

MCZ

EN

USE AND INSTALLATION MANUAL *

* Some installation advice given in this manual could contravenes UK building regulations guidelines. A supplementary instruction manual is provided to give correct advice for installations within the UK"

PHILO Comfort Air



8901168000

INTRODUCTION	4
1. WARNINGS AND GUARANTEE TERMS	5
1.1. SAFETY WARNINGS	5
1.2. OPERATIONAL WARNINGS	6
1.3. IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH EC DIRECTIVE 2002/96/EC.	7
1.4. GUARANTEE TERMS.....	7
1.4.1. Guarantee limits.....	8
1.4.2. Exclusions.....	8
2. THEORETICAL RECOMMENDATIONS FOR INSTALLATION	9
2.1. THE PELLETT	9
2.2. INSTALLATION PRECAUTIONS.....	10
2.3. THE OPERATING ENVIRONMENT	10
2.4. CONNECTING THE EXTERNAL AIR INLET.....	12
2.5. CONNECTING THE SMOKE OUTLET PIPE	12
2.6. FLUE PIPE CONNECTION.....	14
2.7. CONNECTION TO AN EXTERNAL DUCT USING AN INSULATED OR DOUBLE-WALL PIPE.....	14
2.8. CONNECTION TO THE FLUE PIPE.....	14
2.9. OPERATING FAULTS ASSOCIATED WITH DRAUGHT DEFECTS IN THE FLUE PIPE	15
3. INSTALLATION AND ASSEMBLY	16
3.1. SKETCHES AND TECHNICAL SPECIFICATIONS	16
3.1.1. PHILO COMFORT AIR dimensions	16
3.1.2. Technical specifications.....	17
3.2. PREPARATION AND UNPACKING	18
3.3. CONNECTING THE SMOKE OUTLET PIPE	20
3.4. CONNECTING THE HOT AIR DUCT	21
3.5. FITTING THE CLADDING	23
3.5.1. Fitting the front panels and grilles.....	23
3.5.2. Fitting the upper top.....	24
3.6. FITTING THE AIR FILTER	25
3.7. OPENING/ CLOSING THE DOOR.....	25
3.8. ELECTRICAL CONNECTION.....	25
4. OPERATION	26
4.1. WARNINGS PRIOR TO START-UP.....	26
4.2. CHECK PRIOR TO START-UP	27
4.3. SETTINGS TO IMPLEMENT BEFORE THE FIRST START-UP	27
4.4. LOADING PELLETS.....	27
5. LCD REMOTE CONTROL	28
5.1. Characteristics of the remote control	28
5.2. Graphic appearance	28
5.3. Operation of the remote control	29
5.3.1. General rules	29
5.4. Initial settings.....	29
5.4.1. Adjusting the time.....	29
5.4.2. °C – °F setting.....	29
5.5. Setting the operating mode	29
5.5.1. MANUAL mode (indicated by MAN)	29
5.5.2. AUTOMATIC mode (indicated by AUTO)	29
5.5.3. TIMER mode (indicated by TIMER)	30
5.5.4. ECO mode (indicated by ECO)	30
5.6. Various settings.....	31

5.6.1. Room ventilation	31
5.6.2. Sleep function	31
5.7. TIMER settings	32
5.7.1. TIMER time frame display	32
5.7.2. Modifying the TIMER time frames	32
5.7.3. Enabling the TIMER-ECO time frames	32
6. EMERGENCY PANEL	33
6.1.1. Start-up/ shutdown via the emergency panel	34
6.1.2. Carica coclea (Load pellet)	34
7. SAFETY DEVICES AND ALARMS	35
7.1. SAFETY DEVICES	35
7.2. ALARM SIGNALS	36
7.3. Silencing alarms	38
7.3.1. Mechanical seizure of the stove	38
8. MAINTENANCE AND CLEANING	39
8.1. DAILY OR WEEKLY CLEANING UNDER THE USER'S RESPONSIBILITY	39
8.1.1. Before every start-up	39
8.1.2. Check every 2 / 3 days	39
8.1.3. Cleaning the glazing	40
8.2. ROUTINE CLEANING UNDER THE SPECIALISED TECHNICIAN'S RESPONSIBILITY	40
8.2.1. Cleaning the heat exchanger	40
8.2.2. Decommissioning (end of season)	42
8.3. Checking the internal components	42
9. FAULTS / CAUSES / SOLUTIONS	43
10. WIRING DIAGRAMS	45

INTRODUCTION

Dear customer,

Thank you for choosing MCZ products and, in particular, a stove from the MCZ Pellet line.

For optimal operation of the stove and to benefit fully from the heat and sense of well-being that the flame distributes throughout your home, we advise you to read this manual carefully before starting the stove up for the first time.

Please remember that the pellet stove **MUST NOT** be used by children. Children must always be kept at a safe distance!

Document revisions

In order to improve the product and to update this document, the Manufacturer reserves the right to make any changes without notice. All reproduction, even partial, of this manual without the Manufacturer's authorisation is strictly prohibited.

Care of the manual and how to use it

- Take care of this manual and keep it in a place where it can be easily and quickly accessed.
- Should you misplace or destroy the manual, or should it come to be in poor condition, ask your retailer or the Manufacturer for another copy, specifying the product identification data.
- Any vital topics or those requiring special attention are printed in **"bold text"**.
- *"Italic text"* is used to call your attention to other paragraphs in this manual or for any additional explanations.

SYMBOLS USED IN THIS MANUAL

	<p>CAUTION!</p> <p>This warning symbol indicates that you should read carefully and understand the message it refers to as failure to observe the instructions given could seriously damage the stove and endanger the person using it.</p>
	<p>INFORMATION:</p> <p>This symbol is used to highlight information that is deemed important for the correct functioning of the stove. Failure to observe the instructions provided will jeopardise the use of the stove and cause it to function unsatisfactorily</p>
	<p>OPERATING SEQUENCES:</p> <p>Indicates a sequence of buttons to press to access the menu or perform adjustments.</p>
	<p>MANUAL</p> <p>Indicates that you should refer carefully to this manual or relevant instructions.</p>

1. WARNINGS AND GUARANTEE TERMS

1.1. SAFETY WARNINGS



- **Installation, electrical connection, functional check and maintenance of this appliance must only be performed by qualified or authorised personnel.**
- **Install the stove in accordance with the regulations in force in the relevant place, region or country.**
- **This appliance must not be used by anyone (including children) with limited physical, sensory or mental skills or with little experience and knowledge, unless they are supervised or have been instructed to use the device by the person in charge of its safety.**
- The instructions provided in this manual must always be observed to ensure the correct use of this stove and of any electronic appliances connected to it as well as to avoid any accidents.
- The stove must be used, adjusted and programmed by an adult. Errors or incorrect settings may cause hazardous conditions and/ or malfunction.
- The user (or anybody preparing to operate the stove) must read and fully understand the contents of this instruction manual before beginning any operation.
- The stove must only be used for its intended use. Any other use is considered incorrect and therefore dangerous.
- Do not use the stove as a ladder or supporting structure.
- Do not place laundry on the stove to dry. Clothes, airers and similar items should be kept at a safe distance from the stove -**Risk of fire.**
- The user is fully liable for any incorrect use of the product. MCZ bears no civil or criminal liability for incorrect use.
- Tampering of any nature or replacement of stove spare parts with non-original parts may endanger the operator. MCZ bears no civil or criminal liability for tampering or use of non-original parts.
- Large parts of the surface of the stove can get very hot (door, handle, glass, smoke outlet pipes, etc.). Therefore, avoid touching these parts without wearing suitable protective clothing or using appropriate measures, such as heat protective gloves or "hands cool" type systems.
- **DO NOT operate the stove while the door is open or if the glass is broken.**
- Do not touch the stove with wet hands as the appliance is electrical. Always remove the cable before operating on the unit.
- Before carrying out any cleaning or maintenance

operations make sure that the stove is disconnected from the mains power supply by pressing the general power switch on the back of the stove or removing the electrical cable that supplies the stove.

- In the event of fire in the flue pipe, switch off the stove and disconnect it from the power supply. Never open the door. Call the competent authorities.
- The stove must be electrically connected to a system equipped with an efficient earth conductor.
- The system must be of a suitable size for the stated electrical power of the stove.
- Incorrect installation or poor maintenance (not conforming to the instructions provided in this manual) may cause personal injury, harm to animals or damage to property. MCZ bears no civil or criminal liability for incorrect installation or poor maintenance.

1.2. OPERATIONAL WARNINGS



- Turn off the stove in the event of a failure or malfunction.
- Pellets must not be manually fed into the burner.
- Unburned pellets that build up in the burner following repeated failed start-ups must be removed before attempting to start up the stove again.
- Do not wash the internal parts of the stove with water.
- Do not wash the stove with water. Water may penetrate into the unit and cause faults in the electrical insulation. This can cause electric shocks.
- Do not expose the body to hot air for long periods of time. Do not overheat living areas in which the stove is installed. This may damage the physical conditions and cause health problems.
- Do not directly expose plants or animals to the airflow as this can have harmful effects on them.
- Do not put fuels other than wood pellets in the tank.
- Install the stove in rooms which are suitably protected against fire hazards and equipped with all utilities, including power supplies (air and electricity) and smoke outlets.
- The stove and ceramic cladding must be stored in a dry place, sheltered from weather.
- You are advised not to rest the body of the stove directly on the floor. If the floor is flammable it must be suitably insulated.
- If the ignition system is faulty do use flammable materials to light the stove.



INFORMATION:

- In case of any problems, please contact your retailer or MCZ's qualified, authorised personnel. If repairs are necessary, request original spare parts.
- Use ONLY fuel indicated by MCZ (for ITALY only 6 mm

diameter pellets, for other European countries 6-8 mm diameter pellets) and supplied only by the automatic feed system.

- Check and clean the smoke outlet ducts regularly (connection to the flue pipe).
- Unburned pellets that build up in the burner following repeated failed start-ups must be removed before attempting to start up the stove again.
- The pellet stove is not a cooking appliance.
- Always keep the cover of the fuel tank closed.
- Keep this instruction manual in a safe place as it should accompany the stove along its entire life cycle. If the stove is sold or transferred to another user always ensure that the manual accompanies the product.
- If this manual is destroyed request a copy from the authorised retailer or from MCZ.

1.3. IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH EC DIRECTIVE 2002/96/EC.



At the end of its working life, the product must not be disposed of as urban waste.

It must be taken to a special local authority differentiated waste collection centre or to a dealer providing this service.

Disposing appliance separately avoids possible negative consequences for the environment and health deriving from inappropriate disposal and enables the constituent materials to be recovered to obtain significant savings in energy and resources. As a reminder of the need to dispose appliances separately, the product is marked with a crossed-out wheeled dustbin.

1.4. GUARANTEE TERMS



MCZ guarantees the product, **with the exception of parts subject to normal wear specified** below, for two years from the date of purchase, provided that proof of purchase is supplied in a document specifying the name of the retailer and the date on which the sale was made and that the completed guarantee certificate was sent within 8 days of said purchase. The product must also be installed and tested by a specialised fitter and in accordance with the detailed instructions provided in the instruction manual that accompanies the product.

The guarantee covers the replacement or free repair **of parts recognised as being faulty at source due to manufacturing defects.**

1.4.1. Guarantee limits

The aforementioned guarantee does not cover electrical and electronic parts or fans for which the guarantee period is one year from the date of purchase of the product, proven as indicated above. The guarantee does not cover parts subject to normal wear such as seals, glazing and all removable parts of the combustion chamber.

Parts replaced will be guaranteed for the remaining guarantee cover period starting from the original date of purchase of the product.

1.4.2. Exclusions

Colour variations of painted and ceramic parts as well as ceramic crazing do not constitute grounds for dispute as these are natural characteristics of the material and use of the product.

The guarantee does not cover any parts found to be faulty due to negligence, inappropriate use, incorrect maintenance or installation not performed in compliance with MCZ's instructions (see relevant chapters in this use manual).

MCZ cannot be held liable for any damage which may - either directly or indirectly - be caused to persons, animals or property ensuing from failure to observe all the instructions provided in the instruction manual and, specifically, the warnings regarding installation, use and maintenance of the device.

Please contact your retailer and/ or local importer in the event of product failure.

Damage caused by transport and/ or handling is not covered by the guarantee.

Refer solely to the manual provided for information about product installation and use.

The guarantee does not cover damage caused by tampering with the device, atmospheric agents, natural disasters, electrical discharges, fires and faults in the electrical system. The guarantee also excludes damage caused by failure to perform maintenance or by maintenance performed incorrectly and not in compliance with the Manufacturer's instructions.



SERVICE CALL

Service calls must be made to the retailer, who will forward the call to the MCZ technical support department.



MCZ cannot be held liable if the product and any of its accessories are used incorrectly or modified without authorisation.

Only original MCZ spare parts must be used for replacements.

2. THEORETICAL RECOMMENDATIONS FOR INSTALLATION

2.1. THE PELLET

Pellets are obtained from sawdust drawing produced when working natural dried wood (unpainted). The compact nature of the material is ensured by the lignin that is contained in the wood itself and allows pellets to be produced without using glue or fixing materials.

There are various types of pellet on the market, with characteristics that vary depending on the mix of wood used. The diameter of the pellets varies between 6 and 8 mm and the standard length is between 5 and 30 mm. Good quality pellets have a density that varies between 600 and over 750 kg/mc and a water content that is kept between 5% and 8% of the pellet's weight.

As well as being an eco-friendly fuel that makes maximum use of wood residues to obtain cleaner combustion than fossil fuels, pellets also offer technical advantages. While a good wood has a calorific value of 4.4 kW/kg (15% humidity after approximately 18 months of ageing), pellets have a calorific value of 4.9 kW/kg.

Pellets must be kept in a dry place protected from dirt to ensure good combustion. Pellets are usually supplied in 15 kg bags to make storage very practical.

A good quality pellet ensures good combustion and lowers harmful emissions into the atmosphere.



Pellet fuel



15 kg bag of fuel



The poorer the quality of fuel, the more often the brazier and combustion chamber must be cleaned.

The main quality certifications for pellets on the European market are **DINplus** and **Ö-Norm M7135**. These certifications guarantee that the following values are adhered to:

- ✓ Calorific value: 4.9 kWh/kg
- ✓ Water content: max 10% of weight
- ✓ Percentage ash: max 0.5% of weight
- ✓ Diameter: 5 - 6 mm
- ✓ Length: max 30 mm
- ✓ Content: 100% untreated wood without any added fixing substances (max. percentage bark 5%)
- ✓ Packaging: in bags made from environmentally friendly or biologically decomposable material



MCZ strongly recommends the use of certified fuel in its stoves (DINplus and Ö-Norm M7135).

Using poor quality pellets or pellets that do not comply with the indications given above compromises the operation of your stove and may consequently lead to decline of the guarantee and liability for the product.

MCZ pellet stoves operate only with pellets of 5 mm to max. 30 mm length and 6 mm diameter (in ITALY only) or 6-8 mm diameter (in other European countries).

2.2. INSTALLATION PRECAUTIONS



IMPORTANT!

The stove must be installed and assembled by qualified staff.

The stove must be installed in a suitable place to allow normal opening and regular maintenance.

