keep them at a suitable distance. Do not place wet clothing to dry on the appliance. When using a clothes horse, keep at a suitable distance. It is strictly prohibited to disconnect the appliance from the electrical power mains during normal operation.



### 5.1 DESCRIPTION OF THE CONTROL PANEL



The control panel is managed by a microprocessor. The control buttons and the various displays are described below. The control buttons are:



#### Clock button

Press this button to activate / deactivate the programming.



#### Ventilation button

Press this button to set the desired level of ventilation: Six ventilation levels can be set on this stove. The fan starts operating as soon as the temperature inside the stove body rises and the smoke thermocouple gives the signal. The fan stops automatically when the stove body has cooled sufficiently. The fan cannot be disabled during operation.



#### Flame button

Pressing this button when the appliance is off activates the **START** sequence, sets the power of combustion in the **WORK** mode or shuts off the appliance by activating the **OFF** sequence.



#### Scroll buttons (only in the Menu)

Press MINUS key to lower the value. Press PLUS key to raise the preset value.



#### Menu button

Press this button to access the main menu. You can scroll the setting screens shown below, which will be described in detail in the following paragraphs. To access the functions of each subwindow wait a few seconds.



- DATE/TIME** This button is used to set the day of the week, the hour and minutes.
- CRONO** This button is used to set the programmed on and off sequences.
- LEVEL** Is used to change the rotation speed of the smoke suction unit.
- THERMOCOMFORT** This button is used to activate the connection with the Room Control device (Optional).
- SHOW CRONO** This button is used to view the parameters programmed with the CRONO function.

Display

The following information can appear on the display:



Displays the preset **combustion power**, and consequently the pellet consumption, by the number of bars that are lit up around the flame symbol, using this logic:

- One bar lit up:** Minimum combustion power (and therefore with minimum pellet consumption)
- Two bars lit up:** Second combustion power
- Three bars lit up:** Third combustion power
- Four bars lit up:** Fourth combustion power
- Five bars lit up:** Maximum combustion power (and therefore with maximum pellet consumption)
- No bars lit up:** The appliance is OFF



Displays the preset **ventilation power**, and consequently the room fan speed, by the number of bars that are lit up around the fan symbol, using this logic:

- One bar lit up:** Minimum ventilation power
- Two bars lit up:** Second ventilation power
- Three bars lit up:** Third ventilation power
- Four bars lit up:** Fourth ventilation power
- Five bars lit up:** Fifth ventilation power
- Six bars lit up:** Maximum ventilation power



Dashes appear along the top of the display, and each dash corresponds to one day of the week set by the user (e.g., 1 corresponds to Monday, 2 correspond to Tuesday... etc.). The operating status of the appliance appears below these dashes, that is START, OFF or WORK. And the current time set by the user appears below this word.

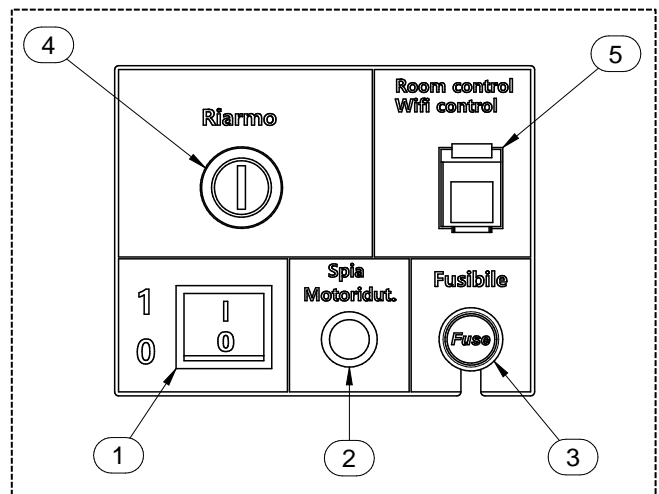


The presence in the display of the clock symbol indicates that the CRONO programming has been enabled; if this symbol does not appear it means that the CRONO programming has been disabled.

**5.2 DESCRIPTION OF THE POWER PANEL**

The components of the power board are described below:

- 1) Main switch 0/I.
- 2) Test indicator light for pellet feed motor.  
The light comes on simultaneously with the activation of the pellet feed motors.
- 3) Protection fuse 3.15 A.
- 4) Cap for reset thermostat button.  
If the reset thermostat overheats stop the pellet feeder. The appliance must cool down before you can restart the appliance. After verifying and eliminating the causes of the event, undo the protective cap and press the button.
- 5) Outlet RJ 45 to connect Wi-Fi module.



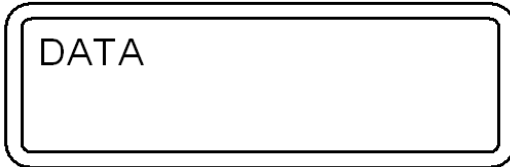
LEGENDA	KEY
Riarmo	Reset
Room control Wifi control	Room control WiFi control
Spia Motoridut.	Gearmotor indicator light
Fusibile	Fuse

### 5.3 DATE: SETTING THE DATE AND TIME

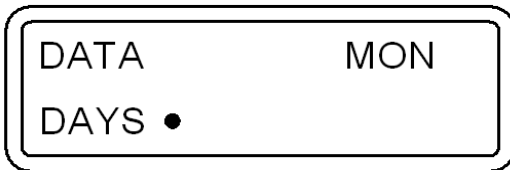
The appliance must be energised and the I/O switch in position "1".

The current date and time can be set using the DATE function.  
To set the current time and date proceed as follows:

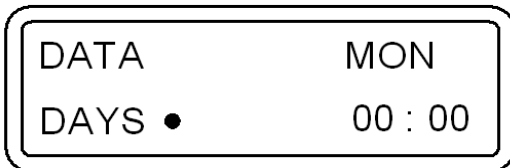
- 1) Press the **Menu Button** once to view the following screen:



After a few seconds the following screen will appear on the display:



- 2) Now press the **Scroll Buttons** to change the day of the week; each dot corresponds to one day of the week (e.g. 1 corresponds to Monday, 2 correspond to Tuesday, etc...). To confirm the selection of the day of the week press the **Flame Button**.  
Once confirmed, the selector shifts to the flashing hour section:



- 3) Press the **Scroll Buttons** to change the hour. Once you have set the hour confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the flashing minutes section. Press the **Scroll Buttons** to set the minutes. Press the **Flame button** to confirm.  
Once confirmed, the date and time setting screen closes automatically and the initial screen returns to the display.

If you confirm the wrong value simply press the **Menu Button** to exit the box, the initial screen will appear, and repeat the procedure described above.

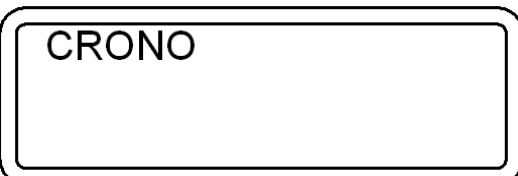
### 5.4 CRONO: ON/OFF PROGRAMMING

The appliance must be energised and the I/O switch in position "1".

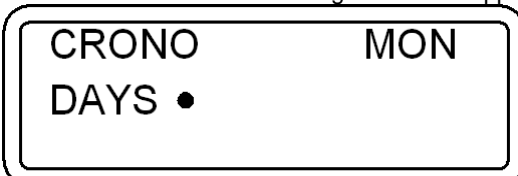
The CRONO function allows you to set the weekly program by setting up to 3 on-off cycles at different times for every day from Monday through to Sunday.

To set a program follow the procedure described below:

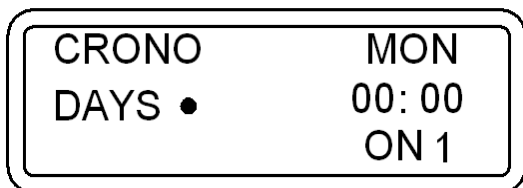
- 1) Press the **Menu Button** twice quickly to view the following screen:



After a few seconds the following screen will appear on the display:

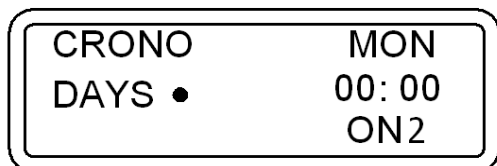


- 2) Press the **Scroll Buttons** to select the day of the week on which you want to set the program. Each dot corresponds to one day of the week (e.g., 1 corresponds to Monday, 2 correspond to Tuesday, etc...). To confirm the day of the week selected for the programming press the **Flame Button**. The following screen will appear with the hour section flashing:



- 3) Now press the **Scroll Buttons** to select the hour at which you wish the appliance to start up automatically (ON1). Once the hour has been set, confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the flashing minute section of ON1. Press the **Scroll Buttons** to set the minutes for the first start up. Confirm the value by pressing the **Flame Button**.
- 4) Now press the **Scroll Buttons** to select the hour at which you wish the appliance to shut off automatically (OFF1). Once the hour has been set, confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the flashing minute section of OFF1. Press the **Scroll Buttons** to set the minutes for the first shut off. Confirm the value by pressing the **Flame Button**.

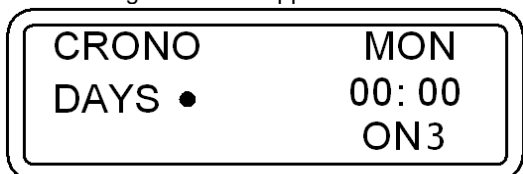
At this point the first ON/OFF cycle for the selected day has been set.  
The following screen will appear:



At this point if no further programming is required for that day go to point 5-A.  
If, on the other hand, you wish to program a second ON/OFF cycle for that day go to point 5-B.

- 5-A) Press the **Menu Button** to exit the screen, in order to enable you to program the times for the ON/OFF cycles for the other days of the week. In this case repeat the instructions from point 2 up to this paragraph.
- 5-B) Press the **Scroll Buttons** to select the hour at which you wish the appliance to start up automatically for the second time (ON2). Once the hour has been set, confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the minute section of ON2. Press the **Scroll Buttons** to set the minutes for the second start up. Confirm the value by pressing the **Flame Button**.  
Now press the **Scroll Buttons** to select the hour at which you wish the appliance to shut off automatically (OFF2). Once the hour has been set, confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the minute section of OFF2. Press the **Scroll Buttons** to set the minutes for the second shut off. Confirm the value by pressing the **Flame Button**.

At this point the second ON/OFF cycle for the selected day has been set.  
The following screen will appear:



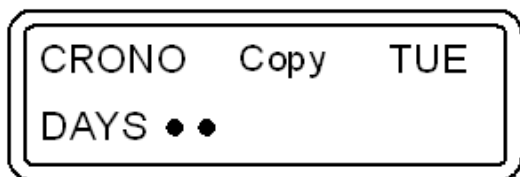
At this point if no further programming is required for that day go to point 6-A.  
If, on the other hand, you wish to program a third ON/OFF cycle for that day go to point 6-B.

- 6-A) Press the **Menu Button** to exit the screen, in order to enable you to program the times for the ON/OFF cycles for the other days of the week. In this case repeat the instructions from point 2 up to this paragraph.
- 6-B) Press the **Scroll Buttons** to select the hour at which you wish the appliance to start up automatically for the third time (ON3).  
Once you have set the hour confirm the value by pressing the **Flame Button**.  
Once confirmed, the selector shifts to the minute section of ON3. Press the **Scroll Buttons** to set the minutes for the third start up. Confirm the value by pressing the **Flame Button**.  
Now press the **Scroll Buttons** to select the hour at which you wish the appliance to shut off automatically (OFF3). Once the hour has been set, confirm the value by pressing the **Flame Button**. Once confirmed, the selector shifts to the minute section of OFF3. Press the **Scroll Buttons** to set the minutes for the third shut off. Confirm the value by pressing the **Flame Button**.

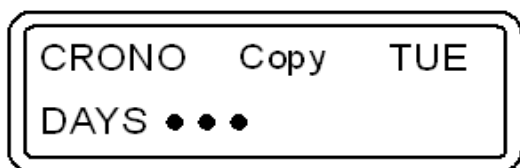
At this point the third and final ON/OFF cycle for the selected day has been set.

Alternatively, if you wish to copy the exact same programming for the ON/OFF cycles set for a particular day to the next day simply press the **Ventilation button**.

For example: if I want to copy all the programmed ON/OFF cycles set for Monday to Tuesday the following screen will appear:



I press the **Ventilation button** once again to copy all the cycles programmed for Tuesday to Wednesday. The following screen will appear:



Using the same logic, we can copy the programmed cycles to the other days.

7) To conclude the programming operations simply press the **Menu Button** to exit the screen, and the initial screen will appear.



**ATTENTION: The appliance ignores any ON or OFF command programmed with a value of 00:00.** Consequently, if you do not wish to use an ON or OFF time setting simply set a value of **00:00**. The appliance ignores any ON or OFF command if the shut off time is set the same as or before the start up time.



**ATTENTION:**

In the event of a programmed cycle on always ensure that the braziers are clean and in the correct position. Failure to clean the braziers can reduce and/or affect the life of the spark plugs as they would be subjected to high temperatures due to poor cooling. It is recommended to set ON/OFF cycles times lasting no less than 2 hours, in order to save energy and for the proper operation of the appliance.

Enabling the programmed cycles:

Back in the initial screen, to enable the appliance to carry out the ON/OFF cycles as programmed simply press the **Clock Button**.

The text CR.ON and the image of a clock will appear on the main screen:



The programmed cycles are now enabled.



**When the programmed cycles are enabled (a clock symbol appears on the display) it will not be possible to use an additional chronothermostat.**

Disabling the programmed cycles:

To disable the appliance from carrying out the programmed ON/OFF cycles press the **Clock Button** once again. The text CR.OFF will appear on the display and the clock symbol will disappear. This operation disables the weekly program that has been set by the user but does not delete or reset the times.

Resetting the programmed cycles:

Moreover, it is possible to reset, in other words delete, all the programmed cycles entered by the user by holding down the **Clock Button** in the initial screen for approx. five seconds.

Do not release the button until the text RESET CRONO appears on the screen. Only the appearance of the words RESET CRONO signal that the previously entered programmed cycles have been deleted. When the programmed cycles are active the operating level at start up, that is the combustion power, will be the same level set before the last time the machine was shut off: that is, only if it was a programmed shut off, not if the machine was shut off by means of a manual action. Manual shut down can only be carried out with the programming disabled. If after a manual shut off the programmed cycle re-enables, at the next programmed start up the appliance will be on the first combustion power level.

## 5.5 LEVEL: OPERATING LEVEL SETTING

The appliance must be energised and the I/O switch in position "I".

Your appliance is delivered with an excellent program installed that favours combustion efficiency; the program is called **LEVEL 1**. However, if you are using pellets with a higher than normal incidence of residues after combustion in the braziers, it is possible to select alternative levels:

**LEVEL 2** is an operating program that accelerates the speed of the smoke suction unit in proportion to all the combustion power levels. This level must be set when the user notices a weak, high and very dark flame. Attention: this modification does not authorise the use of below-standard pellets, or no vacuum in the flue outlet.

If using loosely compressed pellets, you could select:

**LEVEL 0:** is an operating program that decelerates the speed of the smoke suction unit when using loosely compressed pellets and/or when the flue outlet has a very high vacuum, over 2 mm water column (20 Pascal).

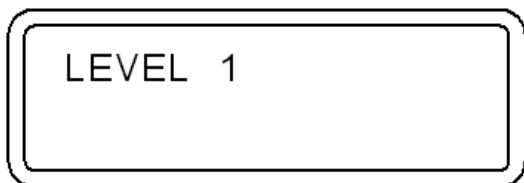
The pellet consumption value remains unchanged regardless of the selected operating level. These variations will only change the rotation of the smoke suction unit in the WORK stage, all the other stages will not undergo any changes.

Select the required Level by acting as follows:

- 1) Press the **Menu Button** three times quickly and the following box will appear:



After a few seconds the following screen will appear on the display:



- 2) To change the operating level, hold down a **Scroll Button** while simultaneously pressing the other **Scroll Button**.



To set the desired level or to exit the screen simply press the **Menu Button**; the initial screen will appear on the display.

The level selection can be made with the appliance **OFF** or **ON**. If the change is made while the appliance 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 braziers is mandatory.

## 5.6 ROOM CONTROL: CONNECTION WITH THE ROOM CONTROL DEVICE (OPTIONAL)

See the specific manual for the ROOM CONTROL device (Optional).

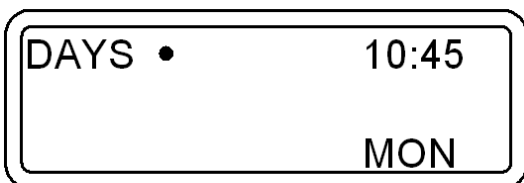
## 5.7 SHOW CRONO: ON-OFF PROGRAMMING DISPLAY

The appliance must be energised and the I/O switch in position "I".

This function enables you to consult the programmed cycles carried out through the CHRONO function.

Proceed as follows to view the programmed ON/OFF cycles:

- 1) Press the **Menu Button** five times quickly until the "SHOW CRONO" screen appears, and after a few seconds the following screen will appear:



- 2) Press the left **Scroll Button** repeatedly to scroll and consult the programmings for all the days of the week.



Attention: the on-off programmings cannot be modified from the SHOW CRONO menu. This menu is used only for viewing the programming cycles that have been entered and/or edited through the CHRONO menu.

## 6 – USE OF THE APPLIANCE

### 6.1 DESCRIPTION OF THE OPERATING STAGES

**START:** has a duration of approx. 20 minutes, during this phase the appliance is programmed to light the flame. The appliance will not accept power variations in the firebox. If the appliance does not start up correctly it could be due to one of the following factors: cleanliness of the generator, smoke exhaust particularly cold, sudden surges and drops in the electric power supply, fuel is too moist or does not comply with the specifications.

**WORK:** the appliance works according to the combustion and ventilation power set by the user. The spark plugs are off.

**OFF:** has a duration of approx. 25 minutes. In this phase the appliance is switched off until a new "on" phase is initiated. The aim is to make the pellet embers in the braziers die out and cool the appliance. The room fan and the smoke suction unit continue to operate as required. In any case after approx. 25 minutes the appliance goes into stand-by mode.

**WAIT TIME:** The Chrono programming was activated and the device is waiting for the next start up time (ON) or it is waiting for the next command from an external contact.

**NO PROGRAM:** The Chrono programming was activated but no valid programming was set.

### 6.2 SWITCHING ON THE STOVE



Before using the appliance check that all the movable parts are correctly fitted. Also remove any labels and stickers from the glass to avoid that permanent traces remain on the surfaces. Verify that the electric connections have been made perfectly. Check also that the firebox door is firmly closed.

Then carry out the following operations:

- 1) Power up the appliance and turn the I/O switch to position "I".
- 2) Ensure that the appliance is connected to the smoke exhaust: we recommend against using aluminium tubes and we recommend always using sealing gaskets. Further information is given in paragraph dedicated to the smoke discharge of this use and maintenance booklet.
- 3) Load the pellets into the hopper.
- 4) Press the **Flame Button** to begin the start up phase and the word **START** will appear on the display.

Press the **Flame Button** repeatedly to set the desired combustion power which will only activate at the end of the START cycle which takes roughly 20 minutes.

In this stage any level of combustion power set by the user is ignored to meet the correct power values set by the manufacturer.

Press the **Ventilation button** repeatedly to set the six fan speeds; the fan will only activate once the smoke has reached the preset temperature.

The electrical heaters will start to heat and only after a few minutes the first lot of pellets will start dropping into the braziers. This occurs because the screw feeders have to fill up because they are completely empty. At the first start up the appliance may require the starting sequence to be performed twice for the reason explained above: before starting up the second time, empty and vacuum out the braziers.



**ATTENTION:** During the START sequence the appliance ignores all the combustion power changes that are transmitted to it or set on it. Once this phase has ended the word WORK appears on the display. When the machine is in the running phase the combustion can be changed manually.



**ATTENTION:** If the appliance does not start up correctly, check that the braziers and electric heaters are clean. It is very important to ensure that the tube lodging of the electric heaters is clean; there must be no deposits or dust. It is recommended to use an efficient ash vacuum cleaner but only when the appliance has cooled down.

### 6.3 COMBUSTION AND VENTILATION ADJUSTMENTS

Set the combustion power of the stove by acting on the **Flame Button**. The combustion power regulates the pellet drop. The selected combustion power level will appear on the display.

Set the ventilation speed of the stove by acting on the **Ventilation Button**. The ventilation speed regulates the number of fan revolutions. A slight vibration of the stove is quite normal when it is running. The selected ventilation power level will appear on the display.