The room in which the stove is installed must:

- offer the correct environmental conditions for operation
- be equipped with a 230V 50 Hz electrical power supply
- offer a suitable smoke outlet system
- be fitted with external ventilation
- be fitted with an EC-compliant earthing system

The stove must be connected to a flue pipe or internal or external vertical duct, in accordance with the applicable standards in force.

The stove must be positioned so that the electrical plug is accessible.



IMPORTANT!

The stove must be connected to a flue pipe or a vertical duct that can discharge the smoke at the highest point of the home.

The smoke does, however, result from combustion of wood essences and may therefore soil walls if released in contact with or close to them.

Caution: the smoke is not very visible but is very hot and can cause burns on contact.

Before positioning the stove, holes must be made for the smoke pipe passage and the external air inlet.

2.3. THE OPERATING ENVIRONMENT

For correct functioning and even distribution of heat, the stove should be positioned in a location in which the air required for pellet combustion can flow in (approximately 40 m³/h must be available), in accordance with the installation regulations and applicable standards in force in the country of installation.

The volume of the room should be no less than 30 m³.

Air should enter through permanent apertures made in the walls (near the stove) that lead to the outside. These should have a minimum cross-section of 100 cm².

These apertures must be made so as not to be obstructed in any way. Air may also be taken from rooms adjoining the one to be ventilated, provided they are equipped with an external air inlet and are not used as bedrooms or bathrooms. These must not be rooms that present a fire hazard, for example: garages, timber storerooms, warehouses for flammable materials. The provisions of all the applicable standards in force must be observed in all circumstances.



Installation of the stove is not permitted in bedrooms, bathrooms or in any room in which another heating appliance is installed without an independent air inflow (fireplace, stove etc.).

It is forbidden to position the stove in rooms with an explosive atmosphere.

The floor of the room in which the stove is installed must be suitably sized to withstand the weight of the stove.



The room ventilation can be adjusted towards the rear wall only if there is suitable caulked ducting of the hot air flow.

PHILO	Non-flammable walls	Flammable walls	
	A=2cm B=15cm	A=2cm B=20cm	

If particularly delicate objects are present, such as furniture, curtains or sofas, increase the stove clearances substantially.



If the floor is wooden, we recommend the use of a floor guard in compliance with the applicable standards in force in the country of installation.

2.4. CONNECTING THE EXTERNAL AIR INLET

The room in which the stove is installed **MUST** provide at least as much airflow as is required for regular combustion of the appliance in the room. This can be achieved via permanent apertures made in the walls of the room to be ventilated, leading to the outside, or via individual or grouped ventilation ducts.

To achieve this a through hole with a minimum free cross-section of 150 cm² must be drilled in the external wall near the stove. (12 cm diameter or 10x10 cm square hole), protected by a grille on the inside and on the outside.



The air inlet should also:

- be directly connected to the installation setting
- be protected with a grille, metal mesh or suitable protection, provided it does not reduce the minimum cross-section.
- be positioned in such a way that it cannot become obstructed



It is not obligatory to connect the air inlet directly to the stove (direct connection to the outside) but the aforementioned section must ensure that approximately 50 m³/h of air is provided.

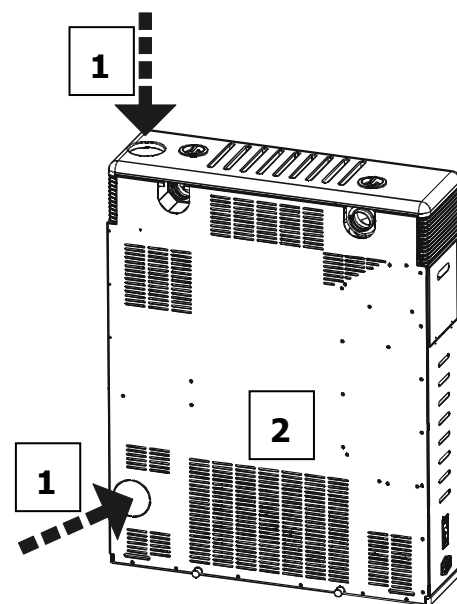
See standard UNI 10683.

2.5. CONNECTING THE SMOKE OUTLET PIPE

When making the hole for the smoke outlet pipe you must take note of any flammable material. If the hole must pass through a wall made from wood or thermolabile material **THE FITTER MUST** begin by using the relevant wall connection (minimum diameter 13 cm) and suitably insulate the stove pipe crossing through it using appropriate insulating materials (thickness of 1.3 - 5 with min. heat conductivity of 0.07 W/m²°K).

This instruction is also relevant if the stove pipe must cross vertical or horizontal sections close to the thermolabile wall (min. distance 20 cm). Alternatively, we recommend the use of an insulated industrial pipe that can also be used externally to prevent condensation.

The combustion chamber works under vacuum. The smoke duct through which the smoke is discharged will be under vacuum when connected to an efficient flue pipe, as specified.



Rear view of a pellet stove

- 1) Smoke outlet
- 2) Combustion air inlet via the holes on the back of the stove



Always use pipes and connections with appropriate seals that guarantee air- and watertightness.



All sections of the smoke duct must be accessible for inspection and removable (us a T-union with inspection point). This makes it possible to clean the inside of the stove regularly.

Position the stove taking note of all the specifications and warnings underlined so far.



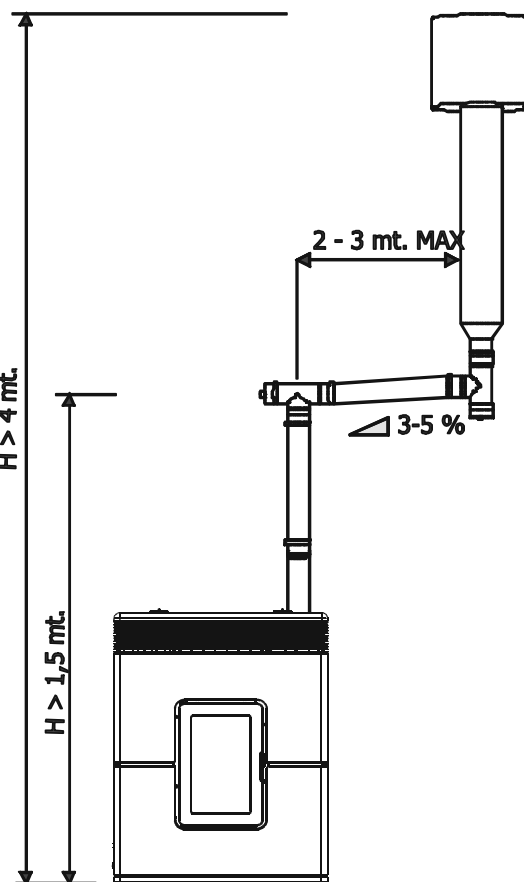
IMPORTANT!

All 90° changes of direction in the smoke outlet channel must be prepared with suitable T-unions with inspection points (see pellet stove accessories).

It is absolutely forbidden to place a net at the end of the outlet pipe as this may cause the stove to malfunction.

WHEN CONNECTING THE FLUE PIPE NO MORE THAN 2 - 3 METRES OF HORIZONTAL PIPING SHOULD BE USED AND NO MORE THAN THREE 90° BENDS SHOULD BE USED

YOU ARE ALSO ADVISED NOT TO EXCEED A LENGTH OF 6 METRES WITH A PIPE OF 80 mm DIAMETER



Example of pellet stove installation

2.6. FLUE PIPE CONNECTION

The inner dimensions of the flue pipe must not exceed 20 X 20 cm or a diameter of 20 cm. If the dimensions are larger or the flue pipe is in poor condition (e.g. cracks, poor insulation etc.) you are advised to insert a stainless steel pipe of a suitable diameter into the flue pipe. This steel pipe must extend along the entire length of the flue pipe until it reaches the top.

Use suitable tools to check that there is a minimum draught of 10 Pa. Install an inspection point on the base of the flue pipe for regular checks and cleaning. **Checks and cleaning must be performed annually.**

Make the connection to the flue pipe using connections and pipes recommended by us.

You **MUST** check that a windproof chimney is installed in accordance with standards in force.



This type of connection (even when there is a temporary loss of current) ensures that smoke is discharged.

2.7. CONNECTION TO AN EXTERNAL DUCT USING AN INSULATED OR DOUBLE-WALL PIPE

The internal dimensions of the external duct must be between a minimum of 10 X 10 cm or a diameter of 10 cm and a maximum of 20 X 20 or a diameter of 20 cm.

Use suitable tools to check that there is a draught of 10 Pa.

Use only smooth, stainless steel, insulated (double-wall) pipes inside the stove (stainless steel hoses are not permitted). These pipes must be fixed to the wall.

Install an inspection point on the base of the external vertical duct for regular checks and cleaning. **Checks and cleaning must be performed annually.**

Make the connection to the flue pipe using connections and pipes recommended by us.

You **MUST** check that a windproof chimney is installed in accordance with standards in force.



This type of connection (even when there is a temporary loss of current) ensures that smoke is discharged.

2.8. CONNECTION TO THE FLUE PIPE

For correct operation, the connection between the stove and the flue pipe must be at least 3% of the stove in horizontal sections. The total length of these sections **must not exceed 2 - 3 metres**. The vertical section from one T-union to another (change of direction) must be at least 1.5 metres.

Use suitable tools to check that there is a minimum draught of 10 Pa.

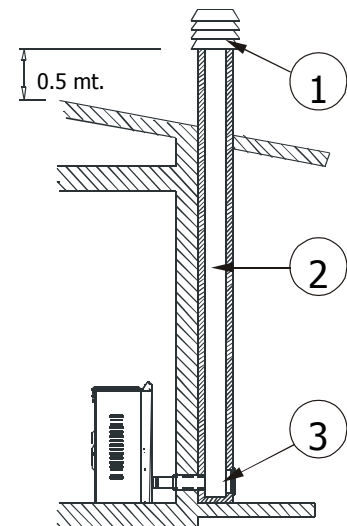
Install an inspection point on the base of the flue pipe for regular checks and cleaning. **Checks and cleaning must be performed annually.**

Make the connection to the flue pipe using connections and pipes recommended by us.

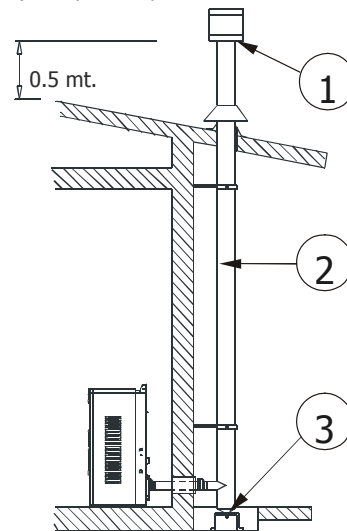
You **MUST** check that a windproof chimney is installed in accordance with standards in force.



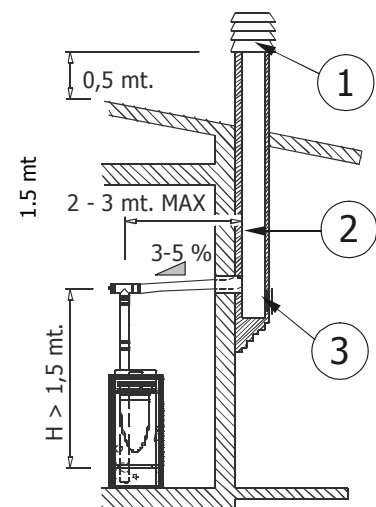
This type of connection (even when there is a temporary loss of current) ensures that smoke is discharged.



- 1) Windproof chimney
- 2) Flue pipe
- 3) Inspection point



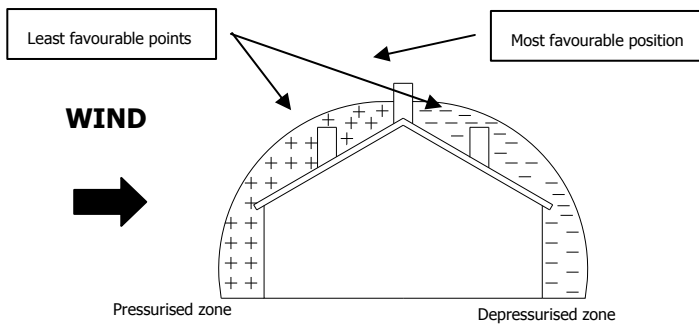
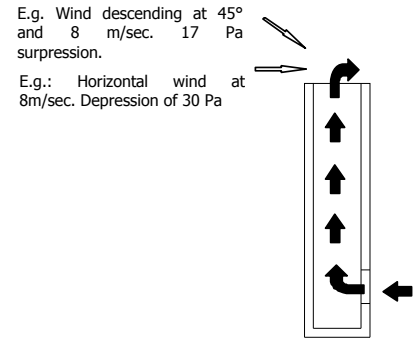
- 1) Windproof chimney
- 2) Flue pipe
- 3) Inspection point



- 1) Windproof chimney
- 2) Flue pipe
- 3) Inspection point

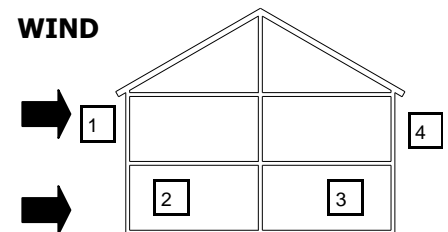
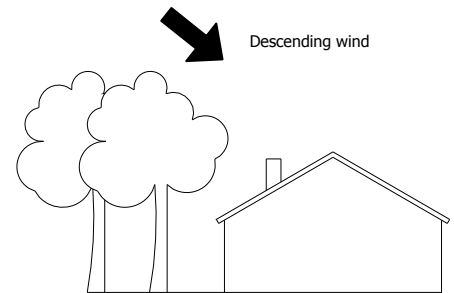
2.9. OPERATING FAULTS ASSOCIATED WITH DRAUGHT DEFECTS IN THE FLUE PIPE

Among all the weather and geographical conditions that have an impact on the operation of a flue pipe (rain, fog, snow, height above sea level, sun-shy periods, exposure to cardinal points etc.), **wind** is certainly the most crucial. In fact, as well as thermal depression induced by the difference in temperature between the inside and the outside of the fireplace, there is another type of depression (or surpression): dynamic depression induced by the wind. Ascending wind always has the effect of increasing depression and therefore draught. Horizontal wind increases depression if the chimney is installed correctly. Descending wind always has the effect of decreasing depression and sometimes inverting it.



As well as the direction and strength of the wind, the position of the flue pipe and chimney in relation to the roof of the house and surrounding landscape is important.

Wind has an impact (even indirectly) on the operation of the flue, creating areas of surpression and depression both inside and outside homes. In environments directly exposed to wind **(2)**, an internal surpression can be created that can encourage draught in stoves and fireplaces. However, this can be contrasted by external surpression if the chimney is positioned on the side exposed to the wind **(1)**. On the other hand, environments facing away from the wind **(3)** can create a dynamic depression that competes with the natural thermal depression developed by the flue. However, this can be compensated (sometimes) by positioning the flue pipe on the opposite side to the direction of the wind **(4)**.



1-2 = Surpressed zones
3-4 = Depressurised zones



IMPORTANT!