### 6.4 SWITCHING OFF THE APPLIANCE

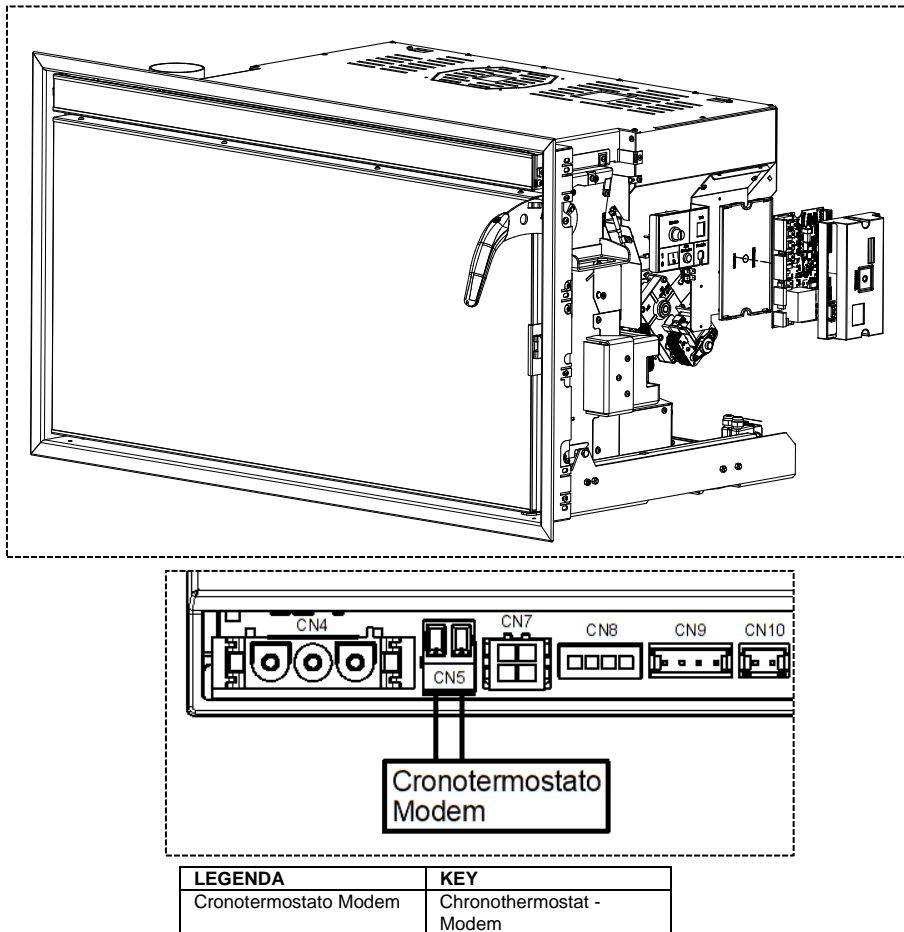
To switch off the appliance, press several times the **Flame Button** until the power bars on the display disappear and the text OFF appears.



**DO NOT** disconnect the generator from the electric power socket to switch it off. This operation generates smoke that could not be evacuated because of the construction characteristics of the flue outlet. The OFF procedure lasts for approx. 25 minutes.

## 7 – ADDITIONAL CHRONOTHERMOSTAT

The appliance can be connected to an additional chronothermostat by connecting it directly to the terminals of terminal block CN5 on the board, as shown in the figures below.



This operation must be exclusively performed by qualified professional staff, as set forth by Decree no. 37 of 22nd January 2008 and applicable laws on the subject. Before performing said task, make sure the power supply cable is disconnected from the electrical power socket.

The contacts are defined as "FREE" contacts and they must never be supplied with voltage. It is strictly prohibited to supply any tension whatsoever to the above-mentioned terminals as this would permanently damage the control board; such damage is not covered by WARRANTY.

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 appliance shut down.

**ATTENTION: when using the chronothermostat program up to a maximum of 3 on-off daily cycles without setting the desired temperature or set it at the highest possible value for the chronothermostat.**

At the end of the preset time the contact of the chronothermostat will open and perform the appliance 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 appliance. It is therefore possible to program a momentary shut down of the appliance according to the preset time.

**Do not shut down the appliance according to the room temperature.**

If the external chronothermostat is used the "CHRONO" function cannot be used.



**ATTENTION:** The manufacturer denies all responsibility for the life of the electrical heaters 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.

**If you use the Room Control device in Switch Mode you cannot use the additional chronothermostat.**



**ATTENTION:** Use N.O. (normally open) contacts for the connection to the chronothermostat. In the event of connections to the chronothermostat, Thermorossi S.p.a. shall not be held responsible for the appliance not starting up, smoke leaks or breakage of the lighting components. In the event of a programmed cycle on, always ensure that the braziers are clean and seated correctly in their lodging. A maximum of 3 on-off cycles per day are permitted. The chronothermostat must have a thermal hysteresis that is at least of 2°C.



## 8 – CLEANING AND MAINTENANCE

### 8.1 FOREWORD



Before commencing any operation switch off the appliance and disconnect it from the electric power outlet. Your pellet appliance needs maintenance; it requires a few simple, basic but frequent control and general cleaning operations. This will guarantee consistently safe and 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 important to carefully follow the instructions set out below: failure to observe these instructions could cause serious damage to the product, to the system, to objects and to persons using the generator. Failure to observe cleaning and maintenance instructions will immediately void the warranty. Caution: do not wet the appliance 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 appliance is cold.



**The user must periodically clean the appliance, or have an authorised service centre clean it, as described in this manual. Moreover, once a year it is advisable to have an inspection carried out of the functionality of the flue outlet.**

### 8.2 CLEANING AND MAINTAINING THE APPLIANCE



Due to the frequent cases we have encountered of the use of poor quality pellets, users are advised that it is mandatory to use, in this appliance, pellets certified in accordance with the regulations in force for the Italy UNI market or for the European EN market. If this requirement is not observed the result will be unsuitable combustion, consequently, the electrical and electronic components could be subjected to very high temperatures and will not be covered by warranty. **Unless otherwise instructed, the operations described below are mandatory and not postponable beyond the specified times.**

The cleaning and maintenance operations must be carried out by the user.

#### EVERY DAY:

- Clean out all the combustion residues from the braziers **B**, particularly check that the holes of the burners and the heater lodging channels are completely sediment-free and remove, if present, all silica agglomerates; they indicate poor quality fuel (Figure 1). To open and close the door use the handle provided.

ATTENTION: make sure, before every lighting, that the braziers are clean and if necessary also thoroughly clean them with a suction unit. To guarantee correct operation, carefully clean the area around the spark plugs.

#### EVERY 3 DAYS:

- Remove the ash pan, the grate and the brazier assembly by pulling them outwards. Clean out all the combustion residues from the braziers, the drawer and the compartment A1 (Figures 1, 2, 3 and 4), then remount the brazier unit back to its correct position. To open and close the door use the special handle provided. To guarantee correct operation of the appliance, carefully clean the area around the spark plugs.

#### EVERY WEEK:

- Thoroughly vacuum the inspection compartments **A2** (Figures 6 and 7). The two knobs must be unscrewed to access compartments **A2** (Figure 5). When closing them, make sure there are no obstacles that prevent airtight closure.

#### EVERY MONTH:

- Remove blade **A3** (Figure 8) and the rear of the combustion chamber consisting of three pieces (Figures 9, 10 and 11), raising and rotating them towards the outside of the appliance and clean the smoke circuit thoroughly (Figure 12). Reassemble correctly the back and the blade after cleaning.
- Inspect and clean the Tee-joint of the smoke exhaust pipe **C1** (Figure 14). Unscrew the two knobs (Figure 13) to access it and check the integrity of the gasket when reassembling the inspection cover. If necessary replace the gasket.
- Check the hold and integrity of the sealing gasket of the smoke exhaust located at the Tee inlet.
- Vacuum, when empty, the saw dust on the bottom of the pellet tank.
- Check that the smoke exhaust pipe is free from any ash deposits, above all in the initial parts.

#### AT LEAST TWICE A YEAR:

- Clean the flue outlet. If there are any horizontal sections, inspect them and clean out any ash and soot deposits before they block the passage of the flue gases.

#### AT THE END OF THE WINTER SEASON (or whenever necessary)

- Perform a thorough overall cleaning of the firebox and compartments with brushes and vacuum cleaners.



A vacuum device simplifies the ash cleaning procedure. The frames, door glass and glass must be cleaned with a soft cloth and water only and only when the appliance has cooled down. It is also normal to find partially or totally unburned pellets in the ash pan. The door of the combustion chamber must only be opened when the appliance has completely cooled down and is disconnected from electric power: when it is opened it is normal for some ash to spill onto the floor. ATTENTION: a daily deposit of soot and combustion residues on the glass is quite normal.



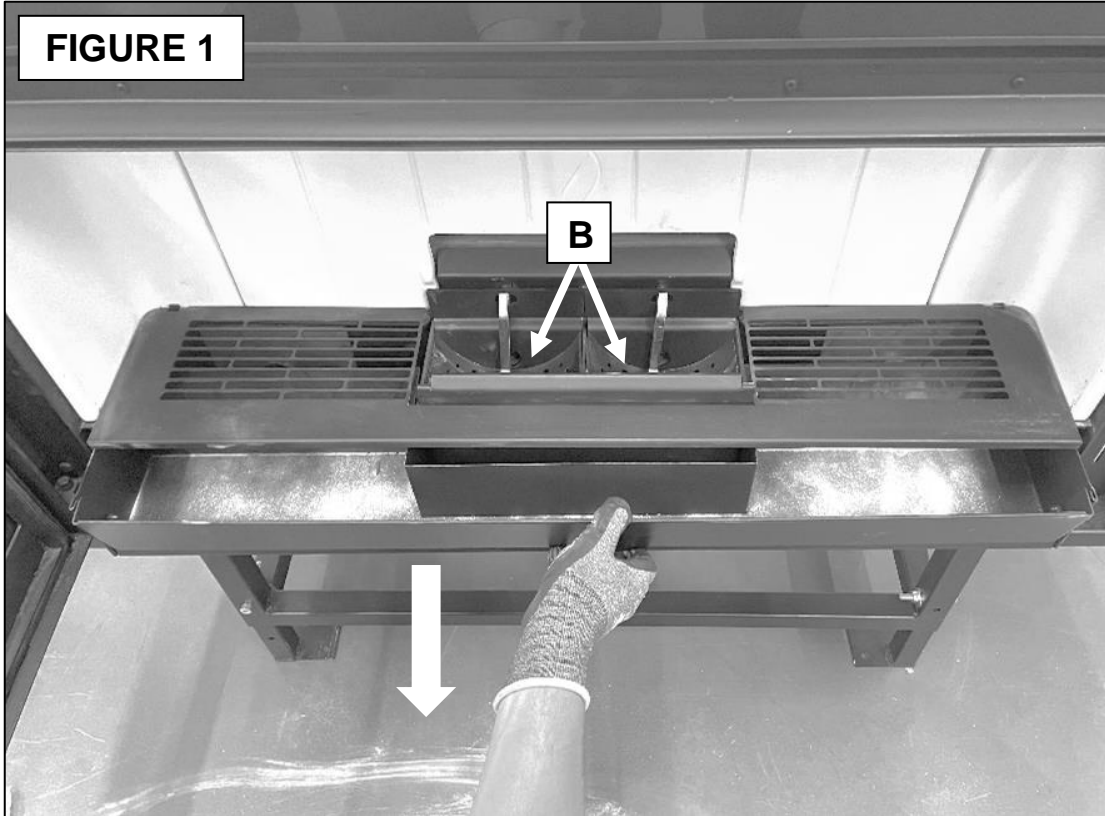
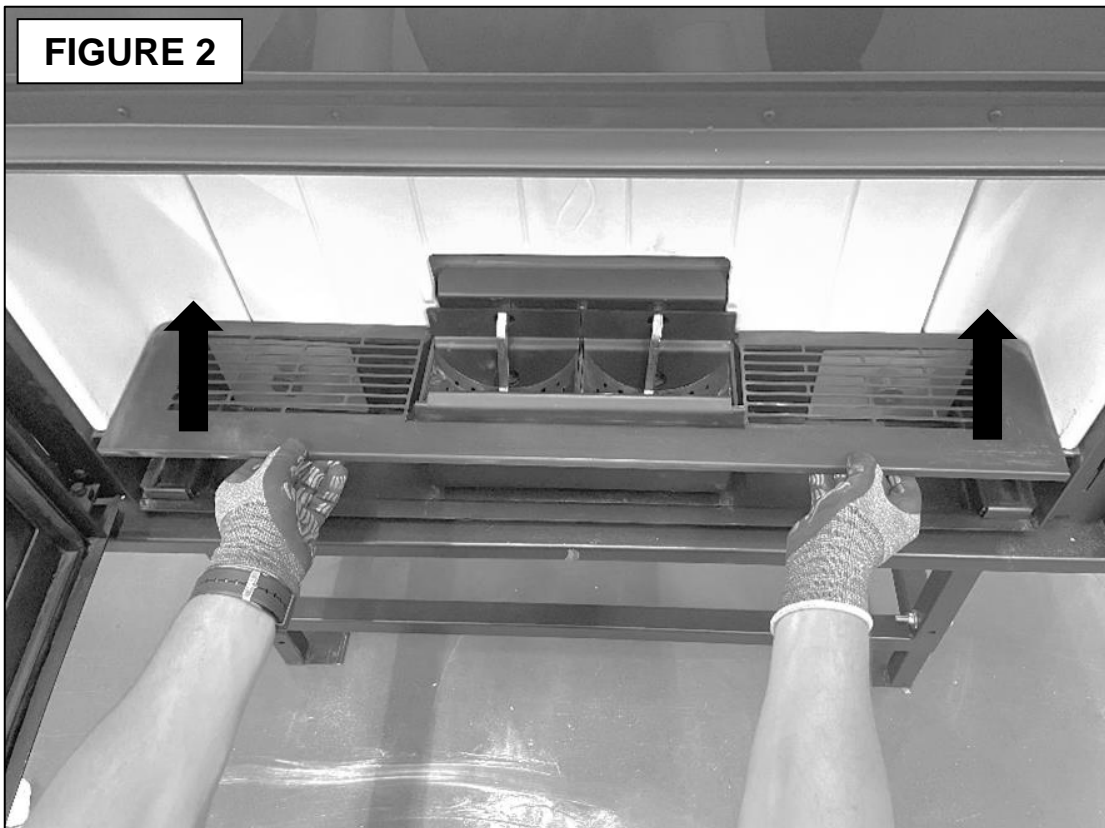
**ATTENTION:** after cleaning it is mandatory to carefully check that the combustion chamber door is firmly closed and airtight.

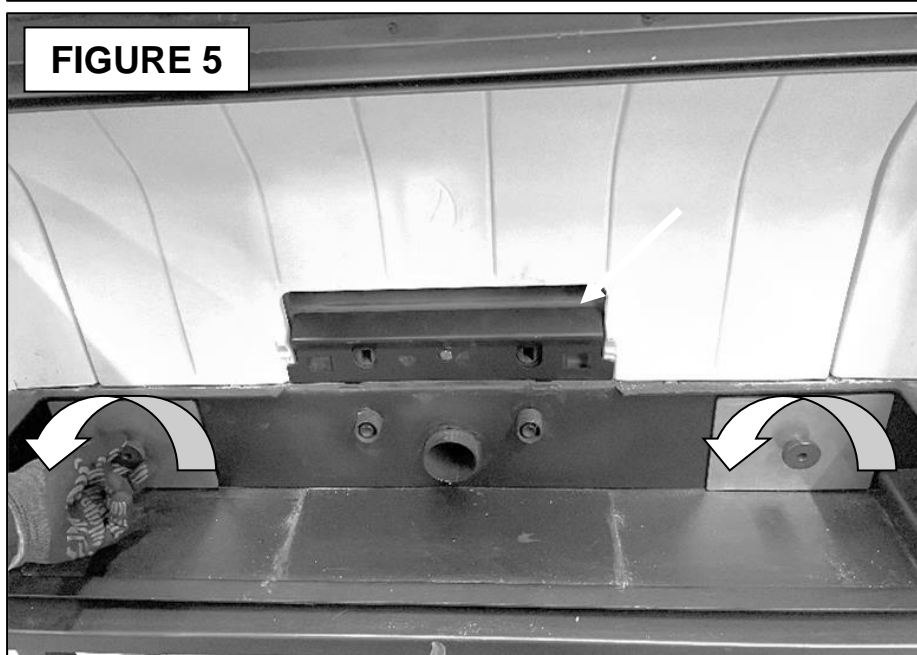
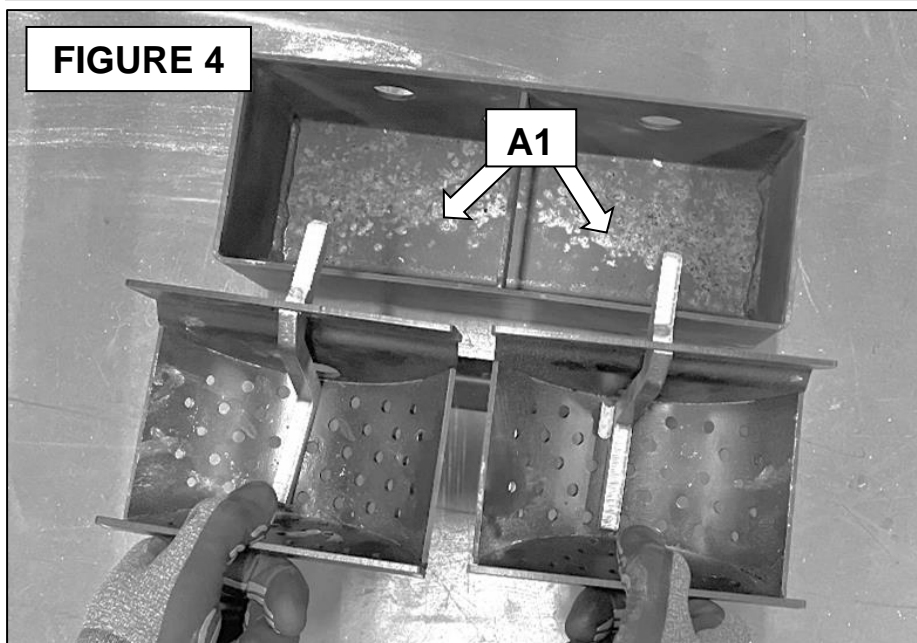
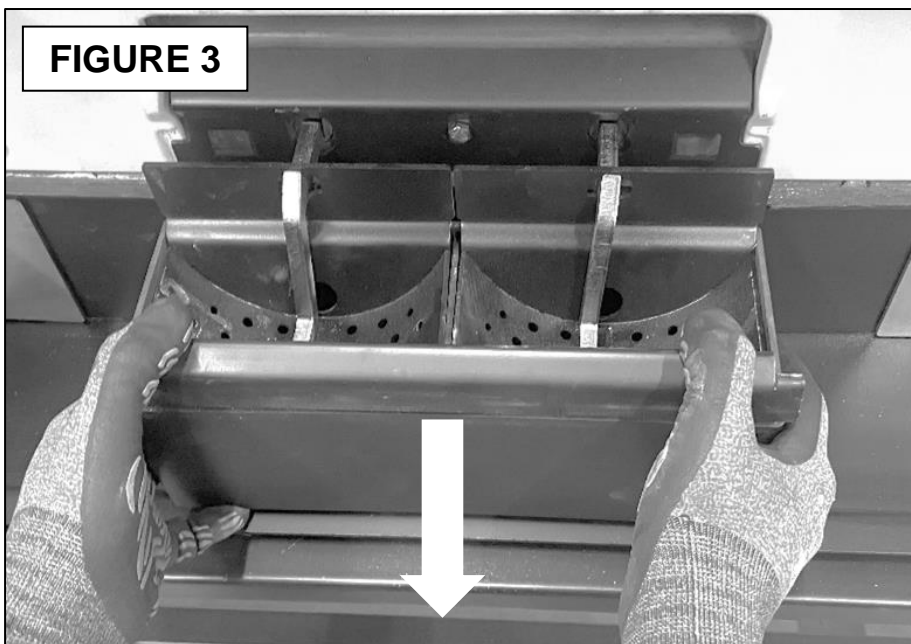
**ATTENTION:** the generator, the smoke channel and flue outlet must be cleaned in accordance with the specifications described above and use of inflammable products is strictly forbidden: using inflammable products can create

**ESPRIT INFINITY**

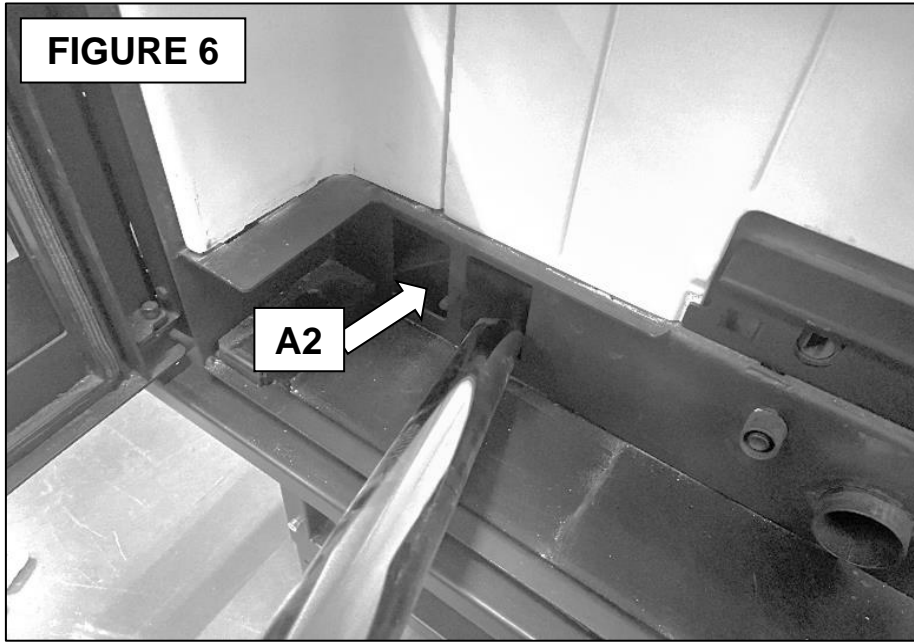
dangerous situations. Lack of or poor maintenance prevents the appliance from operating correctly. Any problems resulting from total or partial lack of cleaning or maintenance will immediately void the warranty.

**ATTENTION:** if the appliance remains inactive (and/or not used for over a month) the generator, the smoke discharge tube and the flue outlet must be thoroughly cleaned and checked for any possible obstructions (e.g., birds nests in the chimney cap) before restarting.