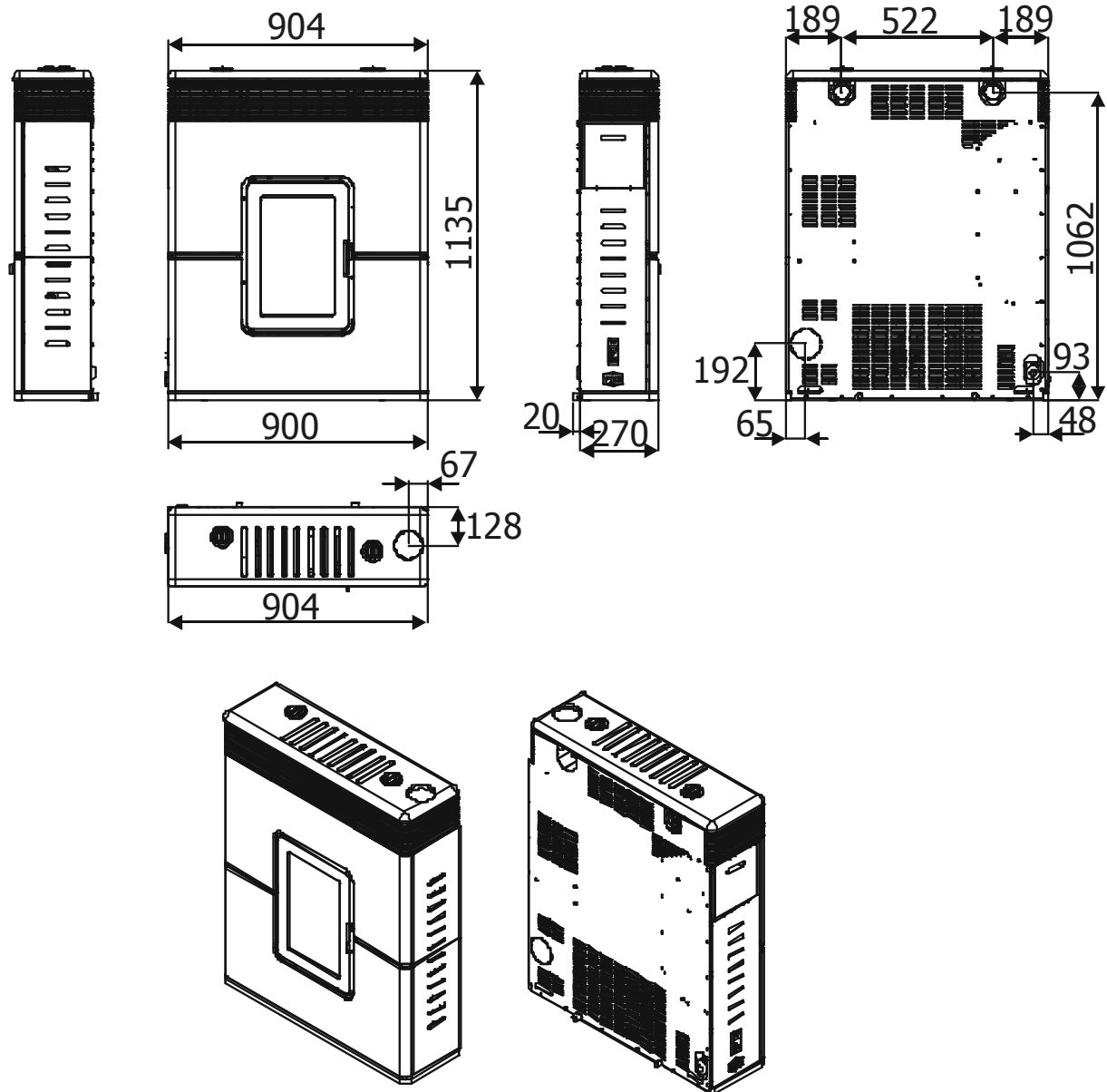
The operation of the pellet stove is greatly affected by the conformity and positioning of the flue pipe used.

Precarious conditions can usually be resolved by setting the stove appropriately. This must be done by qualified MCZ staff.

3. INSTALLATION AND ASSEMBLY

3.1. SKETCHES AND TECHNICAL SPECIFICATIONS

3.1.1. PHILO COMFORT AIR dimensions



3.1.2. Technical specifications

Technical specifications	PHILO Comfort Air
Total heat output Max	9.0 kw / 7740 kcal
Total heat output Min:	3.2 kw / 2580 kcal
Max. output	87.8%
Min. output	93.6%
Max. temperature of smoke discharged	170 °C
Min. temperature of smoke discharged	90 °C
Particulate	28 mg/Nm ³ (13% O ₂) 19 mg/MJ
Min. and Max. CO at 13%O ₂	0.042 – 0.012%
Min. and Max. CO at 13%O ₂	6.0% - 9.2%
Min. and Max. smoke mass	4.0 - 7.9 g/sec
Minimum draught at Max. power	0.10 mbar – 10 Pa
Minimum draught at Min. power	0.05 mbar – 5 Pa
Tank capacity	27 litres
Type of pellet fuel	6-8 mm diameter pellet. With 5/30 mm size.
Hourly pellet consumption	Min~0.7 kg/h* Max~2.0 kg/h*
Running time	Min.~26 h* Max.~9 h*
Heatable volume m ³	194/40-221/35-258/30 **
Combustion air inlet	External diameter 50 mm.
Smoke outlet	External diameter 80 mm.
Maximum electricity consumption	Max. 420 W – Med. 80 W
Voltage and frequency of power supply	230 Volt / 50 Hz
Net weight	135 Kg.
Weight with packaging	145 Kg.

*Data that may vary depending on the type of pellet used.

**Heatable volume according to the cal/m³ requirement 40-35-30 (40-35-30 Kcal/h respectively for m³)

Product compliant with multiple flue installation.

3.2. PREPARATION AND UNPACKING

The **Philo** stove is supplied in several packages:

- ✓ The first package contains the stove (fig. 1)
- ✓ The second contains the painted steel front panel in 2 pieces (fig. 2)
- ✓ The third contains the grille (fig. 4)
- ✓ The fourth contains the upper top (fig. 5)

The packages containing the grille and the top are placed together with the stove in the same box (fig. 1). The package containing the front panels is placed alongside the stove package (fig. 2).

Open the package and remove the five screws from the base of the stove (3 screws at the front and 2 at the back). These screws secure the stove to the pallet (fig. 6). To remove the two screws behind (on the back of the stove), two larger eyelets have been made to allow you to insert the wrench to undo the screws.

Position the stove in the chosen place, taking care to ensure that it complies with the specifications.

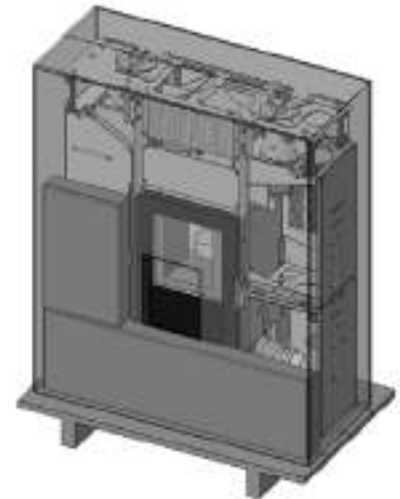


Figure 1 - Stove packaging (front view)



Figure 2 - Stove package (rear view)

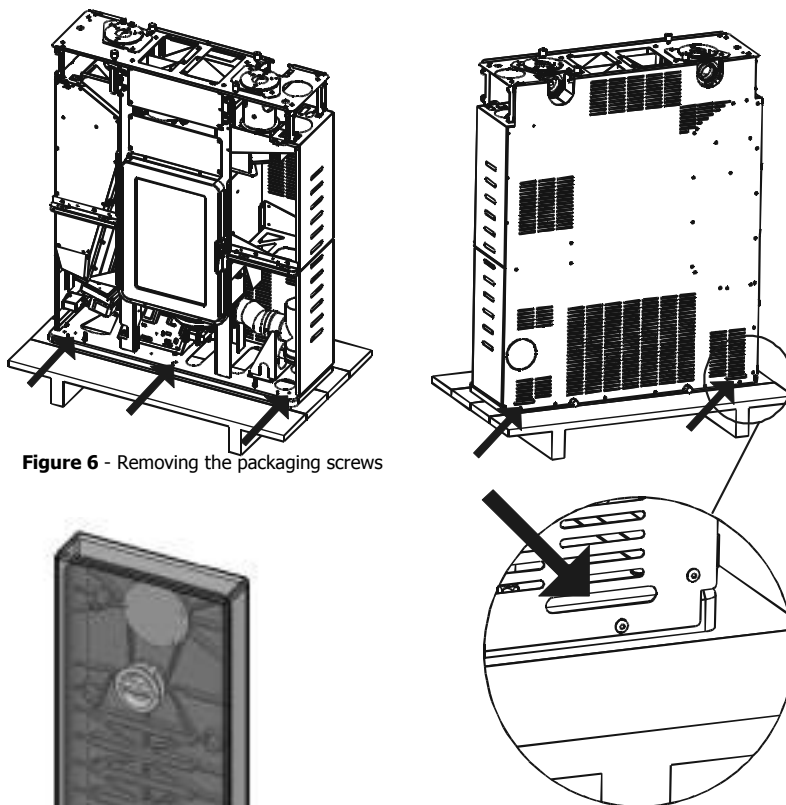


Figure 6 - Removing the packaging screws

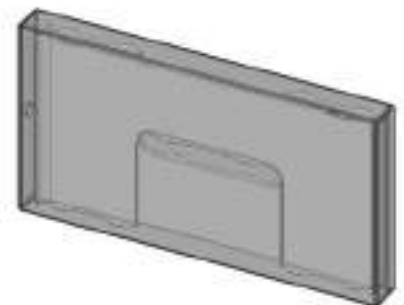


Figure 3 - Front panel package



Figure 5 - Upper top package

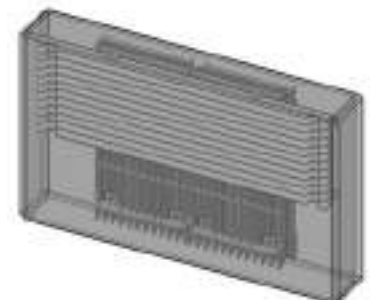


Figure 4 - Grille package

The body of the stove or unit must always be handled vertically and only using trolleys. Pay particular attention to the door and its glazing to protect them from mechanical knocks which would compromise their proper working order.

In all cases, appliances must be handled with care. If possible, unwrap the stove near the chosen place of installation.

The materials making up the packaging are neither toxic nor harmful and, as such, require no special disposal measures.

Storage, disposal and any recycling is therefore the responsibility of the end user and must be carried out in compliance with the applicable laws in force.

Do not store the unit and claddings without the associated packaging.

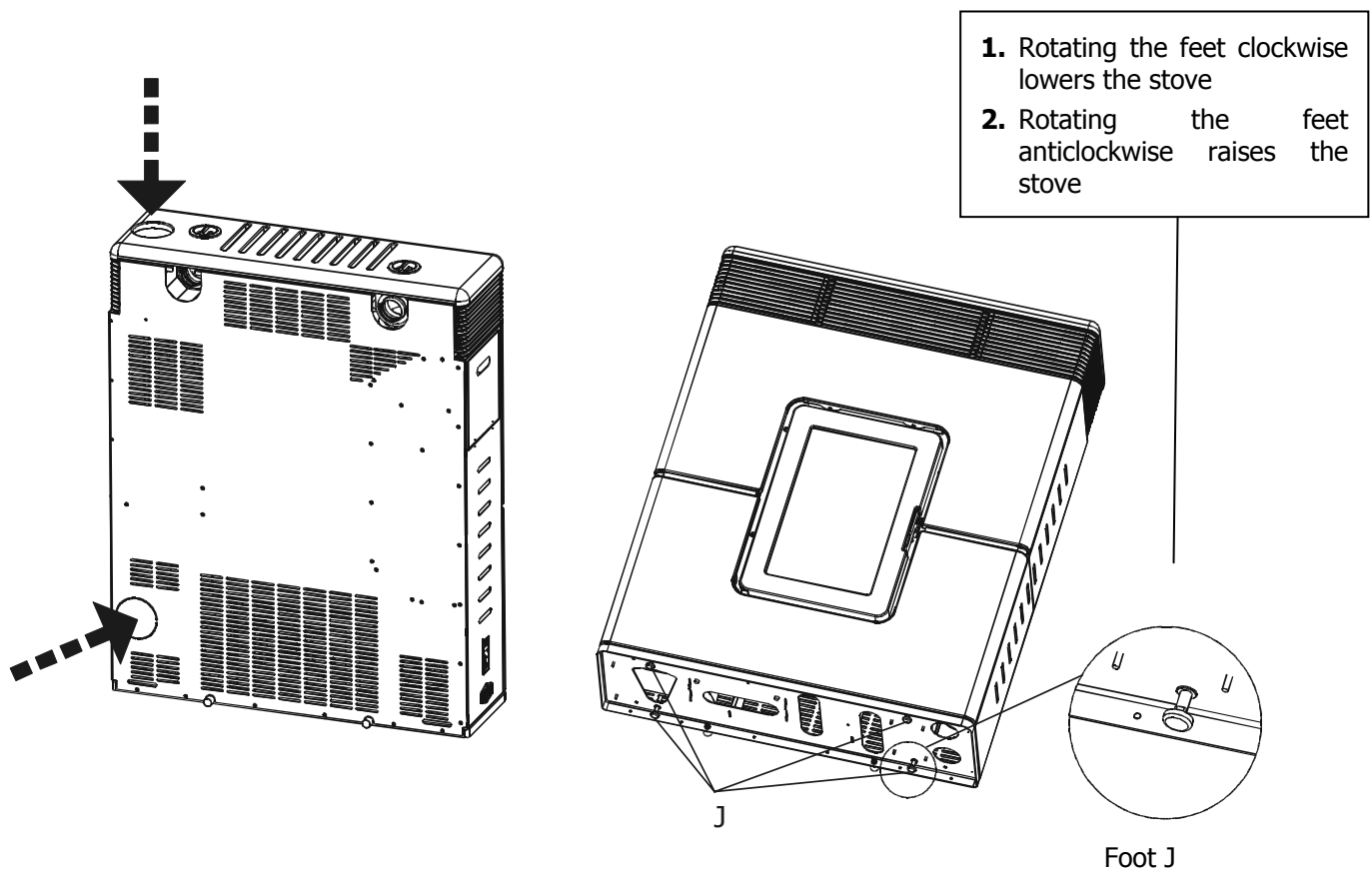
Position the stove without the cladding and then proceed with the connection of the flue pipe. Once the connections have been made, fit the cladding (ceramic or steel-sided).

If you have to connect the stove to an outlet pipe that crosses the rear wall (to flow into the flue pipe) take great care not to force the mouth.

Adjust the 4 feet **(J)** to find the correct level so that the smoke outlet and pipe are coaxial. The feet must be adjusted without the steel or ceramic sides as the adjustment occurs inside the cladding.



If the smoke outlet of the stove is forced or used inappropriately to lift or position it the function of the outlet will be irreparably compromised.