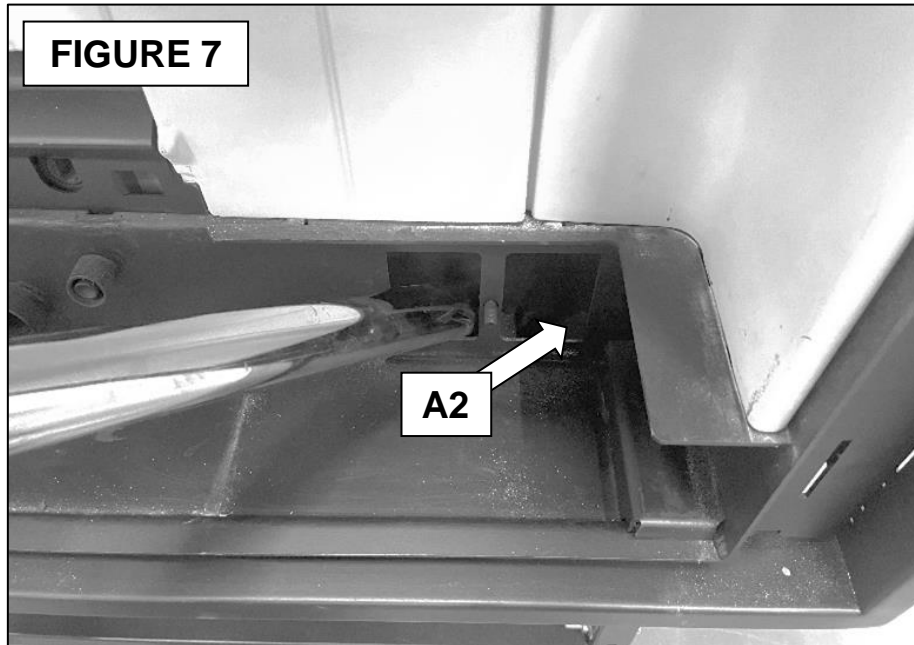
**FIGURE 1****FIGURE 2**



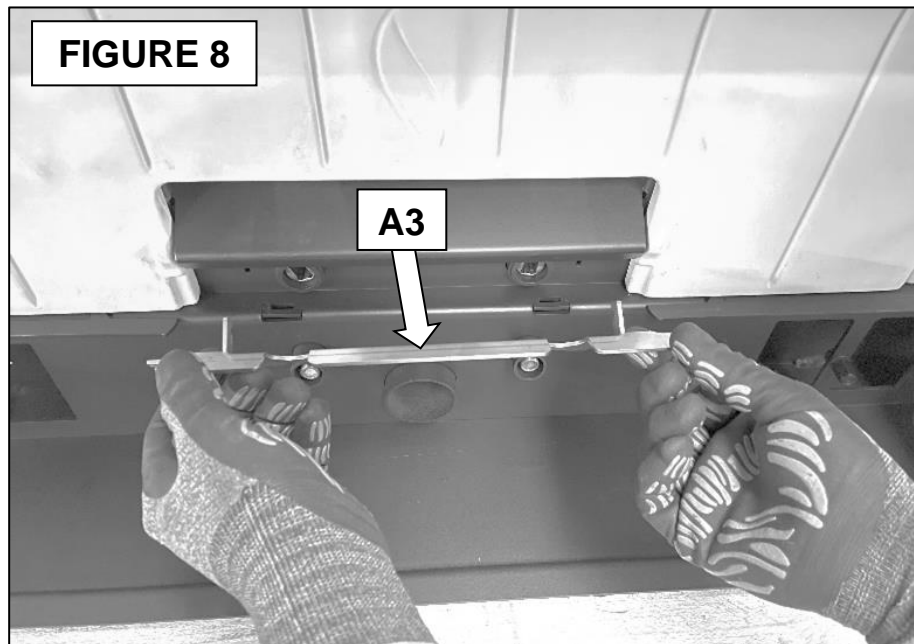
**FIGURE 6**



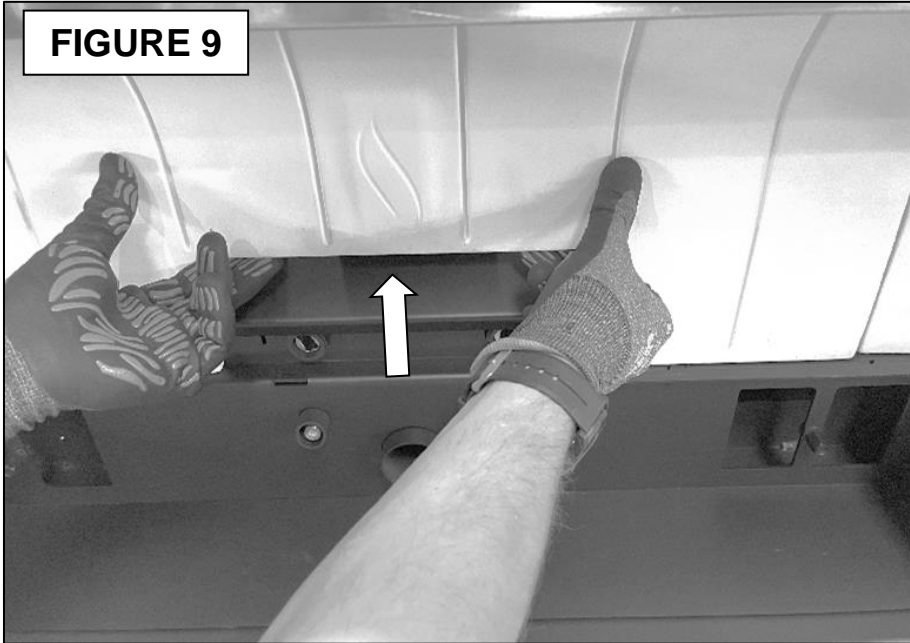
**FIGURE 7**



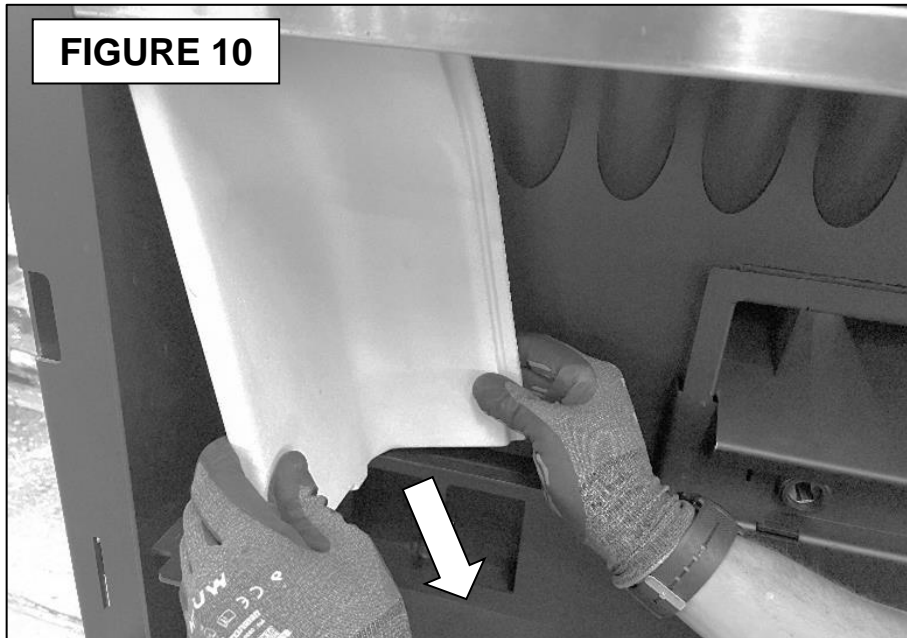
**FIGURE 8**



**FIGURE 9**



**FIGURE 10**

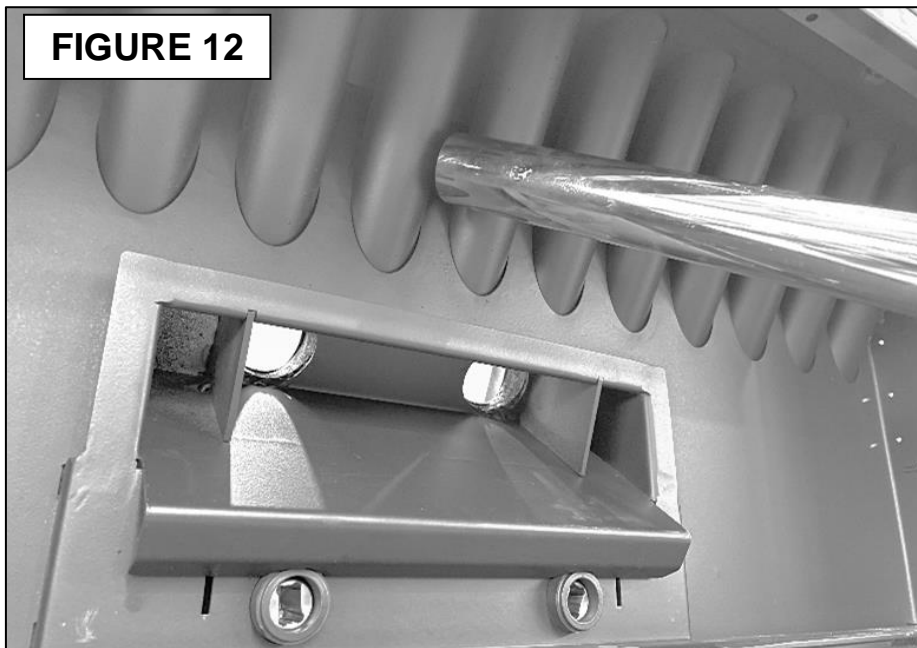


**FIGURE 11**

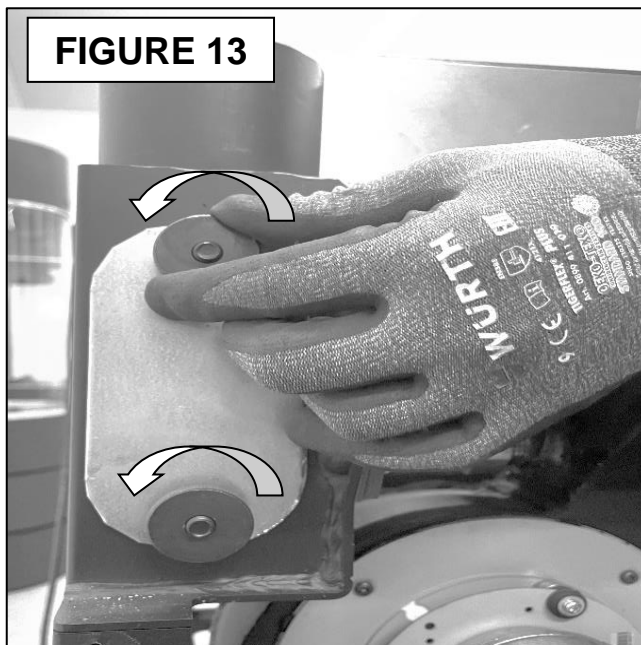




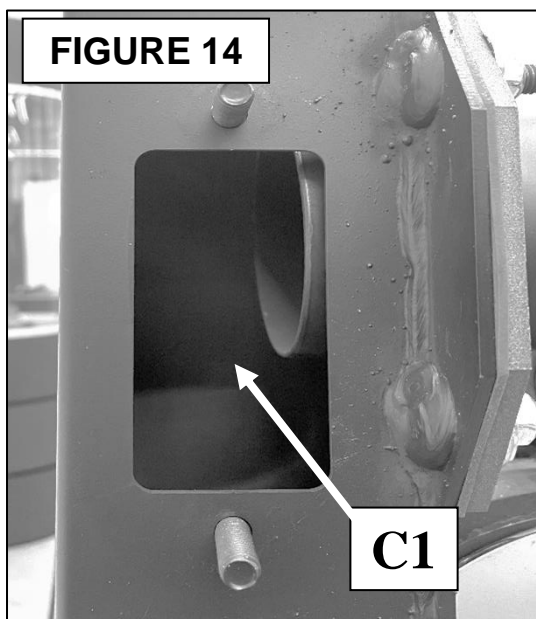
**FIGURE 12**



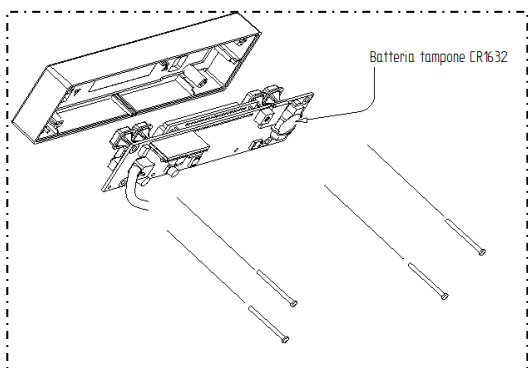
**FIGURE 13**



**FIGURE 14**



### 8.3 REPLACING THE BUFFER BATTERY OF THE CONTROL PANEL



Inside the control panel there is a buffer battery type CR1632. When time and programming are not kept in storage, the battery must be replaced using the 4 screws in the rear of the control panel. The dead battery must be disposed of safely.



This operation must be exclusively performed by qualified professional staff, as set forth by Decree no. 37 of 22nd January 2008 and applicable laws on the subject. Before performing said task, make sure the power supply cable is disconnected from the electrical power socket.

LEGENDA	KEY
Batteria tampone CR1632	Buffer battery CR1632

## 9 – SMOKE DISCHARGE TUBE AND VENTILATION OF THE ROOMS

### 9.1 FOREWORD



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 flue outlet must comply with UNI 10683 and be built in accordance with the requirements set out in Italian Decree No. 37 of 22 January 2008, respecting the reference values expressed in the standard; in particular, the flue outlet must conform to fire prevention standards (it must therefore be capable of withstanding a possible fire action: in such a situation contact the fire department immediately). This chapter is not intended to replace UNI 7129, UNI 10683 and EN 14785 standards to which it refers. The qualified installer must in any case be fully aware of these standards and any amending versions. *It is important to carefully follow the instructions included in these standards: failure to observe these instructions could cause serious damage to the product, to the system, to objects and to persons using the generator.*



### 9.2 ROOM VENTILATION



ATTENTION: 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 product.

ATTENTION: do not obstruct the vents or the air inlets on the appliance.

The room where the appliance is installed must have a good air flow to guarantee air for the appliance for the combustion process and for ventilation of the room. The natural air flow must take place directly through permanent openings on the outer walls or through single or multiple ventilation ducting.

The ventilating air must come from outside and if possible, away from sources of pollution. The openings in the walls must comply with the following conditions:

- 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 that do not reduce the opening section indicated above;
- be situated at a height near-floor level and they must not obstruct the correct operation of the combustion product discharge devices; if this position is not possible, the section of the ventilation openings must be enlarged by at least 50%.

#### VENTILATION FROM ADJOINING ROOMS

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

- the adjoining room is equipped with direct ventilation in compliance with the paragraphs described above;
- only appliances connected to the exhaust pipe are installed in the room that is ventilated;
- the adjoining 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 adjoining room does not become a vacuum compared to the room to be ventilated due to a reverse draught effect (the reverse draught can be caused by the presence in the room of either another heating appliance running on any type of fuel, a fireplace, or any suction device, which have not been provided with an air intake)
- the air flow from the adjoining 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.

### 9.3 SMOKE OUTLET



The smoke channel, the exhaust pipe, chimney and flue outlet (defined as the system for the evacuation of combustion products), are parts of the heating system and they must comply with the legislative requirements of the Ministerial Decree DM 37/08 (ex Italian Law 46/90) and to the applicable specific installation regulations, according to the type of fuel. Fireplaces, stoves and barbecues must not be installed in locations where gas appliances type A and type B are present and operating (for the classification see UNI 10642 and UNI 7129). The connection between the appliance and the flue outlet must only receive exhaust from one heat generator.

#### 9.3.1 CHIMNEY TYPES

The following types of chimneys, constructed as described, are possible:

- System: Chimney installed using a combination of compatible components (flue liner, insulation, outer casing etc...), constructed or specified by a single manufacturer and CE certified in accordance with the applicable standard;
- Composite chimney: Chimney installed or constructed on site using a combination of compatible components such as flue liner (wall directly in contact with the smoke), and possibly also insulation and outer casing (wall) that may be supplied by different manufacturers or by the same manufacturer.
- Relining: operation involving the installation of a specific pipe in an existing shaft (even if newly constructed) made of non-combustible materials, free from obstructions and for single use.

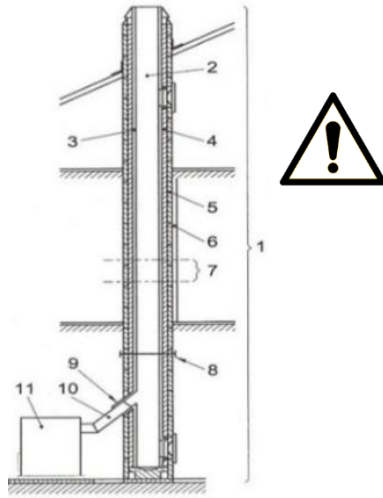


9.3.2 FLUE OUTLET / FLUE SYSTEM COMPONENTS

**Components and accessories of a chimney**

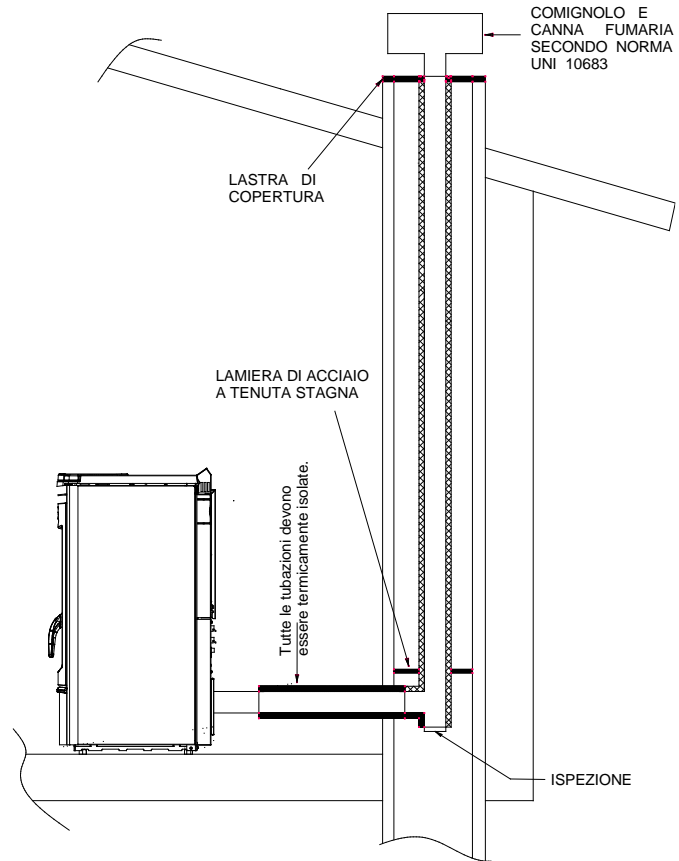
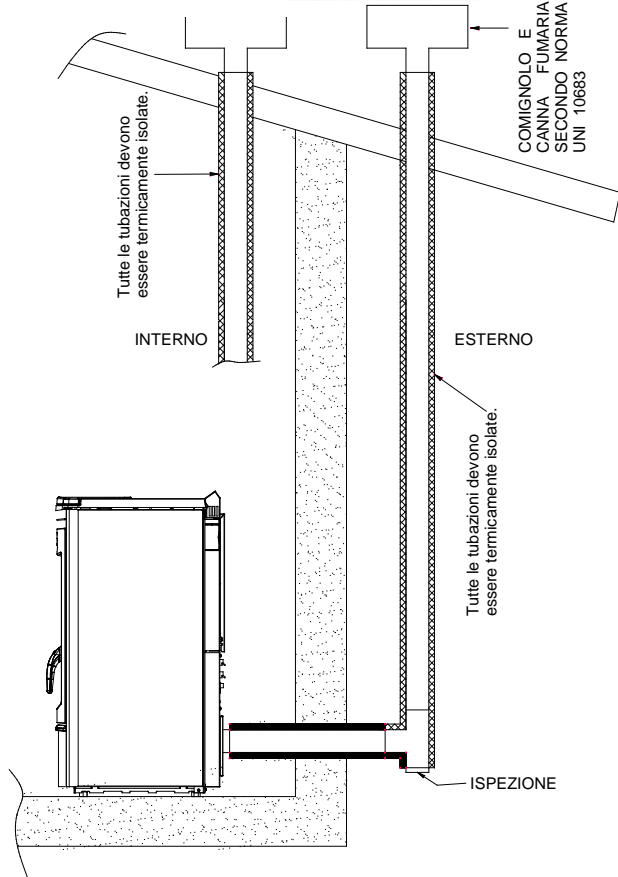
**Key**

- 1 Chimney
- 2 Flow path
- 3 Smoke discharge tube
- 4 Thermal insulation
- 5 External wall
- 6 Outer lining
- 7 Flue outlet section
- 8 Multiwall chimney
- 9 Connector
- 10 Flue pipe
- 11 Heat generator



Every chimney must have minimum number of components as laid down by standard UNI EN 10683 which are also indicated in the figure on the left.

Wall outlets, that is outlets installed on the outer front wall without the use of a chimney/flue outlet /flue pipe to convey the combustion products to the roof, are strictly prohibited.



LEGENDA	KEY
COMIGNOLO E CANNA FUMARIA SECONDO NORMA UNI 10683	CHIMNEY CAP AND FLUE OUTLET ACCORDING TO UNI 10683 STANDARD
2 metri MAX	2 metres MAX
Pendenza 3% - 5%	Slope 3-5%
ALTEZZA SUPERIORE A 5 m	HEIGHT MORE THAN 5 m
Tutte le tubazioni devono essere termicamente isolate	All the pipes must be thermally insulated
ISPEZIONE	INSPECTION
INTERNO	INTERNAL
ESTERNO	EXTERNAL
LAMIERA DI ACCIAIO A TENUTA STAGNA	WATERTIGHT STEEL SHEET
LAISTRA DI COPERTURA	COVER SLAB

### 9.3.3 CONTROLS PRIOR TO INSTALLING THE APPLIANCE

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.