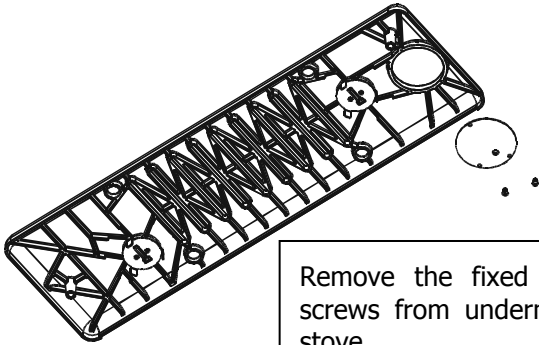


3.3. CONNECTING THE SMOKE OUTLET PIPE

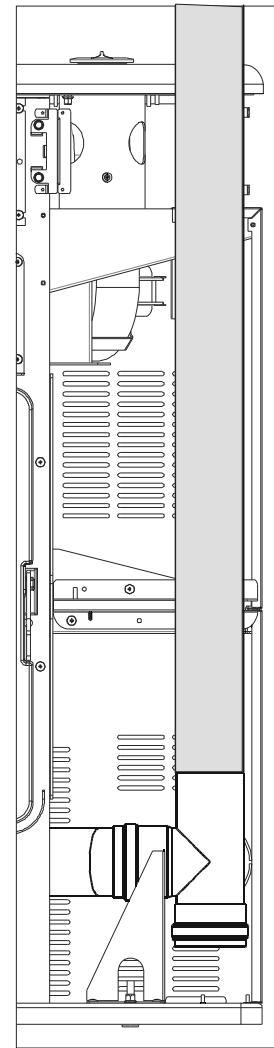
The smoke outlet can be positioned either at the rear or at the top of the stove.

Should you wish to connect **the smoke outlet at the top of the stove**, remove the cap with the three screws from underneath the top.

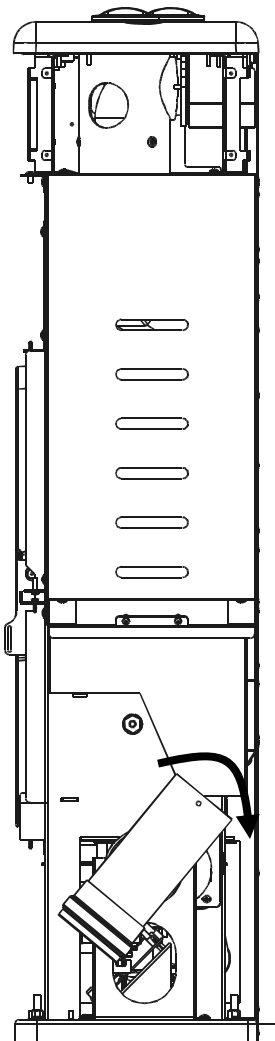
Next, insert the pipe until it joins the smoke connection.



Remove the fixed cap with the three screws from underneath the top of the stove.



Inserting the upper smoke outlet pipe.

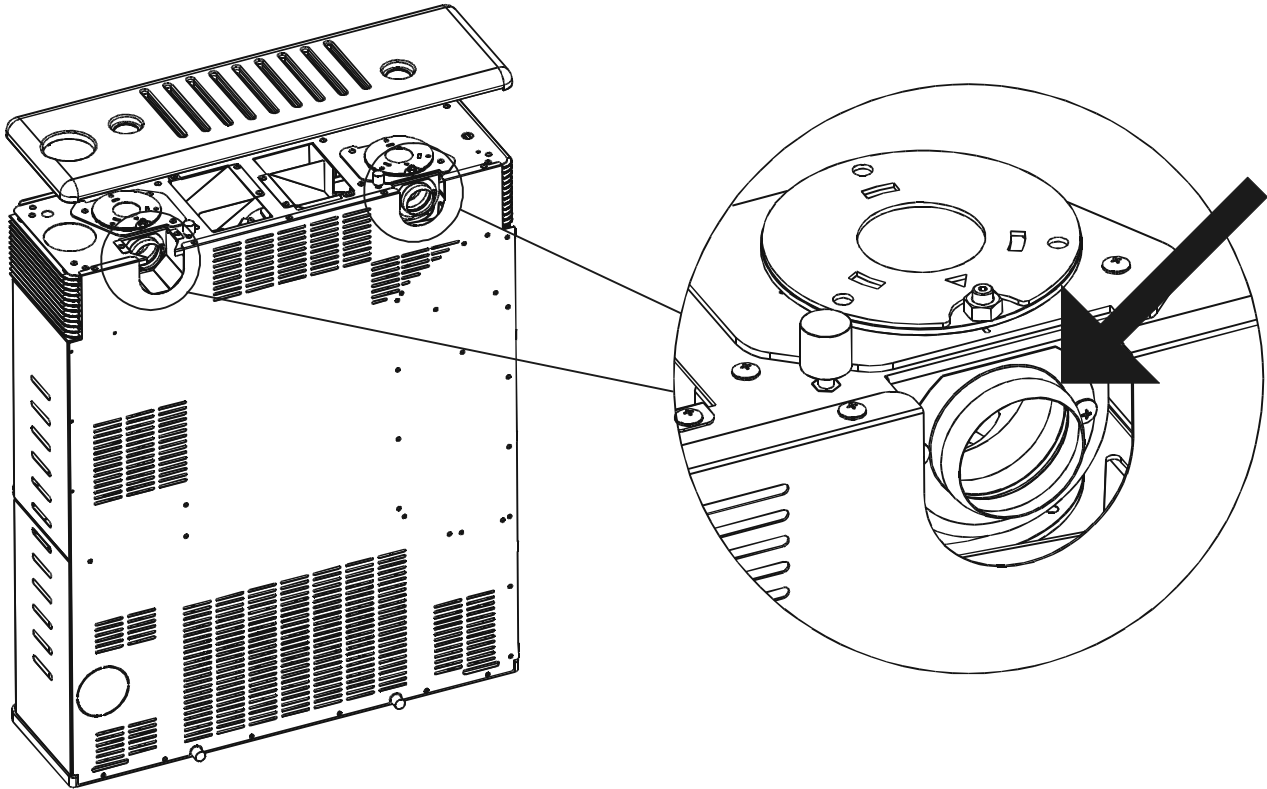


If **the smoke outlet is positioned at the rear of the stove** the T-union must be turned towards the back of the stove and the pre-perforated panel at the rear of the stove must be removed.
Next, connect the pipes.

3.4. CONNECTING THE HOT AIR DUCT

Once the stove has been positioned correctly, you may start installing the hot air piping.

The air can be channelled by fastening two hoses to the back of the stove to correspond with the holes at the top of the stove. To connect the pipe, remove the top, thread the pipe and fasten it with a clamp.



The direction of the air exiting the stove can then be changed at any time, even if ducting has been carried out.

There are two handles on the top of the stove that allow you to discharge the hot air in the direction of your choice:

POSITION 1: AIR ON LEFT SIDE

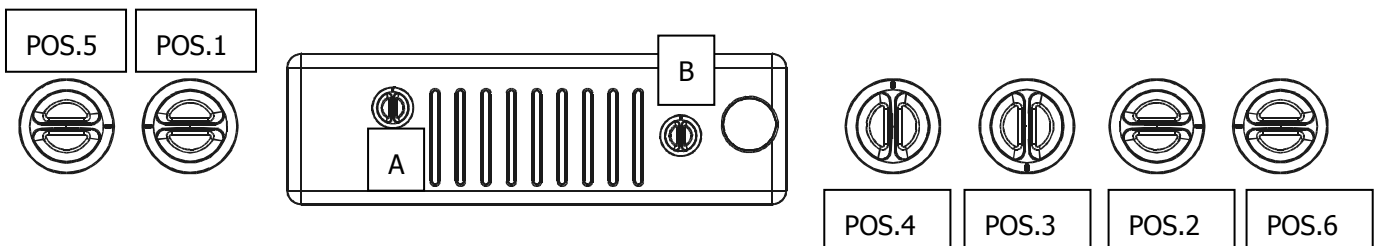
POSITION 2: AIR ON RIGHT SIDE

POSITION 3: AIR AT THE FRONT

POSITION 4: AIR DUCTED

POSITION 5: handle A - AIR DIFFUSED

POSITION 6: handle B - AIR DIFFUSED



The ducting can also be walled. (SEE OPTIONALS)



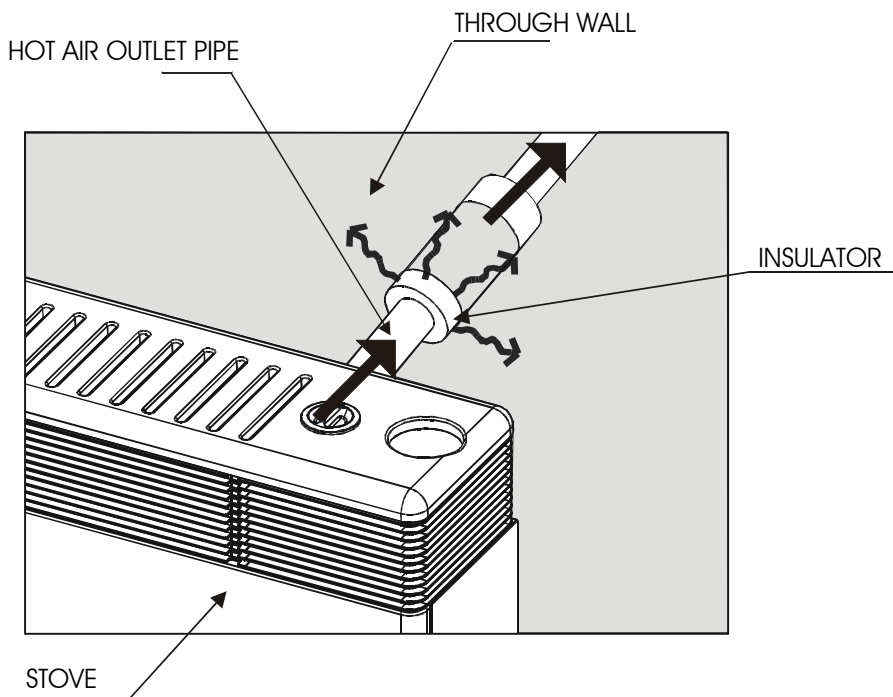
The room ventilation can be adjusted towards the rear wall only if there is suitable caulked ducting of the hot air flow.



The air outlet pipe may reach very high temperatures (nearing 200 °C). It must therefore be insulated appropriately using suitable materials wherever it may come into contact with flammable or heat-sensitive surfaces (e.g. fading of colours, electrical wireways, plasterboard, etc.). Persons and animals must also be protected from voluntary or accidental contact. In all cases observe the applicable regulations and laws of the region in which the appliance has been installed.



It is advisable to include insulation along the entire route of the pipe to minimise dispersion and increase heat output to the room.



When crossing through walls built with flammable materials, **the FITTER MUST** suitably insulate the stove pipe crossing through it using suitable insulating materials (thickness of 1.3-5 with min. heat conductivity of 0.07 W/m²K).

The pipe introduced into the wall must however be suitably insulated to avoid losing heat and to soundproof the air outlet.

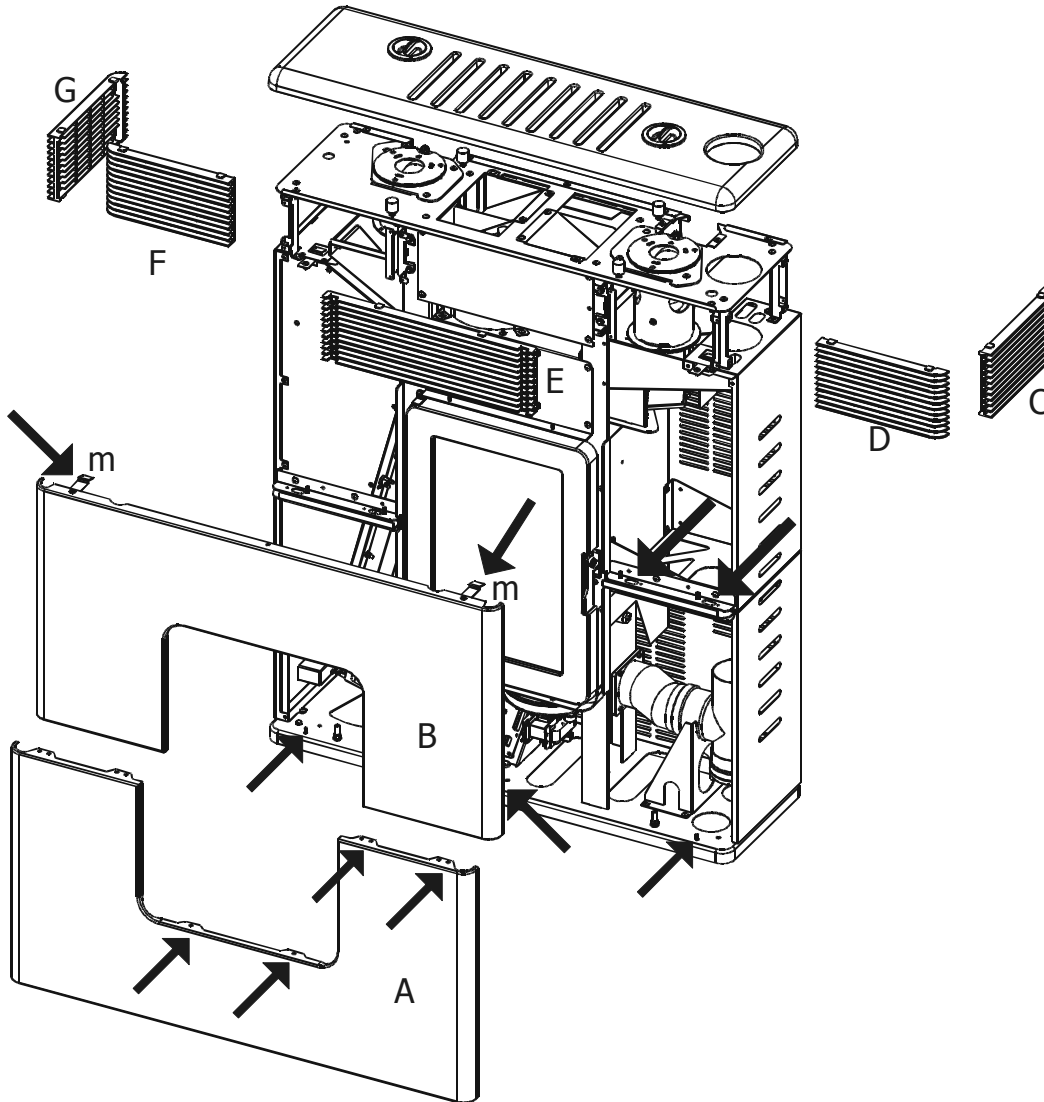


It is advisable to make ducts similar in length to distribute the air in a uniform manner otherwise the hot air will opt for the shortest or straightest channel.

3.5. FITTING THE CLADDING

3.5.1. Fitting the front panels and grilles

The stove is supplied with the top, grilles and front panels packaged separately. Therefore, unpack everything before beginning to assemble the appliance.



Fit the front panels as follows:

- Take panel **A** and fit it into the pins located at the bottom of the stove. Fasten the panel to the structure using the screws provided (two screws on the right and two on the left. The panel must be secured centrally. Open the door and place two more screws at the bottom). The screws to position in the centre (underneath the door) are black.
- At this point, fasten panel **B** using the same method. The panel should fit into the pins on the underpart of the stove and be fastened to the structure in the central part, under the door, with two screws (again, black). At the top of the panel there are two springs that lock into a groove on the structure.