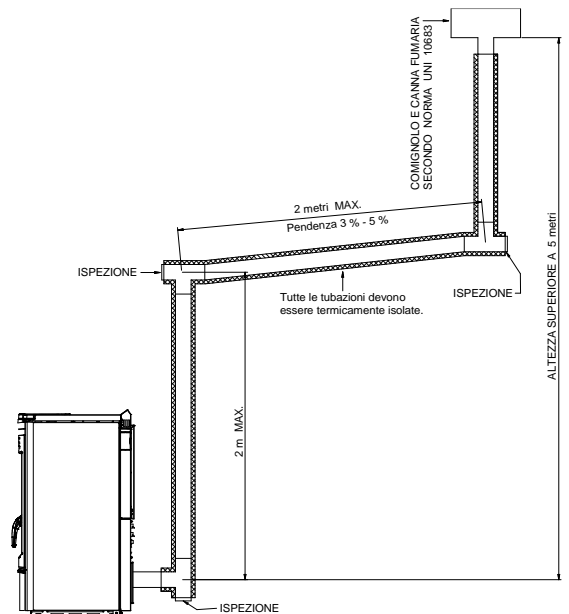
•The smoke exhaust shown in the following figures is the best solution to ensure the discharge of smoke even when the fan is not operational, such as for example if there is an electrical power failure. Failure to comply with these requirements may result in accumulation of smoke inside the firebox with possible explosions and/or smoke escaping into the room. The figures illustrate the best solution for discharging the smoke out through the roof or into the flue outlet. If you prefer to exhaust the smoke from the roof 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 the classic masonry exhaust provide a union tee with inspection cap and suitable supporting brackets. If the flue outlet is too big it is necessary to insert a stainless steel or porcelain-coated steel tube.

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 appliance 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 combustion chamber 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. **THE FLUE OUTLET MUST BE USED ONLY FOR THE APPLIANCE.** It must be possible to inspect and remove all the smoke tube sections for clean-out purposes.



**ATTENTION: if the flue outlet is not sufficiently insulated and /or if it is too long it could generate condensation. It is mandatory 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 appliance is programmed to communicate 7 alarms.



**ATTENTION:** The appearance of one of the alarms described below, does not necessarily imply a defect in the product, but simply Thermorossi S.p.A.'s intention to inform the user of the need for corrective actions in order to guarantee maximum safety, greater reliability and high performance of the appliance.

The alarms are listed below:



This message appears when during the **WORK** stage the temperature of the smoke drops below a preset threshold: this means that the appliance is shutting off due to lack of pellets. To reset the alarm the power to the appliance must be switched off then on by turning the switch 0-1 located on the power panel. **It is mandatory to empty and clean the braziers**, and then to fill the pellet tank before repeating the START phase. It could be that the screw feeders are completely empty, so the start up sequence may have to be carried out twice.



This appears if, after the **START** sequence, the smoke has not reached a suitable temperature. To reset the alarm the power to the appliance must be switched off then on by turning the switch 0-1 located on the power panel.

**It is mandatory to empty and clean the braziers** before repeating the START phase: pellets emptied from the braziers must not be fed into the tank.



This occurs when the smoke outlet is partially blocked. To reset the alarm the power to the appliance must be switched off then on by turning the switch 0-1 located on the power panel.

Before restarting the appliance check for any irregularities such as blocked flue outlet, open firebox door, very dirty appliance. **Do not start up the appliance until the problem has been identified and solved**

**It is mandatory to empty and clean the braziers** before repeating the START phase!



This appears when the appliance overheats. **After having verified and solved** the causes for the overtemperature, unscrew the plastic cover of the reset thermostat located on the power/control panel and press the button (the appliance can only be reset when its temperature has dropped considerably). To **reset the alarm** the power to the appliance must be switched off then on by turning the switch 0-1 located on the power panel. **It is mandatory to empty and clean the braziers** before repeating the START phase!



Appears when the smoke thermocouple is damaged or absent. Contact the technical assistance service.

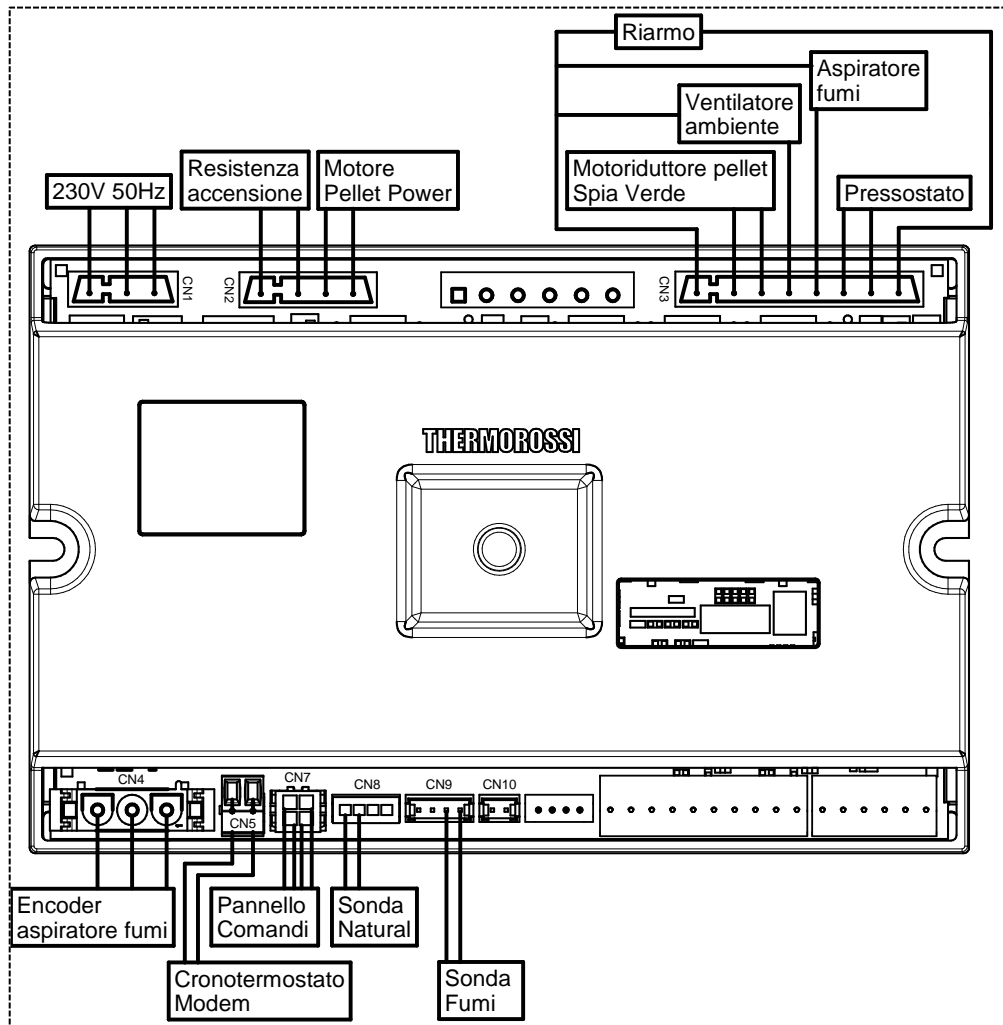


Activates when the smoke suction unit revolution sensor detects a very slow rotation speed: check the flue pipes and the flue outlet. If the problem persists contact the technical assistance service.



Trips when the smoke suction unit revolution sensor fails to detect any rotation. The smoke suction unit or the rotation sensor are not working. Contact the technical assistance service.

**11 – ELECTRICAL WIRING**



LEGENDA	KEY
Riarmo	Reset
Aspiratore fumi	Smoke suction unit
Ventilatore ambiente	Room fan
Pressostato	Pressure switch
Motoriduttore pellet Spia verde	Pellet gearmotor Green indicator light
Resistenza accensione	Lighting heater
Motore Pellet Power	Pellet Power Motor
Sonda Fumi	Smoke sensor
Sonda Natural	Natural sensor
Pannello Comandi	Control panel
Cronotermostato Modem	Chronothermostat - Modem
Encoder aspiratore fumi	Smoke suction unit encoder

## **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 motors 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 MOTORS**

They are powered at regular on/off intervals controlled by a microprocessor. The operation of these motors is affected when:

- The motors' thermal cutout trips.
- The pressure switch trips due to blocked smoke exhaust.
- Pellets finished.
- Voluntary shut down of the appliance.
- The manual reset thermostat trips at 125°C

#### **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 (to a maximum of 20 minutes).

#### **SMOKE SUCTION UNIT**

This is activated when the appliance starts up. In the first minute 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 twenty minutes from the time the appliance is switched off to allow for the evacuation of all the smoke and for safety purposes.

#### **THERMOCOUPLE**

Its function is to verify the temperature of the combustion smoke: when the smoke temperature exceeds a certain value it indicates that the appliance is on. Similarly, when the temperature drops below a certain limit it causes the presence of the message NO PELLETS on the display.

#### **NATURAL SENSOR (TANK PROTECTION)**

This probe activates as soon as the temperature around the pellet tank rises above a certain threshold, which immediately signals the room fan to start operating.

#### **125°C MANUAL RESET THERMOSTAT**

When the temperature exceeds 125°C the pellet feed screw shuts down. Display shows the inscription "AL T max". Once the causes for the overtemperature have been identified and remedied the appliance can be reactivated by unscrewing the plastic cover of the thermostat located on the power panel and pressing the button (the appliance temperature must have considerably dropped).

#### **SPARK PLUGS**

They are activated in the START phase. They heat the air to 800°C, which assist the first combustion of the pellets present in the braziers. The spark plugs are guaranteed for a period of 6 months.

#### **BRAZIER CLEANING MOTOR**

This is a patented system that creates a continual movement of the combustion pellets inside the burners which consequently cleans the burners.

### **12.2 REQUIREMENTS NECESSARY FOR CORRECT OPERATION**

- Read this use and maintenance booklet.
- The appliance must always be switched off from the control panel. It is forbidden to switch off the appliance by means of the main switch 0/I located in the power panel.
- The appliance must never be disconnected from the electrical power supply and the power supply must never be cut off during normal operation. Whenever the appliance is deliberately disconnected from the electric power supply smoke could be emitted into the room.
- Do not install the appliance with horizontal wall outlets only: Evacuation of products of combustion by natural draught must always be guaranteed as well. Unsuitable installation of the outlets could cause a forced shut down of the appliance due to overpressure of the exhaust smoke caused by a gust of wind.
- At the first startup, run the appliance at the maximum power and minimum ventilation for at least ten hours in a well-ventilated room, in order to dispose of the smoke generated by the complete dryness and baking of the silicates contained.
- Do not install a grill or outlet terminal that could slow down the flow of the combustion gases: this would obviously cause the appliance to malfunction.
- Keep the appliance clean and check the burners as described in this use and maintenance guide.
- Clean the smoke outlet regularly.
- Use good quality pellets: use of poor pellets can result in up to 50% less efficiency.
- The pellets must be stored in a well-ventilated, dry place.
- The appliance door must always remain closed during normal operation.
- Do not touch hot outer surfaces, unless with special equipment.
- Do not pour the pellets or other substances directly into the braziers.
- Keep fuel and inflammable materials at a suitable distance.
- Use only original spare parts supplied by the manufacturer.