Fit the grilles as follows:

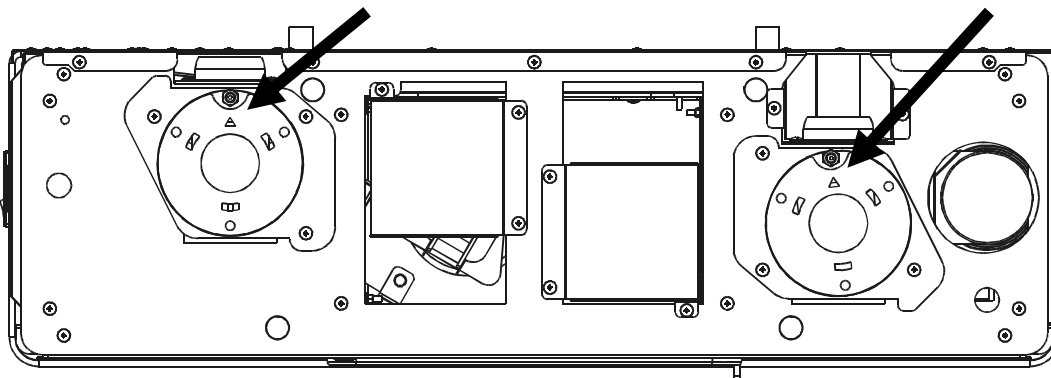
- Take the grilles (**C-D-F-G**), which are identical, and fasten them to the structure of the stove using 4 screws for each (2 per side). The screws are supplied. Do the same thing with the central grille **E**.

3.5.2. Fitting the upper top

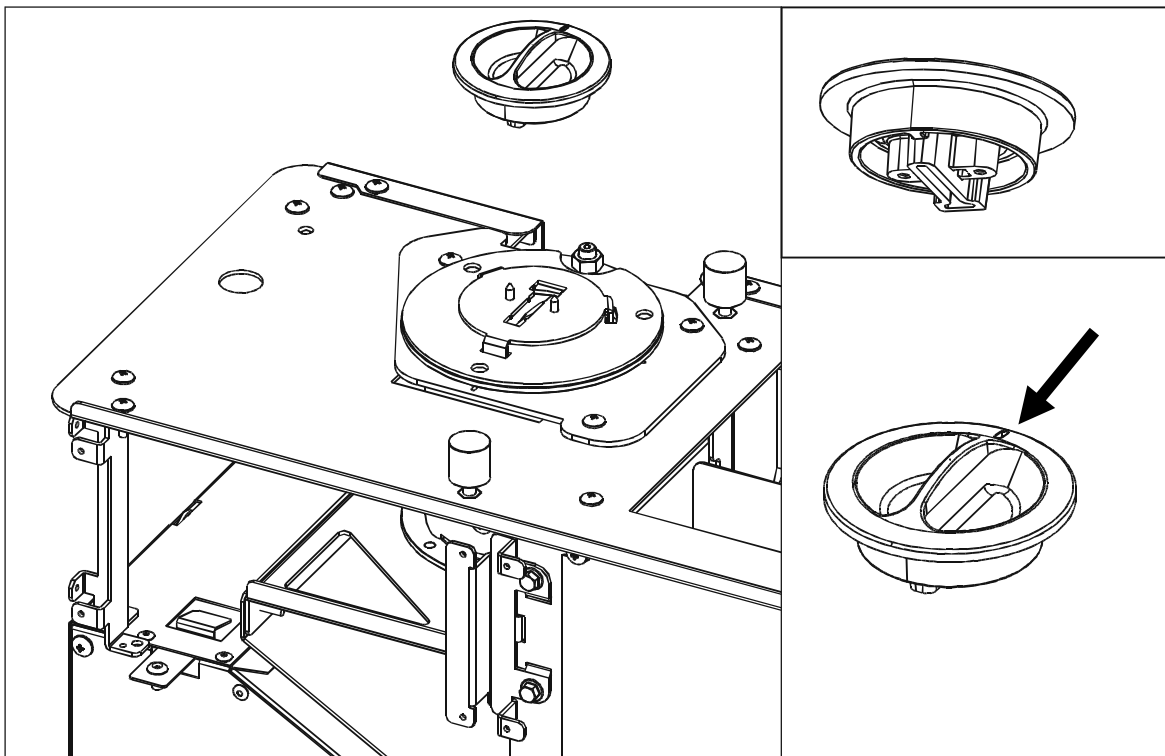
The top is positioned by simply resting it on the structure of the stove.

To ensure that the handles are positioned and operate correctly, check when positioning the top that the studs on the handle coincide with the "triangle" Δ of the structure.

The centring process is essential to the ability to direct the air in the desired position.



1- POSITION OF THE "TRIANGOLO" Δ TOWARDS THE BACK OF THE STOVE



2- POSITION OF THE handle STUD IN THE SAME POSITION AS THE "TRIANGLE" Δ

3.6. FITTING THE AIR FILTER

The cylindrical filter is already fitted inside the stove.

If the filter needs cleaning loosen the screw with the knob located on the air inlet tube, unthread the filter, clean it and then secure it by locking the knob.



CAUTION!

Never operate the stove without the air filter. MCZ bears no responsibility for any damages to internal components caused by failure to respect this instruction.



Fitting/ dismantling the air filter

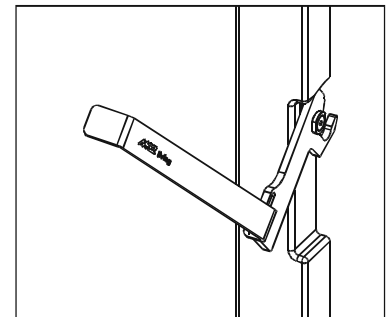
3.7. OPENING/ CLOSING THE DOOR



CAUTION!

The door must be closed properly for the stove to operate correctly.

Thread the cold hand on the opening hook of the door into the Philo stove, lift and pull.



Opening the Philo stove door

3.8. ELECTRICAL CONNECTION

Connect the power supply cable first to the side of the stove and then to an electrical socket on the wall.

The main switch located on the side of the stove is only used to switch on the stove. When the stove is off we recommend that you keep it turned off.



If the stove is not used for a period of time, remove the power supply cable from the stove.



Electrical connection of the stove

4. OPERATION

4.1. WARNINGS PRIOR TO START-UP



Avoid touching the stove during the initial start-up as the paint hardens during this time. If you touch the paint, the steel surface may be exposed.

If necessary, touch up the paint with the spray can of the dedicated colour. (see "Pellet stove accessories")



It is good practice to guarantee efficient ventilation in the room during the initial start-up as the stove will release some smoke and some paint smells.

Do not stand close to the stove and, as mentioned, air the room. The smoke and paint smell will disappear after about an hour of operation but remember that these are not, in any case, harmful.

The stove will undergo expansion and contraction during the start-up and cooling phases, so it may squeak slightly.

This is completely normal given that the structure is made from laminated steel. It should therefore not be considered a defect.

It is extremely important to ensure that you raise the temperature of the stove gradually rather than overheating it straight away.

Use low heating powers (if in "Manual" mode) (e.g.: 1^a-2^a-3^a). When you next start up the stove you can use the full heat power available (e.g.: 4^a-5^a).

This will prevent any damage to the ceramic tiles, welding and steel structure.



When the stove is lit for the first time it will already be in "manual" mode. We recommend that you use only mid/ low heating power (such as the first to third power levels) for the initial period



Do not try to achieve the maximum heating efficiency immediately!

Try to familiarise yourself with the controls shown on the panel or remote control.

Try to visually memorise the messages that the stove shows you via the display on the remote control.

4.2. CHECK PRIOR TO START-UP

Check all the safety conditions covered previously.

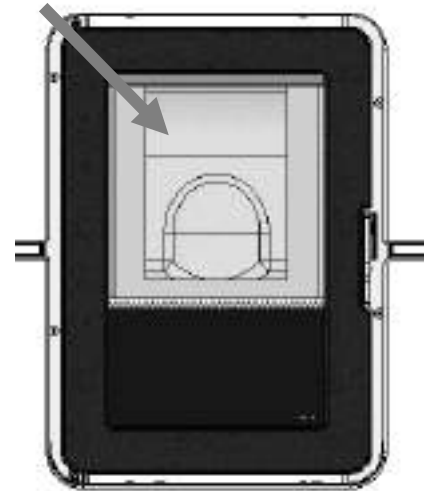
Make sure you have read and fully understood the contents of this instruction manual.

Remove all components which could burn from the combustion chamber and glass (polystyrene, adhesive labels and instructions).

Check that the brazier is positioned correctly and rest it well on the base.



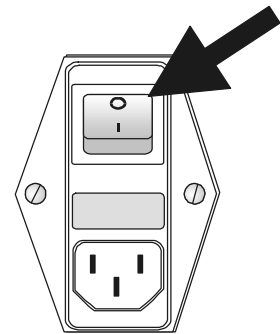
Following long periods in which the stove is not used, remove any remains of pellets from the tank (**using a vacuum cleaner with a long pipe**). Pellet remains that have been lying in the stove for some time may have absorbed moisture, changing their original characteristics and making them no longer suitable for combustion.



4.3. SETTINGS TO IMPLEMENT BEFORE THE FIRST START-UP

Once the power supply cable at the rear of the stove is connected, turn the switch (again at the rear) to position **(I)**.

The illuminated button will light up and LED **C** on the emergency panel will turn red (LIGHT PERMANENTLY ON)



4.4. LOADING PELLETS

The fuel is loaded via a flap on the side of the stove. Pour the pellets into the tank. The empty tank holds approximately 18 Kg.



Do not put any type of fuel into the tank other than pellets that comply with the specifications indicated above.

5. LCD REMOTE CONTROL

5.1. Characteristics of the remote control

The remote control operates at a transmission frequency of 434.5MHz.
Power the product with three AAA batteries as follows:

Remove the cover of the battery compartment by pressing and lifting it as shown by the arrow

Insert the batteries according to the correct polarity (+) and (-)

Close the cover of the battery compartment

When power is supplied to the remote control the time setting will automatically be prompted (see paragraph 5.4.1).

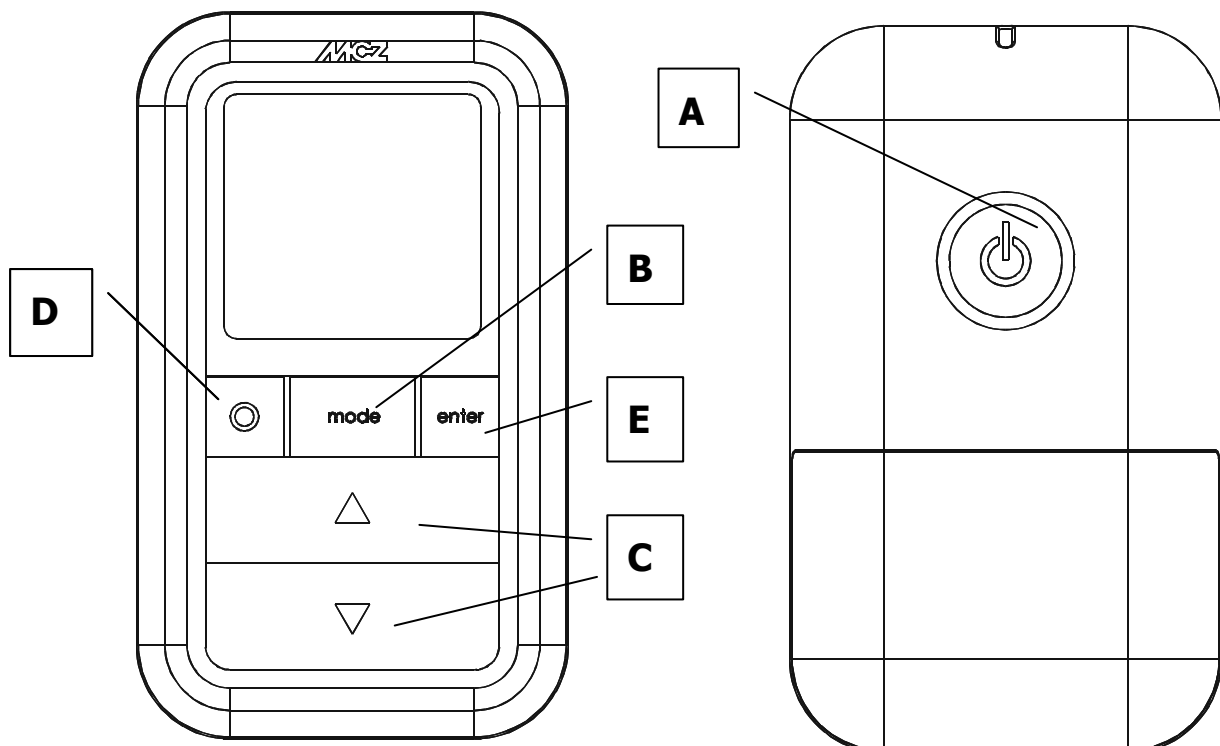
The remote control tells the user when the batteries are about the run out via the relevant icon on the display. If the flat battery icon appears, this means that the batteries are almost flat and the remote control is about to switch off.



Used batteries contain metals that are harmful to the environment. Therefore, they must be disposed of separately in suitable containers.

5.2. Graphic appearance

In the instructions herein, we will often refer to the indications of the buttons shown in the figure. For simplicity, always keep the figure to hand.



5.3. Operation of the remote control

5.3.1. General rules

The product is switched on and off by pressing button **A** for 1 second. All modifications are made using button **C**. Button **E** is used to confirm these modifications. Press button **B** to select the operating mode of the product (see paragraph 5.5). Use button **D** to navigate the **FAN** and **SLEEP** setting (see paragraph 5.6).

With the remote control in any status, briefly pressing button **A** (or not touching the keypad for 7 seconds) will return you to the basic display.

5.4. Initial settings

5.4.1. Adjusting the time

With the remote control either off or on, pressing buttons **B + E** for 3 seconds will access the time/ day adjustment setting. The hour figures will begin to flash and can be modified using button **C**. Pressing button **E** confirms all modifications. The minute figures will then begin to flash. Follow the same modify/ confirm procedure to move on to the time display mode (12 h or 24 h) and, lastly, the day will begin to flash. Confirming this data as well will exit the settings modification.

NOTE: each time the power is reconnected to the remote control the time will zero and the display will automatically enter the hour setting.

5.4.2. °C – °F setting.

Press button **B** for 5 seconds to change the unit of temperature measurement from Celsius to Fahrenheit and vice versa. Do this only while the stove is switched off.

5.5. Setting the operating mode

While the remote control is switched on, button **B** allows you to set one the four following operating modes of the product. Figures 1, 2, 3 and 4 show the four basic displays, respectively:

Manual, Automatic, Timer and Eco modes

5.5.1. MANUAL mode (indicated by MAN)

In this mode you can manually set the power of the flame (5 levels - use button C to directly modify) and the ventilation (5 levels + auto) (see paragraph 5.6.1). **Figure 1**

5.5.2. AUTOMATIC mode (indicated by AUTO)

In this mode you can set the desired room temperature and the stove will automatically modulate the power of the flame to reach this temperature. The ventilation can be adjusted to 5 levels + auto (see paragraph 5.6.1). **Figure 2**

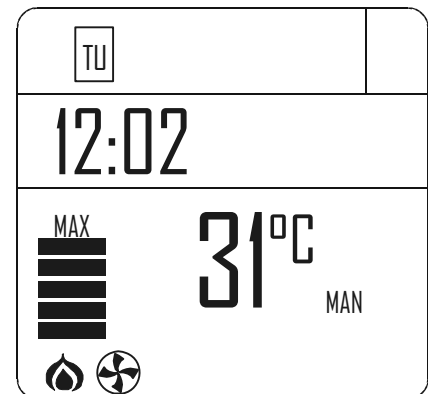


FIG.1

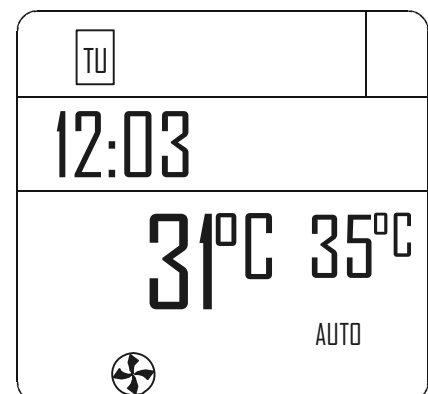


FIG.2

5.5.3. TIMER mode (indicated by TIMER)

When you select this operating mode you can switch the product on and off automatically according to 6 customisable time frames (P1 – P6). In each time frame you can set:

- The start-up time
- The shut-down time
- The desired room temperature in that time frame
- The days of the week in which the time frame is active

When the stove is started up (manually using button A or automatically using a time frame) the product operates in the automatic mode described above. When a time frame is enabled it is automatically displayed (P1 in figure 3) and the desired temperature modifies to the value set in the time frame. The user can modify this value at any time, in real time, as desired.

To learn how to set the time frames refer to paragraph 5.7.

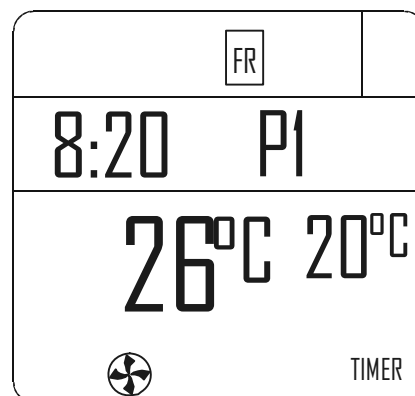


FIG.3

5.5.4. ECO mode (indicated by ECO)

This mode enables/ disables when the remote control is switched on by pressing button B for 5 seconds.

ECO mode is an automatic mode with the only difference that if the temperature set is reached and maintained for the following 20 minutes (regardless of the flame modulation) the product shuts down and remains on stand-by until the room temperature drops 2 degrees below the desired temperature (or until 5 minutes after the last shut down). At this point the product restarts. **Figure 4**

If the room is not sufficiently insulated the flame modulation does not allow the set temperature to remain satisfied for 20 consecutive minutes and the product therefore does not shut down.

NOTE: We recommend that you use ECO mode only in well-insulated rooms to prevent the appliance from starting up and shutting down too frequently.

The remote control remains switched on, even while the product is switched off due to ECO mode, to indicate that this shut down is only temporary. Shutting down the product using button A exits ECO mode and the product remains switched off.

In ECO mode you can also enable up to 6 automatic start-up/ shut down time frames (E1 – E6). These are separate from those in the TIMER mode (P1 – P6). If these time frames have been enabled the message TIMER-ECO appears (figure 5) and is shown permanently even when the remote control is switched off.

To learn how to set the time frames refer to paragraph 5.7.

NOTE: If the remote control shuts down by the TIMER, ECO mode cannot restart until the user intervenes (button A) or the next valid time frame is started. The use the TIMER combined with ECO mode requires good knowledge of the operating logic of the product.

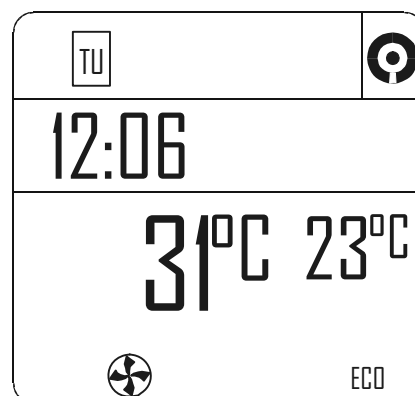


FIG.4

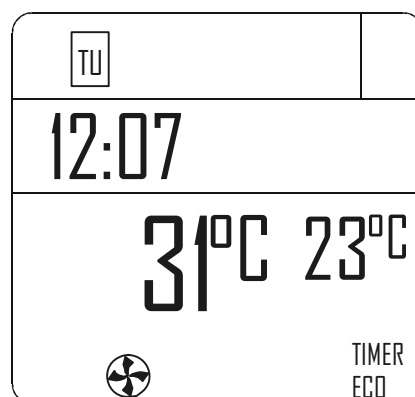


FIG.5

5.6. Various settings

5.6.1. Room ventilation

In all 4 operating modes described above you can adjust the room ventilation as desired. Simply follow this basic operation: from the basic display press button D to enter the **VENTILATION** adjustment setting (**figure 6**). At this point, press button C to set the preferred ventilation setting by choosing one of the 5 available levels, independently of the flame level. You can also select the "auto" option that automatically links the room ventilation speed to the flame level.

Summary:

flame at 1 > ventilation at 1; flame at 3 > ventilation at 3: flame at 5 > ventilation still at 3 (to make the operation quieter than automatic mode).

In appliances with 2 room fans (comfort air models), you can use the D key to scroll through and set the speed of each individual fan (identified as 1 and 2 above the level bars).

N.B.: If you purchase a replacement remote control and need to change the default settings, proceed as follows: with the remote control switched on, press the D + E keys simultaneously for 10 sec (until the flashing number appears). Press the C key and select 1 or 2 depending on the setting required by the appliance you wish to operate with the remote control, then press E to confirm.

5.6.2. Sleep function

The sleep function allows you to quickly set a time at which the product must shut down. This function is only available in **MAN** and **AUTO** mode. The sleep function is set as follows: from the **VENTILATION** adjustment setting (press button D - see previous paragraph), press button D again to enter the **SLEEP** adjustment setting. Use button **C** to adjust the shut down time in 10 minute steps. Use button **D** or **E** to confirm the setting and return to the basic display which will continue to show the time of shut down from the sleep function (**figure 7**).

To disable the **SLEEP** function simply access the adjustment setting, decrease the time until dashes appear and confirm.

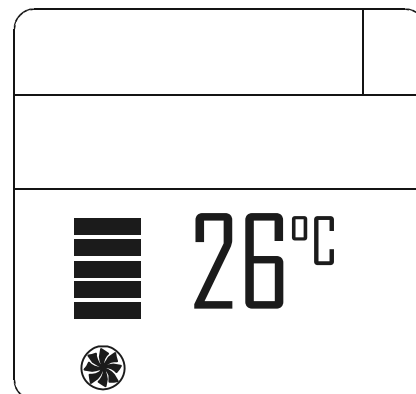


FIG.6

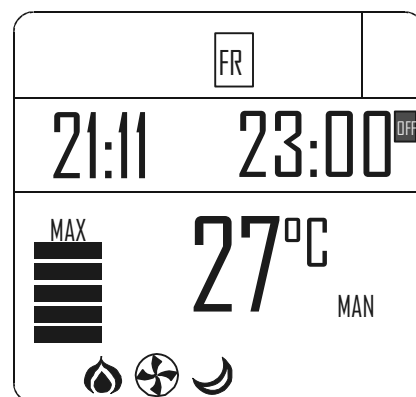


FIG.7

5.7. TIMER settings

5.7.1. TIMER time frame display

In the **TIMER** mode, to display the time frames simply press button **D** for 2 seconds. Use button **C** to scroll freely through the 6 time frames to quickly check that all of the setting have been saved (**figure 8**). Press button **D** or **A** to return to the basic display.

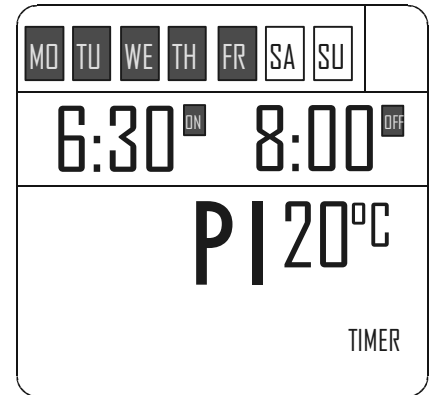


FIG.8

5.7.2. Modifying the TIMER time frames

To modify a time frame display it as described in the previous paragraph then briefly press button **E**. The first adjustable parameter (or room temperature) will begin to flash. Press button **C** to modify the value and button **E** to confirm the setting and move on to setting the next parameter. The adjustable parameters for a time frame are as follows:

- Room temperature. Can be modified from 5 °C to 35 °C. Below 5 °C or above 35 °C two dashed appear "--" that, if confirmed, disable the program (and the product will therefore not start up).
- Start-up time. This can be adjusted in steps of 10 minutes (from 00:00 to 23:50).
- Shut-down time. This can be adjusted in steps of 10 minutes (from 00:10 to 24:00).
- Days of the week on which the program is enabled. Monday (MO) will begin to flash and then the other days of the week. Use button C to enable/ disable the day. The days enabled will be displayed on a dark background. Once the setting for Sunday (SU) has been reached pressing button E will exit the modification setting and return you to the time frame display.

Pressing button **D** at any time will exit the time frame and save all the changes confirmed with button **E** up until that time and return you to the time frame display.

Alternatively, pressing button **A** (or not touching the keypad for 30 seconds) will return you directly to the basic display and save all the changes confirmed with button **E** up until that time.

5.7.3. Enabling the TIMER-ECO time frames

In **ECO** mode you can enable 6 customisable start up and shut down time frames (**E1 – E6**). Pressing button **D** for 2 seconds will display the enable/ disable function for the **TIMER** (**figure 9**). If the ON option is confirmed you can display/ modify the 6 **TIMER-ECO** time frames using the methods previously described for the **TIMER**. If the **OFF** option is confirmed the **TIMER** disables and the product returns to **ECO** mode operation without any time frames enabled.

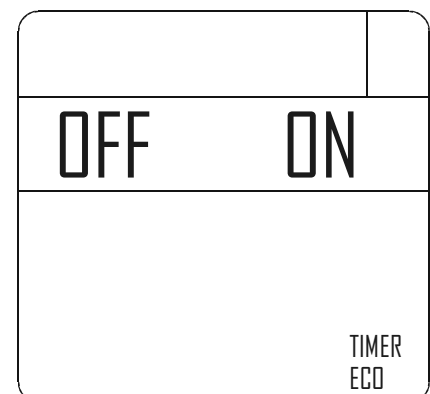
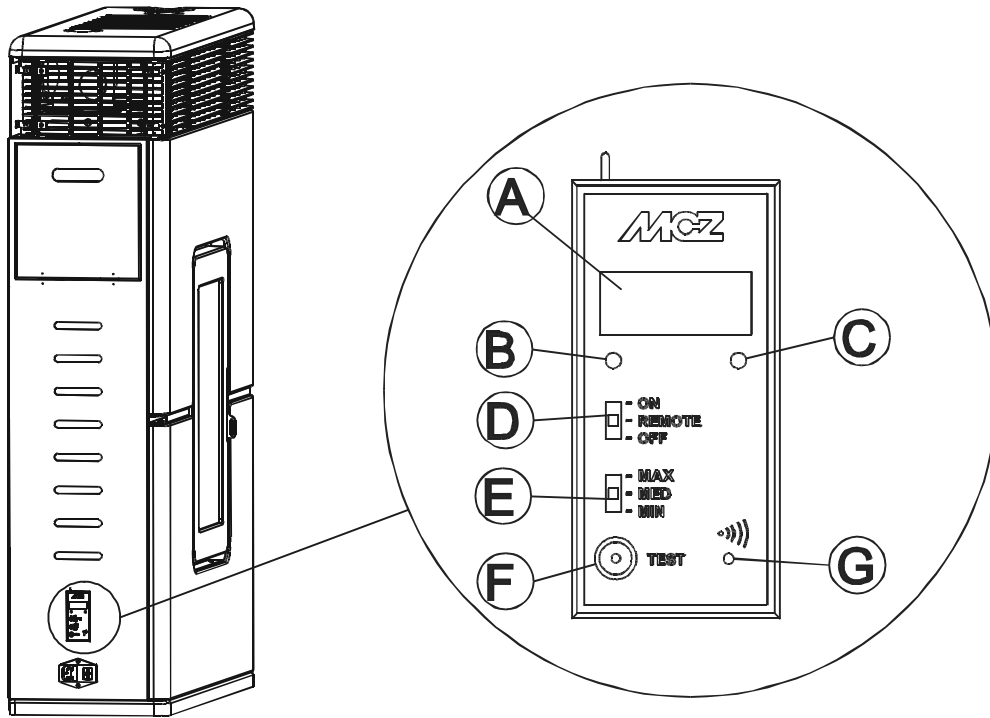


FIG.9

6. EMERGENCY PANEL

The emergency panel is located on the side of the stove, at the bottom. This panel is designed to diagnose any operating faults and is needed to control the stove if the remote control is not working.



KEY

<p>A. Three-figure display showing a series of information about the stove as well as the ID code for possible operating faults.</p> <p>B. GREEN LED that gives the following indications:</p> <ul style="list-style-type: none"> • OFF = Stove off • FLASHING = Stove starting up • ON = Stove on <p>C. RED LED that gives the following indications:</p> <ul style="list-style-type: none"> • OFF = Stove on • FLASHING SLOWLY = Stove switching off • FLASHING RAPIDLY = Stove in alarm status (accompanied by an acoustic beep for the first 10 minutes) • ON = Stove off 	<p>D. Three-position selector for the function</p> <ul style="list-style-type: none"> • OFF = Stove manually switched off with remote control absent • REMOTE = Stove can only be controlled by the remote control • ON = Stove manually switched on with remote control absent <p>E. Three-position selector for power selection</p> <ul style="list-style-type: none"> • MIN = Selector to operate the stove at MINIMUM power with remote control absent and selector 4 set to ON • MED = Selector to operate the stove at MEDIUM power with remote control absent and selector 4 set to ON • MAX = Selector to operate the stove at MAXIMUM power with remote control absent and selector 4 set to ON <p>F. Button for diagnostic functions relating to the operation of the stove</p> <p>G. Button to enable communication between the stove and a new remote control (via the process explained below)</p>
--	---



TO ALLOW THE STOVE TO OPERATE WITH THE REMOTE CONTROL, SELECTOR "D" MUST BE SET TO "REMOTE"

6.1.1. Start-up/ shutdown via the emergency panel

If the remote control is faulty or the batteries are flat you can operate the stove temporarily using the emergency panel on the rear of the stove.

In this configuration, the stove can be operated manually and you can choose between **3** power levels.

- **STARTING UP THE STOVE WITHOUT THE REMOTE CONTROL**

To start up the stove move selector "D" to the **ON**. When the stove starts up the RED LED will switch off and the GREEN LED will begin to flash until the start-up process is complete. The GREEN LED stays on permanently while the stove is running.