### 12.3 TROUBLESHOOTING CAUSE-SOLUTION

PROBLEM	POSSIBLE CAUSE	SOLUTION
PELLETS DO NOT DROP INTO THE BRAZIER UNIT	PELLET TANK IS EMPTY THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"NO PELLET"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
	PELLET SCREW FEEDERS BLOCKED BY FOREIGN OBJECT SUCH AS NAIL, NYLON, PIECE OF WOOD THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"NO PELLET"</b>	CUT OFF THE POWER AND REMOVE THE FOREIGN OBJECT FROM THE TANK.
	SMOKE EXHAUST NOT FREE, OR WITH TERMINAL THAT OBSTRUCTS THE PASSAGE OF SMOKE THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"SMOKE NO OUT"</b>	CLEAN THE BRAZIERS AS IN DICATED IN THIS USE AND MAINTENANCE GUIDE, THEN CHECK THE SMOKE EXHAUST AS IT COULD BE DIRTY OR BLOCKED.
	OUTLET TERMINAL CLOGGED BECAUSE A GRILL OR TERMINAL HAS BEEN INSERTED WHICH PREVENTS THE FREE PASSAGE OF SMOKE THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"SMOKE NO OUT"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN REMOVE THE TERMINAL AND REPLACE IT WITH A MORE SUITABLE ONE.
	A LONG GUST OF WIND HAS CAUSED THE APPLIANCE TO GO INTO SAFETY MODE. THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"SMOKE NO OUT"</b>	CLEAN THE BRAZIERS AS DESCRIBED IN THIS USE AND MAINTENANCE GUIDE, DE-ENERGISE THE APPLIANCE THEN POWER UP AGAIN
	ONE OF THE PELLET FEED MOTORS IS NOT WORKING THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"NO PELLET"</b>	REPLACE THE PELLET FEED MOTOR
	THE RESET THERMOSTAT TRIPPED AND LOCKED THE GEARMOTORS THE <b>"ALARM T.MAX"</b> ALARM IS SHOWN ON THE DISPLAY	AFTER HAVING VERIFIED AND FOUND A SOLUTION FOR THE OVERTEMPERATURE PROBLEM, WAIT UNTIL THE APPLIANCE COOLS DOWN AND RESET THE THERMOSTAT.
	THE DOOR OF THE COMBUSTION CHAMBER OF THE APPLIANCE IS OPEN THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"SMOKE NO OUT"</b>	CLOSE THE DOOR OF THE COMBUSTION CHAMBER
THE APPLIANCE ACCUMULATES PELLETS IN THE BRAZIER UNIT WHILE OPERATING	SMOKE EXHAUST NOT FREE, OR WITH TERMINAL THAT OBSTRUCTS THE PASSAGE OF SMOKE	CLEAN THE BRAZIERS AS IN DICATED IN THIS USE AND MAINTENANCE GUIDE, THEN CHECK THE SMOKE EXHAUST AS IT COULD BE DIRTY OR BLOCKED OR REMOVE THE TERMINAL AND REPLACE IT WITH A MORE SUITABLE ONE.
	THE BRAZIERS ARE VERY DIRTY	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE
	THE DOOR OF THE COMBUSTION CHAMBER OF THE APPLIANCE IS NOT TIGHT, THE GASKET IS WORN	CLOSE THE DOOR OF THE COMBUSTION CHAMBER FIRMLY / REPLACE THE GASKET
	PELLET WITH ASH DEPOSIT GREATER THAN STANDARD OR OF DUBIOUS QUALITY	CLEAN THE BRAZIERS AND SET OPERATING PROGRAM <b>LEVEL 2</b> , AS INSTRUCTED IN THIS USE AND MAINTENANCE GUIDE. IF THIS DOES NOT SUFFICE, CHANGE TO A BETTER QUALITY OF PELLETS
THE APPLIANCE LEAKS SMOKE INTO THE ROOM	OCCURS THE FIRST TIME THE APPLIANCE IS SWITCHED ON AS THE SILICONE PAINT IS BEING DRIED	RUN THE APPLIANCE AT HIGH POWER LEVELS FOR A FEW DAYS
	THE SMOKE EXHAUST IS NOT SEALED CORRECTLY	CHECK THE TIGHTNESS OF THE FLUE OUTLET AND IN PARTICULAR THE CONDITION OF THE EXHAUST PIPES AND THE GASKETS
	IF THE APPLIANCE STARTS TO SMOKE AFTER 25 MINUTES: DIRTY BURNERS, VERY DELAYED START	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE
	IF THE APPLIANCE STARTS TO SMOKE AFTER 25 MINUTES: DELAYED START BECAUSE THE SCREW FEEDERS WERE EMPTY	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
	OVERPRESSURE RELIEF VALVE TRIPPING	MAKE SURE THAT ALL THE CLEANING, ROUTINE AND EXTRAORDINARY MAINTENANCE INSTRUCTIONS SET OUT IN THIS USE AND MAINTENANCE GUIDE ARE STRICTLY ADHERED TO
THE APPLIANCE ENTERS ALARM MODE A FEW MINUTES AFTER THE START SEQUENCE HAS ENDED	DELAYED START BECAUSE THE SCREW FEEDERS WERE EMPTY THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"FAILED START"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
	VERY DELAYED START BECAUSE THE BRAZIERS ARE DIRTY THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"FAILED START"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
THE APPLIANCE DOES NOT START UP	ONE OF THE SPARK PLUGS IS NOT WORKING THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"FAILED START"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN REPLACE THE SPARK PLUG
	THE PELLET TANK OR SCREW FEEDERS ARE EMPTY THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"FAILED START"</b>	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
	EXCESSIVE DRAUGHT IN THE FLUE OUTLET THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY <b>"FAILED START"</b>	HAVE THE FLUE OUTLET DRAUGHT CHECKED
	THE HOLE OF ONE OF THE SPARK PLUGS IS CLOGGED WITH COMBUSTION RESIDUES	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE
THE GLASS IS COVERED IN BLACK SOOT	THE APPLIANCE ACCUMULATES PELLETS IN THE BRAZIERS	CLEAN THE BRAZIERS AND SET OPERATING PROGRAM <b>LEVEL 2</b> , AS INSTRUCTED IN THIS USE AND MAINTENANCE GUIDE. IF THIS DOES NOT SUFFICE, CHANGE TO A BETTER QUALITY OF PELLETS
	THE APPLIANCE OPERATES WITH FREQUENT ON-OFF CYCLES	THE APPLIANCE SHOULD RUN FOR LONGER PERIODS OF TIME TO REDUCE THE ON/OFF EVENTS
	THE FLUE OUTLET HAS POOR DRAUGHT	HAVE THE FLUE OUTLET DRAUGHT CHECKED AND IF NECESSARY MAKE THE APPROPRIATE MODIFICATIONS
	POOR QUALITY PELLETS	CLEAN THE BRAZIERS AND SET OPERATING PROGRAM <b>LEVEL 2</b> , AS INSTRUCTED IN THIS USE AND MAINTENANCE GUIDE. IF THIS DOES NOT SUFFICE, CHANGE TO A BETTER QUALITY OF PELLETS

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>THE APPLIANCE DOES NOT WARM UP</b>	ROOM TEMPERATURE THERMOSTAT SET TOO LOW, APPLIANCE OPERATES INTERMITTENTLY	THE APPLIANCE NEEDS TO RUN FOR MORE HOURS AT A HIGHER POWER; SET A HIGHER ROOM TEMPERATURE
	THE ROOM IS TOO LARGE, THE WALLS ARE COLD	THE APPLIANCE SHOULD OPERATE FOR MORE TIME AND WITH MORE POWER
	POOR QUALITY PELLETS	CHANGE TO AN APPROVED TYPE AS INDICATED IN THIS USE AND MAINTENANCE GUIDE
	CEILINGS TOO HIGH OR PRESENCE OF STAIRS THAT DISPERSE THE HEAT ELSEWHERE.	SEPARATE THE SPACES OR RUN THE APPLIANCE AT HIGHER LEVELS FOR LONGER PERIODS OF TIME
<b>THE APPLIANCE IS OFF BUT THERE ARE UNBURNT PELLETS IN THE BRAZIER</b>	PELLETS HAVE RUN OUT IN THE TANK WHILE THE APPLIANCE IS RUNNING THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY "NO PELLETS"	CLEAN THE BRAZIERS AS INDICATED IN THIS USE AND MAINTENANCE GUIDE, THEN FILL UP THE TANK WITH PELLETS
	EXCESSIVE DRAUGHT IN THE FLUE OUTLET THE FOLLOWING ALARM IS SHOWN ON THE DISPLAY "NO PELLETS"	HAVE THE FLUE OUTLET DRAUGHT CHECKED AND IF NECESSARY MAKE THE APPROPRIATE MODIFICATIONS
<b>THE TIME DOES NOT REMAIN IN THE MEMORY</b>	THE BUFFER BATTERY INSTALLED IN THE CONTROL PANEL IS EXHAUSTED	REPLACE THE BATTERY
<b>THE HOURLY PROGRAM IS NOT COMPLIED WITH</b>	THE USER HAS NOT ENABLED IT	PRESS THE CLOCK BUTTON TO ENABLE IT AS INSTRUCTED IN THIS USE AND MAINTENANCE GUIDE
	THE BUFFER BATTERY INSTALLED IN THE CONTROL PANEL IS EXHAUSTED	REPLACE THE BATTERY
	AN ERROR HAS BEEN MADE WITHIN THE PROGRAMMED CYCLE: A SHUT OFF TIME HAS BEEN SET BEFORE THE START TIME	VERIFY THE TIMES SET IN THE CRONO SCREEN
<b>AFTER A FEW HOURS OF OPERATION A DEPOSIT APPEARS ON THE GLASS</b>	THIS PROBLEM OCCURS IN NEW PRODUCTS AND IS CAUSED BY THE EVAPORATION OF SOLVENTS PRESENT IN THE SILICONE	CLEAN THE GLASS WITH A NON-ABRASIVE WET CLOTH

**IF THE REMEDIES SUPPLIED HERE DO NOT SOLVE THE PROBLEM YOU HAVE ENCOUNTERED OR IF YOU REQUIRE SPARE PARTS CONTACT AN AUTHORISED TECHNICAL SUPPORT CENTRE**



**THERMOROSSI** 

*Fire Lovers*

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