- **SELECTING THE POWER LEVEL WITHOUT THE REMOTE CONTROL**

You can choose between three heating power levels:

MIN-MED-MAX (selector "E")

MINIMUM power is the 1st power level;

MEDIUM power is the 3rd power level;

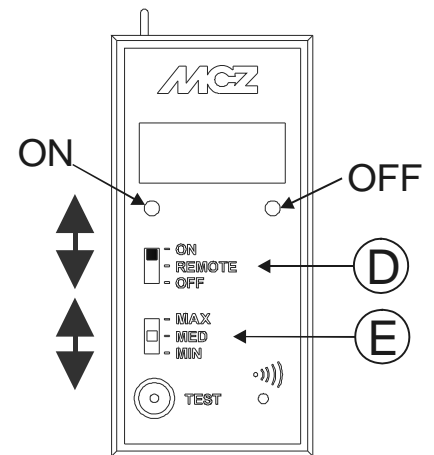
MAXIMUM power is the 5th power level;

- **SHUTTING DOWN THE STOVE WITHOUT THE REMOTE CONTROL**

To shut down the stove move selector "D" to the **OFF**



Once the remote control is working again remember to put selector "D" back to the "REMOTE" position otherwise the stove will ignore input from the remote control.

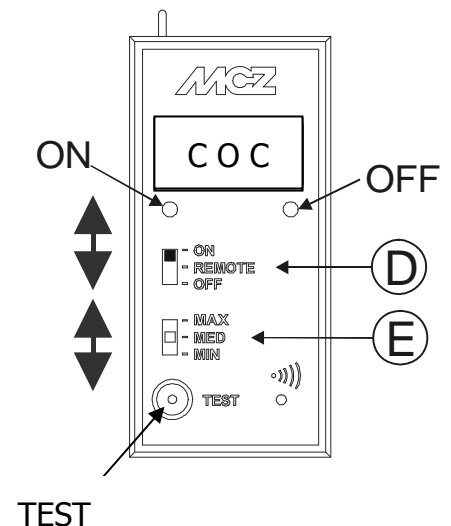


6.1.2. Carica coclea (Load pellet)

This function, which can only be enabled when the stove is switched off, is used to load pellets into the filling system (auger), and it can be used every time the same is emptied because the pellets in the tank have run out (see alarm A02). It is useful to avoid failed start-ups (alarm A01) due in fact to an empty tank.

To enable the CARICA COCLEA (LOAD PELLETS) function, when the stove is switched off, set the selector "D" on the emergency panel to OFF and press the **TEST** key on the same panel three times. Wait a few seconds and the word COCLEA (AUGER) will flash on the screen.

When the pellets begin to drop into the brazier, press the TEST key again to disable the CARICA COCLEA (LOAD PELLETS) function and then start up the stove.



7. SAFETY DEVICES AND ALARMS

7.1. SAFETY DEVICES

The stove is fitted with the following safety devices:

- **SMOKE TEMPERATURE SENSOR**
This sensor detects the temperature of the smoke, permitting the stove to start up or shut down when the temperature of the smoke drops below the preset value.
- **PELLET TANK TEMPERATURE SENSOR**
If the temperature exceeds the safety value set the stove immediately stops operating. To restart the stove, the sensor must be reset manually. This can only be done once the stove has cooled down.
- **ELECTRICAL SAFETY**
The stove is protected against violent current surcharges by a general fuse situated in the power supply panel at the rear of the stove. Other fuses to protect the electronic boards are situated on this panel.
- **SMOKE BLOWER BREAKAGE**
If the blower fan stops, the electronic board promptly suspends the supply of pellets and the alarm is displayed.
- **GEARED MOTOR BREAKAGE**
If the geared motor stops the stove continues to operate until the minimum cooling level is reached.
- **BRIEF POWER FAILURE**
In the event of a power failure during operation, when the power returns the stove cools down and then restarts automatically.
- **FAILED START-UP**
If a flame fails to ignite during the start-up phase, the stove alarm is triggered.



THE SAFETY DEVICES MUST UNDER NO CIRCUMSTANCES BE TAMPERED WITH



The stove can only be started up after the cause that triggered the safety system has been identified, thereby restoring the automatic operation of the sensor. To troubleshoot the fault, please consult this manual which illustrates how to remedy it (depending on the error message displayed by the stove).



CAUTION!

If the stove is NOT used as instructed in this instruction manual the manufacturer will not be held in any way liable for any resulting personal harm and/ or property damage. In addition, the manufacturer will not be held in any way liable for personal harm and/ or property damage due to failure to observe all the rules specified in the manual. Also:

- **All the necessary measures and/ or precautions must be taken when carrying out maintenance, cleaning and repair work.**
- **Do not tamper with the safety devices.**
- **Do not remove the safety devices.**
- **Connect the stove to an efficient smoke outlet system.**
- **Check in advance that the room in which the stove will be installed is suitably ventilated.**

7.2. ALARM SIGNALS

In the event of an operating fault an alarm is triggered and the stove shuts down, informing the user which type of fault has been detected via a 3-digit code that is displayed permanently on the emergency panel on the rear of the stove.

The alarm is signaled permanently by the relevant three-digit code via a red flashing light that always appears on the emergency panel. For the first 10 minutes, the alarm is also signaled by a regular acoustic signal. To get the stove out of the alarm condition and restore normal operating status, read the instructions in paragraph 2, below.

The table below describes the possible alarms signaled by the stove and the respective code displayed on the emergency panel, together with useful suggestions of how to remedy the problem.

WORDING DISPLAYED	TYPE OF FAULT	SOLUTION
A01	Fire failed to ignite	Check the pellet level in the tank. Check whether the brazier is correctly seated and ensure that it does not have any evident incrustations of unburned fuel. Check whether the pellet igniter heats up.
A02	Abnormal fire extinguishing	Results from fire extinguishing due to lack of fuel (tank empty).
A03	The temperature of the pellet tank exceeds the safety threshold specified. Overheating of the stove structure	The stove structure is too hot because the appliance has operated for too long at maximum power or because it is poorly ventilated or because the air fans are faulty. When the stove is cold enough, press button B on the control panel or OFF on the remote control to cancel alarm A03. Once the alarm has been cancelled, the stove can be restarted as normal.
A04	The temperature of the exhaust smoke has exceeded preset safety limits	The stove automatically shuts down. Leave the stove to cool down for a few minutes and then restart it. Check smoke outlet and the type of pellet used.
A05	Flue pipe obstruction - wind - door open.	Check the smoke duct and close the door.
A06	The smoke extractor cannot guarantee the required amount of primary air for correct combustion.	Draught problem of brazier blockage. Check whether the brazier is blocked by incrustations and clean it if necessary. Check the smoke dust and air inlet and clean them if necessary.
A08	Smoke blower faulty	Check that the smoke blower compartment is clean to ensure that no dirt is clogging it. If this does not resolve the problem the smoke blower is faulty. Call an authorised service centre for it to be replaced.

WORDING DISPLAYED	TYPE OF FAULT	SOLUTION
A09	The smoke sensor is faulty and does not correctly detect the temperature of the exhaust smoke	Contact an authorised service centre to have the component replaced.
A10	The pellet igniter is faulty	Contact an authorised service centre to have the component replaced.
A11	Pellet supply fault	Contact an authorised service centre to have the component replaced.
A12	The remote control has been out of reception range of the stove for more than three hours (or has flat batteries). NOTE: in this case ONLY the stove will not switch off in the alarm mode but will continue to operate in the mode that the remote control had set when the last command was given.	Bring the remote control back into the reception range of the stove (or replace the batteries in the remote control if they are flat). As soon as the stove picks up a new signal from the remote control the warnings shown on the alarm will disappear. You can force a transmission to the stove easily by pressing button 4 (which changes the operating mode from manual to automatic and viceversa)
A13	Generic fault in the electronic control unit	Contact an authorised service centre to have the component replaced.
A14	Fault in the air flow sensor	This alarm does not lock the system. It only appears on the warning screen. Contact an authorised service centre to have the component replaced.
SEr	Regular maintenance advice	When the stove is switched on and this message flashes this means that the preset operating time before maintenance has expired and maintenance is due to be carried out. Contact a qualified MCZ technician.

7.3. Silencing alarms

If an alarm is triggered, follow the procedure described below to restore normal stove operation:

- Position selector D on the emergency panel (located on the back of the stove) to OFF for a few seconds until the 3-digit code identifying the type of alarm disappears. The following operation also cancels the flashing red LED and the acoustic alarm signal.
- Return selector D to the REMOTE position to regain management of the stove operation via the remote control.
- Switch the remote control off and switch it back on again if you wish to restart the stove.



The stove remains on and operating normally according to the last mode set only if fault A12 intervened (communication failure between the remote control and the stove). The stove automatically exits the alarm mode the first time it receives a signal from the remote control.

7.3.1. Mechanical seizure of the stove

Mechanical seizure of the stove can be caused by:

- Overheating of the stove structure ("**A03**")
- Overheating of the smoke ("**A04**")
- While the stove is operating an uncontrolled intake of air or obstruction in the flue pipe is detected ("**A05**")

The seizure is indicated on the display and accompanied by an acoustic beep.

In this situation the shut down phase is automatically activated.

When this procedure is activated all testing operations to restore the system will be ineffective. The cause of the seizure is indicated on the display.

WHAT TO DO:

If the word "**A03**" appears the stove structure is too hot because the appliance has operated for too long at maximum power or because it is poorly ventilated or because the air fans are faulty. When the stove is cold enough, press button **B** on the control panel or OFF on the remote control to cancel alarm **A03**. Once the alarm has been cancelled, the stove can be restarted as normal.

If the word "**A04**" appears the stove automatically shuts down. Leave the stove to cool down for a few minutes and then restart it.

Check the smoke outlet and the type of pellet used.

If the word "**A05**" appears the fire door has been open for a long time or there is some air infiltration (e.g. the smoke blower inspection cap is missing). If the seizure is not caused by these factors check the smoke duct and flue pipe and clean them if necessary. (note that this operation is carried out by a specialised MCZ technician)

Only once the cause of the shutdown has been permanently remedied can the stove be restarted.

8. MAINTENANCE AND CLEANING



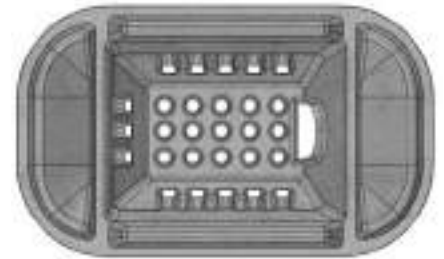
CAUTION!

All the cleaning operations of all parts should be performed with the stove completely cold and the electrical plug disconnected.

The stove requires little maintenance if certified, quality pellets are used.



It is good practice to ensure efficient ventilation in the room when cleaning the stove.



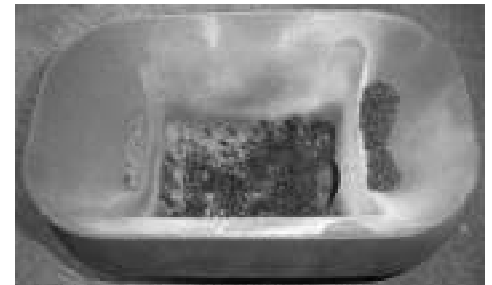
Example of a clean brazier

8.1. DAILY OR WEEKLY CLEANING UNDER THE USER'S RESPONSIBILITY

8.1.1. Before every start-up

Remove ash and any incrustations from the brazier as these may obstruct the air passageways.

If the pellets in the tank have run out, unburned pellets may build up in the brazier. Always empty the brazier of all residue before start-up.

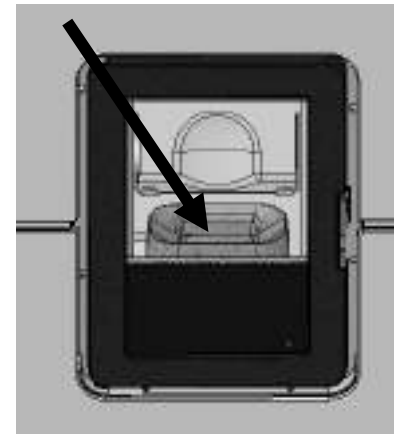


Example of a dirty brazier



REMEMBER THAT ONLY A BRAZIER THAT IS CORRECTLY POSITIONED AND THOROUGHLY CLEAN CAN GUARANTEE OPTIMAL START-UP AND OPERATION OF YOUR PELLET STOVE.

To clean the brazier properly, remove it fully from its seat and clean all holes and the grate at the bottom thoroughly. If good quality pellets are used, it is normally sufficient to use a brush to restore the component to optimum operating conditions.



Cleaning the ash collection compartment

8.1.2. Check every 2 / 3 days

Clean and empty ash drawer "M" being careful of the hot ash.

You may use a vacuum cleaner to remove the ash but only if the ash is completely cold. Use a vacuum cleaner designed to suction a certain size of particles such as.

Rely on your experience and on the quality of the pellets to determine how frequently cleaning is required.

It is nonetheless advisable not to clean less frequently than every 2 or 3 days.

When this operation is finished, reinsert the ash drawer under the brazier, checking that it is properly inserted.

8.1.3. Cleaning the glazing

To clean the ceramic glazing we recommend the use of a dry brush or (if very dirty) special spray detergent - spray a modest amount of detergent and then clean with a cloth.



CAUTION!

Do not use abrasive product and do not spray the cleaning product onto painted parts and fire door seals (ceramic fibre cord)



Cleaning the glazing

8.2. ROUTINE CLEANING UNDER THE SPECIALISED TECHNICIAN'S RESPONSIBILITY

8.2.1. Cleaning the heat exchanger

At the end of the winter season the compartment that the exhaust smoke passes through must be cleaned.

This cleaning process is compulsory in order to facilitate the general removal of all combustion residue before the weather and humidity compacts it and makes it tougher to remove.



It is good practice to ensure efficient ventilation in the room when cleaning the stove.

CLEANING THE EXCHANGER:

While the stove is cold open the door and extract drawer "M". Remove brazier "N" and unthread side plates "O" and "P" by rotating them slightly inwards to free them from the slots and then pull them towards you to extract them (be careful as they can break easily).

Once the side plates have been unthreaded, raise plate "H", point it downwards and extract it.

Next, remove upper plate "Q", inserting the cold hand or another tool into the upper part eyelets, in correspondence with eyelet "Y", and lift plate "Q". After lifting the plate extract it from the seat by pointing it slightly downwards.

Use a rigid rod or bottle brush to scrape clean the walls of the combustion chamber inside plate "Q" (just removed) so that the ash in the lower ash collection compartment falls.

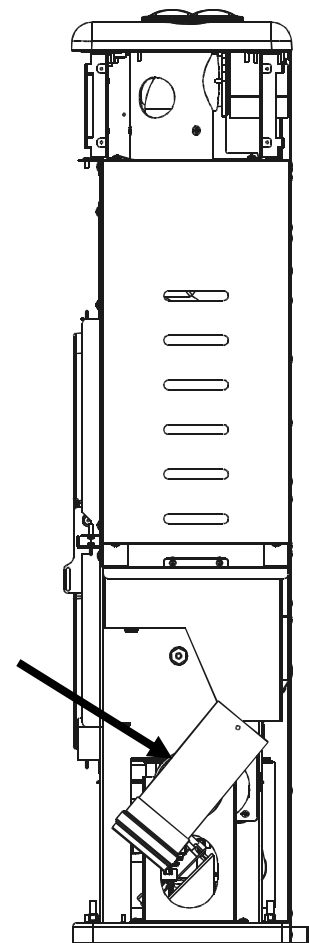
When the upper exchanger has been cleaned remove plate "L" by removing the two screws and using the nozzle of the vacuum cleaner to remove the ash and soot that has accumulated in the area around brazier "N". Clean and refit everything.

CLEANING THE SMOKE DUCT AND GENERAL CHECKS:

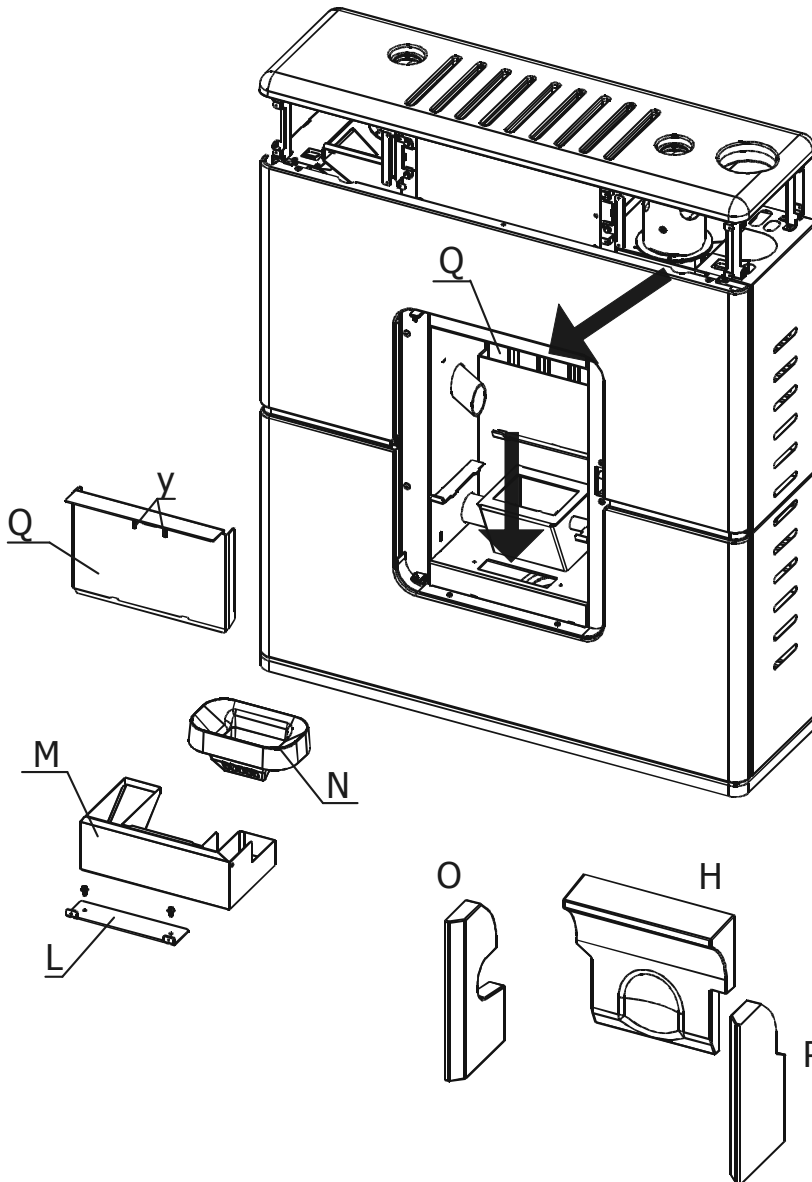
Clean the exhaust smoke outlet system, especially near any T-unions, elbows and any horizontal sections.

To clean the T-union remove the lower side by removing the two screws.

For information about cleaning the flue pipe, contact a chimney sweep. Check the condition of the ceramic fibre seals on the stove door. If necessary, order new seals from your retailer for replacement or contact an authorised service centre to have this done.



Cleaning the PHILO stove T-union



Cleaning the PHILO stove exchanger



CAUTION:

The frequency with which the exhaust smoke outlet system is to be cleaned should be determined according to stove use and the type of installation.

MCZ recommends that you contact an authorised service centre for maintenance and cleaning at the end of the season as, in addition to performing the above-mentioned operations, a general check of the components will also be performed.

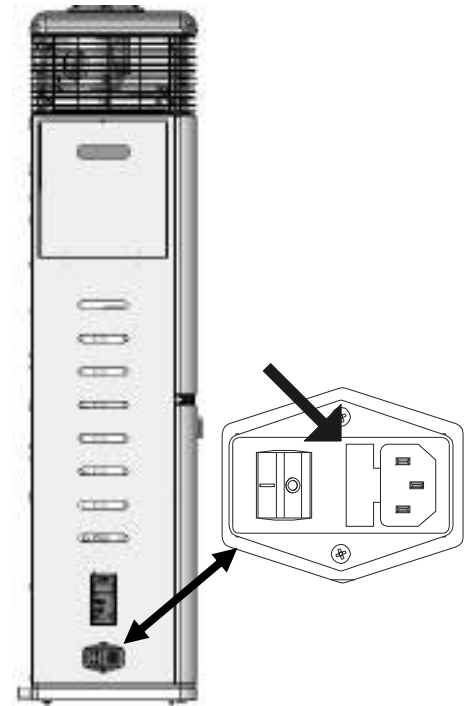
8.2.2. Decommissioning (end of season)

At the end of every season it is advisable to remove all pellets from the tank using a vacuum cleaner with a long pipe before switching off the stove.

During periods in which the stove is not used it must be disconnected from the electrical supply. For increased safety, particularly if children are present, we recommend that you remove the power supply cable.

If, when restarting the stove at the general switch at the rear of the stove, the control panel display is not turned on, this means the service fuse may need replacing.

There is a fuse box on the side of the stove, beneath the electricity socket. Using a screwdriver, open the cover on the fuse box and replace the fuses if necessary (3.15 A delayed).



8.3. Checking the internal components



CAUTION!

The internal electrical-mechanical components must only be checked by qualified personnel with technical expertise in combustion and electricity.

It is advisable to perform this routine annual maintenance (with a scheduled service contract) focusing on the visual and functional check of the internal components:

Below is a summary of the indispensable checks and/ or servicing tasks for the stove to function correctly.

PARTS/ PERIOD	1 DAY	2-3 DAYS	30 DAYS	90 DAYS	1 YEAR
Brazier	●				
Ash collection		●			
Ash tray		●			
Glass		●			
Complete exchanger					●
Smoke duct			●		
Door seal					●
Air filter			●		●
Remote control battery (if purchased/ optional)					●

9. FAULTS / CAUSES / SOLUTIONS



CAUTION:

All repairs must be performed solely by a specialised technician with the stove switched off and the appliance unplugged from the socket.

FAULT	POSSIBLE CAUSES	REMEDIES
Pellets are not being introduced into the combustion chamber.	<ul style="list-style-type: none"> • The pellet tank is empty. • The auger is blocked by sawdust • Faulty geared motor. • Faulty circuit board. 	<ul style="list-style-type: none"> • Fill the tank with pellets. • Empty the tank and manually unblock the sawdust in the auger. • Replace the geared motor. • Replace the circuit board.
The fire goes out or the stove stops automatically.	<ul style="list-style-type: none"> • The pellet tank is empty. • The pellets are not being introduced. • The pellet temperature safety sensor was triggered. • The door is not closed properly or the seals are worn. • Unsuitable pellets. • Low pellet feed rate. • Combustion chamber dirty. • Outlet obstructed. • Flue pipe obstruction alarm activated • Smoke extraction motor failure. 	<ul style="list-style-type: none"> • Fill the tank with pellets. • See previous fault. • Leave the stove to cool down fully, reset the thermostat until the lock switches off and restart the stove. If the problem persists contact the technical support department. • Close the door or have the seals replaced with original spares. • Change to a type of pellet recommended by the manufacturer. • Ask the technical support department to check the fuel supply. • Clean the combustion chamber according to the instructions in the manual. • Clean the smoke duct. • Check for any blockage of the flue pipe. • Check the motor and replace it if necessary.
The stove operates for a few minutes and then shuts down.	<ul style="list-style-type: none"> • Start-up phase not completed. • Temporary power failure. • Smoke duct obstructed. • Faulty or broken temperature sensors. • Igniter failure. 	<ul style="list-style-type: none"> • Repeat the start-up phase. • See previous instructions. • Clean the smoke duct. • Check and replace sensors if necessary. • Check and replace igniter if necessary.
Pellets build up in the brazier, the glass of the door gets dirty and the flame is weak	<ul style="list-style-type: none"> • Insufficient combustion air. • Damp or unsuitable pellets. • Smoke extractor motor broken. 	<ul style="list-style-type: none"> • Ensure that the air inlet in the room is present and free. • Check that the fuel air filter located on the 5 cm diameter air inlet pipe is not obstructed. • Clean the brazier and check that all airways are clear. • Perform a general clean of the combustion chamber and smoke duct. • Check the condition of the door seals. • Change the type of pellet. • Check the motor and replace it if necessary.

FAULT	POSSIBLE CAUSES	REMEDIES
The smoke extraction motor does not work	<ul style="list-style-type: none"> • No electricity supply to the stove. • The motor is broken. • The board is faulty. • The control panel is broken. 	<ul style="list-style-type: none"> • Check the supply voltage and the protection fuse. • Check the motor and capacitor and replace if necessary. • Replace the circuit board. • Replace the control panel.
The air convection fan never stops.	<ul style="list-style-type: none"> • Temperature control heat sensor defective or faulty. • Fan faulty 	<ul style="list-style-type: none"> • Check the operation of the sensor and replace it if necessary. • Check the operation of the motor and replace it if necessary.
The remote control does not work	<ul style="list-style-type: none"> • Remote control batteries flat. • Remote control faulty 	<ul style="list-style-type: none"> • Replace batteries • Replace the remote control.
In automatic mode, the stove always runs at full power.	<ul style="list-style-type: none"> • Room thermostat in maximum position. • Temperature detector sensor faulty. • Control panel faulty or broken. 	<ul style="list-style-type: none"> • Reset the thermostat temperature. • Check the sensor and replace it if necessary. • Check the panel and replace it if necessary.
The stove will not start	<ul style="list-style-type: none"> • Power failure. • Pellet sensor has seized up. • Fuse blown. • Smoke outlet or duct clogged. • Some alarms active 	<ul style="list-style-type: none"> • Make sure the appliance is plugged in and that the main switch is set to "I". • Release it by resetting the rear thermostat. If it happens again replace the thermostat. • Replace the fuse. • Clean the smoke outlet and/ or the smoke duct.

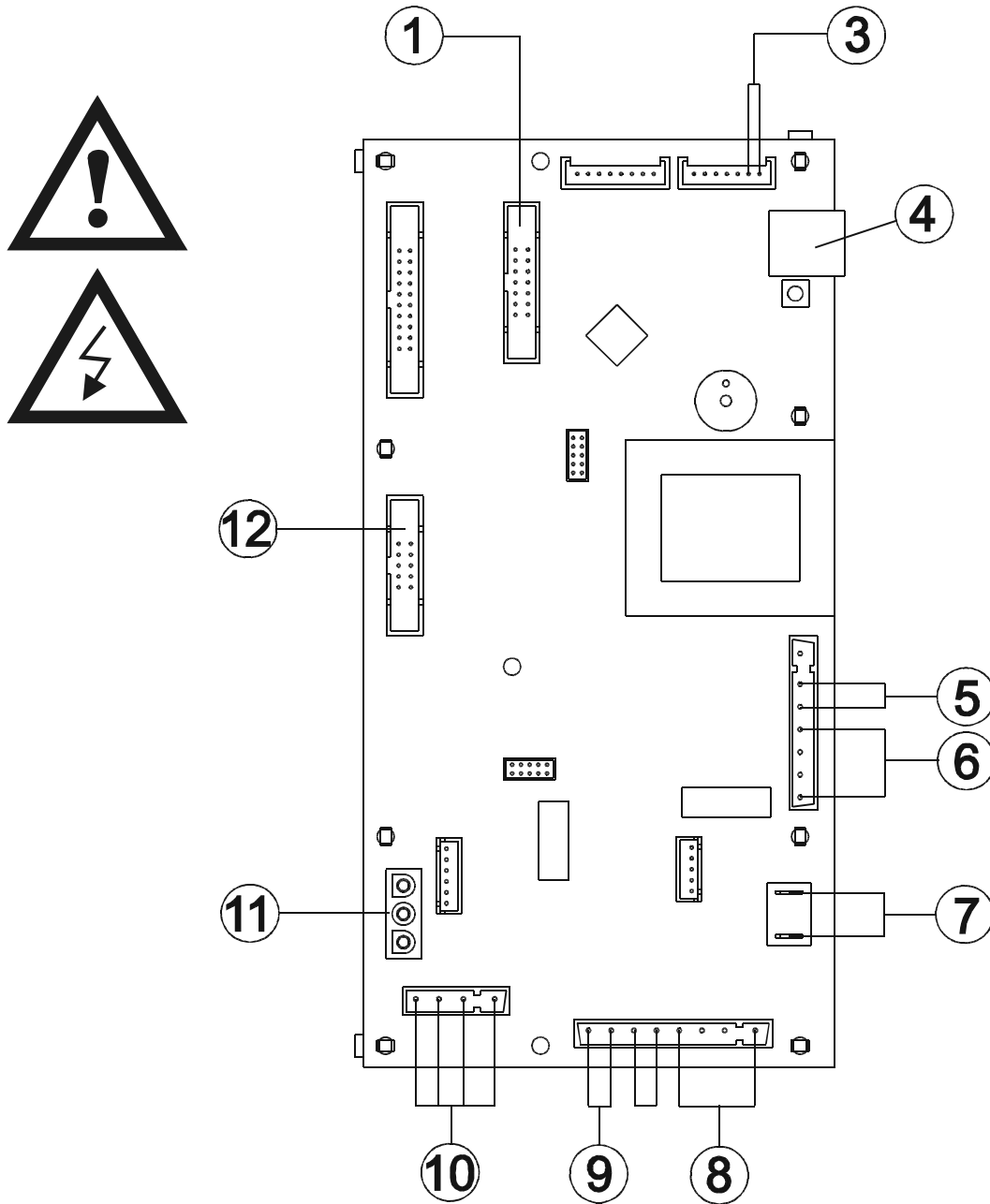


CAUTION!

The operations marked in bold must only be performed by specialised MCZ personnel.

The manufacturer will not be held liable and the guarantee will not be valid if this condition is not abided by.

10. WIRING DIAGRAMS



MOTHERBOARD WIRING KEY

1. Emergency panel	8. Geared motor
3. Smoke sensor	9. Contact thermostat
4. Modem connection	10. Air fan
5. Switch	11. Smoke blower fan rev control
6. Pellet igniter	12. Air flow sensor
7. Smoke blower fan	

N.B. The electrical wiring of individual components is equipped with pre-cabled connectors, the measurements of which differ from one another.



MCZ GROUP S.p.A.

Via La Croce 8
33074 Vigonovo di Fontanafredda (PN) – ITALY
Telephone: +39 0434/599599 PBX
Fax: +39 0434/599598
Internet: www.mcz.it
e-mail: mcz@mcz.it